CITY OF GRAND RAPIDS

NOTICE OF MEETING
PLANNING COMMISSION

Meeting Agenda Full Detail

Planning Commission

COUNCIL CHAMBERS
CITY HALL - 420 N. Pokegama Ave.
Grand Rapids, MN 55744

Thursday, February 1, 2018 | **4:00 PM** | **Council Chambers**

Call To Order

Call of Roll

Setting of Agenda - This is an opportunity to approve the regular agenda as presented or add/delete an agenda item by a majority vote of the Commissioners present.

Approval of Minutes

18-0072 Approve the minutes of the December 7, 2017, 4:00 pm regular meeting.

Attachments: December 7, 2017 Meeting Minutes

Public Hearings

18-0071 Conduct a public hearing to consider a recommendation to the City Council regarding a request from Hawkinson Construction Company for a CUP (Conditional Use Permit), allowing for the establishment of a long-term mining/mineral extraction operation.

Attachments: Hawkinson Construction CUP: Staff Report & Referenced Code Sections
Hawkinson C.C. CUP: Maps - Area and Zoning
Hawkinson C.C. CUP: Staff Review Worksheet
Hawkinson C.C. CUP: Application
CUP Application SWPPP: pg-1-14
CUP Application SWPPP: pg-15-28
Hawkinson Construction: EAW
Hawkinson C.C. EAW: Traffic Analysis Report
EAW Findings of Fact w/City Resolution
Rules for Public Hearing & CUP Considerations

Public Input

Individuals may address the Planning Commission about any non public hearing item or any item not included on the Regular Meeting Agenda. Speakers are requested to come to the podium, state their name and address for the record and limit their remarks to

three (3) minutes.

Miscellaneous\Updates

Adjourn

NEXT REGULAR PLANNING COMMISSION MEETING IS SCHEDULED FOR:
Thursday, March 1, 2018

CITY OF GRAND RAPIDS

Legislation Details (With Text)

File #:	18-0072	**Version:**	1	**Name:**	Approve the minutes of the December 7, 2017, 4:00 pm regular meeting.
Type:	Minutes			**Status:**	Approved
File created:	1/25/2018			**In control:**	Planning Commission
On agenda:	2/1/2018			**Final action:**	
Title:	Approve the minutes of the December 7, 2017, 4:00 pm regular meeting.				
Sponsors:					
Indexes:					
Code sections:					
Attachments:	December 7, 2017 Meeting Minutes				

Date	Ver.	Action By	Action	Result
2/1/2018	1	Planning Commission		

Approve the minutes of the December 7, 2017, 4:00 pm regular meeting.

Background Information:
See attached draft meeting minutes.

Staff Recommendation:
Approve the minutes of the December 7, 2017, 4:00 pm regular meeting.

CITY OF GRAND RAPIDS

NOTICE OF MEETING
PLANNING COMMISSION

Minutes - Final - Draft
Planning Commission

COUNCIL CHAMBERS
CITY HALL - 420 N. Pokegama Ave.
Grand Rapids, MN 55744

Thursday, December 7, 2017 | **4:00 PM** | **Council Chambers**

Call To Order

Call of Roll

Present 5 - Commissioner Charles Burress, Chairperson Lester Kachinske, Commissioner Susan Lynch, Commissioner Michelle Toven, and Commissioner Sue Zeige

Absent 1 - Commissioner Mark Gothard

Setting of Agenda - This is an opportunity to approve the regular agenda as presented or add/delete an agenda item by a majority vote of the Commissioners present.

Approved As Presented

Approval of Minutes

Approve the minutes of the November 2, 2017, 4:00 pm regular meeting.

Motion by Commissioner Toven, second by Commissioner Zeige to approve the minutes of the November 2, 2017 regular meeting. The following voted in favor thereof: Zeige, Lynch, Kachinske, Toven, Burress. Opposed: None, motion passed unanimously.

General Business

Consider a recommendation to the City Council regarding the final plat of Pokegama Pines.

Motion by Commissioner Lynch, second by Burress that the Planning Commission does hereby forward to the City Council a recommendation to approve the final plat of Pokegama Pines, contingent upon:

- **The execution of the associated Subdivision Agreement.**

The following voted in favor thereof: Burress, Toven, Kachinske, Zeige, Lynch. Opposed: None, motion passed unanimously.

Public Input

Miscellaneous\Updates

Commissioner Paula Johnson submitted her resignation, she has moved outside of city limits and is no longer eligible to serve on the Planning Commission.

Adjourn

Motion by Commissioner Toven, second by Commissioner Burress to adjourn the meeting at 4:08 p.m. The following voted in favor thereof: Lynch, Zeige, Kachinske, Toven, Burress. Opposed: None, motion passed unanimously.

CITY OF GRAND RAPIDS

Legislation Details (With Text)

File #:	18-0071	**Version:**	1	**Name:**	Conduct a public hearing to consider a recommendation to the City Council regarding a request from Hawkinson Construction Company for a CUP (Conditional Use Permit), allowing for the establishment of a long-term mining/mineral extraction operation.
Type:	Public Hearing			**Status:**	PC Public Hearing
File created:	1/24/2018			**In control:**	Planning Commission
On agenda:	2/1/2018			**Final action:**	
Title:	Conduct a public hearing to consider a recommendation to the City Council regarding a request from Hawkinson Construction Company for a CUP (Conditional Use Permit), allowing for the establishment of a long-term mining/mineral extraction operation.				
Sponsors:					
Indexes:					
Code sections:					
Attachments:	Hawkinson Construction CUP: Staff Report & Referenced Code Sections Hawkinson C.C. CUP: Maps - Area and Zoning Hawkinson C.C. CUP: Staff Review Worksheet Hawkinson C.C. CUP: Application CUP Application SWPPP: pg-1-14 CUP Application SWPPP: pg-15-28 Hawkinson Construction: EAW Hawkinson C.C. EAW: Traffic Analysis Report EAW Findings of Fact w/City Resolution Rules for Public Hearing & CUP Considerations				

Date	Ver.	Action By	Action	Result
2/1/2018	1	Planning Commission		

Conduct a public hearing to consider a recommendation to the City Council regarding a request from Hawkinson Construction Company for a CUP (Conditional Use Permit), allowing for the establishment of a long-term mining/mineral extraction operation.

Background Information:

See attached Staff Report and Background Information.

Staff Recommendation:

Conduct a public hearing to consider a recommendation to the City Council regarding a request from Hawkinson Construction Company for a CUP (Conditional Use Permit), allowing for the establishment of a long-term mining/mineral extraction operation.

Planning Commission Staff Report

Agenda Item #2	Community Development Department	Date: 2/1/2018
Statement of Issue:	Conduct a public hearing to consider a recommendation to the City Council regarding a request from Hawkinson Construction for a CUP (Conditional Use Permit), allowing for the establishment of a long-term mining/mineral extraction operation.	
Background:	Hawkinson Construction Company (HCC) has applied for a Conditional Use Permit, which would allow for the establishment of a long-term mining/mineral extraction operation, as provided for under Section 30-704 Mining Overlay District of Division 11 of the City Code. The property subject to the CUP, owned by Hawkinson Construction, is generally located in the SE quadrant/intersection of MN T.H. #38 and Itasca County Road #61, and legally described as: *Government Lots 2, 3, and 4, and SW NW Less Hwy 38 ROW, SE NW, and SW NE, Section 4, Township 55 North, Range 25 West, Itasca County, Minnesota* The subject property, consisting of six contiguous parcels, is 230 acres in area and is located within I-1 (Industrial Park) zoning district, combined with the MOD (Mining Overlay District), which was established through a petitioned rezoning in 2008 *(see attached maps),* and located within a greater area designated as "Resource Management", within the 2011 Comprehensive Plan Future Land Use Map *(see attached maps)*. In October of 2014, Hawkinson Construction Company (HCC), in letter form, declared their intent to the City of Grand Rapids to mine an aggregate source (granite and quartzite from the underlying bedrock) on the subject property. Under State environmental review procedures, Rule 4410.4300 subpart 12.b. *Nonmetallic Mineral Mining*, a project of this scope requires a mandatory EAW. The City of Grand Rapids is the designated responsible governmental unit (RGU) for this type of project, and, as such, is responsible for the preparation, review and consideration of the EAW. Generally, an Environmental Assessment Worksheet (EAW) is a document providing basic information about a project that may have the potential for significant environmental effects. The EAW is prepared by the Responsible Governmental Unit to determine whether a more thorough study, Environmental Impact Statement (EIS), should be prepared. The City, acting as the Responsible Governmental Unit, contracted with	

	Braun Intertec Corporation (Braun Intertec) to prepare the EAW which examines the potential for significant environmental impacts associated with the proposed mining operation. The EAW process included: preparation of a Traffic Analysis Study, 30-day draft EAW public review and comment period, public meeting for draft EAW comments at City Council meeting, published notice in the Environmental Quality Board (EQB) *Monitor*, distribution of draft EAW for review to required offices on the EQB's official distribution list, and the addressing of comments received regarding the draft EAW. Finally, in December of 2016, based upon their review of the EAW content, the comments received and the criteria established under Rule 4410.1700, subpart 7, Braun Intertec prepared the draft record of decision document in a form that arrives at a negative declaration regarding the potential for significant environmental impacts and need for an EIS. With this decision, the City Council adopted a resolution (#16-115) approving a negative declaration for the Environmental Assessment Worksheet (EAW). As you recall, the CUP process allows the City the ability to review certain proposed uses and consider their approval on a case by case basis. This review and approval allows the City the ability to consider the unique characteristics or potential impacts of a project, and provides a means of addressing areas of concern by placing specific conditions on the approval. The approval of a Conditional Use Permit from the City of Grand Rapids, for HCC, is one of several permits and approvals required for this type of project. Others include, but limited to: *Highway Construction Permits* - MnDOT & Itasca County, *Driveway Approach Permit* - Itasca County, *Wetland Permit* – Itasca County SWCD, *Construction Stormwater permit, Air Permit, & Industrial Stormwater NPDES/SDS* – MN PCA, and *Groundwater Appropriation Permit* – MN DNR. When reviewing Conditional use application and considering a recommendation to the City Council, the Planning Commission should make specific findings based upon their standard list of considerations, which are found in Section 30-531e of the City Code. The Planning Condition must also consider the degree to which the proposed project meets the criteria and objectives established within the *Mining Overlay District*, Division 11, of the City Code, and if certain conditions or restrictions should be recommended to the City Council to ensure that the project meets those objectives and criteria. Staff has reviewed the application and submittal documents, and has provided comments on the attached review worksheet, which summarize the relevant portions of Section 30-704 *Mining Overlay District*, of Division 11, of the City Code related to the amendment.
Considerations:	When reviewing a request for a Conditional Use Permit, the Planning Commission must make findings based on the attached list of

	considerations. Section 30-531(e): • Will not be detrimental to the public health, safety, morals, or general welfare; • Will not cause undue traffic congestion or hazards and will not result in a parking shortage; • Will not be injurious to the use and enjoyment or result in a decrease in value of other property in the area; • Will not impede the orderly development of other property in the area; • Will not impose an excessive burden on parks and other public facilities and utilities; • Is consistent with the Comprehensive Plan. The Planning Commission must also consider the proposals compliance with the criteria and objectives established within Section 30-704 of Division 11 *Mining Overlay District,* of the City Code.
Recommendation:	Staff recommends that the Planning Commissioners visit the site and look at the situation. Prior to making a motion to recommend approval or denial, the application, the Planning Commission should make specific findings to support its recommendation and reference those specific findings in their motion to either approve or deny the Conditional Use Permit.
Required Action:	Approve a motion to either recommend: approval, approval with additional conditions, or deny the applied for Conditional Use Permit. <u>Example Motion:</u> Motion by _____, second by _____ that, based on the findings of fact presented here today, and in the public's best interest, the Planning Commission does hereby recommend that the City Council **<u>(grant)(deny)</u>** the following Conditional Use Permit to Hawkinson Construction Company, for the property legally described as: *Government Lots 2, 3, and 4, and SW NW Less Hwy 38 ROW, SE NW, and SW NE, Section 4, Township 55 North, Range 25 West, Itasca County, Minnesota*: • For the establishment of a long-term mining/mineral extraction operation, as described within the CUP application. and that the following conditions shall apply: • All performance standards listed within Section 30-704(e) and acknowledged in the submitted Stormwater Pollution Prevention Plan/Extractive Use and Reclamation Plan are

	adhered to. • Mitigation Measures listed within Findings of Fact and Conclusions for the proposed aggregate mine EAW (dated December 6, 2016) are adhered to. *(If the Planning Commission wishes to place additional conditions upon their approval, the following should be added to the motion:)* • _____
Attachments:	• Copy of the Hawkinson Construction CUP and associated documentation. • EAW documentation and Negative declaration • List of the Planning Commissions CUP Considerations • Staff CUP Review Worksheet • Section 30-531 (CUP's) and Section 30-704 Mining Overlay District of City Zoning Code • Site/Area and Zoning Maps

Secs. 30-513—30-530. Reserved.

DIVISION 5. CONDITIONAL USES

Sec. 30-531. Conditional use permits (CUP).

(a) *Purpose and intent.* The development and execution of this division is based upon the division of the city into districts within which the regulations are specified. It is recognized, however, that there are special or conditional uses which, because of their unique characteristics, must be considered individually as to their impact upon neighboring land, and the public welfare and their compatibility at the particular location. To provide for these needs the city council may by resolution approve a conditional use permit for those uses and purposes listed and may impose conditions and safeguards in such permits to ensure that the purpose and intent of this division is carried out.

(b) *Application requirements.* An application signed by the landowner for a CUP shall be filed with the zoning administrator together with a filing fee as established by the city council. Such application shall be accompanied by the following information:

(1) A site plan drawn to scale which shows all dimensions; the location of existing and proposed streets, buildings and parking; the existing and proposed building height and floor area; curb cuts and driveway locations; utilities; loading areas and lighting.

(2) A drainage plan showing existing and proposed topography and slopes and how surface drainage will be handled.

(3) A landscape plan as specified in section 30-456.

(4) Building plans showing elevation drawings and floor plans.

(5) A written description of the use to be made of the property and buildings including the number of employees, students, etc.

(6) Any other information, which in the opinion of the zoning administrator, is required to evaluate the application and its consistency with the city comprehensive plan.

(c) *Waiver authority.* The zoning administrator shall have the authority to waive any of the information in subsection (b) of this section not deemed to be necessary and appropriate to evaluate the application.

(d) *Hearing and mailed notices.* The zoning administrator shall cause to be published a notice of the public hearing before the planning commission in the official newspaper at least ten days prior to the hearing date. Notices shall also be mailed to all owners of property within 350 feet of the parcel included in the request not less than ten days prior to the hearing. Failure to give such notice or defects or errors in the notice shall not invalidate the proceedings, provided a good faith attempt to comply with notice requirements was made.

(e) *Planning commission review and recommendation.* The planning commission shall conduct a public hearing on the application and make its recommendation with findings and conditions to the city council within 60 days of receipt of the planning commission's recommendation, to approve or deny the CUP. The council shall not approve a CUP unless it shall find that the establishment, maintenance and operation of the use:

(1) Will not be detrimental to the public health, safety, morals or general welfare;

(2) Will not cause undue traffic congestion or hazards and will not result in a parking shortage;

(3) Will not be injurious to the use and enjoyment or result in a decrease in value of other property in the area;

(4) Will not impede the orderly development of other property in the area;

(5) Will not impose an excessive burden on parks and other public facilities and utilities;

(6) Is consistent with the comprehensive plan.

Approval shall require a majority vote of the city council.

(f) *Conditions and restrictions.* The city council may impose such conditions and restrictions as it deems necessary on the establishment, location, construction, maintenance, operation and duration of the use to ensure compliance with the requirements of this division.

(g) *Resubmission.* No application which has been denied by the city council shall be resubmitted by the applicant for a period of one year following the date of denial by the city council.

(h) *Lapse and extension.* If within one year after the date of issuance the use for which the CUP was issued has not commenced, the CUP shall become null and void. If the applicant requests an extension in writing within one year after issuance, the city council shall conduct a public hearing and consider an extension utilizing the same notice procedures as required for the original application. The city council may extend the CUP for up to one year upon finding that:

(1) A good faith effort has been made to use the permit;

(2) There is reasonable expectation that there will be uses; and

(3) The facts upon which the original permit was issued are essentially unchanged.

(i) *Periodic review.* If periodic review is imposed as a condition of a CUP, the CUP shall be reviewed at a public hearing prior to the expiration of the review period. It shall be the responsibility of the zoning administrator to schedule the public hearing and inform the owner of the review. A fee shall not be required to be paid.

(j) *Revocation.* If any person is found in violation of any condition or restriction imposed by the city council, the city may revoke such CUP utilizing the procedures established in this division.

(k) *Special considerations for shoreland areas.* The following additional evaluation criteria and conditions apply within shoreland areas:

(1) *Evaluation criteria.* A thorough evaluation of the waterbody and the topographic, vegetation, and soils conditions on the site must be made to ensure:

a. The prevention of soil erosion or other possible pollution of public waters, both during and after construction;

b. The visibility of structures and other facilities as viewed from public waters is limited;

c. The site is adequate for water supply and on-site sewage treatment; and

d. The types, uses, and numbers of watercraft that the project will generate are compatible in relation to the suitability of public waters to safely accommodate these watercraft.

(2) *Conditions attached to conditional use permits.* The city council, upon consideration of the criteria listed in subsection (k)(1) of this section and the purposes of this division, shall attach such conditions to the issuance of the conditional use permits as it deems necessary to fulfill the purposes of this division. Such conditions may include, but are not limited to, the following:

a. Increased setbacks from the ordinary high water level;

b. Limitations on the natural vegetation to be removed or the requirement that additional vegetation be planted; and

c. Special provisions for the location, design, and use of structures, sewage treatment systems, watercraft launching and docking areas, and vehicle parking areas.

(Code 1978, § 23.5(I); Ord. No. 07-03-06, § 2(Exh. A), 3-27-2007)

State law reference—Conditional use permits, Minn. Stat. § 462.3595.

Sec. 30-532. Uses permitted by conditional use permit (CUP).

The following uses or any expansion of an existing use requiring a CUP shall require the issuance by the city of a CUP. Each such use shall comply with these stated conditions.

(1) *Manufactured home parks.* Manufactured home parks have special characteristics which require the full consideration of their location needs, layout and design, and their relationship to and effect upon surrounding land uses. Because of these characteristics, manufactured home parks are permitted within the R-2, SR-2, R-3, SR-3, R-4, SR-4, LB, SLB, MU and SMU districts subject to all of the following conditions:

a. *Site development requirements.*

1. Location. The site shall have at least one property line abutting an arterial or collector street as defined by the city comprehensive plan.

2. Minimum site area: Ten acres.

shall be given in the same manner as the original petition. The city council may rescind or extend the zoning previously granted and the preliminary and final development plans for up to one year upon finding that:

a. A good faith effort has been made to use the PUD;

b. There is reasonable expectation that the PUD will be used; and

c. The facts upon which the original PUD was issued are essentially unchanged.

(12) *Building permits.* At the time of building permit approval, the building plans shall be reviewed by the zoning administrator and building official to establish their compliance with the approved preliminary and final development plans. If they do not comply, the plans shall be reviewed by the planning commission and city council and a public hearing shall be conducted by the city council all in accordance with the procedures established in subsection (b) of this section.

(Code 1978, § 23.10(B); Ord. No. 07-03-06, § 2(Exh. A), 3-27-2007)

Sec. 30-704. Mining overlay district.

(a) *Purpose and Intent.* The purpose of the mining overlay district is to provide for current or future heavy mining activities that may be governed by Minn. Stat. §§ 93.44—93.51, and separate these uses from incompatible uses.

(b) *Lands subject to overlay district.* The mining overlay district is defined by the official zoning map and may overlay other zoning districts.

(c) *Conditional Uses.* Following the date of adoption of the ordinance from which this section derives no entity shall engage in new or expand existing operations, or renew operations that have not been active within five years of the effective date of this section without first obtaining a conditional permit. Any operation begun prior to the adoption of the ordinance from which this section derives and which is active on the effective date of this section may continue operations for five years at which time the operation shall have obtained a permit or ceased operation. The following are conditional uses in the mining overlay district:

(1) **Mineral extraction, mineral processing,** metals production, mineral or metal storage, storage and stockpiling of mining and mineral processing waste materials and byproducts, storage of mining and processing equipment and includes those facilities and activities regulated by Minn. Stat. §§ 93.44—93.51.

(2) Structures necessary for mining, mineral processing, and metals production operations and ancillary facilities and activities.

(3) Transmission and distribution lines, and pipelines of public and private utility companies within existing public rights-of-way.

(4) Towers.

(5) Extractive use operations.

(6) Other industrial determined to be compatible with the purpose of the mining overlay district.

(d) In addition to the information required in section 30-531(b), the following shall be provided in the application for a conditional use permit:

(1) A statement that the applicant has the right by ownership or lease to extract and to reclaim the land described in the application.

(2) A statement estimating the expected duration of the extractive use operation, including starting and completion dates.

(3) A detailed map or maps at a 1″ = 100′ scale or larger showing proposed location of any buildings, equipment storage areas, operation areas, and any other uses incorporated in the excavation process.

(4) A site development plan detailing the following:

a. Dust, noise, other emission of potential concern and mitigation plans.

b. Hours and duration of operation.

c. Proposed vegetation and topographic alterations.

d. Erosion control plan.

(5) A written plan for reclamation of the affected area detailing:

a. The nature and extent of the reclamation.

b. A detailed map at a 1″ = 100′ scale or larger showing which parts of the land shall be reclaimed for forest, pasture, crop, dwellings, structures or other uses.

c. Proposed topographic contours after any filling.

d. Depth of proposed restored topsoil.

e. Type of fill proposed to be used.

f. Estimated progress and completions dates.

(e) The following performance standards must be met for the issuance and continuation of a conditional use permit. Additional requirements may be imposed by the city:

(1) The minimum lot area shall be 40,000 square feet.

(2) The minimum lot width shall be 300 feet at the building setback line.

(3) Setbacks.

a. The minimum side yard setback for primary buildings and accessory structures shall be 30 feet.

b. The minimum rear yard setback for primary buildings and accessory structures shall be 50 feet.

c. The minimum side and rear yard setback for structures housing livestock shall be 100 feet.

d. Extraction operations, including excavating or stockpiling and machinery, shall not be conducted or placed closer than:

1. 100 feet to the boundary of any adjoining property.
2. 50 feet to the right-of-way of any existing or platted roadway
3. 250 feet to an established residence other than the owner/operator of said extractive use.
4. 200 feet to the boundary of an incorporated municipality and ordinary high water mark.

(4) Vegetation clearing plan. Clearing of the site shall conform to the approved development and reclamation plan, and existing trees, shrubs and vegetation shall not be prematurely stripped.

(5) Screening. Adequate planting, screening, buffering and/or berming shall be provided sufficient to screen the operation from public view from roadways and adjacent properties.

(6) Entrance and exit standards.

a. Ingress and egress access points from or onto any roadway shall be identified and only those access points shall be used. All access points shall be approved by the appropriate state, county and/or local government having jurisdiction. Access points shall be located to avoid the routing of vehicles from the mining operation over roadways that primarily serve residential areas.

b. Access points shall be constructed to avoid traffic safety hazard and to minimize the view into the extractive use site.

c. During the hours of operation, "Trucks Hauling" signs shall be placed along the public roadways leading to the extractive use site entrances at a distance of not less than 500 feet from the entrances. Size and type of sign shall be approved by the applicable road authority. Signs shall be removed or covered during non-operating hours.

d. Accesses shall be controlled by the owner/operator of the extractive use operation.

e. Dust control shall be implemented as necessary, from the processing site to the nearest paved road, on operations that have over ten one-way hauling trips or five round-trips per day.

f. Hours of operation.

1. Overall extractive use operation shall be from 6:00 a.m.—7:00 p.m. Monday through Saturday.
2. Emergency situations, concerning public safety, shall be approved by the city.
3. There shall be no mechanical equipment operation started before 6:00 a.m.

g. Spillage onto roadways. Precautions shall be taken to minimize the deposit of dirt and extracted material from trucks onto the public roadways. Trucks used in hauling materials from the operation shall be loaded in such a manner as to minimize spillage onto public roadways. Any spillage shall be removed promptly by the operator at the operator's own expense.

h. Amount of cover removed. The amount of soil, groundcover, and/or overburden to be removed shall be the minimum amount necessary.

i. Use of explosives. When explosives are used, the operator shall use the utmost care and take all necessary precautions not to endanger life or damage or destroy property. The method of storing and handling explosives shall conform with all state and federal laws and regulations.

j. Dust and noise control. Operating procedures will be implemented to control dust and noise to minimize impacts on adjoining properties and roadways.

k. Reclamation plan required. All extractive uses requiring a permit shall have a reclamation plan with the following minimum terms:

1. Slopes after reclamation. No portion of the reclaimed slope of the site shall exceed three feet horizontal to one foot vertical incline after reclamation unless the naturally occurring slope is steeper than 3:1 in which case final slopes shall not be steeper than the original natural slope.

2. Topsoil storage and reapplication. All feasibly recoverable topsoil on an extractive use site shall be saved for future application, unless it can be demonstrated that it is not all needed for reclamation. Topsoil shall be reapplied to the finished slopes as uniformly as possible. Sites which lack adequate topsoil shall have the topsoil applied preferentially to the finished sloped areas.

3. Seeding/revegetation/stabilization.

i. Seeding mixture shall be in accordance with the recommendations of the Itasca County Soil and Water Conservation District, and shall use native seeds to the fullest extent possible.

ii. Planting of woody vegetation may be accepted in combination with other stabilization techniques.

iii. Sodding may be required for drainageways, ditch checks, highly erodible areas of a site as shown on the reclamation plan or as required by the city.

iv. Riprap may be required for drainageways, ditch outlet, culvert ends or bridge openings as shown on the reclamation plan or as required by the city.

v. All seeding/revegetation and stabilization on inactive portions of the pit shall be implemented upon completion of extractive activities. The final revegetation / restoration being completed within one year of cessation of the operation and verified by the zoning administrator.

vi. The areas which are reclaimed for purposes of a Minnesota Department of Natural Resources Wildlife Management area and/or wetland mitigation shall be allowed exceptions to enhance wildlife habitat.

(Ord. No. 07-03-06, § 2(Exh. A), 3-27-2007)

Sec. 30-705. Interim urban services overlay district.

(a) *Purpose and intent:* The purpose of the interim urban services overlay district is to preserve the ability for areas planned for future urban services to subdivide in an efficient manner while allowing for reasonable use (including subdivision) of the land in the interim period.

(b) *Applicability:* The interim urban services overlay district is intended for areas of the community that are currently agriculture or undeveloped but are expected to be developed with urban services (municipal sewer and water) at some point in the future.

(c) *Permitted/conditional/restricted uses:* Permitted, conditional or restricted uses within the interim urban services overlay district shall be as stipulated by the underlying zoning district.

(d) *Supplemental regulations:* No parcel that is five acres or less shall be further subdivided until such time as urban services are extended and connected to the property. Subdivision of parcels greater than five acres shall be required to demonstrate the ability to be served by sanitary sewer and public water of the parcel. Applications for subdivision shall be required to follow one of the following procedures:

(1) As part of the subdivision application process, submit a "ghost plat" that places housing pads or commercial sites on a lot designed to meet the existing zoning standards such that the lot may be efficiently subdivided at a future date to facilitate a denser, urban development pattern. The ghost plat shall demonstrate how municipal sewer and water services may be engineered to serve the site as if it were part of the approved project; or,

(2) The applicant shall utilize the PUD approach outlined in section 30-703 to apply flexible design standards and use of innovative engineering approaches that allow for interim rural development patterns while preserving long term conversion to urban development patterns. Use of the PUD approach shall preserve the requirements of the underlying zoning district as it pertains to density and land use.

(Ord. No. 07-03-06, § 2(Exh. A), 3-27-2007)

Secs. 30-706. Minnesota Trunk Highway 38 overlay district.

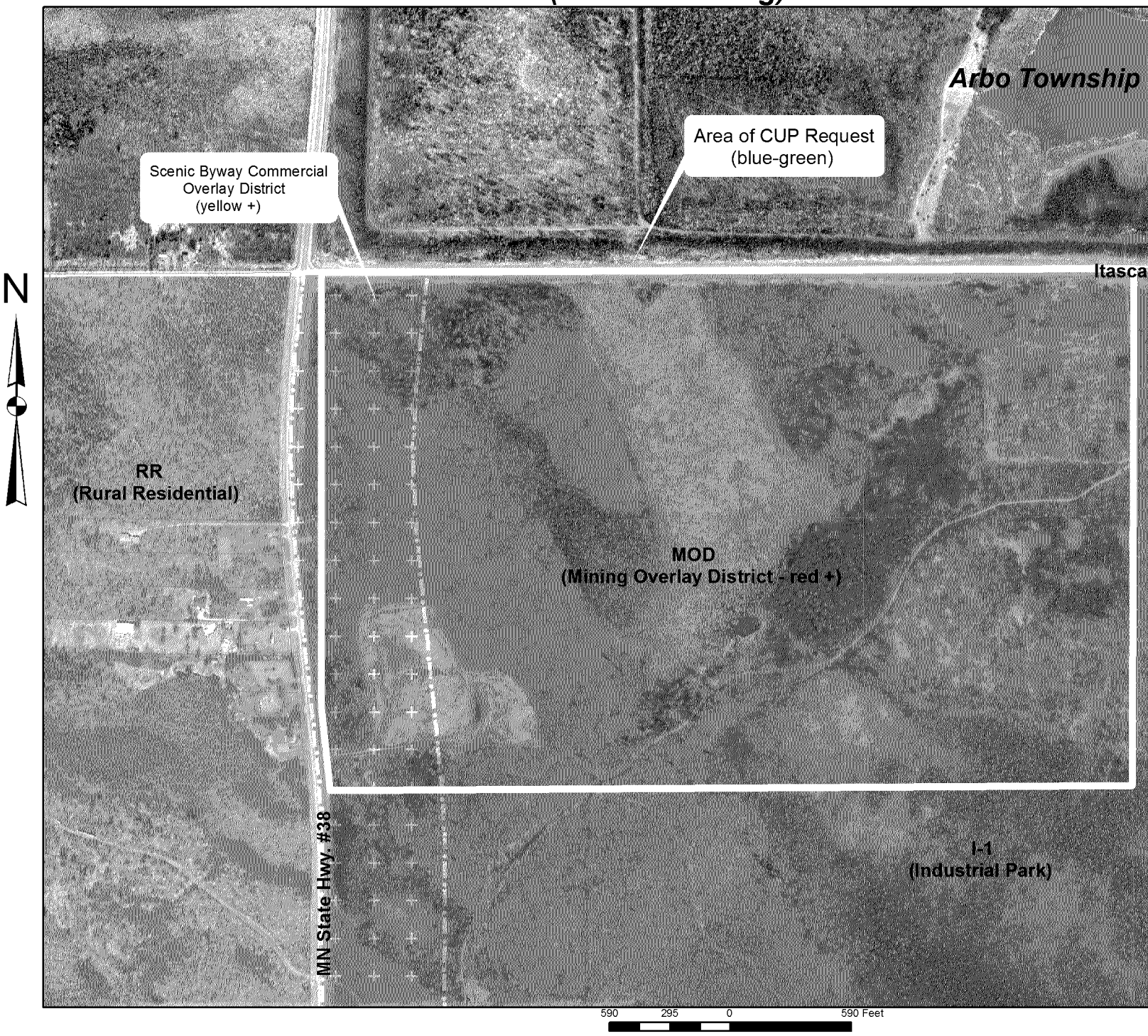
(a) *Purpose and intent:* The purpose of the Minnesota Trunk Highway 38 overlay district is to implement the policy directions from the Grand Rapids Comprehensive Plan by incorporating in its entirety and as amended from time to time Itasca County's Minnesota Trunk Highway 38 (Edge of the Wilderness National Scenic Byway) Sign Ordinance.

Hawkinson Construction Company CUP Requ

Hawkinson Construction Company CUP Reque

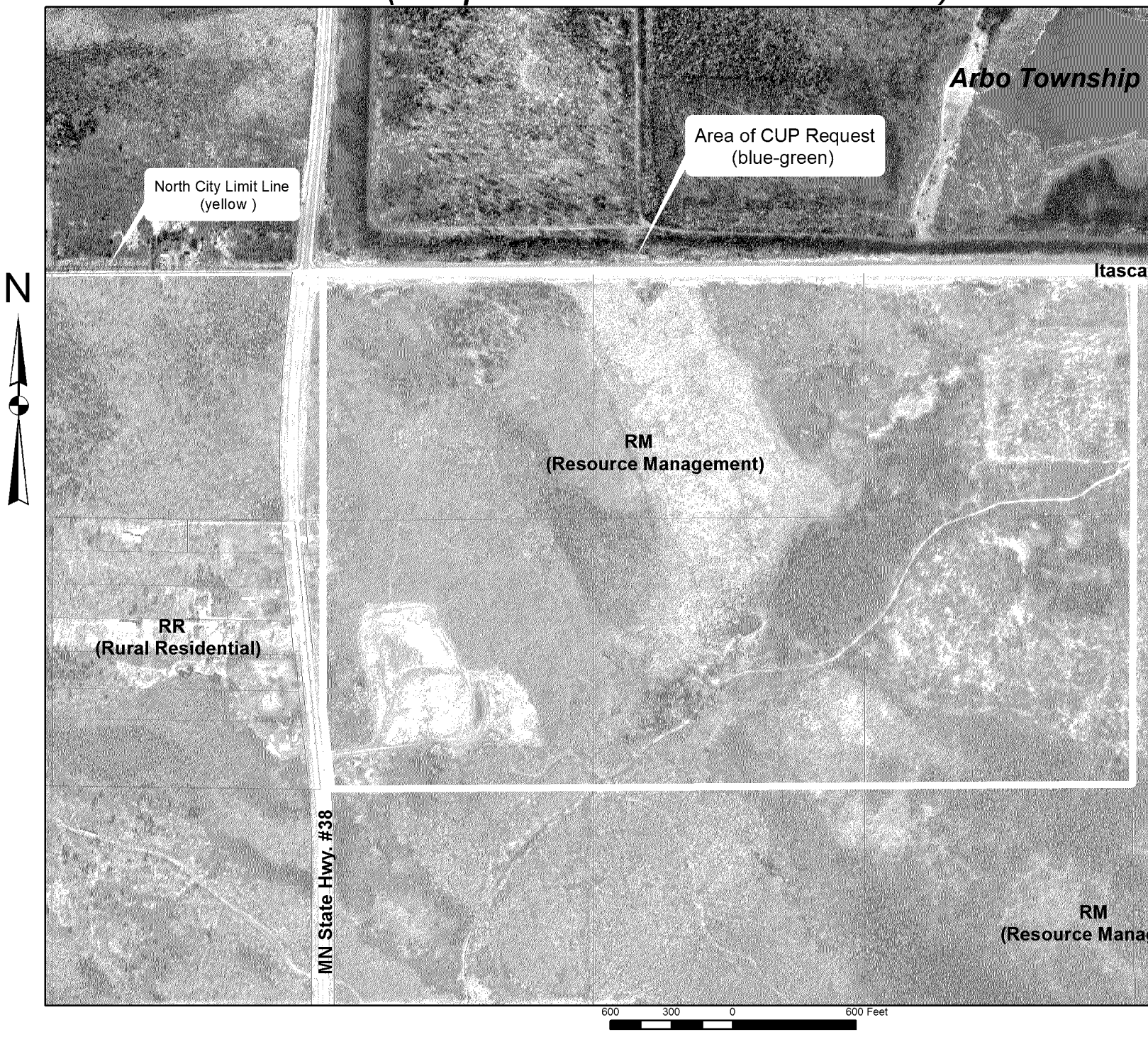
Hawkinson Construction Company CUP Reque

(Current Zoning)



Hawkinson Construction Company CUP Reque

(Comprehensive Plan Future Land Use)



Conditional Use Permit – Hawkinson Construction (Mining Overlay District)
Staff Review Worksheet

Code Section	*Topic of Code Section & Generalized Intent*	*Measures Proposed by Applicant to Address Code Requirement*	*Staff*
30-704d(1)	A statement that the applicant has the right by ownership or lease to extract and to reclaim the land described in the application..	Addressed within *Stormwater Pollution Prevention Plan/Extractive Use and Reclamation Plan*: Page #2	Hawkinson C subject prope
30-704d(2)	A statement estimating the expected duration of the extractive use operation, including starting and completion dates.	Page #4, 50-100 year life of quarry	Long-term m
30-704d(3)	A detailed map or maps at a 1″= 100′ scale or larger showing proposed location of any buildings, equipment storage areas, operation areas, and any other uses incorporated in the excavation process.	Page #'s – 5,6,7, & 8	Maps Provid
30-704d(4)	A site development plan detailing the following: a. Dust, noise, other emission of potential concern and mitigation plans. b. Hours and duration of operation. c. Proposed vegetation and topographic alterations. d. Erosion control plan.	a. Addressed within EAW- Findings of Fact (pg. 3 & 4) b. 6 am – 7 pm Monday – Saturday c. Page #8 map SWPP Plan d. Applied for/provided	a. Dus oper b. Seas
30-704d(5)	A written plan for reclamation of the affected area detailing: a. The nature and extent of the reclamation. b. A detailed map at a 1″ = 100′ scale or larger showing which parts of the land shall be reclaimed for forest, pasture, crop, dwellings, structures or other uses.	a. Page #4 SWPP Plan b. Page #4 & 25 SWPP Plan	

Conditional Use Permit – Hawkinson Construction (Mining Overlay District)
Staff Review Worksheet

Code Section	*Topic of Code Section & Generalized Intent*	*Measures Proposed by Applicant to Address Code Requirement*	*Staff*
	c. Proposed topographic contours after any filling. d. Depth of proposed restored topsoil. e. Type of fill proposed to be used. f. Estimated progress and completions dates.	c. Page #25/map SWPP Plan d. Page #4 SWPP Plan (4" top soil) e. 4" top soil f. 50-100 life of quarry	
30-704e	The following performance standards must be met for the issuance and continuation of a conditional use permit. Additional requirements may be imposed by the city:		
30-704e(1)	The minimum lot area shall be 40,000 square feet.	Subject property/lot area is 230 acres	
30-704e(2)	The minimum lot width shall be 300 feet at the building setback line.	Subject property/lot is 2,535 ft. X 3,976 ft.	
30-704e(3)	Setbacks: a. The minimum side yard setback for primary buildings and accessory structures shall be 30 feet. b. The minimum rear yard setback for primary buildings and accessory structures shall be 50 feet. c. The minimum side and rear yard setback for structures housing livestock shall be 100 feet.	Page #7 SWPP Plan a. 50 ft. + proposed b. 50 ft. + proposed c. N/A	No plans for
30-704e(3) cont.	d. Extraction operations, including excavating or stockpiling and machinery, shall not be conducted or placed closer than: 1. 100 feet to the boundary of any adjoining	Pages #4 & 6-10 SWPP Plan	

Code Section	*Topic of Code Section & Generalized Intent*	*Measures Proposed by Applicant to Address Code Requirement*	*Staff*
	property. 2. 50 feet to the right-of-way of any existing or platted roadway. 3. 250 feet to an established residence other than the owner/operator of said extractive use. 4. 200 feet to the boundary of an incorporated municipality and ordinary high water mark.	1. 600 ft. + (to east) 2. 50 ft. + (to north CO. Rd. 61) 3. 1,300 ft. + (to west) 4. Site is not adjacent to an incorporated municipality, and 2,000 ft. + to nearest OHWL (to NE – Prairie Lake)	
30-704e(4)	Vegetation clearing plan. Clearing of the site shall conform to the approved development and reclamation plan, and existing trees, shrubs and vegetation shall not be prematurely stripped.	Page #3 and #7 SWPP Plan Project will be phased, and a 50 ft. + undisturbed buffer will remain around project perimeter.	
30-704e(5)	Screening. Adequate planting, screening, buffering and/or berming shall be provided sufficient to screen the operation from public view from roadways and adjacent properties.	Page #3 and #7 SWPP Plan Project will be phased, and a 50 ft. + undisturbed buffer will remain around project perimeter, in addition to a berm being constructed with salvaged topsoil.	
30-704e(6)	Entrance and exit standards.		
30-704e(6)a	Ingress and egress access points from or onto any roadway shall be identified and only those access points shall be used. All access points shall be approved by the appropriate state, county and/or local government having jurisdiction. Access points shall be located to avoid the routing of vehicles	Haul road access points are proposed on to Itasca County Rd. #61 approximately 2,700 ft. east of MN Hwy #38, and through existing entrance onto MN Hwy #38 at southwestern portion of site.	Per EAW tra improvement Permits need County for r

Code Section	*Topic of Code Section & Generalized Intent*	*Measures Proposed by Applicant to Address Code Requirement*	*Staff*
	from the mining operation over roadways that primarily serve residential areas.		
30-704e(6)b	Access points shall be constructed to avoid traffic safety hazard and to minimize the view into the extractive use site.	Page #3 SWPP Plan	Access points located with directions.
30-704e(6)c	During the hours of operation, "Trucks Hauling" signs shall be placed along the public roadways leading to the extractive use site entrances at a distance of not less than 500 feet from the entrances. Size and type of sign shall be approved by the applicable road authority. Signs shall be removed or covered during non-operating hours.	Page #3 and #4 SWPP Plan	Signs propos
30-704e(6)d	Accesses shall be controlled by the owner/operator of the extractive use operation.	Page #3 SWPP Plan	Gates propos access points
30-704e(6)e	Dust control shall be implemented as necessary, from the processing site to the nearest paved road, on operations that have over ten one-way hauling trips or five round-trips per day.	Page #3 SWPP Plan	Dust control needed (calci
30-704e(6)f	Hours of operation. 1. Overall extractive use operation shall be from 6:00 a.m.—7:00 p.m. Monday through Saturday. 2. Emergency situations, concerning public safety, shall be approved by the city. 3. There shall be no mechanical equipment operation started before 6:00 a.m.	Page #4 SWPP Plan	Requirement
30-704e(6)g	Spillage onto roadways. Precautions shall be taken to minimize the deposit of dirt and extracted material from trucks onto the public roadways. Trucks used in hauling materials	Page #2 SWPP Plan	Requirement

Code Section	*Topic of Code Section & Generalized Intent*	*Measures Proposed by Applicant to Address Code Requirement*	*Staff*
	from the operation shall be loaded in such a manner as to minimize spillage onto public roadways. Any spillage shall be removed promptly by the operator at the operator's own expense.		
30-704e(6)h	Amount of cover removed. The amount of soil, groundcover, and/or overburden to be removed shall be the minimum amount necessary.	Page #2 SWPP Plan	Phased const minimize exp
30-704e(6)i	Use of explosives. When explosives are used, the operator shall use the utmost care and take all necessary precautions not to endanger life or damage or destroy property. The method of storing and handling explosives shall conform with all state and federal laws and regulations.	Page #3 SWPP Plan	Requirement Anticipated u annually for
30-704e(6)j	Dust and noise control. Operating procedures will be implemented to control dust and noise to minimize impacts on adjoining properties and roadways.	Addressed within EAW- Findings of Fact (pg. 3 & 4)	
30-704e(6)k.1-3	Reclamation plan required. All extractive uses requiring a permit shall have a reclamation plan with the following minimum terms: 1. Slopes after reclamation. 2. Topsoil storage and reapplication. 3. Seeding/revegetation/stabilization.	Page #4 SWPP Plan – *Final Reclamation and End Use Plan*	50-100 life o be on going.

Conditional Use Permit Application
Community Development Department
420 North Pokegama Ave.
Grand Rapids, MN 55744
Tel. (218) 326-7601 Fax (218) 326-7621
Web Site: www.cityofgrandrapidsmn.com

Community Development Office Use Only	
Date Received	
Certified Complete	JAN 09 2018
Fee Paid	$350

The undersigned do hereby respectfully request the following be granted by support of the following facts herein shown:

Paul Hawkinson	Hawkinson Construction
Name of Applicant	Name of Owner
PO Box 278	PO Box 278
Address	Address
Grand Rapids, MN 55744	Grand Rapids, MN 55744
City State Zip	City State Zip
(218)326-0309 / paul@hawkinsonconstruction.com	(218) 326-0309
Business Telephone/e-mail address	Business Telephone/e-mail address
	info@hawkinsonconstruction.com

Parcel Information:

Tax Parcel # 91-004 / 1200 2200 1300 2300 2100 2400

Existing Zoning: I-1 w/ Mining Overlay

Existing Use: Extractive Use

Proposed Use: Extractive Use

Property Size: 230 acres (140 mining plan)

Property Address / Legal Description: _____
(attach additional sheet if necessary)

Permit Type:

The following type of Conditional Use Permit is, hereby, requested:

- ☐ Mobile Home Parks
- ☐ Primary, Secondary, and Post High schools in R districts
- ☒ Mining of Sand and Gravel (> 2year)
- ☐ Junk and Salvage Operations
- ☒ Heavy Mining
- ☐ Land Reclamation
- ☐ Interim Use of Buildings
- ☐ CUP Amendment
- ☐ Group and Foster Homes (7-8 residents in R-1 and R-2)
- ☐ Bed and Breakfast Accommodations (up to 5 guest rooms/10 persons in R2)
- ☐ Essential Service Structure (within any residential zone or CBD)
- ☐ General Sales and Service (greater than 70,000 sq. ft. building footprint)
- ☐ Telecommunication Towers and Facilities

I (we) certify that, to the best of my (our) knowledge, information, and belief, all of the information presented in this application is accurate and complete and includes all required information and submittals, and that I consent to entry upon the subject property by pubic officers, employees, and agents of the City of Grand Rapids wishing to view the site for purposes of processing, evaluating, and deciding upon this application.

Paul Hawkinson — 1/8/18
Signature(s) of Applicant(s) — Date

Signature(s) of Owner(s)-(If other than applicant) — Date

Required Submittals: 1 Set (electronic copies required):

☒ Application Fee - $505.00 ☒ Site Plan *(as per 30-531b1)* ☒ Drainage Plan *(as per 30-531b2)*

☒ Landscape Plan *(as per 30-531b3)* ☐ Building Plans *(as per 30-531b4)*

☐ Written description of proposed use *(as per 30-531b5)*

Additional Required Submittals, if applicable:

If the proposed use is classified as General Sales and Service (greater than 70,000 sq. ft. building footprint), and is, thus, regulated by Division 14, Article IV, Chapter 30 of the Grand Rapids City Code, the following additional submittals are required:

☐ Application Fee – Total Actual Cost Incurred by the City ($3,500.00 deposit required via escrow agreement)

☐ Traffic Study *(as per 30-902c4)*

☐ Written explanation of how the proposed development adheres to the individual elements of the Site Design Standards in 30-902, and the Building Design Standards in 30-903.

☐ The Landscaping Plan required under 30-531b3 shall include sufficient detail to demonstrate the proposed developments compliance with 30-902e.

☐ The Site Plan required under 30-531b4 shall include sufficient detail to demonstrate the proposed developments compliance with sections: 30-902a, 30-902b, 30-902c, 30-902d, 30-902f, 30-902g, 30-902h, and 30-902i.

☐ The Building Plans required under 30-531b4 shall include sufficient detail to demonstrate the proposed developments compliance with sections 30-903a through 30-903h.

☐ Adaptability for Reuse Plan *(as per 30-904a1)*

☐ Environmental Assessment Worksheet, if applicable, *(as per 30-904b)* and RGU Notice of Decision – Negative Declaration, or, if the RGU Notice of Decision on the EAW is a Positive Declaration, a copy of the Environmental Impact Statement and RGU Notice of Adequacy.

Findings for Approval:

In accordance with Section 30-531e of the Grand Rapids City Code, the City Council shall not approve a Conditional Use Permit unless it shall find that the establishment, maintenance and operation of the use:

- Will not be detrimental to the public health, safety, morals and general welfare;
- Will not cause undue traffic congestion, or hazards and will not result in a parking shortage;
- Will not be injurious to the use and enjoyment or result in a decrease in value of other property in the area;
- Will not impede the orderly development of other property in the area;
- Will not impose an excessive burden on parks and other public facilities and utilities;
- Is consistent with the Comprehensive Plan.

In addition to the general requirements for all Conditional Use Permit listed above, the City Council will also consider the requirements specific to each designated conditional use as contained within the Grand Rapids City Code.

The attached Section 30-531 of the Grand Rapids City Code provides additional detail with respect to Conditional Use Permit process.

Additional Instructions:

Prior to submitting your Conditional Use Permit Application, you will need to arrange for one or more preliminary meetings with the Director of Community Development. This meeting is intended to ensure that the proposed application is complete, to answer any questions the applicant may have, discuss meeting schedules and, if applicable, the scope of the required submittals.

INCOMPLETE APPLICATIONS WILL NOT BE ACCEPTED

Complete applications shall be submitted to the Community Development Department one month prior to the Planning Commission's review of the CUP. More information may be requested by the City of Grand Rapids Planning Commission or City Council, if deemed necessary to properly evaluate your request. The lack of information requested may be in itself sufficient cause to deny an application.

Sec. 30-704. - Mining overlay district.

(a) *Purpose and Intent.* The purpose of the mining overlay district is to provide for current or future heavy mining activities that may be governed by Minn. Stat. §§ 93.44—93.51, and separate these uses from incompatible uses.

(b) *Lands subject to overlay district.* The mining overlay district is defined by the official zoning map and may overlay other zoning districts.

(c) *Conditional Uses.* Following the date of adoption of the ordinance from which this section derives no entity shall engage in new or expand existing operations, or renew operations that have not been active within five years of the effective date of this section without first obtaining a conditional permit. Any operation begun prior to the adoption of the ordinance from which this section derives and which is active on the effective date of this section may continue operations for five years at which time the operation shall have obtained a permit or ceased operation. The following are conditional uses in the mining overlay district:

(1) Mineral extraction, mineral processing, metals production, mineral or metal storage, storage and stockpiling of mining and mineral processing waste materials and byproducts, storage of mining and processing equipment and includes those facilities and activities regulated by Minn. Stat. §§ 93.44—93.51.

Refer To SWPP/Ex Use and Reclamation Plan ↓ Page

(2) Structures necessary for mining, mineral processing, and metals production operations and ancillary facilities and activities.

(3) Transmission and distribution lines, and pipelines of public and private utility companies within existing public rights-of-way.

(4) Towers.

(5) Extractive use operations.

(6) Other industrial determined to be compatible with the purpose of the mining overlay district.

(d) In addition to the information required in section 30-531(b), the following shall be provided in the application for a conditional use permit:

2

(1) A statement that the applicant has the right by ownership or lease to extract and to reclaim the land described in the application.

4

(2) A statement estimating the expected duration of the extractive use operation, including starting and completion dates.

5, 6, 7, 8

(3) A detailed map or maps at a 1" = 100' scale or larger showing proposed location of any buildings, equipment storage areas, operation areas, and any other uses incorporated in the excavation process.

(4) A site development plan detailing the following:

Findings of Fact

3, 4

a. Dust, noise, other emission of potential concern and mitigation plans.

3

b. Hours and duration of operation.

Submitted

c. Proposed vegetation and topographic alterations.

d. Erosion control plan.

(5) A written plan for reclamation of the affected area detailing:

4

a. The nature and extent of the reclamation.

4, 25

b. A detailed map at a 1" = 100' scale or larger showing which parts of the land shall be reclaimed for forest, pasture, crop, dwellings, structures or other uses.

25

c. Proposed topographic contours after any filling.

4

d. Depth of proposed restored topsoil.

4

e. Type of fill proposed to be used.

4

f. Estimated progress and completions dates.

(e) The following performance standards must be met for the issuance and continuation of a conditional use permit. Additional requirements may be imposed by the city:

2

(1) The minimum lot area shall be 40,000 square feet.

2

(2) The minimum lot width shall be 300 feet at the building setback line.

(3) Setbacks.

6

a. The minimum side yard setback for primary buildings and accessory structures shall be 30 feet.

b. The minimum rear yard setback for primary buildings and accessory structures shall be 50 feet.

c. The minimum side and rear yard setback for structures housing livestock shall be 100 feet.

d. Extraction operations, including excavating or stockpiling and machinery, shall not be conducted or placed closer than:

4, 6

1. 100 feet to the boundary of any adjoining property.
2. 50 feet to the right-of-way of any existing or platted roadway
3. 250 feet to an established residence other than the owner/operator of said extractive use.
4. 200 feet to the boundary of an incorporated municipality and ordinary high water mark.

3

(4) Vegetation clearing plan. Clearing of the site shall conform to the approved development and reclamation plan, and existing trees, shrubs and vegetation shall not be prematurely stripped.

3

(5) Screening. Adequate planting, screening, buffering and/or berming shall be provided sufficient to screen the operation from public view from roadways and adjacent properties.

(6) Entrance and exit standards.

a.

6,7,8

Ingress and egress access points from or onto any roadway shall be identified and only those access points shall be used. All access points shall be approved by the appropriate state, county and/or local government having jurisdiction. Access points shall be located to avoid the routing of vehicles from the mining operation over roadways that primarily serve residential areas.

3

b. Access points shall be constructed to avoid traffic safety hazard and to minimize the view into the extractive use site.

3,4

c. During the hours of operation, "Trucks Hauling" signs shall be placed along the public roadways leading to the extractive use site entrances at a distance of not less than 500 feet from the entrances. Size and type of sign shall be approved by the applicable road authority. Signs shall be removed or covered during non-operating hours.

3

d. Accesses shall be controlled by the owner/operator of the extractive use operation.

3

e. Dust control shall be implemented as necessary, from the processing site to the nearest paved road, on operations that have over ten one-way hauling trips or five round-trips per day.

f. Hours of operation.

4

1. Overall extractive use operation shall be from 6:00 a.m.—7:00 p.m. Monday through Saturday.
2. Emergency situations, concerning public safety, shall be approved by the city.
3. There shall be no mechanical equipment operation started before 6:00 a.m.

2

g. Spillage onto roadways. Precautions shall be taken to minimize the deposit of dirt and extracted material from trucks onto the public roadways. Trucks used in hauling materials from the operation shall be loaded in such a manner as to minimize spillage onto public roadways. Any spillage shall be removed promptly by the operator at the operator's own expense.

2

h. Amount of cover removed. The amount of soil, groundcover, and/or overburden to be removed shall be the minimum amount necessary.

3

i. Use of explosives. When explosives are used, the operator shall use the utmost care and take all necessary precautions not to endanger life or damage or destroy property. The method of storing and handling explosives shall conform with all state and federal laws and regulations.

Findings of Fact

j. Dust and noise control. Operating procedures will be implemented to control dust and noise to minimize impacts on adjoining properties and roadways.

4, 25

k. Reclamation plan required. All extractive uses requiring a permit shall have a reclamation plan with the following minimum terms:

4, 25

1. Slopes after reclamation. No portion of the reclaimed slope of the site shall exceed three feet horizontal to one foot vertical incline after reclamation unless the naturally occurring slope is steeper than 3:1 in which case final slopes shall not be steeper than the original natural slope.

3

2. Topsoil storage and reapplication. All feasibly recoverable topsoil on an extractive use site shall be saved for future application, unless it can be demonstrated that it is not all needed for reclamation. Topsoil shall be reapplied to the finished slopes as uniformly as possible. Sites which lack adequate topsoil shall have the topsoil applied preferentially to the finished sloped areas.

3

3. Seeding/revegetation/stabilization.
    i. Seeding mixture shall be in accordance with the recommendations of the Itasca County Soil and Water Conservation District, and shall use native seeds to the fullest extent possible.
    ii. Planting of woody vegetation may be accepted in combination with other stabilization techniques.
    iii. Sodding may be required for drainageways, ditch checks, highly erodible areas of a site as shown on the reclamation plan or as required by the city.
    iv. Riprap may be required for drainageways, ditch outlet, culvert ends or bridge openings as shown on the reclamation plan or as required by the city.
    v. All seeding/revegetation and stabilization on inactive portions of the pit shall be implemented upon completion of extractive activities. The final revegetation / restoration being completed within one year of cessation of the operation and verified by the zoning administrator.
    vi. The areas which are reclaimed for purposes of a Minnesota Department of Natural Resources Wildlife Management area and/or wetland mitigation shall be allowed exceptions to enhance wildlife habitat.

(Ord. No. 07-03-06, § 2(Exh. A), 3-27-2007)

Sec. 30-531. - Conditional use permits (CUP).

(a) *Purpose and intent.* The development and execution of this division is based upon the division of the city into districts within which the regulations are specified. It is recognized, however, that there are special or conditional uses which, because of their unique characteristics, must be considered individually as to their impact upon neighboring land, and the public welfare and their compatibility at the particular location. To provide for these needs the city council may by resolution approve a conditional use permit for those uses and purposes listed and may impose conditions and safeguards in such permits to ensure that the purpose and intent of this division is carried out.

Page # 5, 6, 7, 8

(b) *Application requirements.* An application signed by the landowner for a CUP shall be filed with the zoning administrator together with a filing fee as established by the city council. Such application shall be accompanied by the following information:

8 Reclamation NA NA

(1) A site plan drawn to scale which shows all dimensions; the location of existing and proposed streets, buildings and parking; the existing and proposed building height and floor area; curb cuts and driveway locations; utilities; loading areas and lighting.

(2) A drainage plan showing existing and proposed topography and slopes and how surface drainage will be handled.

(3) A landscape plan as specified in section 30-456.

(4) Building plans showing elevation drawings and floor plans.

(5) A written description of the use to be made of the property and buildings including the number of employees, students, etc.

(6) Any other information, which in the opinion of the zoning administrator, is required to evaluate the application and its consistency with the city comprehensive plan.

(c) *Waiver authority.* The zoning administrator shall have the authority to waive any of the information in subsection (b) of this section not deemed to be necessary and appropriate to evaluate the application.

(d) *Hearing and mailed notices.* The zoning administrator shall cause to be published a notice of the public hearing before the planning commission in the official newspaper at least ten days prior to the hearing date. Notices shall also be mailed to all owners of property within 350 feet of the parcel included in the request not less than ten days prior to the hearing. Failure to give such notice or defects or errors in the notice shall not invalidate the proceedings, provided a good faith attempt to comply with notice requirements was made.

(e) *Planning commission review and recommendation.* The planning commission shall conduct a public hearing on the application and make its recommendation with findings and conditions to the city council within 60 days of receipt of the planning commission's recommendation, to approve or deny the CUP. The council shall not approve a CUP unless it shall find that the establishment, maintenance and operation of the use:

(1) Will not be detrimental to the public health, safety, morals or general welfare;

(2) Will not cause undue traffic congestion or hazards and will not result in a parking shortage;

others

(3) Will not be injurious to the use and enjoyment or result in a decrease in value of other property in the area;

(4) Will not impede the orderly development of other property in the area;

(5) Will not impose an excessive burden on parks and other public facilities and utilities;

(6) Is consistent with the comprehensive plan.

Approval shall require a majority vote of the city council.

(f) *Conditions and restrictions.* The city council may impose such conditions and restrictions as it deems necessary on the establishment, location, construction, maintenance, operation and duration of the use to ensure compliance with the requirements of this division.

(g) *Resubmission.* No application which has been denied by the city council shall be resubmitted by the applicant for a period of one year following the date of denial by the city council.

(h) *Lapse and extension.* If within one year after the date of issuance the use for which the CUP was issued has not commenced, the CUP shall become null and void. If the applicant requests an extension in writing within one year after issuance, the city council shall conduct a public hearing and consider an extension utilizing the same notice procedures as required for the original application. The city council may extend the CUP for up to one year upon finding that:

(1) A good faith effort has been made to use the permit;

(2) There is reasonable expectation that there will be uses; and

(3) The facts upon which the original permit was issued are essentially unchanged.

(i) *Periodic review.* If periodic review is imposed as a condition of a CUP, the CUP shall be reviewed at a public hearing prior to the expiration of the review period. It shall be the responsibility of the zoning administrator to schedule the public hearing and inform the owner of the review. A fee shall not be required to be paid.

(j) *Revocation.* If any person is found in violation of any condition or restriction imposed by the city council, the city may revoke such CUP utilizing the procedures established in this division.

(k) *Special considerations for shoreland areas.* The following additional evaluation criteria and conditions apply within shoreland areas:

(1) *Evaluation criteria.* A thorough evaluation of the waterbody and the topographic, vegetation, and soils conditions on the site must be made to ensure:

a. The prevention of soil erosion or other possible pollution of public waters, both during and after construction;

b. The visibility of structures and other facilities as viewed from public waters is limited;

c. The site is adequate for water supply and on-site sewage treatment; and

NA

d. The types, uses, and numbers of watercraft that the project will generate are compatible in relation to the suitability of public waters to safely accommodate these watercraft.

(2) *Conditions attached to conditional use permits.* The city council, upon consideration of the criteria listed in subsection (k)(1) of this section and the purposes of this division, shall attach such conditions to the issuance of the conditional use permits as it deems necessary to fulfill the purposes of this division. Such conditions may include, but are not limited to, the following:

a. Increased setbacks from the ordinary high water level;

b. Limitations on the natural vegetation to be removed or the requirement that additional vegetation be planted; and

c. Special provisions for the location, design, and use of structures, sewage treatment systems, watercraft launching and docking areas, and vehicle parking areas.

(Code 1978, § 23.5(l); Ord. No. 07-03-06, § 2(Exh. A), 3-27-2007)

State Law reference— Conditional use permits, Minn. Stat. § 462.3595.

STORMWATER POLLUTION P
EXTRACTIVE USE AND REC
61 QUAR

CONSTRUCTION ACTIVITY INFORMATION

Project Location: South side of Itasca County Road #61 from a distance of 100' to 4000' East of TH #38 North of Grand Rapids MN in Itasca County, NW ¼ Sec 4 T55N R25W,W ½ of NE ¼ Sec 4 T55N R25W

Project Type: Permanent Storm Water Wet Basin construction for nonmetallic quarry mining, activities include blasting, crushing, stockpiling and hauling of processed rock materials. The wet basin design was chosen rather than infiltration due to the entire project area having an underlying bedrock formation.

Project Area: Phase I 433,000 syft= 9.9 acres
Phase II 780,000 syft=17.9 acres
Phase III 5,374,868 syft=123.39 acres

Total Acres 151.19

Impervious Area: Existing= 0 acres
Proposed= .5 acres maintenance access road
.7 acres entrance road
1.2 acres processing and stockpile area
Total New impervious 2.4 acres (all in phase I)

Receiving Waters: Wooded Swamp

Contact Information: Property Owner Hawkinson Construction Company
PO Box 278
Grand Rapids, MN 55744
218-326-0309
Primary SWPP Contact: Dan Petermeier 218-244-1054
Alternate SWPP Contact: Derek Hawkinson 218-244-4415

Training: Dan Petermeier SWPP Designer University of Minnesota 5/19
Derek Hawkinson SWPP Designer University of Minnesota 1/19
Brian Anderson Inspector/Installer University of Minnesota 1/17

Contractor: Hawkinson Construction Company

Erosion control Installer: Brian Anderson 218-259-8265

Erosion Control Supervisor: Derek Hawkinson 218-244-4415
CONSTRUCTION NOTES FOR WET BASIN;

1. All operations shall conform with NPDES General Permit from the state of Minnesota MN R 100001
2. Prior to any grading activities the owner will install perimeter controls to include silt fence around the entire area of phase I as shown in plans.
3. The owner will be responsible for providing all erosion and sediment control measures as required in the NPDES permit for construction. This includes any additional controls already in the plans.
4. Phased construction will be usec
5. Temporary or permanent turf es days of construction operations areas require per NPDES permit.
6. All pipe outlets in plan for Wet B dissipation installed.
7. After installation of perimeter sil berm (approximate 8' high) will fence. This berm will become pa measures. This project consists c overburden from above the bed progresses less area of erodible
8. Construction of a vehicle entran according to permit. As necessa from adjacent public roads. Note during phase I of project, all mat
9. All storm water is flowing West constructed and discharging into minimum undisturbed buffer wil wooded swamp.
10. Wet Basin design Calculations;
PERMANENT POOL : To
Wet Basin 27.8 acres X
Actual Permanent Pool
LIVE POOL (WQV):
New Impervious area=2
1"X1/12X105,000= 875
Actual Live Pool design
150'X280'X3' deep=126
FOREBAY: .1% of total c
.001 X 433,000 syft pha
Actual forebay design 2
note; Over design done

dewatering if necessary. Permar minimum at 3600 cuft per acre.

DISPERSION POOL:

A 5' topsoil berm will connect no basin in a semicircle on the west dispersion pool will include Rip R points of each pipe location. Des built 1' below top of topsoil berr

INSPECTIONS:

The owner Hawkinson Construction will be responsible for complying with all inspection and maintenance requirements in the NPDES permit Part IV.F Inspections of the entire project site will occur a minimum of once every 7 days during construction and within 24 hrs after a rain event of over .5 in 24hrs. Inspection reports will contain.

1) Date and Time of inspection
2) Name of person conducting inspection
3) Findings of inspections, including recommendations for corrective actions
4) Corrective actions taken including dates, times, and party completing maintenance
5) Date and time of rainfall events over .5 inches in 24 hours
6) Documents and changes made to SWPP

POLLUTION PREVENTION:

1) All solid or hazardous waste collected or generated from the project site shall be disposed of according to applicable regulations.
2) All hazardous waste materials onsite shall be stored to prevent leaks and/or spills according to state and federal standards.
3) Any runoff containing a hazardous material shall be collected properly disposed of.
4) If a spill occurs, we will observe the safety precautions associated with the spilled material. Stop the source of the spill if possible. Call local fire and/or police department if fire or public safety hazards are created. Contain the spilled material Dirt, sand, or any semi impermeable material will be used to create a containment structure to prevent material from flowing
5) Report the spill to the Minnesota Pollution Control Agency (MPCA) through the state duty officer. 24 Hour telephone numbers are; 651-649-5451 or 800-422-0798.Cleanup the spilled material and dispose of the wastes properly, with exception of used oil, wastes generated from petroleum spills that have been reported and cleaned up immediately are exempt from Minnesota's hazardous waste rules. Waste generated from used oil spills must be sent to a facility for energy recovery.
6) If contaminated soils are discovered during the project ,the state duty officer shall be immediately called at the numbers above and emergency actions taken.
7) Trash and construction debris shall be disposed of properly.

WET BASIN CONSTRUCTION

1) Post notice of NPDES at entrance to project site.
2) Installment of all perimeter silt fence and down gradient control devices to include ditch check along County Rd.61
3) Remove trees, brush and stumps inside project limits.
4) Move topsoil and place approximate 8' high berm inside of silt fence along entire perimeter. Stabilize berm with seed and mulch. Some berms will become permanent others will be used to stabilize wet basin slopes prior to seeding and mulch application.
5) Begin construction of wet basin and ot
These include roadway entrance, forebay drain down pipe, low orifice, emergency structures at pipe discharge locations. Th processing and stockpile areas.
6) Construct rock entrance for ingress an
7) Place aggregate surface on entrance a
8) Install debris controls on pipe intakes, to be controlled at less than 5.66cfs.)
9) Final turf establishment seed, fertilize, native seed mixture MN DOT 310 for pon seedlings to be planted on topsoil berm center.
10) Stockpile sediment controls will be co newly constructed Wet Basin.

PHASING AND SCREENING

Phase I; Salvaged topsoil to be r
Pine seedlings to be planted on
to County Road #61 and west of
and mulch entire disturbed area
Phase II; Topsoil from area north
Road #61 will be salvaged and re
material is placed in same area
topsoil berm east of entrance to
same as phase I . Entire disturbe
mulched per plan. Estimated tir
Phase III; Area will be expanded
berms constructed and seedlings planted

SAFETY AND ENVIROMENTAL

1) Hours of operation 6:00AM to 7:00PM
2) Dust and Noise control, operating proc minimize impacts to adjoining property c planted on berms for visual and noise scr
3) MPCA Air permits for crushing and pla These permits include specific noise and monitored by the MPCA agency.
4) NPDES permits for this project will be construction begins.
5) Gates will be installed at all vehicle en areas where mining is active to stop any this would be during phase Two on the e that as slope reclamation proceeds and c relocated to provide a safe project area.

14) Silt fence will be installed at the beginning of the project, not just for perimeter control of runoff but also construction limits. This will prevent an unnecessary soil compaction outside of project area.
15) To limit potential for discharge of pollutants from site, page 7 of this SWPP designates a fueling and maintenance area. This area was chosen to ensure that if any possible spill occurred that pollutants will flow to containment basin and allow for final cleanup. Anticipated materials on site would be fuel and lubricants for industrial equipment. External washing of equipment will be limited. Concrete washouts are not allowed on site and all redi-mix vehicles will provide their own self contained washout device. No permanent storage of fuel, oil, or grease is planned for on site during construction. During mining phase all required spill kit and containment materials will be on site. Proper storage of those materials will also be followed.
16) Any necessary dewatering during construction phases will be pumped through sediment bags and then flow through a vegetative area.

CONDITIONAL USE PERMIT, MINING AND PROCESSING ACTIVITIES

1) The primary need for Conditional Use Permit is to provide for local aggregate needs in the building , highway and street construction industries.

2) The activities required to extract materials from this site are as follows.

A) Salvaging topsoil for future reclamation and temporary use, to aid in vegetative growth.

B) Heavy soil overburden moved to areas to provide for berm screening and wet basin construction. Excess material will be stockpiled for future slope restoration prior to permanent topsoil placement. This stripping activity area shall be minimized as much as possible.

C) Because this site is a large rock out-cropping it will require drilling and blasting to occur. As stated earlier in this plan these activities will become necessary 1 to 2 times annually. This will be done with all necessary safety precautions in place by a licensed drilling and blasting company as to not endanger life or damage to property.

D) Crushing and stockpiling of processed material will then be done. Operations can be done Monday thru Saturday 6:00 AM to 7:00 PM. The number of employees on site could range from 3-10. Emergency situations may be requested thru city of Grand Rapids MN, to extend hours.

E) It is anticipated that crushing and hauling activities will be generally performed from April thru November.

F) The annual average of material to be removed is estimated at 110,000 tons. The estimated total quantity to be removed from site is 5-10 million tons over a period of 50-100 years depending on local demand.

G) Hauling activities will be done Monday
average number of trips annually will be
per day with most days having no loads a
crushed rock will go to another source fo
Asphalt. Other traffic may include lowboy
pump-out trucks. Truck Hauling signs will

H) There are no plans for permanent buil
portable asphalt plant on site when neces

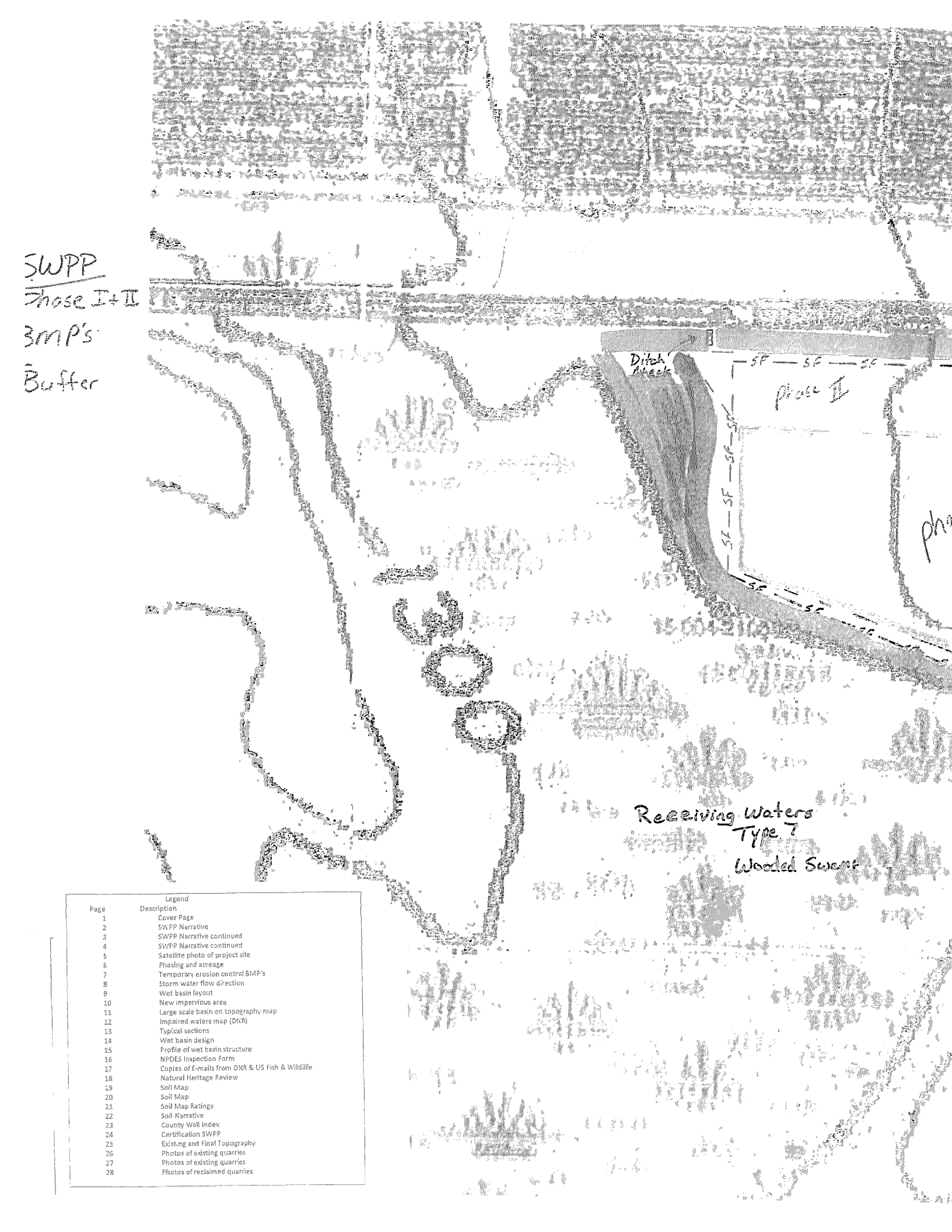
I) Setbacks will be followed as required fo
follows: 1)100 feet to the boundary of ar
right of way to any existing or platted roa
residence other than that of the owner
incorporated municipality and ordinary h

FINAL RECLAMATION AND END USE PLA

This project area has previously had mo
years ago by the prior owner Blandin Pap
been ongoing the past 15 years. The area
to be preserved,,this area is estimated at
conifers today. It is also intended to prese
limits along Hwy 38. Note that due to the
years) some select timber harvesting will
forest management practices.
The final reclamation will be ongoing as e
of slopes of the estimated 30'-70' deep e
1V slope. These slopes will be filled with s
spread with 4" of salvaged topsoil over th
seed mixture in accordance with recomm
Water Conservation District, along with n
Erodible areas, such as, drainage ways, ou
checks, rip rap blanket or sod installed as
estimated Quarry bottom elevation will b
that most of the excavated area will becc
other mining activities done nearby. All p
previously noted with approved methods
will be internally graded to this body of w
of this land will remain the same as toda
accesses will remain inplace on the north
area. Steep slope hazards will have been
At this time ownership is intended to rer
Company.


Existing Structures
TH 38


County Road
Phase II
Haul Road
Haul
HWY 25



Legend

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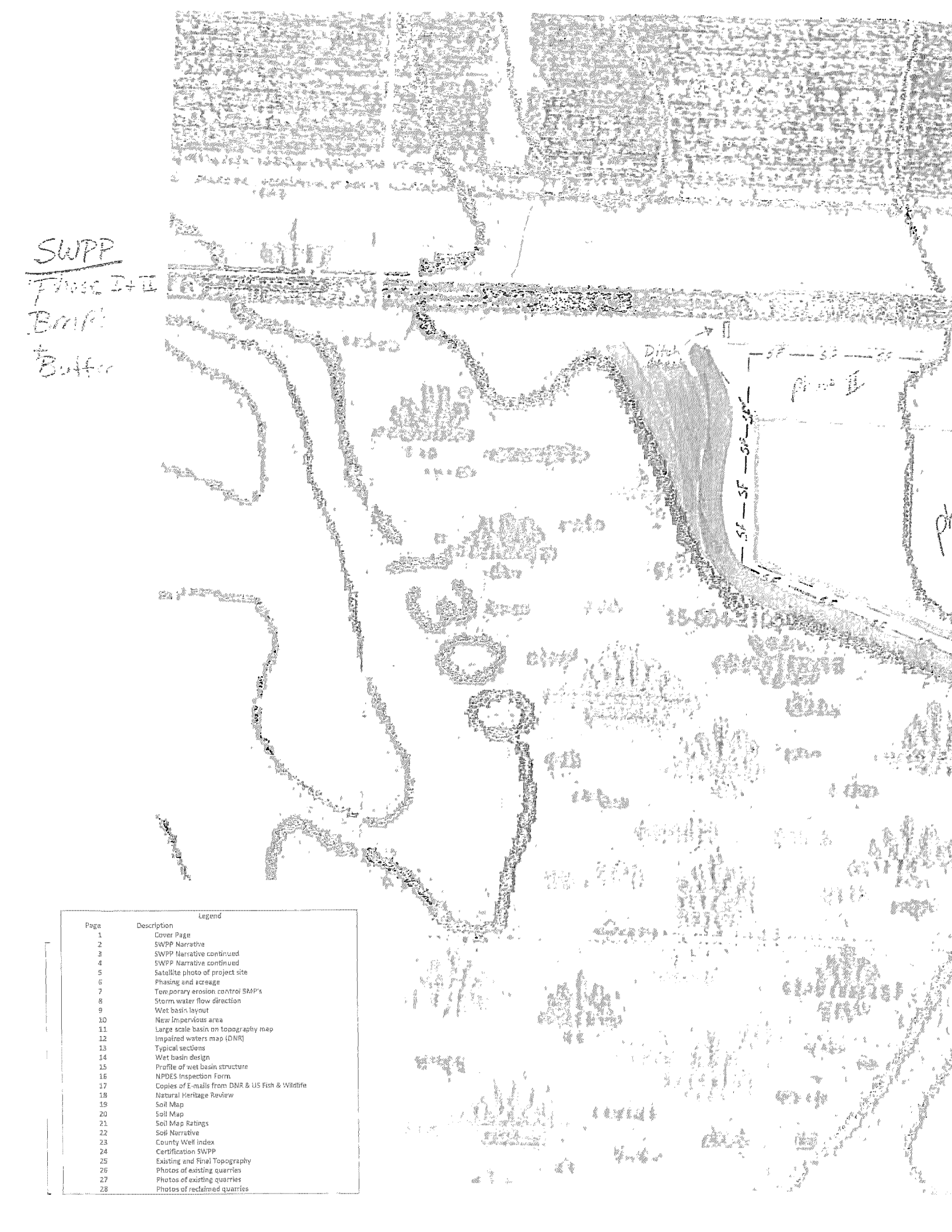
27	Photos of existing quarries
28	Photos of reclaimed quarries



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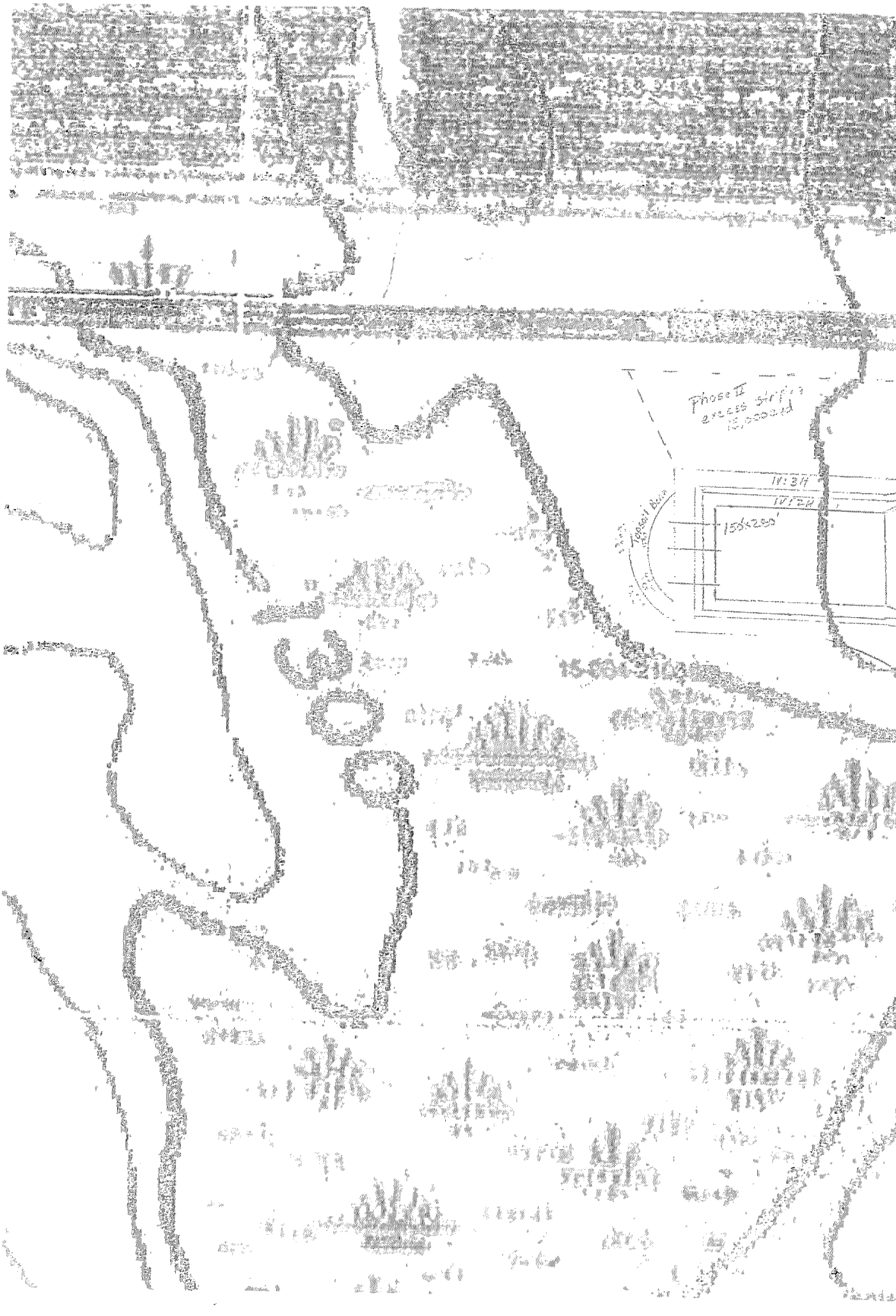
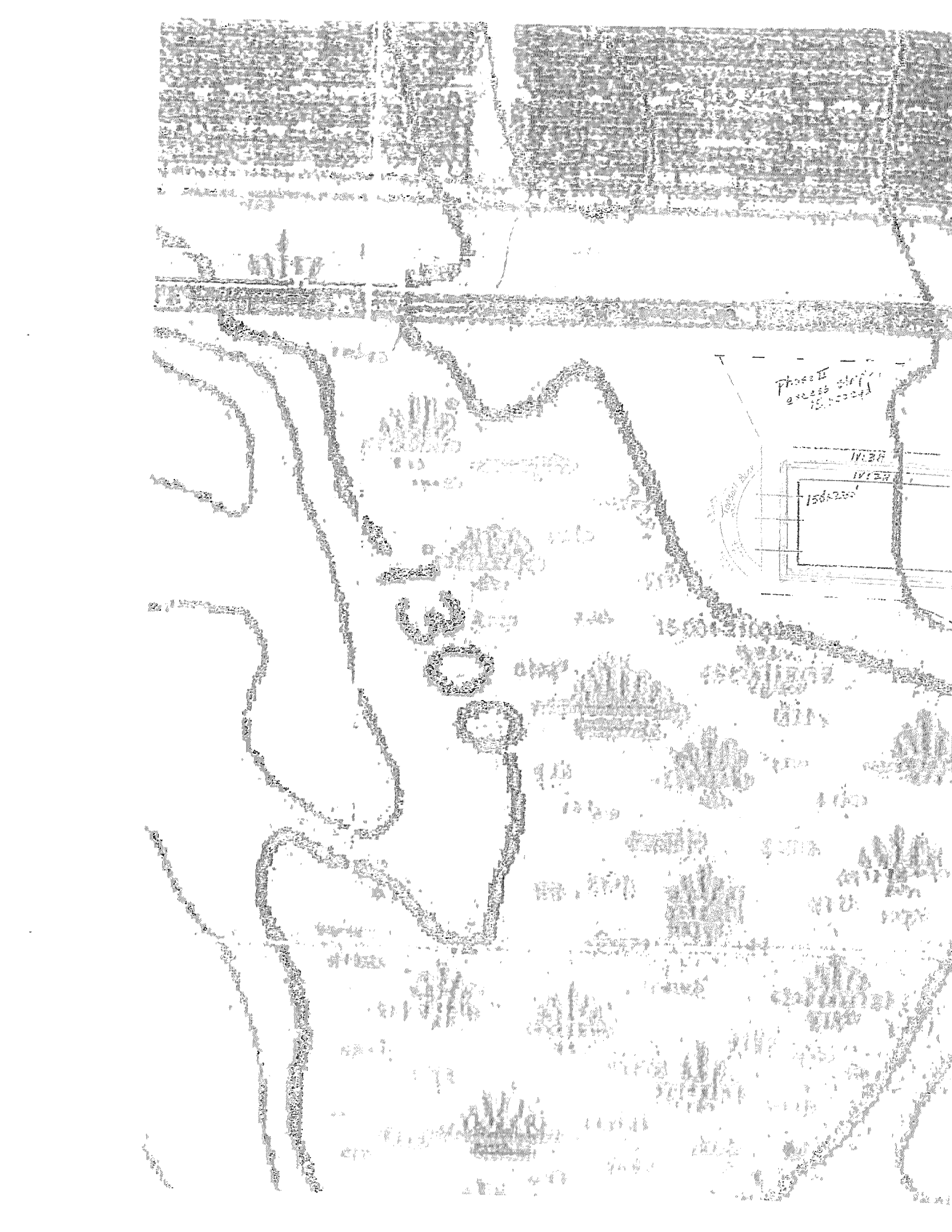
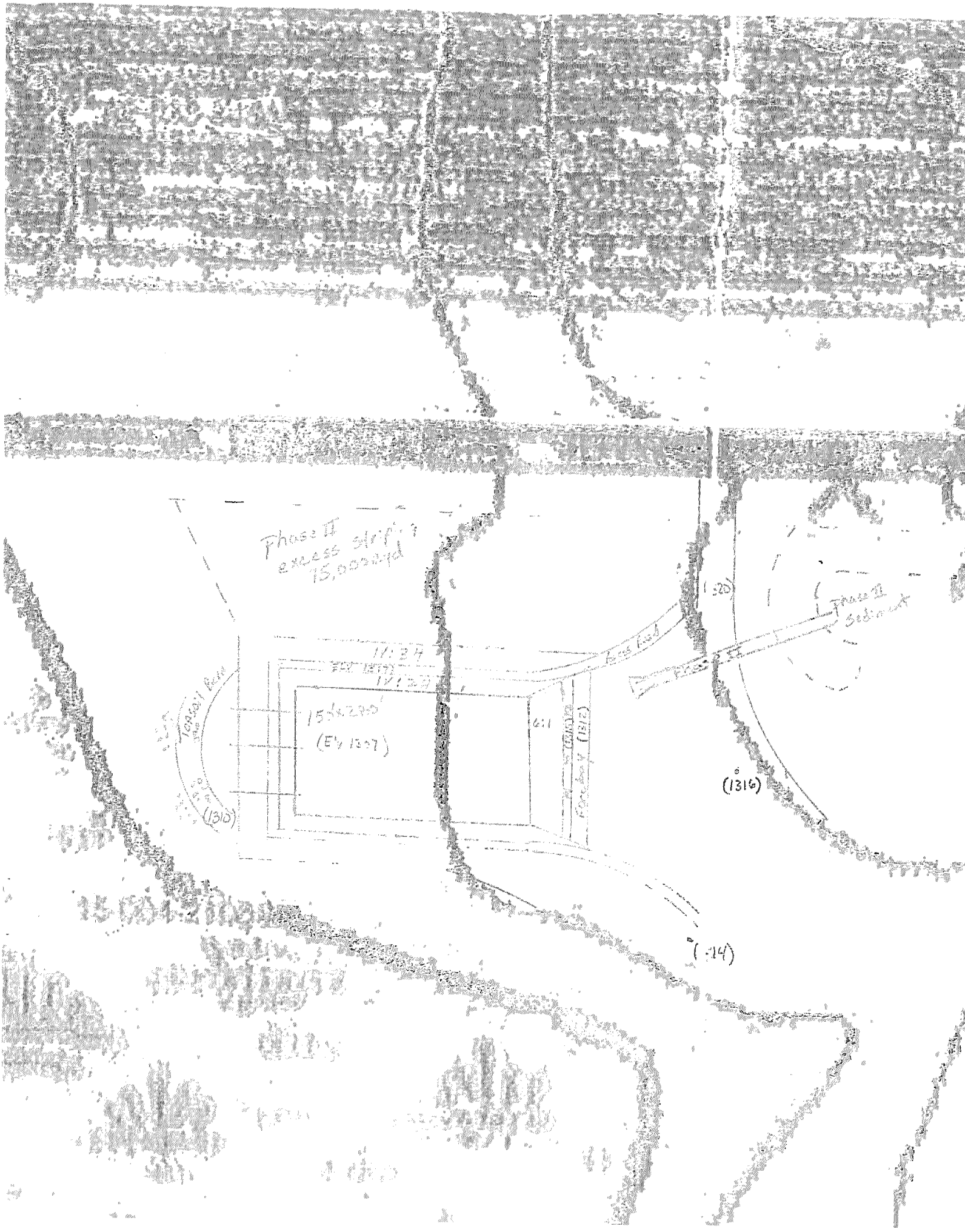
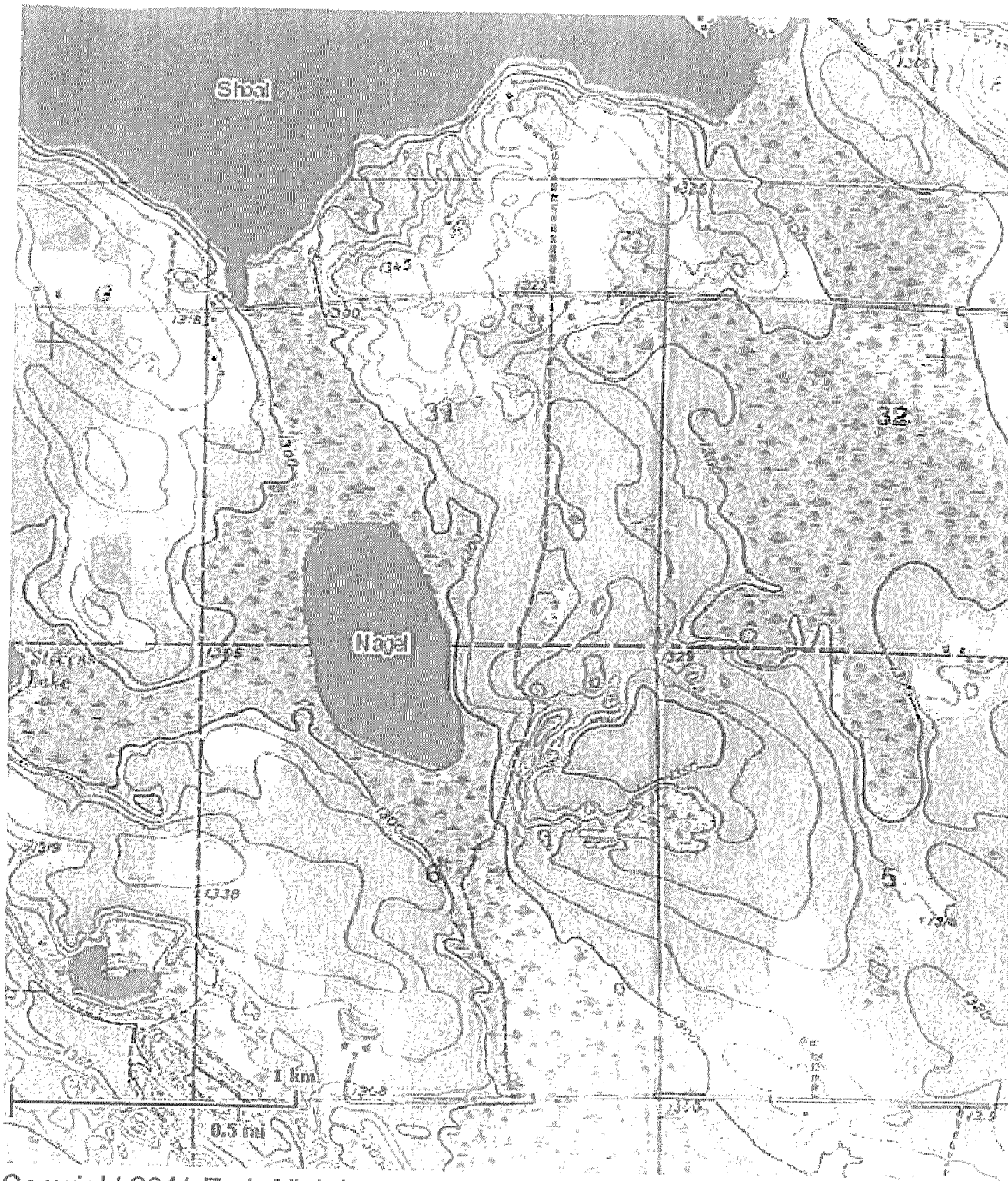
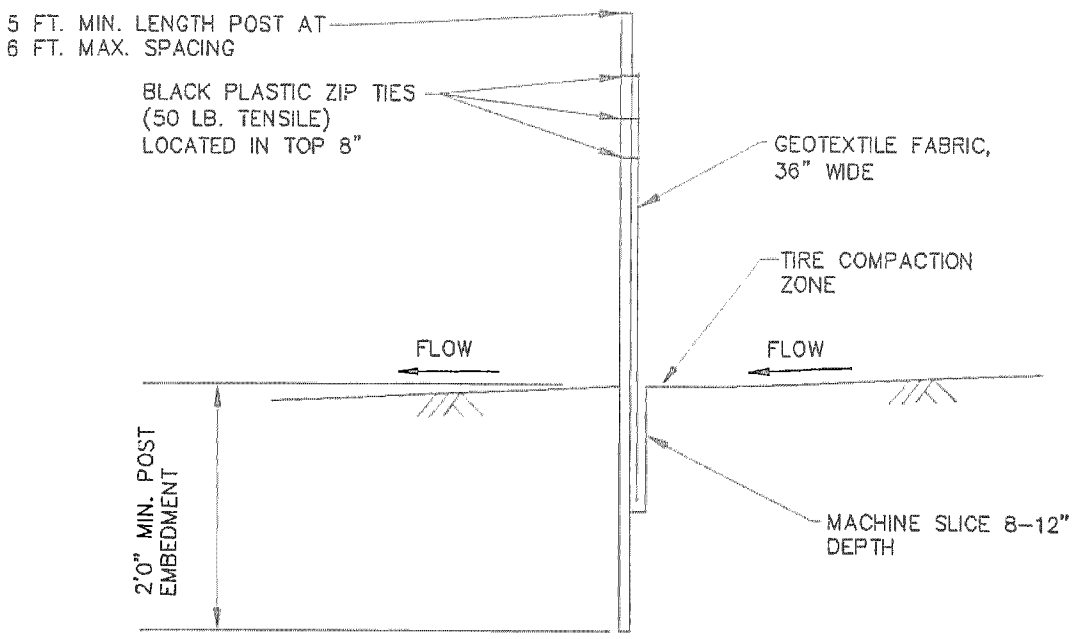

Phase II
access strip
15' wide
1V:3H
1V:2H
15'x25'
Typical Berm




Phase II strip
excess strip
15,000 sq ft
(1316)
(1314)

My Map

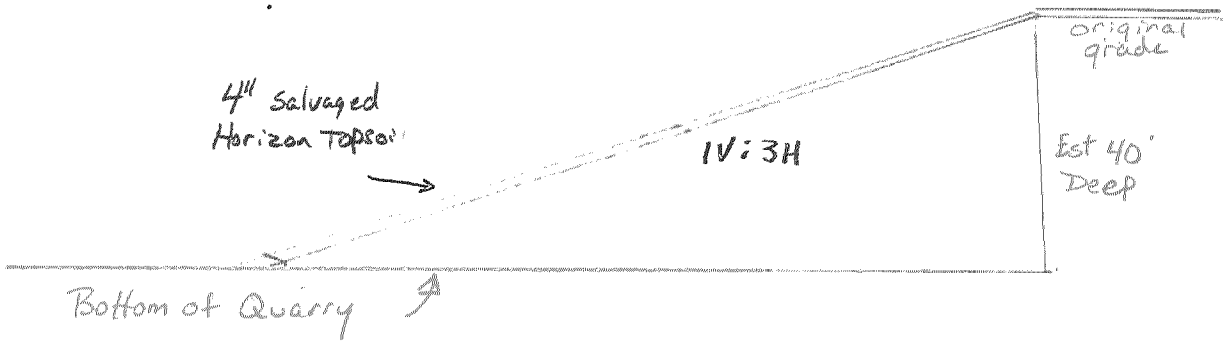


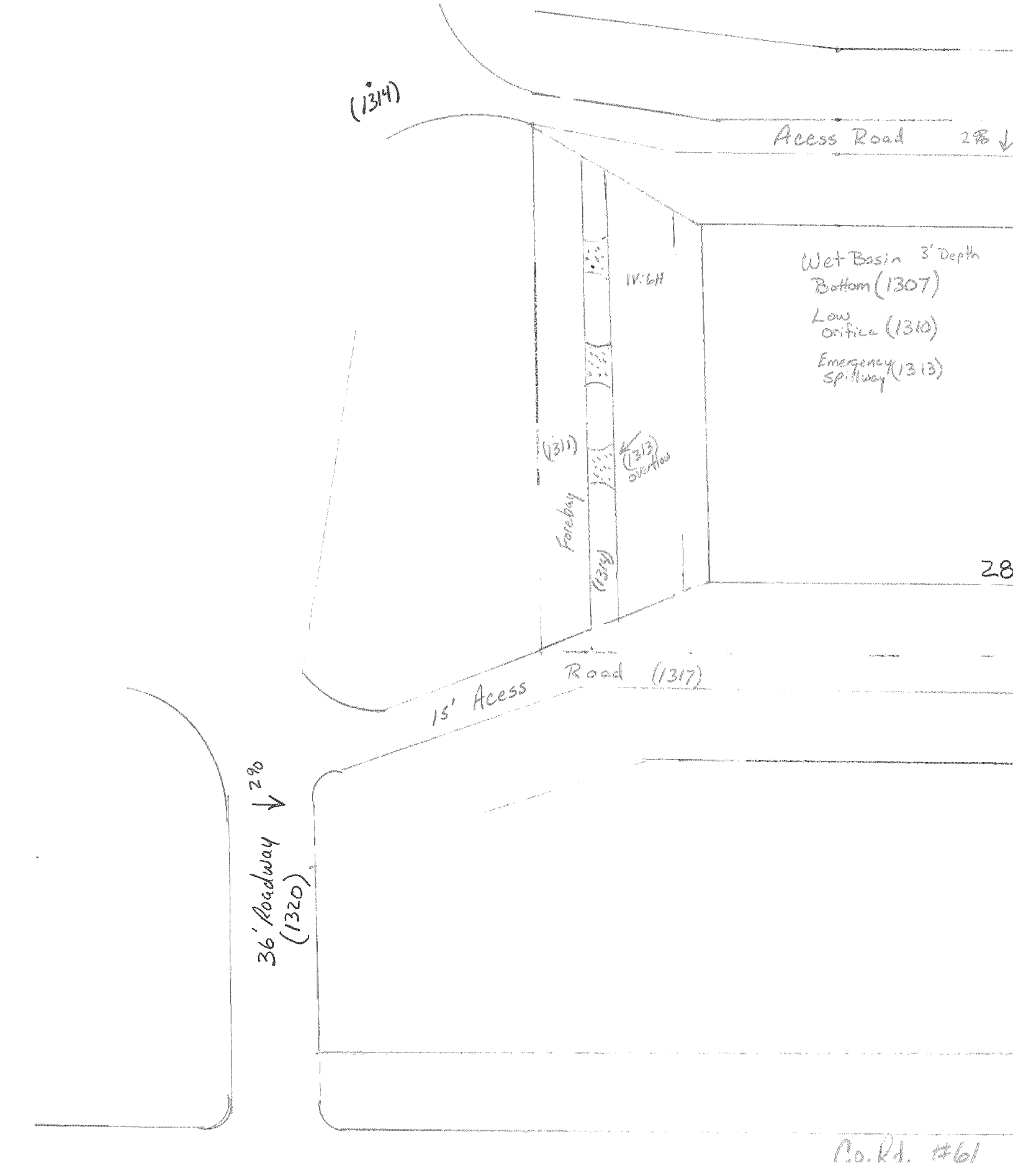


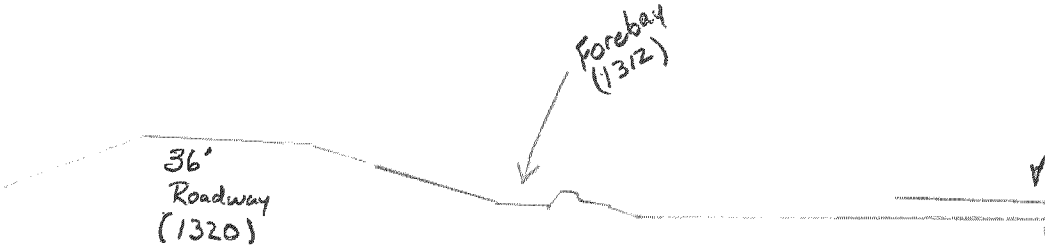
SILT FENCE

NO SCALE

Final Reclamation Slope




(1314)
Acess Road
Wet Basin 3' Depth
Bottom (1307)
Low Orifice (1310)
Emergency spillway (1313)
1V:6H
(1311)
(1313) overflow
Forebay
(1312)
15' Acess Road (1317)
36' Roadway (1320)


Forebay
(1312)
36'
Roadway
(1320)

NPDES Construction Site Permit Holder Inspection Form

Date: Time:
Inspector Name: Weather:
Inspector Phone:
Inspection type: ☐ Weekly ☐ Rain Event (Amount _____ in, Date_____)

Inspection Summary

Item		Comment/Action
Perimeter Control Functioning [24 hours to repair]	☐ Yes ☐ No ☐N/A	
Sediment Basins Functioning (temp. and perm.) [72 hours to repair]	☐ Yes ☐ No ☐N/A	
Surface Waters Free of Deposits [7 days to repair]	☐ Yes ☐ No ☐N/A	
Vehicle Exits Functioning [24 hours to clean streets]	☐ Yes ☐ No ☐N/A	
Erosion Prevention BMPs Functioning	☐ Yes ☐ No ☐N/A	
Sediment Control BMPs Functioning	☐ Yes ☐ No ☐N/A	
Sediment Retained on site	☐ Yes ☐ No ☐N/A	
Infiltration Areas Undamaged	☐ Yes ☐ No ☐N/A	
Repairs Needed	☐ Yes ☐ No ☐N/A	
Other	☐ Yes ☐ No ☐N/A	
Does the SWPPP need to be Amended	☐ Yes ☐ No ☐N/A	

Photo Log:

Comments:

Inspector Signature: _____

☐ Confirmation of corrective action listed here completed. Date:_____

Signature: _____

Dan

From: Herr, Erika S (DNR) [erika.herr@state.mn.us]
Sent: Thursday, February 21, 2013 2:57 PM
To: dan@hawkinsonconstruction.com
Subject: DNR public waters

Dan,

As we discussed, I checked the DNR PWI (public waters inventory) map and there are no DNR Public Waters located in S4, T55, R25.
Regards,
Erika

****

Erika S. Herr
Grand Rapids Area Hydrologist
DNR Division of Ecological and Water Resources
1201 E Hwy 2 Grand Rapids, MN 55744
218/327-4106

Minnesota Department of Natural Resources
Division of Ecological and Water Resources, Box 25
500 Lafayette Road
St. Paul, Minnesota 55155-4025
Phone: (651) 259-5109 E-mail: lisa.joyal@state.mn.us

#61
Quarry

November 8, 2013

Correspondence # ERDB 20140111

Mr. Dan Petermeier
Hawkinson Construction Company
PO Box 278
Grand Rapids, MN 55744

RE: Natural Heritage Review of the proposed 61 Quarry, T55N R25W Section 4, Itasca County

Dear Mr. Petermeier,

As requested, the Minnesota Natural Heritage Information System has been queried to determine if any rare species or other significant natural features are known to occur within an approximate one-mile radius of the proposed project. Based on this query, rare features have been documented within the search area (please visit the Rare Species Guide at http://www.dnr.state.mn.us/rsg/index.html for more information on the biology, habitat use, and conservation measures of these rare species):

- Prairie moonwort (*Botrychium campestre*), a state-listed plant of special concern, was documented in the 1990's in the tailings basins north of the proposed project boundary. Typically a prairie species, prairie moonwort is also found in tailings basins on the Iron Range. A botanical survey for this species within the proposed project boundary is not required for environmental review purposes.

- The black sandshell (*Ligumia recta*), a state-listed mussel of special concern, has been documented in the Prairie River in the vicinity of the proposed project. Given that mussels are particularly vulnerable to deterioration in water quality, especially increased siltation, it is important that effective sediment and pollution control practices be incorporated into any stormwater plan.

The Natural Heritage Information System (NHIS), a collection of databases that contains information about Minnesota's rare natural features, is maintained by the Division of Ecological and Water Resources, Department of Natural Resources. The NHIS is continually updated as new information becomes available, and is the most complete source of data on Minnesota's rare or otherwise significant species, native plant communities, and other natural features. However, the NHIS is not an exhaustive inventory and thus does not represent all of the occurrences of rare features within the state. Therefore, ecologically significant features for which we have no records may exist within the project area. **If additional information becomes available regarding rare features in the vicinity of the project, further review may be necessary.**

For environmental review purposes, the Natural Heritage letter is valid for one year; it is only valid for the project location (noted above) and the project description provided on the NHIS Data Request Form. Please contact me if project details change or for an updated review if construction has not occurred within one year.

The Natural Heritage Review does not constitute review or approval by the Department of Natural Resources as a whole. Instead, it identifies issues regarding known occurrences of rare features and potential effects to these rare features. To determine whether there are other natural resource concerns associated with

Search

Map Unit Legend

Itasca County, Minnesota (MN061)

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
72	Shooker very fine sandy loam	19.2	3.2%
268B	Cromwell fine sandy loam, 1 to 10 percent slopes	9.3	1.5%
541	Rifle mucky peat	12.6	2.1%
544	Cathro muck	10.7	1.8%
549	Greenwood peat	129.2	21.2%
618B	Itasca silt loam, 1 to 10 percent slopes	184.1	30.3%
628	Talmoon silt loam	5.5	0.9%
797	Mooselake and Lupton mucky peats	5.5	0.9%
870C	Itasca-Goodland silt loams, 2 to 12 percent slopes	215.9	35.5%
995	Borosaprists, depressional	0.7	0.1%
1043C	Udorthents, nearly level to rolling	15.6	2.6%
Totals for Area of Interest		608.2	100.0%

Soil Map

USDA United States Department of Agriculture
Natural Resources Conservation Service

Contact Us | Subscribe | Archived Soil Surveys | Soil Survey Status | Glossary | Preferences | Link | Logo

Area of Interest (AOI) | Soil Map | Soil Data Explorer | Download Soils Data

View Soil Information By Use: All Uses

Intro to Soils | Suitabilities and Limitations for Use | Soil Properties and Qualities

Search

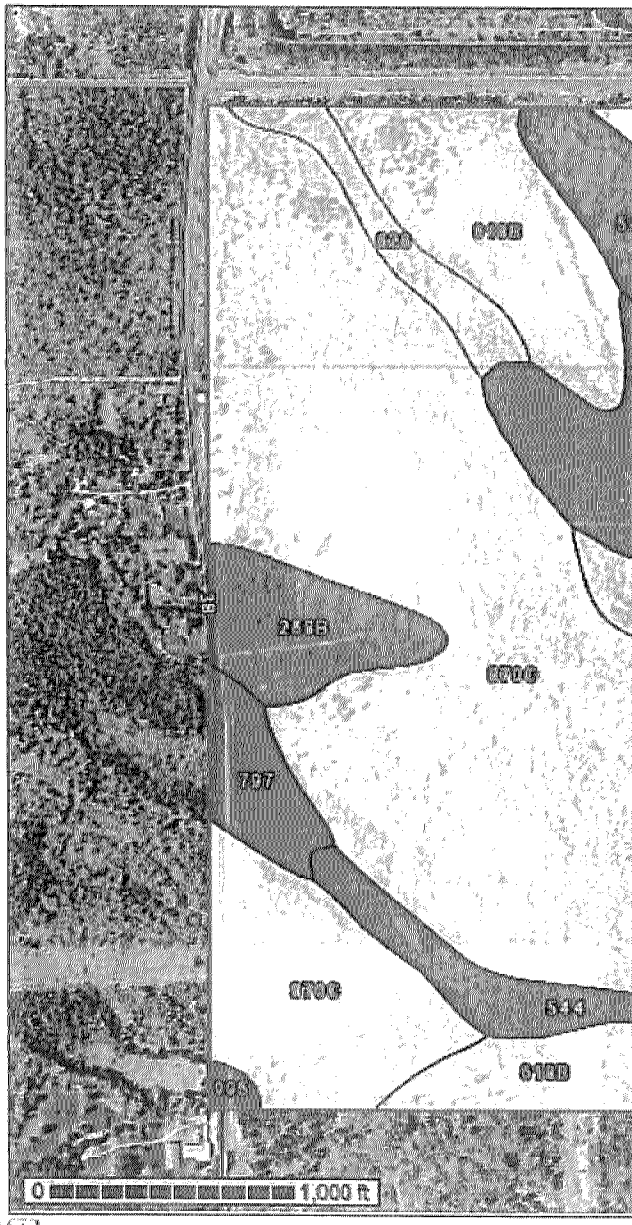
Suitabilities and Limitations Ratings

Open All | Close All

- Building Site Development
- Construction Materials
- Disaster Recovery Planning
- Land Classifications
- Land Management
- Military Operations
- Recreational Development
- Sanitary Facilities
- Vegetative Productivity

Map — Pond Reservoir Areas

Scale



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Irrigation, Micro (Subsurface Drip)

Irrigation, Sprinkler (Close Spaced Drops)

Irrigation, Sprinkler (General)

Irrigation, Surface (Graded)

Irrigation, Surface (Level)

Pond Reservoir Areas

View Description | View Rating

View Options

Map ☑

Table ☑

☑ Component Breakdown and Rating Reasons

☑ Numeric Values

Description of Rating ☑

Rating Options ☐

☐ Detailed Description

Advanced Options

View Description | View Rating

Warning: Soil Ratings Map may not b

You have zoomed in beyond the scale at wh surveys that comprise your AOI were mapp dependent on that map scale.

Enlargement of maps beyond the scale of n do not show the small areas of contrasting

Tables — Pond Reservoir Areas — Summary B

Summary by Map Unit — Itasca County, Minn

Map unit symbol	Map unit name
72	Shooker very fine sandy loam
268B	Cromwell fine sandy loam, 1 to 10 percent slopes
541	Rifle mucky peat
544	Cathro muck
549	Greenwood peat
618B	Itasca silt loam, 1 to 10 percent slop
628	Talmoon silt loam
797	Mooselake and Lupton mucky peats
870C	Itasca-Goodland silt loams, 2 to 12 percent slopes
995	Borosaprists, depressional
1043C	Udorthents, nearly level to rolling

Totals for Area of Interest

Table — Pond Reservoir Areas — Summary by

Summary by Rating Value

	Rating
Somewhat limited	
Very limited	

Legend

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Totals for Area of Interest

Description — Pond Reservoir Areas

Pond reservoir areas hold water behind a dam or e
potential is determined by the saturated hydraulic
can affect the storage capacity of the reservoir are

The ratings are both verbal and numerical. Rating
use. "Not limited" indicates that the soil has featur
expected. "Somewhat limited" indicates that the so
minimized by special planning, design, or installati
one or more features that are unfavorable for the s
expensive installation procedures. Poor performanc

Numerical ratings indicate the severity of individua
between the point at which a soil feature has the g

The map unit components listed for each map unit
Viewer are determined by the aggregation method
only those that have the same rating class as listed
the user better understand the percentage of each

Other components with different ratings may be pr
viewed by generating the equivalent report from th
validate these interpretations and to confirm the id

Rating Options — Pond Reservoir Areas

Aggregation Method: Dominant Condition

Component Percent Cutoff: *None Specified*

Tie-break Rule: Higher

Legend

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Minnesota Department of Health
Protecting, maintaining and improving the health of all Minnesotans

County Well Index

Search Database

Unique Number

Town Range & Direction

W

Section

Search Near Address

Street Address

City

Zip Code

Map Tools

Navigation

Zoom In

Zoom Out

Pan

Full Extent

Zoom To...

Township & Range

W

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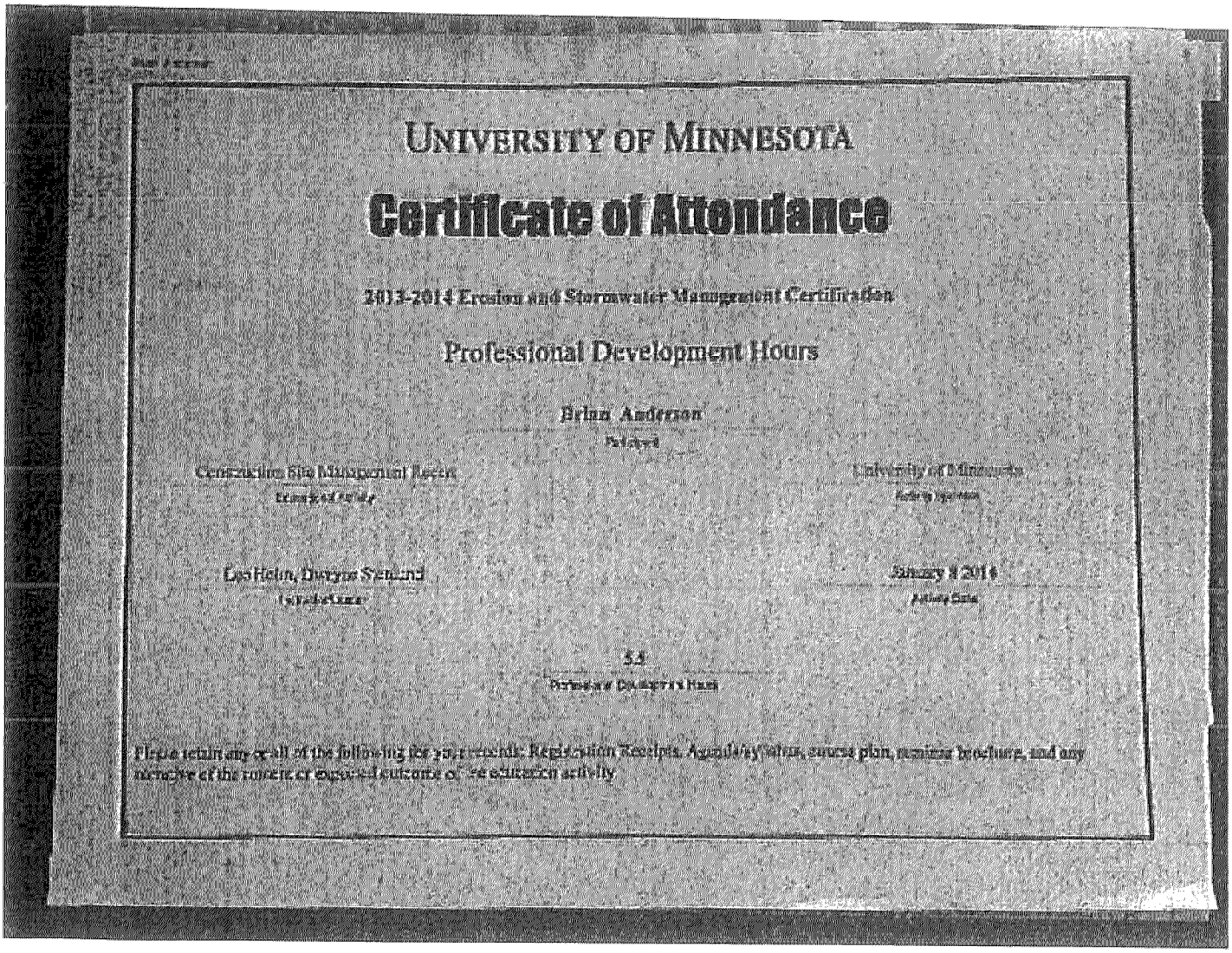
Dan Petermeier



UNIVERSITY OF MINNESOTA

Certificate of Attendance

2013-2014 Erosion and Stormwater Management Certification

Professional Development Hours

Brian Anderson

Participant

Construction Site Management Basics

Training Activity

University of Minnesota

Training Sponsor

Lyn Holm, Dwayne Stenlund

Instructors

January 9 2014

Activity Date

5.5

Professional Development Hours

Please retain any or all of the following for your records: Registration Receipts, Agenda/Syllabus, course plan, seminar brochure, and any narrative of the content or successful outcome of the education activity

Please retai
narrative of

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11	Large scale basin on topography map
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13	Typical sections
14	Wet basin design
15	Profile of wet basin structure
16	NPDES Inspection Form
17	Copies of E-mails from DNR & US Fish & Wildlife
18	Natural Heritage Review
19	Soil Map
20	Soil Map
21	Soil Map Ratings
22	Soil Narrative
23	County Well Index
24	Certification SWPP
25	Existing and Final Topography
26	Photos of existing quarries
27	Photos of existing quarries
28	Photos of reclaimed quarries


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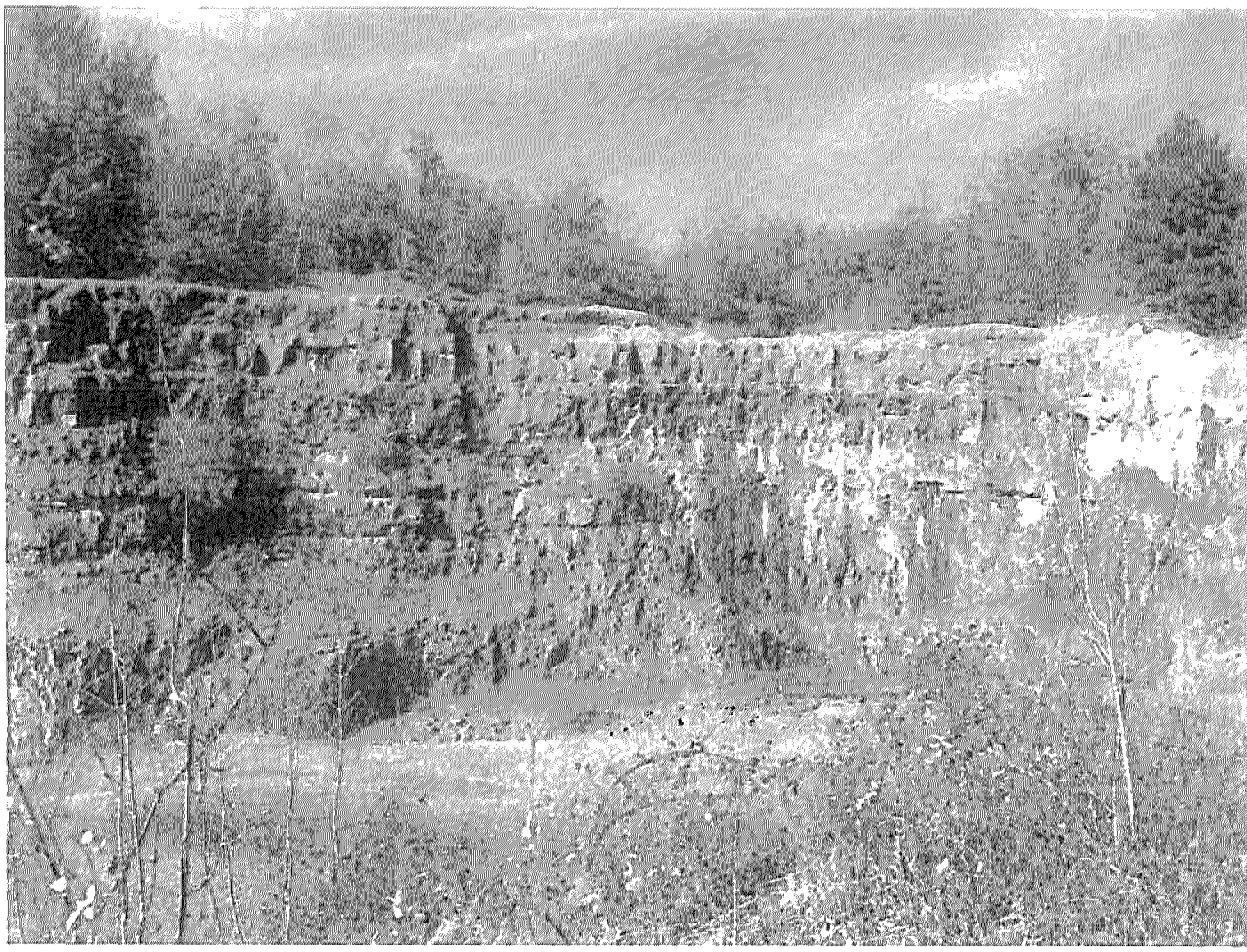

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Site visit to a Rock Quarry
Note: Quarry walls have not been totally sl

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ENVIRONMENTAL ASSESSMENT WORKSHEET

1. Project title: *Proposed Nonmetallic Aggregate Mine*

2. Proposer
Contact person: *Derek Hawkinson*
Title: *Estimator*
Address: *501 W. County Road 63*
City, State, ZIP: *Grand Rapids, MN 55744*
Phone: *218.326.0309*
Fax: *218.326.0755*
Email: *derek@hawkinsonconstruction.com*

3. RGU
Contact person: *Rob Mattei*
Title: *Director of Community Development*
Address: *420 North Pokegema Avenue*
City, State, ZIP: *Grand Rapids, MN 55744-2662*
Phone: *218.326.7622*
Fax: *218.326.7621*
Email: *rmattei@ci.grand-rapids.mn.us*

4. Reason for EAW Preparation (check one)

Required:
☐ EIS Scoping
☒ Mandatory EAW

Discretionary:
☐ Citizen petition
☐ RGU discretion
☐ Proposer initiated

If EAW or EIS is mandatory give EQB rule category subpart number(s) and name(s):

Nonmetallic Mining 4410.4300, Subp. 12B

5. Project Location

County: *Itasca*
City/Township: *Grand Rapids*
PLS Location: *T 55N, R25W, Section 4 (N ½)*
Watershed (81 major watershed scale): *07010103 (Prairie-Willow)*
GPS Coordinates: *47.280, -93.525*
Tax Parcel Numbers: *91-004-1200*
91-004-2100
91-004-2200
91-004-2300
91-004-2400
91-004-1300

At a minimum attach each of the following to the EAW:

- County map showing the general location of the project; *(see Figure 1)*
- U.S. Geological Survey 7.5 minute, 1:24,000 scale map indicating project boundaries (photocopy acceptable) *(See Figure 2)*
- Site plans showing all significant project and natural features. Pre-construction site plan and post-construction site plan *(See Figures 3 and 4)*

6. Project Description

a. Provide the brief project summary to be published in the *EQB Monitor*, (approximately 50 words).

The proposed project involves development and operation of an open-pit aggregate mine that will extract granite and quartzite from the underlying bedrock. Most rock crushing is planned to be performed at an existing nearby pit but some crushing may be done at the project site. The operational life of the mine is expected to be approximately 50 years.

b. Give a complete description of the proposed project and related new construction, including infrastructure needs. If the project is an expansion include a description of the existing facility. Emphasize: **1)** construction, operation methods and features that will cause physical manipulation of the environment or will produce wastes, **2)** modifications to existing equipment or industrial processes, **3)** significant demolition, removal or remodeling of existing structures, and **4)** timing and duration of construction activities.

1. *Actions that will cause physical manipulation of the environmental during the life of the project include:*
    - *Clearing and grubbing*
    - *Topsoil removal and stockpiling*
    - *Installation of perimeter silt fence and berms*
    - *Site grading/stormwater pond installation*
    - *Construction of haul road(s) and turn lanes*
    - *Shothole drilling and blasting*
    - *Rock crushing*
    - *Hauling and/or on-site stockpiling*
    - *Dewatering*
    - *Site restoration/reclamation*

2. *As there are currently no existing equipment or industrial processes located within the proposed project area, no modifications to such equipment or activities will be performed.*

3. *As there are currently no structures located within the proposed project area, no demolition, removal or remodeling will be performed.*

4. *The project is anticipated to begin in July 2017. Initial Phase I activities (access road construction, wet basin construction and soil berm installation) are anticipated to be completed by September 2018. It is anticipated that aggregate removal will occur over approximately 5 years in Phase 1. The timing of Phases II and III are uncertain, but are generally expected to occur over approximately 50 years.*

c. Project magnitude:

Construction/ Infrastructure Elements	***Size***
Total Project Acreage	*150.8 acres*
Linear project length	*N/A*
Number and type of residential units	*None*
Commercial building area (in square feet)	*0*
Industrial building area (in square feet)	*0*
Institutional building area (in square feet)	*0*
Other uses – specify (in square feet)	*150.5 acres of aggregate mine* *0.3 acres of highway turn lane*
Structure height(s)	*N/A*

d. Explain the project purpose; if the project will be carried out by a governmental unit, explain the need for the project and identify its beneficiaries.
The purpose of the project will be to extract rock from the site that will be crushed and washed and used as a construction material for construction sites in the area. Beneficiaries include the project proposers and the recipients of the crushed rock used for construction.

The project will not be carried out by a governmental unit.

e. Are future stages of this development including development on any other property planned or likely to happen?
☐Yes ☒No
If yes, briefly describe future stages, relationship to present project, timeline and plans for environmental review. *N/A*

f. Is this project a subsequent stage of an earlier project?
☐Yes ☒No
If yes, briefly describe the past development, timeline and any past environmental review.

N/A

7. Cover types

Estimate the acreage of the site with each of the following cover types before and after development:

Cover Type	*Before*	*After*
Wetlands	*51.2*	*17.2*
Deep water/streams	*0*	*0*
Wooded/forest	*17.0*	*3.2*
Brush/Grassland	*145.1*	*38.6*
Cropland	*0*	*0*
Lawn/landscaping	*0*	*0*
Impervious surface	*0*	*1.8*
Aggregate mine	*0*	*150.5*
Existing borrow pit	*10.0*	*6.0*
TOTAL	*223.3*	*223.3*

The total acreage above includes areas that will not be disturbed (e.g., setbacks).

8. Permits and approvals required

List all known local, state and federal permits, approvals, certifications and financial assistance for the project. Include modifications of any existing permits, governmental review of plans and all direct and indirect forms of public financial assistance including bond guarantees, Tax Increment Financing and infrastructure. All of these final decisions are prohibited until all appropriate environmental review has been completed. See Minnesota Rules, Chapter 4410.3100.

Unit of Government	**Type of Application**	**Status**
MnDOT	*Highway Construction Permit*	*To be submitted*
Itasca County	*Highway Construction Permit*	*To be submitted*
Itasca County	*Driveway Approach Permit*	*To be submitted*
Itasca County Soil and Water Conservation District	*Wetland Permit*	*To be submitted*
Minnesota Pollution Control Agency	*Construction Stormwater permit*	*To be submitted*
Minnesota Pollution Control Agency	*Industrial Stormwater NPDES/SDS*	*To be submitted*
Minnesota Pollution Control Agency	*Air Permit*	*To be determined*
Minnesota Department of Natural Resources	*Groundwater Appropriation permit (if necessary)*	*To be submitted*
City of Grand Rapids	*Conditional Use Permit*	*To be submitted*

9. Land use

a. Describe:

i. Existing land use of the site as well as areas adjacent to and near the site, including parks, trails, prime or unique farmlands.

The existing land use of the proposed project area is undeveloped, with a cover of wetlands, isolated stands of trees, brush, grasslands, and includes a former soil borrow pit. A map showing land cover obtained from the EPA NEPA Assist website is attached as Figure 5. There are no parks, or farmlands currently on the site. A Grant-In-Aid snowmobile trail running roughly southwest to northeast (see Figure 6) currently runs diagonally through the proposed area.

The existing land uses of the proposed project area are mapped in the City Comprehensive plan as forestry and mining and extractive land uses (Figure 7).

Nearby land uses include scattered residential parcels to the west and northwest, the Lind Greenway Tailings Basin to the north, and generally undeveloped land to the east and south.

ii. Plans: describe planned land use as identified in comprehensive plan (if available) and any other applicable plan for land use, water, or resources management by a local, regional, state, or federal agency.

The current City of Grand Rapids Comprehensive Plan (July, 2011) shows the area of the proposed project with an area designated for extraction of aggregate resources (see Figure 8). Other City comprehensive plan maps show this area as containing wetlands, steep slopes, and moderately- to highly-constrained for development.

The proposed project area is shown on the future land use map (Figure 9) in the City comprehensive plan as a resource management area, a category that includes private lands managed for mineral extraction.

The Itasca County Comprehensive Plan (June 1, 2013) lists planning goals that support the identification and long-term access to economic mineral deposits (including aggregate).

iii. Zoning, including special districts or overlays such as shoreland, floodplain, wild and scenic rivers, critical area, agricultural preserves, etc.

The proposed project area is currently zoned I-1 (Industrial Park) and the proposed project area is contained within a designated mining overlay zoning district as shown on the City Comprehensive Plan (Figure 10). Also, the western border of the proposed project area is shown in the City zoning map as a scenic by-way commercial overlay district related to the Highway 38 transportation corridor. No designated shoreland, floodplain, wild and scenic rivers, critical areas or agricultural preserves are identified in City or County zoning maps for the proposed project area.

b. Discuss the project's compatibility with nearby land uses, zoning, and plans listed in Item 9a above, concentrating on implications for environmental effects.

The proposed land use is consistent with City future land use plans and zoning as well as consistent with Itasca County Comprehensive Plan goals.

Two potential land use conflicts have been identified related to the proposed land use:

1. *A potential conflict with the residence abutting the western boundary of the project. The potential conflict is primarily related to potential noise, dust and odors that will be generated by aggregate extraction and operations.*

2. *A potential conflict with the use of the snowmobile trail through the property.*

c. Identify measures incorporated into the proposed project to mitigate any potential incompatibility as discussed in Item 9b above.

Mitigation measures to avoid or minimize the potential land use conflicts listed above include:

1. *Potential conflict with nearby residence:*
   a. *Adherence to City setback requirements (250 from residences);*
   b. *Preblast survey of foundations and wells of nearby residences;*
   c. *Timely prenotification of blasting activities; and*
   d. *Strict adherence to site dust control measures.*

2. *Potential conflict with use of snowmobile trail:*
   According to the MN DNR, the snowmobile trail that runs through the site is a Grant-In-Aid Trail and is managed and maintained by a local snowmobile club. The local snowmobile club, the Deer River Bushwackers, will be responsible for acquiring permits and landowner approval for relocation of the trail.

10. Geology, soils and topography/land forms

a. Geology - Describe the geology underlying the project area and identify and map any susceptible geologic features such as sinkholes, shallow limestone formations, unconfined/shallow aquifers, or karst conditions. Discuss any limitations of these features for the project and any effects the project could have on these features. Identify any project designs or mitigation measures to address effects to geologic features.

The unconsolidated sediment in the vicinity of the proposed project area are sand, gravel, and swampy deposits. The sand and gravel deposits are located in the southwest corner of the project area and consist of surficial outwash and valleytrain deposits that may include ice-contact sand and gravel exposed at the surface. Unconsolidated sediments at the site may also include lacustrine silty sand and Holocene alluvium. The sand and gravel deposits nearby are a source of domestic groundwater supplies where the water table is near the surface and a shallow well point may be driven. Exposed ice-contact sand may furnish much greater supplies. The swampy deposits are located on the central and southeast corner of the project area, consist of peat and organic silt, and are not a source of groundwater.

The primary bedrock unit to be mined is the Pokegama Quartzite, which is hard, thinly bedded, and conglomeratic at the base and are not generally known to be a source of groundwater. Other bedrock units that will be mined include the Neoarchean foliated to gneissic tonalite,

granodiorite, and diorite of the Superior Province. The unit includes the Lookout Mountain tonalite (~2,718 Ma) of the Giants Range batholith and other intrusions within batholithic complexes.

The review of the geologic setting of the proposed project area did not reveal the presence of geologic or landform features of concern. A geologic map for the project area is attached as Figure 11.

Sources:

Oakes, E.L., 1970, Geology and ground-water resources of the Grand Rapids area, north-central Minnesota: U.S. Geological Survey, Hydrologic Investigations Atlas HA-322, scale 1:48,000.

Jirsa et al., Bedrock Geology, "Geologic Map of Minnesota Bedrock Geology", State Map Series S-21, Scale 1:500,000, University of Minnesota, Minnesota Geological Survey, 2011.

b. Soils and topography - Describe the soils on the site, giving NRCS (SCS) classifications and descriptions, including limitations of soils. Describe topography, any special site conditions relating to erosion potential, soil stability or other soils limitations, such as steep slopes, highly permeable soils. Provide estimated volume and acreage of soil excavation and/or grading. Discuss impacts from project activities (distinguish between construction and operational activities) related to soils and topography. Identify measures during and after project construction to address soil limitations including stabilization, soil corrections or other measures. Erosion/sedimentation control related to stormwater runoff should be addressed in response to Item 11.b.ii.

According to the NRCS, the soil at the proposed project area consists of the following classifications (Figure 12):

Map Unit Symbol	***Map Unit Name***
72	*Shooker very fine sandy loam*
268B	*Cromwell fine sandy loam, 1 to 10 percent slopes*
541	*Rifle mucky peat*
549	*Greenwood peat*
618B	*Itasca silt loam, 1 to 10 percent slopes*
628	*Talmoon silt loam*
797	*Mooselake and Lupton mucky peats*
870C	*Itasca-Goodland silt loams, 2 to 12 percent slopes*

The proposed project area is located at an elevation that ranges from 1,290 feet to 1,330 feet above mean sea level. The site topography slopes downward towards low-lying areas in the center and southeastern corner of the site.

Operational activities will involve nonmetallic quarry mining, with an annual average of material to be removed estimated at 110,000 tons. The estimated quantity to be removed from

the site is 5-10 million tons over a period of 50-100 years depending on local demand. A storm water pollution prevention plan (SWPPP) has been developed for the project that details topsoil removal and stockpiling, as well as erosion control measures. All operations shall conform with the National Pollution Discharge Elimination System (NPDES) General Permit from the state of Minnesota. Soil stabilization after mining will be completed as required in the Construction SWPPP and the City of Grand Rapids Conditional Use Permit.

11. Water resources

a. Describe surface water and groundwater features on or near the site in a.i. and a.ii. below:

i. Surface water – lakes, streams, wetlands, intermittent channels, and county/judicial ditches. Include any special designations such as public waters, trout stream/lake, wildlife lakes, migratory waterfowl feeding/resting lake, and outstanding resource value water. Include water quality impairments or special designations listed on the current MPCA 303d Impaired Waters List that are within 1 mile of the project. Include DNR Public Waters Inventory number(s), if any.

A wooded swamp, a shrub swamp, and a bog are located within the proposed project area. Prairie Lake (331-0384-00) is located within one mile of the project and is identified as an impaired water. This lake has an U.S. Environmental Protection Agency (EPA)-approved Total Daily Maximum Load (TDML) plan for mercury in fish tissue and nutrient/eutrophication biological indicators. These impairments affect aquatic consumption and aquatic recreation. The actual discharge point from this project is estimate at 2.5 miles downstream of Prairie Lake into the Prairie River. Storm water will flow through various wetland types in a southeasterly direction for 2.5 miles to the point at which it discharges into the Prairie River. As a part of the SWPPP development for the project, the Minnesota Pollution Control Agency (MPCA) was contacted for advice on the interpretation of the discharge point in relation to this impaired water. The MPCA contact confirmed that the discharge point 2.5 mile downstream will not affect the water quality of Prairie Lake. No other public waters are within 1 mile of the proposed project area.

ii. Groundwater – aquifers, springs, seeps. Include: **1)** depth to groundwater; **2)** if project is within a MDH wellhead protection area; **3)** identification of any onsite and/or nearby wells, including unique numbers and well logs if available. If there are no wells known on site or nearby, explain the methodology used to determine this.

1) Based on the presence of wetlands on the Site, the depth to groundwater across the site is expected to be 0-10 feet.

2) The proposed project area is not located within a MDH wellhead protection area.

3) No wells are located on the proposed project area. Three wells are located within 0.25 mile of the proposed project area (Figure 13). All three of these wells are domestic wells located west of the proposed project area beyond Highway 38. Well logs for these wells are attached as Appendix A. The table below provides basic information for the three wells:

Unique No.	***Well Name***	***Depth (ft.)***	***Aquifer***	***Listed Use***	***Date***
604082	*Ross, Linda*	*34*	*Quat. Buried*	*Domestic*	*10/09/1997*
635013	*Johnson, Doran*	*39*	*Quat. Buried*	*Domestic*	*08/17/1999*
793240	*Dent, Brian & Carol*	*57*	*Not listed*	*Domestic*	*06/07/2013*

b. Describe effects from project activities on water resources and measures to minimize or mitigate the effects in Item b.i. through Item b.iv. below.

i. Wastewater - For each of the following, describe the sources, quantities and composition of all sanitary, municipal/domestic and industrial wastewater produced or treated at the site.

(1) If the wastewater discharge is to a publicly owned treatment facility, identify any pretreatment measures and the ability of the facility to handle the added water and waste loadings, including any effects on, or required expansion of, municipal wastewater infrastructure.

No wastewater will be generated at the site that will be directly discharged to a publicly owned treatment facility. Portable toilets will be used at the facility for which a contractor will perform removal, transport and off-site sanitary disposal at a permitted sanitary disposal site.

(2) If the wastewater discharge is to a subsurface sewage treatment systems (SSTS), describe the system used, the design flow, and suitability of site conditions for such a system.

No wastewater will be generated at the site that will be discharged to a subsurface sewage treatment system.

(3) If the wastewater discharge is to surface water, identify the wastewater treatment methods and identify discharge points and proposed effluent limitations to mitigate impacts. Discuss any effects to surface or groundwater from wastewater discharges.

No wastewater will be generated at the site that will be discharged to a surface water.

ii. Stormwater – Describe the quantity and quality of stormwater runoff at the site prior to and post construction. Include the routes and receiving water bodies for runoff from the site (major downstream water bodies as well as the immediate receiving waters). Discuss any environmental effects from stormwater discharges. Describe stormwater pollution prevention plans including temporary and permanent runoff controls and potential BMP site locations to manage or treat stormwater runoff. Identify specific erosion control, sedimentation control or stabilization measures to address soil limitations during and after project construction.

A SWPPP has been prepared and will be implemented. Stormwater runoff flows to the central portion of the site toward a type 7 wooded swamp wetland. Stormwater will continue to flow toward that wetland. A wet basin will be constructed to contain stormwater runoff from Phase 1 areas and allow for solids to settle. All operations must conform with the NPDES General Permit from the State of Minnesota.

iii. Water appropriation - Describe if the project proposes to appropriate surface or groundwater (including dewatering). Describe the source, quantity, duration, use and purpose of the water use and if a DNR water appropriation permit is required. Describe any well abandonment. If connecting to an existing municipal water supply, identify the wells to be used as a water source and any effects on, or required expansion of, municipal water infrastructure. Discuss environmental effects from water appropriation, including an assessment of the water resources available for appropriation. Identify any measures to avoid, minimize, or mitigate environmental effects from the water appropriation.

Dewatering will be necessary at times during the course of project operations. Waters from dewatering activities will be discharged elsewhere on the project site. If dewatering exceeds one million gallons per year or 10,000 gallons per day, a DNR Water Appropriation Permit will be obtained.

iv. Surface Waters

(1) Wetlands - Describe any anticipated physical effects or alterations to wetland features such as draining, filling, permanent inundation, dredging and vegetative removal. Discuss direct and indirect environmental effects from physical modification of wetlands, including the anticipated effects that any proposed wetland alterations may have to the host watershed. Identify measures to avoid (e.g., available alternatives that were considered), minimize, or mitigate environmental effects to wetlands. Discuss whether any required compensatory wetland mitigation for unavoidable wetland impacts will occur in the same minor or major watershed, and identify those probable locations.

A map of NWI wetland locations obtained from the U.S. Fish and Wildlife Service online NWI mapper is attached as Figure 14. During the life of the project, all wetlands within the proposed area of disturbance will be subject to conversion. Wetland delineations will be performed at the project site prior to any disturbance. Any wetland disturbance and potential mitigation will be performed in accordance with the Minnesota Wetlands Conservation Act (WCA).

(2) Other surface waters- Describe any anticipated physical effects or alterations to surface water features (lakes, streams, ponds, intermittent channels, county/judicial ditches) such as draining, filling, permanent inundation, dredging, diking, stream diversion, impoundment, aquatic plant removal and riparian alteration. Discuss direct and indirect environmental effects from physical modification of water features. Identify measures to avoid, minimize, or mitigate environmental effects to surface water features, including in-water Best Management Practices that are proposed to avoid or minimize turbidity/sedimentation while physically altering the water features. Discuss how the project will change the number or type of watercraft on any water body, including current and projected watercraft usage.

Prairie Lake (331-0384-00) is located within one mile of the project and is identified as an impaired water. This lake has an EPA-approved TDML plan for mercury in fish tissue and nutrient/eutrophication biological indicators. These impairments affect aquatic consumption and aquatic recreation. The actual discharge point from this project is estimate at 2.5 miles downstream of Prairie Lake into the Prairie River. Storm water will flow through various wetland types in a southeasterly direction for 2.5 miles to the point at which it discharges into the Prairie River. As a part of the SWPPP development for the project, the MPCA was contacted for advice on the interpretation of the discharge point in relation to this impaired water. The MPCA contact confirmed that the discharge point 2.5 mile downstream will not affect the water quality of Prairie Lake. No other public waters are within 1 mile of the proposed project area.

12. Contamination/Hazardous Materials/Wastes

a. Pre-project site conditions - Describe existing contamination or potential environmental hazards on or in close proximity to the project site such as soil or ground water contamination, abandoned dumps, closed landfills, existing or abandoned storage tanks, and hazardous liquid or gas pipelines. Discuss any potential environmental effects from pre-project site conditions that would be caused or exacerbated by project construction and operation. Identify measures to avoid, minimize or mitigate adverse effects from existing contamination or potential environmental hazards. Include development of a Contingency Plan or Response Action Plan.

Based on information obtained from the MPCA's "What's in My Neighborhood" (WIMN) website, three sites with environmental permits or registrations are located within 0.5 mile of the project area. None of the three sites were identified as potentially contaminated by the MPCA. Details concerning the sites are provided below:

Site Name	*Location*	*Permit/Activity*	*Notes*
Blandin Paper Co. Tree Nursery	*Highway 38 North (0.25 mile south)*	*Hazardous Waste, Small to Minimal Quantity Generator; Industrial Stormwater Permit*	*Last reported activity in 1999; Stormwater permit terminated*
Trout Demolition Debris Land Disposal	*Trout Road & Highway 38 (0.4 mile southeast)*	*Solid waste landfill*	*Active permit; last inspected 8/2015*
Maveus PBR	*41 Peterson Road (0.5 mile south)*	*Permit by Rule (PBR) solid waste landfill*	*Inactive*

b. Project related generation/storage of solid wastes - Describe solid wastes generated/stored during construction and/or operation of the project. Indicate method of disposal. Discuss potential environmental effects from solid waste handling, storage and disposal. Identify measures to avoid, minimize or mitigate adverse effects from the generation/storage of solid waste including source reduction and recycling.

With the exception of small amounts of household solid waste, no solid wastes will be generated at the site during construction and/or operation of the project. Solid wastes will be disposed of off-site according to applicable regulations.

c. Project related use/storage of hazardous materials - Describe chemicals/hazardous materials used/stored during construction and/or operation of the project including method of storage. Indicate the number, location and size of any above or below ground tanks to store petroleum or other materials. Discuss potential environmental effects from accidental spill or release of hazardous materials. Identify measures to avoid, minimize or mitigate adverse effects from the use/storage of chemicals/hazardous materials including source reduction and recycling. Include development of a spill prevention plan.

No hazardous materials or petroleum products will be stored on the site during construction and/or operation of the project. Hazardous materials and petroleum products, such as gasoline, lubricants, and solvents, will be brought to the site as needed for fueling and equipment maintenance purposes only and will be used within a designated fueling and maintenance area. The materials (including wastes generated) will be removed from the site once the equipment maintenance task has been completed. The fueling and maintenance area was chosen so that if a spill occurred, pollutants would flow to the containment basin and allow for final cleanup. All required spill kit and containment materials will be on site and will be properly stored.

d. Project related generation/storage of hazardous wastes - Describe hazardous wastes generated/stored during construction and/or operation of the project. Indicate method of disposal. Discuss potential environmental effects from hazardous waste handling, storage, and disposal.

Identify measures to avoid, minimize or mitigate adverse effects from the generation/storage of hazardous waste including source reduction and recycling.

With the exception of minor quantities of spent automotive fluids generated as a result of maintenance activities, no hazardous wastes will be generated or stored at the site during construction and/or operation of the project. Hazardous waste generated from vehicle/equipment maintenance will be disposed of appropriately off-site.

13. Fish, wildlife, plant communities, and sensitive ecological resources (rare features)

a. Describe fish and wildlife resources as well as habitats and vegetation on or in near the site.

According to the Minnesota DNR Recreation Compass, the nearest Wildlife Management Areas (WMAs) (Bass Brook WMA and Prairie Lake Deer Yard WMA) are located approximately three miles from the proposed project area. No other specifically designated wildlife areas, including national wildlife refuges, Waterfowl Production Areas (WPAs), or Scientific & Natural Areas (SNAs) are located near the proposed project area. According to the Minnesota Board of Water and Soil Resources (BWSR) Reinvest in Minnesota (RIM) online mapper, no RIM easements are located in the vicinity of the proposed project area.

Predominant land cover within the proposed project area is undeveloped scrub wetlands, wooded/forested areas, and brush/grassland. No lakes or rivers are present on the proposed project area. The project area has previously had most of the timber harvested a number of years ago by the Blandin Paper Company. Areas of regeneration have been ongoing for the last 15 years.

The proposed project area likely provides habitat for a variety of wildlife, including deer, small mammals, song birds and other common birds, reptiles, and amphibians. No substantial fish habitats are known within the project boundaries.

b. Describe rare features such as state-listed (endangered, threatened or special concern) species, native plant communities, Minnesota County Biological Survey Sites of Biodiversity Significance, and other sensitive ecological resources on or within close proximity to the site. Provide the license agreement number (LA) and/or correspondence number (ERDB) from which the data were obtained and attach the Natural Heritage letter from the DNR. Indicate if any additional habitat or species survey work has been conducted within the site and describe the results.

Correspondence from the Minnesota DNR in November 2013 (Correspondence #ERDB 20140111) indicates that the DNR's Natural Heritage Information System (NHIS) has no known records for rare features or other significant natural features within the proposed project site. However, the DNR indicated that the Prairie moonwort (Botrychium campestre), a state-listed plant of special concern, and the black sandshell (Ligumia recta), a state-listed mussel of special concern, have been documented within one mile of the project area. On April 24, 2015, NHIS Review Specialist Samantha Bump indicated that the November 2013 NHIS review was still valid. Copies of the NHIS letter and 2015 update email from the DNR are attached in Appendix B.

The U.S. Fish and Wildlife Service (USFWS) indicated in an April 3, 2015 email response (Appendix B) that the USFWS has no known records of federally listed or proposed species and/or designated or proposed critical habitat within the proposed project area; however, Canada lynx (Lynx canadensis), gray wolf (Canis lupis), and northern long-eared bat (Myotis septentrionalis) may occur within Itasca County. The USFWS indicated that suitable summer roosting habitat may be present for the northern long-eared bat, a federal threatened species and recommended that any tree removal at the proposed project site be conducted outside the summer roost period, which is between April and September. However, on January 14, 2016 final rules on the long-eared bat published by the USFWS went into effect that relate project activity restrictions to the presence of known bat hibernaculum or maternity roosting trees and the project location relative to the white-nose syndrome zone. The project site is within the white-nose syndrome area, but there are no known bat hibernaculum or roosting trees known in the township containing the project area (MN DNR/USFWS Townships List, April 1, 2016). Therefore, there are no current project restrictions related to the long-eared bat.

c. Discuss how the identified fish, wildlife, plant communities, rare features and ecosystems may be affected by the project. Include a discussion on introduction and spread of invasive species from the project construction and operation. Separately discuss effects to known threatened and endangered species.

The state species of special concern identified by NHIS in the project area vicinity are not likely to occur within the project area. Prairie moonwort is known to occur within the iron range in sediment basins used by iron ore and taconite processing plants. This habitat type does not currently exist on the site, but will be created as a result of project reclamation. Black sandshell occurs within the Prairie River, which is located approximately one mile east of the Site. The discharge flow from this project is estimate at 2.5 miles downstream of Prairie Lake into the Prairie River. Storm water will flow through various wetland types in a southeasterly direction for 2.5 miles to the point at which it discharges into the Prairie River.

The three federally listed species thought to occur within Itasca County may occur within the project area, and the USFWS indicated that northern long-eared bat summer roost habitat may be present. During summer, northern long-eared bats roost singly or in colonies in cavities, underneath bark, crevices, or hollows or both live and dead trees and/or snags.

In general, terrestrial wildlife resources in the proposed project area will be disturbed by the conversion of the area to quarry operations. The wildlife located in these areas will be displaced to areas with similar habitat availability adjacent to the proposed project area. Invasive species could potentially be introduced to the proposed project area through the movement of vehicles on and off-site.

d. Identify measures that will be taken to avoid, minimize, or mitigate adverse effects to fish, wildlife, plant communities, and sensitive ecological resources.

An approximately 70-acre area consisting of dense conifers along the southern property boundary will be preserved. This area is contiguous to adjacent properties with similar land

cover, and will provide habitat to wildlife displaced as a result of project construction and operation.

Best management practices within the SWPPP for the project will prevent untreated stormwater runoff from the project from reaching the Prairie River, thereby avoiding impacts to the black sandshell and other aquatic species. Once quarry operations are completed at the project area and reclamation of the site is completed, a permanent water body will have been created that will provide habitat for waterfowl and aquatic animals and plants.

The construction and operation of the project is not anticipated to increase the spread or introduction of invasive species. Final turf establishment efforts at the project area during construction of the wet basin will utilize native seed mixture MN DOT 310 for ponds and wet areas tall grasses. Perimeter topsoil berms will seeded, fertilized, and mulched, and pine seedlings will be planted on the perimeter berm adjacent to County Road 61 and west of the project entrance. Planting of these areas will likely prevent the establishment of invasive species in the area.

14. Historic properties

Describe any historic structures, archeological sites, and/or traditional cultural properties on or in close proximity to the site. Include: 1) historic designations, 2) known artifact areas, and 3) architectural features. Attach letter received from the State Historic Preservation Office (SHPO). Discuss any anticipated effects to historic properties during project construction and operation. Identify measures that will be taken to avoid, minimize, or mitigate adverse effects to historic properties.

One archaeological site and one historical site were identified within or adjacent to the proposed project area. The archaeological site is designated as site number 21ICbj. According to the SHPO file for Site 21ICbj, the site consists of a foundation built on exposed granite. Based on the UTM coordinates provided by SHPO, this site is located approximately 100 feet southeast of the intersection of County Road 61 and MN Highway 38. This site falls within the 100-foot buffer of the property boundary setback and therefore will not be impacted as a result of the construction or operation of the proposed project.

The historical site is designated as Minnesota Highway 38 (inventory number IC-GRT-023) and has been determined to be eligible to be listed on the National Register of Historic Places (NRHP), but is not currently listed on the NRHP. It is anticipated that a turn lane will be added to northbound Minnesota Highway 38 to allow for access to the property.

Copies of the SHPO correspondence is attached in Appendix C.

15. Visual

Describe any scenic views or vistas on or near the project site. Describe any project related visual effects such as vapor plumes or glare from intense lights. Discuss the potential visual effects from the project. Identify any measures to avoid, minimize, or mitigate visual effects.

Relatively minor changes in elevation and dense tree cover in the surrounding area results in a limited viewshed in the project area vicinity, and no known scenic views or vistas are located in the surrounding area. Setbacks (100 feet from property boundaries and 250 feet from residences) will be maintained, and existing trees within these buffers will minimize visual effects to adjacent residences and passing vehicles. Additionally, eight-foot-tall topsoil berms will be constructed along County Road 61 and the proposed entrance of the site. Pine seedlings will be planted on top of the berms, which will further reduce the view of project operations from passing vehicles and adjacent properties. No visual effects from intense lights or vapor plumes are expected.

16. Air

a. Stationary source emissions - Describe the type, sources, quantities and compositions of any emissions from stationary sources such as boilers or exhaust stacks. Include any hazardous air pollutants, criteria pollutants, and any greenhouse gases. Discuss effects to air quality including any sensitive receptors, human health or applicable regulatory criteria. Include a discussion of any methods used assess the project's effect on air quality and the results of that assessment. Identify pollution control equipment and other measures that will be taken to avoid, minimize, or mitigate adverse effects from stationary source emissions.

Stationary source emissions will be limited to the rock crusher(s), screens, transfer equipment (e.g., conveyors), associated diesel-fueled engines used to power the equipment, and stockpiles. Emission rates from the crusher, screens, transfer equipment, and stockpiles are primarily limited to particulates. Annual particulate emission totals cannot be reliably estimated as they will vary widely depending on activities at the site during any given year.

Emissions from diesel-fueled equipment include oxides of nitrogen (NOx), total organic compounds (TOC), carbon monoxide (CO), and particulates, with small amounts of air toxics associated with all internal combustion engines. As stated above, annual emission totals for these compounds cannot be reliably estimated as they will vary widely depending on activities at the site during any given year.

As the location of the facility is within a low population density area, no significant effects to nearby air quality or human health are anticipated. While there are residential receptors immediately west of the project area, currently there are no known sensitive receptors. Air quality standards that will be adhered to by facility operations are set forth in MPCA Rules Chapter 7001-7030.

Mitigation measures to be taken to minimize particulate emissions will be to use water to suppress particulate emissions during crushing, screening and transfer operations, and to apply water to stockpiles that generate fugitive emissions.

b. Vehicle emissions – Describe the effect of the project's traffic generation on air emissions. Discuss the project's vehicle-related emissions effect on air quality. Identify measures (e.g. traffic operational improvements, diesel idling minimization plan) that will be taken to minimize or mitigate vehicle-related emissions.

Truck traffic at the facility will generate air emissions, but proposed traffic will be highly variable and is not anticipated to create air quality impacts.

c. Dust and odors – Describe sources, characteristics, duration, quantities, and intensity of dust and odors generated during project construction and operation. (Fugitive dust may be discussed under item 16a). Discuss the effect of dust and odors in the vicinity of the project including nearby sensitive receptors and quality of life. Identify measures that will be taken to minimize or mitigate the effects of dust and odors.

Truck movements within the facility will create dust, and dust preventatives (such as water and/or calcium products) will be utilized as necessary to minimize the amount of dust created. Blasting operations (anticipated approximately 1-2 times per year) will also create dust, but dust associated with this activity will be very infrequent and of very brief duration. Nearby property owners will be notified of blasting activities well in advance of the activity.

Dust mitigation measures will include preparing and implementing a dust control plan.

Odors may be generated from operation of facility equipment engines and truck traffic and possibly from excavation and stockpiling of organic soils.

Odor mitigation measures will include minimizing equipment used on-site, minimize idling, keep engines in good repair, minimize idling truck traffic through scheduling, and covering of organic soils if needed.

17. Noise

Describe sources, characteristics, duration, quantities, and intensity of noise generated during project construction and operation. Discuss the effect of noise in the vicinity of the project including 1) existing noise levels/sources in the area, 2) nearby sensitive receptors, 3) conformance to state noise standards, and 4) quality of life. Identify measures that will be taken to minimize or mitigate the effects of noise.

(1) Existing sources of noise in the surrounding area is primarily related to road traffic along Minnesota Highway 38 and County Road 61.

(2) The nearest receptors are residences located immediately to the west of the project area along State Highway 38. No other noise sensitive receptors, such as parks, schools, or businesses are located in close proximity to the project area.

(3) The proposed project will operate in compliance with state noise rules (Minn. R. 7030).

(4) There will be periodic noise impacts to nearby residences; however, the measures described below will minimize these impacts to the extent practicable.

Sources of noise during project construction are expected to include heavy machinery and truck traffic. During operation, drilling and blasting will occur and will be necessary approximately one or two times annually. Crushing and stockpiling of processed material and material hauling will also generate noise during operation.

In order to minimize the effects of noise, equipment will be fitted with standard noise reduction devices, such as mufflers and broad bank back-up alarms. Hours of operation will also be controlled, and operations will be limited to Monday through Saturday 6:00 AM to 7:00 PM. Berm construction and vegetative screening around perimeter areas of the project area will also aid in noise reduction.

18. Transportation

a. Describe traffic-related aspects of project construction and operation. Include: 1) existing and proposed additional parking spaces, 2) estimated total average daily traffic generated, 3) estimated maximum peak hour traffic generated and time of occurrence, 4) indicate source of trip generation rates used in the estimates, and 5) availability of transit and/or other alternative transportation modes.

1. *There are no existing parking spaces and no parking spaces are proposed.*
2. *The estimated average traffic will vary widely. There will be an annual average of 25 truckloads per day, with most days having no truck loads, and other days having a maximum mine operation up to 300 loads per day.*
3. *It is estimated that approximately 10% of the daily truck traffic would travel to and from the proposed mine in both the AM (7:15-8:15 a.m.) and PM (5:00-6:00 p.m.) peak hours under average and maximum mine operations.*
4. *Trip generation rates are based upon the experience of the project proposer who has other similar facilities in the area.*
5. *As the project area is in a relatively unpopulated area, there are no consequential public transit or alternative transportation modes.*

b. Discuss the effect on traffic congestion on affected roads and describe any traffic improvements necessary. The analysis must discuss the project's impact on the regional transportation system. *If the peak hour traffic generated exceeds 250 vehicles or the total daily trips exceeds 2,500, a traffic impact study must be prepared as part of the EAW.* Use the format and procedures described in the Minnesota Department of Transportation's Access Management Manual, Chapter 5 *(available at:* Minnesota Department of Transportation Access Management Resources */http://www.dot.state.mn.us/accessmanagement/resources.html)* or a similar local guidance.

Based on information from the developer, the site will have an annual average of 25 truckloads per day, with most days having no truck loads, and other days having a maximum mine operation up to 300 loads per day. All traffic traveling to and from the proposed site may be split between a CR 61 access and direct access off of TH 38 but could all potentially use one access or the other depending on the current mine operation. The majority of truck traffic will be traveling to and from the proposed aggregate mine to another nearby mine pit located approximately 2 miles west of the intersection of Peterson Road/TH 38. Truck traffic may also enter the proposed development from other job sites using the TH 38 access from the north or the CR 61 access from the east. For this analysis all truck loads are assumed to travel to and from the nearby mine pit. This allows for analysis with more left turns leaving the site.

The facility will have approximately 4 employees working under normal operating conditions and 10 employees under maximum mine output conditions.

It was assumed that approximately 10% of the daily truck traffic would travel to and from the proposed mine in both the AM and PM peak hours under average and maximum mine operations. Therefore under average operating conditions there are 8 total truck trips in the AM and PM peak hour and 4 employees entering the mine in the AM and 4 exiting in the PM peak. The table below summarizes the trip generation estimates for daily, AM peak hour and PM peak hour demands under average operating conditions.

Trip Generation – Initial Average Operating Conditions

Site	Daily	AM Peak			PM Peak		
	Total	Enter	Exit	Total	Enter	Exit	Total
Employees	8	4	0	4	0	4	4
Trucks	50	4	4	8	4	4	8
Total	**58**	**8**	**4**	**12**	**4**	**8**	**12**

During maximum output of the site it was assumed that there would also be approximately 10% of the daily truck traffic, or 60 total truck trips in the AM and PM peak hour and 10 employees entering in the AM peak hour and 10 exiting in the PM peak hour. The table below summarizes the trip generation estimates for daily, AM peak hour and PM peak hour demands under maximum mine output conditions.

Trip Generation – Peak Maximum Operating Conditions

Site	Daily	AM Peak			PM Peak		
	Total	Enter	Exit	Total	Enter	Exit	Total
Employees	20	10	0	10	0	10	10
Trucks	600	30	30	60	30	30	60
Total	**620**	**40**	**30**	**70**	**30**	**40**	**70**

Existing traffic turning movement counts were collected in March/April 2015 during the weekday peak periods at the intersections of TH 38/CR 61 and TH 38/Peterson Road. Due to time restrictions the count at TH 38/Peterson Road was taken on Good Friday and therefore lower traffic volumes were reported. This count was adjusted based on the count taken at TH 38/CR 61 the previous week. The peak hours were found to occur from 7:15 AM – 8:15 AM and 5:00 PM – 6:00 PM. The counts recorded approximately 2% of the traffic to be heavy commercial (truck) traffic. Due to the time of year of these counts, the analysis used MnDOT's heavy commercial counts in this area of 10%.

TH 38 and CR 61 have a 55 mph speed limit and Peterson Road has a 30 mph speed limit. The two intersections are controlled by stop signs on CR 61 and on Peterson Road.

Although a traffic impact study is not required due to the development generating less than 250 peak hour vehicles and less than less than 2,500 daily trips, traffic operational analysis was conducted to determine potential operational impacts and the need for turn lanes.

Synchro/SimTraffic software was used in the analysis to evaluate the impact of the proposed development site on the study intersections. Analysis was conducted for 2015 existing, 2016 Build and No Build, and 2036 Build and No Build. The No Build scenarios analyzed the intersections of TH 38/CR 61 and TH 38/Peterson Road. In addition to these two intersections the Build scenarios analyzed access only to TH 38 (Mine Access 1) and only to CR 61 (Mine Access 2). For this analysis each site access was analyzed with all proposed truck and employee traffic using one access or the other.

Traffic forecasts for the study area were developed to estimate traffic volumes for Year 2016 and 2036. These forecasts include annual growth in background traffic. Based on MnDOT historical Average Daily Traffic (ADT) volumes an annual growth rate of 1.7% was used to forecast existing traffic volumes.

Synchro/SimTraffic computer software was used to determine the level of service (LOS) reported below for the intersections under the various scenarios.

2015 Existing Conditions

- *All intersections operate at a LOS A in both peak hours. The worst movement at any intersection also operates at a LOS A.*

2016 No Build Conditions

- *All intersections operate at a LOS A in both peak hours. The worst movement at any intersection also operates at a LOS A.*

2016 Average Mine Operations using CR 61 Access

- *All intersections operate at a LOS A in both peak hours. The worst movement at any intersection also operates at a LOS A.*

2016 Maximum Mine Operations using CR 61 Access

- *All intersections operate at a LOS A in both peak hours. The worst movement at any intersection also operates at a LOS A.*

2016 Average Mine Operations using TH 38 Access

- *All intersections operate at a LOS A in both peak hours. The worst movement at any intersection also operates at a LOS A.*

2016 Maximum Mine Operations using TH 38 Access

- *All intersections operate at a LOS A in both peak hours. The worst movement at any intersection operates at a LOS B.*

2036 No Build Conditions

- *All intersections operate at a LOS A in both peak hours. The worst movement at any intersection operates at a LOS A.*

2036 Average Mine Operations using CR 61 Access

- *All intersections operate at a LOS A in both peak hours. The worst movement at any intersection operates at a LOS B.*

2036 Maximum Mine Operations using CR 61 Access

- *All intersections operate at a LOS A in both peak hours. The worst movement at any intersection operates at a LOS B.*

2036 Average Mine Operations using TH 38 Access

- *All intersections operate at a LOS A in both peak hours. The worst movement at any intersection operates at a LOS B.*

2036 Maximum Mine Operations using TH 38 Access

- *All intersections operate at a LOS A in both peak hours. The worst movement at any intersection operates at a LOS B.*

The traffic operational analysis does not indicate any traffic operational problems immediately or 20 years into the future. The maximum average delay per vehicle with a LOS B in 2036 is 12.8 seconds. However, due to the rural location of the development further evaluation was conducted using MnDOT's Access Management Manual to determine if left and right turn lanes are warranted at the two mine accesses. Based on these warrants, which includes the percentage of trucks using the mine accesses, a northbound right turn lane on TH 38 at Mine Access 1 and an eastbound right turn lane on CR 61 at Mine Access 2 are recommended.

Based on the turn lane warrants in MnDOT's Access Management Manual a northbound right turn lane on TH 38 at Mine Access 1 and an eastbound right turn lane on CR 61 at Mine Access 2 are recommended for installation as part of the development.

c. Identify measures that will be taken to minimize or mitigate project related transportation effects.

The traffic study (Appendix D) concluded that the proposed action will not create unacceptable levels of service. A mitigation measure recommended in the traffic study was to provide a northbound right turn lane at TH 38 & Mine Access 1 and an eastbound right turn lane at CR 61 & Mine Access 2, both of which have been incorporated into the EAW analysis.

19. Cumulative potential effects

Note: Preparers can leave this item blank if cumulative potential effects are addressed under the applicable EAW Items.

a. Describe the geographic scales and timeframes of the project related environmental effects that could combine with other environmental effects resulting in cumulative potential effects.

Over the anticipated lifespan of the project, there are no predicted project environmental effects that will combine with other predicted environmental effects that will result in negative cumulative effects.

b. Describe any reasonably foreseeable future projects (for which a basis of expectation has been laid) that may interact with environmental effects of the proposed project within the geographic scales and timeframes identified above.

There are no known future projects in the vicinity of the site that would interact with the environmental effects of the proposed project.

c. Discuss the nature of the cumulative potential effects and summarize any other available information relevant to determining whether there is potential for significant environmental effects due to these cumulative effects.

There are no known anticipated cumulative potential effects that would create potential for significant environmental effects.

20. Other potential environmental effects

If the project may cause any additional environmental effects not addressed by items 1 to 19, describe the effects here, discuss the how the environment will be affected, and identify measures that will be taken to minimize and mitigate these effects.

No additional impacts from this project are anticipated.

RGU CERTIFICATION

I hereby certify that:

- The information contained in this document is accurate and complete to the best of my knowledge.
- The EAW describes the complete project; there are no other projects, stages or components other than those described in this document, which are related to the project as connected actions or phased actions, as defined at Minnesota Rules, parts 4410.0200, subparts 9c and 60, respectively.
- Copies of this EAW are being sent to the entire EQB distribution list.

Signature Date

Title

Traffic Impact Analysis

Proposed Aggregate Mine

City of Grand Rapids, Minnesota

SEH No. BRAUN 131970 4.00

April 21, 2015

Proposed Aggregate Mine
Traffic Impact Analysis
City of Grand Rapids, Minnesota

SEH No. BRAUN 131970

April 21, 2015

I hereby certify that this report was prepared by me or under my direct supervision, and that I am a duly Licensed Professional Engineer under the laws of the State of Minnesota.

Thomas A. Sohrweide, PE, PTOE
Project Manager

Date: April 21, 2015 Lic. No.: 20943

Reviewed By: Chad Jorgenson Date: April 21, 2015

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SEH

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Traffic Impact Analysis
Proposed Aggregate Mine

Prepared for Grand Rapids, Minnesota

1.0 Introduction

Hawkinson Construction Company has declared their intent to apply for a Conditional Use Permit for the mining of aggregate materials on approximately 140 acres of land just north of Grand Rapids, MN. The proposed mine is proposed to have two access points, one from Trunk Highway (TH) 38 and another from County Road (CR) 61.

This report provides findings related to a traffic impact analysis performed to evaluate the traffic impacts of a proposed aggregate mine.

The project study area includes the following intersections that are potentially impacted by traffic from this site. These intersections include:

- TH 38 and CR 61
- TH 38 and Peterson Road
- Proposed Aggregate Mine Site Access and TH 38
- Proposed Aggregate Mine Site Access and CR 61

The traffic operations at these intersections are evaluated for the year of opening of the facility (expected to occur in 2016) and twenty years after opening in 2036. Figure 1 in the Appendix depicts the study area.

2.0 Existing Conditions

The existing geometrics and traffic control for the study intersections are as follows:

- TH 38 at County Road 61
  - Stop Control on the eastbound and westbound legs
  - Single lane gravel approach for eastbound vehicles
  - Single lane paved approach for westbound vehicles
  - Northbound and southbound paved single lane approach with bypass lanes
- TH 38 at Peterson Road
  - Stop control on the eastbound and westbound legs
  - Single lane gravel approach for the westbound vehicles
  - Single lane paved approach for the eastbound vehicles
  - Northbound and southbound left and right turn lanes with single thru lane.

TH 38 and CR 61 have a speed limit of 55 mph and Peterson Road has a speed limit of 30 mph.

3.0 Traffic Forecasting

Traffic forecasts for the study area were developed to estimate traffic volumes for Year 2016 and 2036. These forecasts include annual growth in background traffic. Based on MnDOT historical Average Daily Traffic (ADT) volumes an annual growth rate of 1.7% was used to forecast existing traffic volumes. MnDOT Heavy Commercial ADT counts indicate that heavy commercial vehicles comprise of 10% of the roadway traffic.

3.1 Data Collection

Existing traffic turning movement counts were collected during the weekday peak periods at the intersections of TH 38 at CR 61 and TH 38 at Peterson Road. Due to time restrictions the count at TH 38 and Peterson Road was taken on Good Friday and therefore lower traffic volumes were reported. This count was adjusted based on the count taken at TH 38 and CR 61 the previous week. The peak hours were found to occur from 7:15 AM – 8:15 AM and 5:00 PM – 6:00 PM. Figure 2 in the Appendix represents the adjusted and existing peak hour turning movement counts. The counts recorded approximately 2% of the traffic to be heavy commercial (truck) traffic. Due to the time of year of these counts, the analysis will use MnDOT's heavy commercial counts of 10%.

4.0 Trip Generation and Distribution

Based on information obtained from the developer of the proposed development site, there will be an average of 25 truckloads per day, with most days having no truck loads, and other days having a maximum mine operation up to 300 loads per day. All traffic traveling to and from the proposed site will generally be split between a CR 61 access and direct access off of TH 38 but could all potentially use one access or the other depending on the current mine operation. The majority of truck traffic will be traveling to and from the proposed aggregate mine to another nearby mine pit located approximately 2 miles west of the intersection of Peterson Road & TH 38. Truck traffic may also enter the proposed development from other job sites using the TH 38 access from the north or the CR 61 access from the east. For this analysis all truck loads are assumed to travel to and from the nearby mine pit. This allows for analysis with more left turns leaving the site.

The facility will have approximately 4 employees working under normal operating conditions and 10 employees under maximum mine output conditions.

It was assumed that approximately 10% of the daily truck traffic would travel to and from the proposed mine in both the AM and PM peak hours under average and maximum mine operations. Therefore under average operating conditions there is 8 total truck trips in the AM and PM peak hour and 4 employees entering the mine in the AM and 4 exiting in the PM peak. Table 1 below summarizes the trip generation estimates for daily, AM peak hour and PM peak hour demands under average operating conditions.

Table 1 – Trip Generation – Initial Average Operating Conditions

Site	Daily	AM Peak			PM Peak		
	Total	Enter	Exit	Total	Enter	Exit	Total
Employees	8	4	0	4	0	4	4
Trucks	50	4	4	8	4	4	8
Total	**58**	**8**	**4**	**12**	**4**	**8**	**12**

During maximum output of the site it was assumed that there would also be approximately 10% of the daily truck traffic, or 60 total truck trips in the AM and PM peak hour and 10 employees entering in the AM peak hour and 10 exiting in the PM peak hour. Table 2 below summarizes the trip generation estimates for daily, AM peak hour and PM peak hour demands under maximum mine output conditions.

Table 2 – Trip Generation – Peak Average Operating Conditions

Site	Daily	AM Peak			PM Peak		
	Total	Enter	Exit	Total	Enter	Exit	Total
Employees	20	10	0	10	0	10	10
Trucks	600	30	30	60	30	30	60
Total	**620**	**40**	**30**	**70**	**30**	**40**	**70**

5.0 Operational Analysis

Synchro/SimTraffic software was used in the analysis to evaluate the impact of the proposed development site on the study intersections. The analysis scenarios had the truck percentages increased accordingly in Synchro due to the increase from the truck traffic traveling to and from the development site. For this analysis each site access was analyzed with all proposed truck and employee traffic using one access or the other.

- 2015 Existing Conditions
  - The existing volumes modeled can be seen in Figure 2 in the Appendix.
  - All intersections operate at a LOS A in both peak hours as shown in Table 3 below. The worst movement at any intersection also operates at a LOS A and all maximum queue lengths are contained within the storage lengths available. More detailed results are shown in the attached Table A1.

Table 3 – 2015 Existing Operations

Intersection:	Approach	AM Peak Hour		PM Peak Hour	
		Approach (Delay/LOS)	Intersection (Delay/LOS)	Approach (Delay/LOS)	Approach (Delay/LOS)
TH 38 @ CR 61	EB	0.0 / A	0.9 / A	6.8 / A	0.7 / A
	WB	4.5 / A		2.7 / A	
	NB	0.2 / A		0.3 / A	
	SB	0.5 / A		0.4 / A	
TH 38 @ Peterson Road	EB	4.0 / A	1.6 / A	2.1 / A	0.6 / A
	WB	0.0 / A		0.0 / A	
	NB	0.3 / A		0.4 / A	
	SB	1.8 / A		1.0 / A	

- 2016 No Build Conditions
  - The 2016 No Build volumes modeled can be seen in Figure 3 in the Appendix.
  - All intersections operate at a LOS A in both peak hours as shown in Table 4 below. The worst movement at any intersection also operates at a LOS A and all maximum queue lengths are contained within the storage lengths available. More detailed results are shown in the attached Table A2.

Table 4 – 2016 No Build Operations

Intersection:	Approach	AM Peak Hour		PM Peak Hour	
		Approach (Delay/LOS)	Intersection (Delay/LOS)	Approach (Delay/LOS)	Approach (Delay/LOS)
TH 38 @ CR 61	EB	0.0 / A	0.9 / A	4.3 / A	0.7 / A
	WB	4.5 / A		3.5 / A	
	NB	0.2 / A		0.3 / A	
	SB	0.5 / A		0.4 / A	
TH 38 @ Peterson Road	EB	4.0 / A	1.6 / A	3.6 / A	0.7 / A
	WB	0.0 / A		0.0 / A	
	NB	0.3 / A		0.4 / A	
	SB	1.8 / A		1.1 / A	

- 2016 Average Mine Operations using CR 61 Access
  - The 2016 average mine operating conditions with all mine traffic using the access on CR 61 can be seen in Figure 4 in the Appendix.
  - All intersections operate at a LOS A in both peak hours as shown in Table 5 below. The worst movement at any intersection also operates at a LOS A and all maximum queue lengths are contained within the storage lengths available. More detailed results are shown in the attached Table A3.

Table 5 – 2016 Average Mine Operations using Mine Access 2

Intersection:	Approach	AM Peak Hour		PM Peak Hour	
		Approach (Delay/LOS)	Intersection (Delay/LOS)	Approach (Delay/LOS)	Approach (Delay/LOS)
TH 38 @ CR 61	EB	0.0 / A	0.8 / A	7.7 / A	0.9 / A
	WB	4.5 / A		4.0 / A	
	NB	0.1 / A		0.3 / A	
	SB	0.4 / A		0.5 / A	
TH 38 @ Peterson Road	EB	6.3 / A	1.8 / A	6.4 / A	0.9 / A
	WB	0.0 / A		0.0 / A	
	NB	0.4 / A		0.5 / A	
	SB	1.9 / A		1.3 / A	
CR 61 @ Mine Access 2	EB	0.3 /A	0.8 / A	0.4 / A	0.6 / A
	WB	0.1 / A		0.2 / A	
	NB	4.6 / A		4.8 / A	
	SB				

- 2016 Maximum Mine Operations using CR 61 Access
  - The 2016 maximum mine operating conditions with all mine traffic using the access on CR 61 can be seen in Figure 5 in the Appendix.
  - All intersections operate at a LOS A in both peak hours as shown in Table 6 below. The worst movement at any intersection also operates at a LOS A and all maximum queue lengths are contained within the storage lengths available. More detailed results are shown in the attached Table A4.

Table 6 – 2016 Maximum Mine Operations using Mine Access 2

Intersection:	Approach	AM Peak Hour		PM Peak Hour	
		Approach (Delay/LOS)	Intersection (Delay/LOS)	Approach (Delay/LOS)	Approach (Delay/LOS)
TH 38 @ CR 61	EB	0.0 / A	1.5 / A	6.1 / A	1.4 / A
	WB	6.8 / A		5.4 / A	
	NB	0.1 / A		0.3 / A	
	SB	0.6 / A		0.6 / A	
TH 38 @ Peterson Road	EB	8.3 / A	2.1 / A	8.5 / A	1.4 / A
	WB	0.0 / A		0.0 / A	
	NB	0.6 / A		0.7 / A	
	SB	1.8 / A		1.2 / A	
CR 61 @ Mine Access 2	EB	0.4 /A	1.2 / A	1.0 / A	1.7 / A
	WB	0.3 / A		0.4 / A	
	NB	5.2 / A		5.1 / A	
	SB				

- 2016 Average Mine Operations using TH 38 Access
  - The 2016 average mine operating conditions with all mine traffic using the access on TH 38 can be seen in Figure 6 in the Appendix.
  - All intersections operate at a LOS A in both peak hours as shown in Table 7 below. The worst movement at any intersection also operates at a LOS A and all maximum queue lengths are contained within the storage lengths available. More detailed results are shown in the attached Table A5.

Table 7 – 2016 Average Mine Operations using Mine Access 1

Intersection:	Approach	AM Peak Hour		PM Peak Hour	
		Approach (Delay/LOS)	Intersection (Delay/LOS)	Approach (Delay/LOS)	Approach (Delay/LOS)
TH 38 @ CR 61	EB	0.0 / A	0.9 / A	5.7 / A	0.7 / A
	WB	4.5 / A		3.2 / A	
	NB	0.1 / A		0.3 / A	
	SB	0.5 / A		0.4 / A	
TH 38 @ Peterson Road	EB	7.7 / A	1.7 / A	6.7 / A	0.8 / A
	WB	0.0 / A		0.0 / A	
	NB	0.4 / A		0.4 / A	
	SB	1.8 / A		1.1 / A	
TH 38 @ Mine Access 1	EB		0.7 / A		0.5 / A
	WB	5.6 / A		7.9 / A	
	NB	0.3 / A		0.4 / A	
	SB	0.7 / A		0.3 / A	

- 2016 Maximum Mine Operations using TH 38 Access
  - The 2016 maximum mine operating conditions with all mine traffic using the access on TH 38 can be seen in Figure 7 in the Appendix.
  - All intersections operate at a LOS A in both peak hours as shown in Table 8 below. The worst movement at any intersection operates at a LOS B and all maximum queue lengths are contained within the storage lengths available. More detailed results are shown in the attached Table A6.

Table 8 – 2016 Maximum Mine Operations using Mine Access 1

Intersection:	Approach	AM Peak Hour		PM Peak Hour	
		Approach (Delay/LOS)	Intersection (Delay/LOS)	Approach (Delay/LOS)	Approach (Delay/LOS)
TH 38 @ CR 61	EB	0.0 / A	0.9 / A	7.3 / A	0.8 / A
	WB	4.3 / A		3.4 / A	
	NB	0.2 / A		0.3 / A	
	SB	0.5 / A		0.6 / A	
TH 38 @ Peterson Road	EB	8.2 / A	2.3 / A	10.0 / B	1.6 / A
	WB	0.0 / A		0.0 / A	
	NB	0.6 / A		0.7 / A	
	SB	2.1 / A		1.3 / A	
TH 38 @ Mine Access 1	EB		1.4 / A		1.1 / A
	WB	8.6 / A		7.7 / A	
	NB	0.4 / A		0.6 / A	
	SB	1.1 / A		0.5 / A	

- 2036 No Build Conditions
  - The 2036 No Build volumes modeled can be seen in Figure 8 in the Appendix.
  - All intersections operate at a LOS A in both peak hours as shown in Table 9 below. The worst movement at any intersection operates at a LOS A and all maximum queue lengths are contained within the storage lengths available. More detailed results are shown in the attached Table A7.

Table 9 – 2036 No Build Operations

Intersection:	Approach	AM Peak Hour		PM Peak Hour	
		Approach (Delay/LOS)	Intersection (Delay/LOS)	Approach (Delay/LOS)	Approach (Delay/LOS)
TH 38 @ CR 61	EB	0.0 / A	1.2 / A	7.6 / A	0.9 / A
	WB	6.7 / A		4.1 / A	
	NB	0.2 / A		0.4 / A	
	SB	0.6 / A		0.6 / A	
TH 38 @ Peterson Road	EB	8.0 / A	2.2 / A	3.5 / A	1.0 / A
	WB	0.0 / A		0.0 / A	
	NB	0.5 / A		0.6 / A	
	SB	2.4 / A		1.5 / A	
TH 38 @ Mine Access 1	EB		0.9 / A		0.4 / A
	WB				
	NB	0.3 / A		0.5 / A	
	SB	1.0 / A		0.3 / A	
CR 61 @ Mine Access 2	EB	0.2 / A	0.2 / A	0.5 / A	0.3 / A
	WB	0.2 / A		0.1 / A	
	NB				
	SB				

- 2036 Average Mine Operations using CR 61 Access
  - The 2036 average mine operating conditions with all mine traffic using the access on CR 61 can be seen in Figure 9 in the Appendix.
  - All intersections operate at a LOS A in both peak hours as shown in Table 10 below. The worst movement at any intersection operates at a LOS B and all maximum queue lengths are contained within the storage lengths available. More detailed results are shown in the attached Table A8.

Table 10 – 2036 Average Mine Operations using Mine Access 2

Intersection:	Approach	AM Peak Hour		PM Peak Hour	
		Approach (Delay/LOS)	Intersection (Delay/LOS)	Approach (Delay/LOS)	Approach (Delay/LOS)
TH 38 @ CR 61	EB	0.0 / A	1.4 / A	5.4 / A	1.3 / A
	WB	6.8 / A		6.5 / A	
	NB	0.1 / A		0.4 / A	
	SB	0.8 / A		0.7 / A	
TH 38 @ Peterson Road	EB	6.8 / A	2.2 / A	8.4 / A	1.1 / A
	WB	0.0 / A		0.0 / A	
	NB	0.5 / A		0.6 / A	
	SB	2.4 / A		1.6 / A	
CR 61 @ Mine Access 2	EB	0.3 /A	0.4 / A	0.4 / A	0.6 / A
	WB	0.2 / A		0.2 / A	
	NB	4.7 / A		4.7 / A	
	SB				

- 2036 Maximum Mine Operations using CR 61 Access
  - The 2036 maximum mine operating conditions with all mine traffic using the access on CR 61 can be seen in Figure 10 in the Appendix.
  - All intersections operate at a LOS A in both peak hours as shown in Table 11 below. The worst movement at any intersection operates at a LOS B and all maximum queue lengths are contained within the storage lengths available. More detailed results are shown in the attached Table A9.

Table 11 – 2036 Maximum Mine Operations using Mine Access 2

Intersection:	Approach	AM Peak Hour		PM Peak Hour	
		Approach (Delay/LOS)	Intersection (Delay/LOS)	Approach (Delay/LOS)	Approach (Delay/LOS)
TH 38 @ CR 61	EB	0.0 / A	2.2 / A	6.3 / A	1.9 / A
	WB	10.8 / B		9.1 / A	
	NB	0.2 / A		0.4 / A	
	SB	0.8 / A		0.9 / A	
TH 38 @ Peterson Road	EB	10.8 / B	2.5 / A	11.8 / B	1.7 / A
	WB	0.0 / A		0.0 / A	
	NB	0.8 / A		0.9 / A	
	SB	2.3 / A		1.4 / A	
CR 61 @ Mine Access 2	EB	0.8 /A	1.4 / A	0.8 / A	1.7 / A
	WB	0.4 / A		0.4 / A	
	NB	5.6 / A		5.7 / A	
	SB				

- 2036 Average Mine Operations using TH 38 Access
  - The 2036 average mine operating conditions with all mine traffic using the access on MN Highway 38 can be seen in Figure 11 in the Appendix.
  - All intersections operate at a LOS A in both peak hours as shown in Table 12 below. The worst movement at any intersection operates at a LOS B and all maximum queue lengths are contained within the storage lengths available. More detailed results are shown in the attached Table A10.

Table 12 – 2036 Average Mine Operations using Mine Access 1

Intersection:	Approach	AM Peak Hour		PM Peak Hour	
		Approach (Delay/LOS)	Intersection (Delay/LOS)	Approach (Delay/LOS)	Approach (Delay/LOS)
TH 38 @ CR 61	EB	0.0 / A	1.1 / A	9.6 / A	1.3 / A
	WB	5.7 / A		5.4 / A	
	NB	0.2 / A		0.5 / A	
	SB	0.6 / A		0.8 / A	
TH 38 @ Peterson Road	EB	8.9 / A	2.2 / A	6.8 / A	1.0 / A
	WB	0.0 / A		0.0 / A	
	NB	0.6 / A		0.5 / A	
	SB	2.4 / A		1.6 / A	
TH 38 @ Mine Access 1	EB		0.9 / A		0.6 / A
	WB	10.0 / B		8.1 / A	
	NB	0.3 / A		0.5 / A	
	SB	1.0 / A		0.5 / A	

- 2036 Maximum Mine Operations using TH 38 Access
  - The 2036 maximum mine operating conditions with all mine traffic using the access on MN Highway 38 can be seen in Figure 12 in the Appendix.
  - All intersections operate at a LOS A in both peak hours as shown in Table 13 below. The worst movement at any intersection operates at a LOS B and all maximum queue lengths are contained within the storage lengths available. More detailed results are shown in the attached Table A11.

Table 13 – 2036 Maximum Mine Operations using Mine Access 1

Intersection:	Approach	AM Peak Hour		PM Peak Hour	
		Approach (Delay/LOS)	Intersection (Delay/LOS)	Approach (Delay/LOS)	Approach (Delay/LOS)
TH 38 @ CR 61	EB	0.0 / A	1.4 / A	6.6 / A	1.1 / A
	WB	7.5 / A		5.6 / A	
	NB	0.2 / A		0.4 / A	
	SB	0.7 / A		0.6 / A	
TH 38 @ Peterson Road	EB	10.4 / B	2.7 / A	12.3 / B	1.7 / A
	WB	0.0 / A		0.0 / A	
	NB	0.7 / A		0.8 / A	
	SB	2.6 / A		1.5 / A	
TH 38 @ Mine Access 1	EB		0.9 / A		1.3 / A
	WB	11.9 / B		10.1 / B	
	NB	0.5 / A		0.8 / A	
	SB	1.3 / A		0.6 / A	

6.0 Turn Lane Warrants

MnDOT's Access Management Manual was used to determine if left and right turn lanes are warranted at the two mine accesses. Based on these warrants, which includes the percentage of trucks using the mine accesses, a northbound right turn lane at Mine Access 1 & TH 38 and an eastbound right turn lane at Mine Access 2 & CR 61 should be provided.

Our analysis included all mine traffic traveling to and from the existing mine to the south. Information from the developer indicated that in reality the majority of the truck traffic will travel to and from the existing mine, which indicates some trucks will enter and leave the proposed facility to and from the north. To analyze the need for left turn lanes and to be conservative, under maximum mine output conditions we assumed 40% of the trucks would enter the mine from the north at Mine Access 1 on TH 38 or from the east at Mine Access 2 on CR 61. Assuming 10% of the daily truck traffic enters and leaves in the peak hours, approximately 12 trucks enter the facility. The remaining hours of a 12 hour work day would average less than 10 trucks per hour. The warrant for left turn lanes is not met due to the need for the heavy vehicle volume to exceed 15 or more vehicles per hour for at least 8 hours a day for four or more months per year.

7.0 Recommendations & Conclusion

- The traffic volume demands from the proposed aggregate mine do not create unacceptable operations.
- Based on the turn lane warrants in MnDOT's Access Management Manual a northbound right turn lane at TH 38 & Mine Access 1 and an eastbound right turn lane at CR 61 & Mine Access 2 should be provided.

List of Tables

Table A1

Existing Conditions

2015

Grand Rapids,MN

	Intersection	Approach	Demand Volumes				Delay (s/veh)						LOS By Approach		LOS By Intersection		Through			Queu
			L	T	R	Total	L	LOS	T	LOS	R	LOS	Delay (S/Veh)	LOS	Delay (S/Veh)	LOS	Link Length	Avg.	Max	Storage
AM Peak Hour	TH 38 at County Road 61	NB	0	40	13	53	0.0	A	0.2	A	0.0	A	0.2	A	0.9	A	2500			0
		SB	18	291	0	309	0.9	A	0.5	A	0.0	A	0.5	A			1300	2	44	0
		EB	0	0	0	0	0.0	A	0.0	A	0.0	A	0.0	A			1200			0
		WB	33	0	10	43	5.7	A	0.3	A	1.4	A	4.5	A			2856	21	64	0
	County Road 61 at Mine Acess 2	NB	0	0	0	0	0.0	A	0.0	A	0.0	A	0.0	A	0.2	A	500			0
		SB	0	0	0	0	0.0	A	0.0	A	0.0	A	0.0	A			0			0
		EB	0	31	0	31	0.0	A	0.4	A	0.0	A	0.4	A			3000			0
		WB	0	43	0	43	0.0	A	0.1	A	0.0	A	0.1	A			3000			0
	TH 38 at Mine Acess 1	NB	0	53	0	53	0.0	A	0.3	A	0.0	A	0.3	A	0.6	A	2800			0
		SB	0	324	0	324	0.0	A	0.7	A	0.0	A	0.7	A			2500			0
		EB	0	0	0	0	0.0	A	0.0	A	0.0	A	0.0	A			0			0
		WB	0	0	0	0	0.0	A	0.0	A	0.0	A	0.0	A			500			0
	TH 38 at Pederson Road	NB	9	53	5	67	1.6	A	0.2	A	0.0	A	0.3	A	1.6	A	2000			250
		SB	0	315	8	323	0.0	A	1.8	A	0.9	A	1.8	A			2800			250
		EB	2	0	3	5	4.6	A	0.0	A	3.4	A	4.0	A			3000	3	31	0
		WB	0	0	0	0	0.0	A	0.0	A	0.0	A	0.0	A			1300			0
PM Peak Hour	TH 38 at County Road 61	NB	0	222	25	247	0.0	A	0.3	A	0.0	A	0.3	A	0.7	A	2500			0
		SB	21	111	1	133	1.1	A	0.3	A	0.0	A	0.4	A			1300	3	33	0
		EB	0	1	1	2	0.0	A	9.0	A	2.4	A	6.8	A			1200	2	29	0
		WB	28	0	16	44	4.0	A	0.0	A	1.9	A	2.7	A			2856	23	66	0
	County Road 61 at Mine Acess 2	NB	0	0	0	0	0.0	A	0.0	A	0.0	A	0.0	A	0.3	A	500			0
		SB	0	0	0	0	0.0	A	0.0	A	0.0	A	0.0	A			0			0
		EB	0	47	0	47	0.0	A	0.4	A	0.0	A	0.4	A			3000			0
		WB	0	44	0	44	0.0	A	0.1	A	0.0	A	0.1	A			3000			0
	TH 38 at Mine Acess 1	NB	0	247	0	247	0.0	A	0.3	A	0.0	A	0.3	A	0.3	A	2800			0
		SB	0	140	0	140	0.0	A	0.2	A	0.0	A	0.2	A			2500			0
		EB	0	0	0	0	0.0	A	0.0	A	0.0	A	0.0	A			0			0
		WB	0	0	0	0	0.0	A	0.0	A	0.0	A	0.0	A			500			0
	TH 38 at Pederson Road	NB	8	241	0	249	0.6	A	0.4	A	0.0	A	0.4	A	0.6	A	2000			250
		SB	0	150	0	150	0.0	A	1.0	A	0.0	A	1.0	A			2800			250
		EB	1	0	1	2	2.7	A	0.0	A	1.5	A	2.1	A			3000	3	31	0
		WB	0	0	0	0	0.0	A	0.0	A	0.0	A	0.0	A			1300			0

Table A2
No Build Conditions
2016
Grand Rapids, MN

	Intersection	Approach	Demand Volumes				Delay (s/veh)						LOS By Approach		LOS By Intersection		Queu			
			L	T	R	Total	L	LOS	T	LOS	R	LOS	Delay (S/Veh)	LOS	Delay (S/Veh)	LOS	Through Link Length	Through Avg.	Through Max	Storage
AM Peak Hour	TH 38 at County Road 61	NB	0	41	14	55	0.0	A	0.2	A	0.0	A	0.2	A	0.9	A	2500			0
		SB	19	297	0	316	0.9	A	0.5	A	0.0	A	0.5	A			1300	2	44	0
		EB	0	0	0	0	0.0	A	0.0	A	0.0	A	0.0	A			1200			0
		WB	34	0	11	45	5.7	A	0.3	A	1.4	A	4.5	A			2856	21	64	0
	County Road 61 at Mine Access 2	NB	0	0	0	0	0.0	A	0.0	A	0.0	A	0.0	A	0.2	A	500			0
		SB	0	0	0	0	0.0	A	0.0	A	0.0	A	0.0	A			0			0
		EB	0	32	0	32	0.0	A	0.4	A	0.0	A	0.4	A			3000			0
		WB	0	44	0	44	0.0	A	0.1	A	0.0	A	0.1	A			3000			0
	TH 38 at Mine Access 1	NB	0	54	0	54	0.0	A	0.3	A	0.0	A	0.3	A	0.6	A	2800			0
		SB	0	330	0	330	0.0	A	0.7	A	0.0	A	0.7	A			2500			0
		EB	0	0	0	0	0.0	A	0.0	A	0.0	A	0.0	A			0			0
		WB	0	0	0	0	0.0	A	0.0	A	0.0	A	0.0	A			500			0
	TH 38 at Pederson Road	NB	10	54	6	70	1.6	A	0.2	A	0.0	A	0.3	A	1.6	A	2000			250
		SB	0	321	9	330	0.0	A	1.8	A	0.9	A	1.8	A			2800			250
		EB	3	0	4	7	4.6	A	0.0	A	3.4	A	4.0	A			3000	3	31	0
		WB	0	0	0	0	0.0	A	0.0	A	0.0	A	0.0	A			1300			0
PM Peak Hour	TH 38 at County Road 61	NB	0	226	26	252	0.0	A	0.3	A	0.0	A	0.3	A	0.7	A	2500			0
		SB	22	113	2	137	1.2	A	0.3	A	0.0	A	0.4	A			1300	5	33	0
		EB	0	2	2	4	0.0	A	5.7	A	3.6	A	4.3	A			1200	3	30	0
		WB	29	0	17	46	5.0	A	0.0	A	2.0	A	3.5	A			2856	23	67	0
	County Road 61 at Mine Access 2	NB	0	0	0	0	0.0	A	0.0	A	0.0	A	0.0	A	0.3	A	500			0
		SB	0	0	0	0	0.0	A	0.0	A	0.0	A	0.0	A			0			0
		EB	0	48	0	48	0.0	A	0.4	A	0.0	A	0.4	A			3000			0
		WB	0	45	0	45	0.0	A	0.1	A	0.0	A	0.1	A			3000			0
	TH 38 at Mine Access 1	NB	0	252	0	252	0.0	A	0.4	A	0.0	A	0.4	A	0.4	A	2800			0
		SB	0	143	0	143	0.0	A	0.3	A	0.0	A	0.3	A			2500			0
		EB	0	0	0	0	0.0	A	0.0	A	0.0	A	0.0	A			0			0
		WB	0	0	0	0	0.0	A	0.0	A	0.0	A	0.0	A			500			0
	TH 38 at Pederson Road	NB	9	246	0	255	0.6	A	0.4	A	0.0	A	0.4	A	0.7	A	2000			250
		SB	0	153	0	153	0.0	A	1.1	A	0.0	A	1.1	A			2800			250
		EB	2	0	2	4	4.2	A	0.0	A	3.3	A	3.6	A			3000	3	31	0
		WB	0	0	0	0	0.0	A	0.0	A	0.0	A	0.0	A			1300			0

Table A3

Average Mine Operations using CR 61 Access

2016

Grand Rapids, MN

	Intersection	Approach	Demand Volumes				Delay (s/veh)						LOS By Approach		LOS By Intersection		Queu			
			L	T	R	Total	L	LOS	T	LOS	R	LOS	Delay (S/Veh)	LOS	Delay (S/Veh)	LOS	Through Link Length	Through Avg.	Through Max	Storage
AM Peak Hour	TH 38 at County Road 61	NB	0	41	22	63	0.0	A	0.2	A	0.0	A	0.1	A			2500			0
		SB	19	297	0	316	0.4	A	0.4	A	0.0	A	0.4	A	0.8	A	1300		13	0
		EB	0	0	0	0	0.0	A	0.0	A	0.0	A	0.0	A			1200			0
		WB	38	0	11	49	5.9	A	0.3	A	1.8	A	4.5	A			2856	28	77	0
	County Road 61 at Mine Access 2	NB	4	0	0	4	4.6	A	0.0	A	0.0	A	4.6	A			500	4	31	0
		SB	0	0	0	0	0.0	A	0.0	A	0.0	A	0.0	A	0.4	A	0			0
		EB	0	32	8	40	0.0	A	0.3	A	0.1	A	0.3	A			3000			0
		WB	0	44	0	44	0.0	A	0.1	A	0.0	A	0.1	A			3000			0
	TH 38 at Mine Acess 1	NB	0	62	0	62	0.0	A	0.3	A	0.0	A	0.3	A			2800			0
		SB	0	334	0	334	0.0	A	0.8	A	0.0	A	0.8	A	0.7	A	2500			0
		EB	0	0	0	0	0.0	A	0.0	A	0.0	A	0.0	A			0			0
		WB	0	0	0	0	0.0	A	0.0	A	0.0	A	0.0	A			500			0
	TH 38 at Pederson Road	NB	10	58	6	74	2.0	A	0.2	A	0.0	A	0.4	A			2000			250
		SB	0	321	13	334	0.0	A	1.9	A	0.7	A	1.9	A	1.8	A	2800			250
		EB	7	0	4	11	6.8	A	0.0	A	4.8	A	6.3	A			3000	10	59	0
		WB	0	0	0	0	0.0	A	0.0	A	0.0	A	0.0	A			1300			0
PM Peak Hour	TH 38 at County Road 61	NB	0	226	30	256	0.0	A	0.3	A	0.0	A	0.3	A			2500			0
		SB	22	113	2	137	1.1	A	0.4	A	0.0	A	0.5	A	0.9	A	1300	3	35	0
		EB	0	2	2	4	0.0	A	11.0	B	4.3	A	7.7	A			1200	4	46	0
		WB	37	0	17	54	5.1	A	0.3	A	2.7	A	4.0	A			2856	28	76	0
	County Road 61 at Mine Access 2	NB	8	0	0	8	4.8	A	0.0	A	0.0	A	4.8	A			500	11	66	0
		SB	0	0	0	0	0.0	A	0.0	A	0.0	A	0.0	A	0.6	A	0			0
		EB	0	48	4	52	0.0	A	0.4	A	0.3	A	0.4	A			3000			0
		WB	0	45	0	45	0.0	A	0.2	A	0.0	A	0.2	A			3000			0
	TH 38 at Mine Acess 1	NB	0	256	0	256	0.0	A	0.4	A	0.0	A	0.4	A			2800			0
		SB	0	151	0	151	0.0	A	0.3	A	0.0	A	0.3	A	0.4	A	2500			0
		EB	0	0	0	0	0.0	A	0.0	A	0.0	A	0.0	A			0			0
		WB	0	0	0	0	0.0	A	0.0	A	0.0	A	0.0	A			500			0
	TH 38 at Pederson Road	NB	9	246	0	255	0.8	A	0.5	A	0.0	A	0.5	A			2000			250
		SB	0	157	4	161	0.0	A	1.3	A	0.1	A	1.3	A	0.9	A	2800			250
		EB	6	0	2	8	7.8	A	0.0	A	3.7	A	6.4	A			3000	10	59	0
		WB	0	0	0	0	0.0	A	0.0	A	0.0	A	0.0	A			1300			0

Table A4

Maximum Mine Operations using CR 61 Access

2016

Grand Rapids, MN

	Intersection	Approach	Demand Volumes				Delay (s/veh)						LOS By Approach		LOS By Intersection		Queu			
			L	T	R	Total	L	LOS	T	LOS	R	LOS	Delay (S/Veh)	LOS	Delay (S/Veh)	LOS	Through Link Length	Through Avg.	Through Max	Storage
AM Peak Hour	TH 38 at County Road 61	NB	0	41	54	95	0.0	A	0.2	A	0.1	A	0.1	A			2500			0
		SB	19	297	0	316	0.7	A	0.6	A	0.0	A	0.6	A	1.5	A	1300	1	24	0
		EB	0	0	0	0	0.0	A	0.0	A	0.0	A	0.0	A			1200			0
		WB	64	0	11	75	8.3	A	1.9	A	2.3	A	6.8	A			2856	42	116	0
	County Road 61 at Mine Access 2	NB	30	0	0	30	5.2	A	0.0	A	0.0	A	5.2	A			500	36	87	0
		SB	0	0	0	0	0.0	A	0.0	A	0.0	A	0.0	A	1.2	A	0			0
		EB	0	32	40	72	0.0	A	0.3	A	0.5	A	0.4	A			3000			0
		WB	0	44	0	44	0.0	A	0.3	A	0.0	A	0.3	A			3000			0
	TH 38 at Mine Access 1	NB	0	94	0	94	0.0	A	0.3	A	0.0	A	0.3	A			2800			0
		SB	0	360	0	360	0.0	A	0.8	A	0.0	A	0.8	A	0.7	A	2500			0
		EB	0	0	0	0	0.0	A	0.0	A	0.0	A	0.0	A			0			0
		WB	0	0	0	0	0.0	A	0.0	A	0.0	A	0.0	A			500			0
	TH 38 at Pederson Road	NB	10	64	16	90	2.4	A	0.4	A	0.1	A	0.6	A			2000			250
		SB	0	321	39	360	0.0	A	1.9	A	0.9	A	1.8	A	2.1	A	2800			250
		EB	33	0	4	37	8.9	A	0.0	A	3.6	A	8.3	A			3000	36	106	0
		WB	0	0	0	0	0.0	A	0.0	A	0.0	A	0.0	A			1300			0
PM Peak Hour	TH 38 at County Road 61	NB	0	226	56	282	0.0	A	0.4	A	0.1	A	0.3	A			2500			0
		SB	22	113	2	137	1.3	A	0.5	A	0.0	A	0.6	A	1.4	A	1300	3	28	0
		EB	0	2	2	4	0.0	A	7.9	A	3.3	A	6.1	A			1200	5	48	0
		WB	69	0	17	86	6.9	A	2.2	A	2.6	A	5.4	A			2856	33	91	0
	County Road 61 at Mine Access 2	NB	40	0	0	40	5.1	A	0.0	A	0.0	A	5.1	A			500	34	96	0
		SB	0	0	0	0	0.0	A	0.0	A	0.0	A	0.0	A	1.7	A	0			0
		EB	0	48	30	78	0.0	A	1.3	A	0.5	A	1.0	A			3000			0
		WB	0	45	0	45	0.0	A	0.4	A	0.0	A	0.4	A			3000			0
	TH 38 at Mine Access 1	NB	0	282	0	282	0.0	A	0.3	A	0.0	A	0.3	A			2800			0
		SB	0	183	0	183	0.0	A	0.3	A	0.0	A	0.3	A	0.3	A	2500			0
		EB	0	0	0	0	0.0	A	0.0	A	0.0	A	0.0	A			0			0
		WB	0	0	0	0	0.0	A	0.0	A	0.0	A	0.0	A			500			0
	TH 38 at Pederson Road	NB	9	246	0	255	1.6	A	0.7	A	0.0	A	0.7	A			2000			250
		SB	0	163	30	193	0.0	A	1.3	A	0.5	A	1.2	A	1.4	A	2800			250
		EB	32	0	2	34	8.8	A	0.0	A	3.4	A	8.5	A			3000	36	106	0
		WB	0	0	0	0	0.0	A	0.0	A	0.0	A	0.0	A			1300			0

Table A5

Average Mine Operations using TH 38 Access

2016

Grand Rapids, MN

	Intersection	Approach	Demand Volumes				Delay (s/veh)						LOS By Approach		LOS By Intersection		Queu			
			L	T	R	Total	L	LOS	T	LOS	R	LOS	Delay (S/Veh)	LOS	Delay (S/Veh)	LOS	Through Link Length	Through Avg.	Through Max	Storage
AM Peak Hour	TH 38 at County Road 61	NB	0	41	14	55	0.0	A	0.1	A	0.0	A	0.1	A	0.9	A	2500			0
		SB	19	297	0	316	0.6	A	0.5	A	0.0	A	0.5	A			1300	1	13	0
		EB	0	0	0	0	0.0	A	0.0	A	0.0	A	0.0	A			1200			0
		WB	34	0	11	45	5.5	A	0.0	A	1.5	A	4.5	A			2856	23	62	0
	County Road 61 at Mine Acess 2	NB	0	0	0	0	0.0	A	0.0	A	0.0	A	0.0	A	0.2	A	500			0
		SB	0	0	0	0	0.0	A	0.0	A	0.0	A	0.0	A			0			0
		EB	0	32	0	32	0.0	A	0.2	A	0.0	A	0.2	A			3000			0
		WB	0	44	0	44	0.0	A	0.2	A	0.0	A	0.2	A			3000			0
	TH 38 at Mine Access 1	NB	0	54	8	62	0.0	A	0.3	A	0.0	A	0.3	A	0.7	A	2800			0
		SB	0	330	0	330	0.0	A	0.7	A	0.0	A	0.7	A			2500			0
		EB	0	0	0	0	0.0	A	0.0	A	0.0	A	0.0	A			0			0
		WB	4	0	0	4	5.6	A	0.0	A	0.0	A	5.6	A			500	4	31	0
	TH 38 at Pederson Road	NB	10	58	6	74	2.4	A	0.2	A	0.0	A	0.4	A	1.7	A	2000			250
		SB	0	321	13	334	0.0	A	1.8	A	0.9	A	1.8	A			2800			250
		EB	7	0	4	11	9.0	A	0.0	A	2.7	A	7.7	A			3000	10	69	0
		WB	0	0	0	0	0.0	A	0.0	A	0.0	A	0.0	A			1300			0
PM Peak Hour	TH 38 at County Road 61	NB	0	226	26	252	0.0	A	0.3	A	0.0	A	0.3	A	0.7	A	2500			0
		SB	22	113	2	137	1.1	A	0.3	A	0.0	A	0.4	A			1300	4	35	0
		EB	0	2	2	4	0.0	A	7.2	A	2.7	A	5.7	A			1200	3	43	0
		WB	29	0	17	46	4.4	A	0.1	A	2.2	A	3.2	A			2856	24	72	0
	County Road 61 at Mine Acess 2	NB	0	0	0	0	0.0	A	0.0	A	0.0	A	0.0	A	0.3	A	500			0
		SB	0	0	0	0	0.0	A	0.0	A	0.0	A	0.0	A			0			0
		EB	0	48	0	48	0.0	A	0.4	A	0.0	A	0.4	A			3000			0
		WB	0	45	0	45	0.0	A	0.1	A	0.0	A	0.1	A			3000			0
	TH 38 at Mine Access 1	NB	0	252	4	256	0.0	A	0.4	A	0.0	A	0.4	A	0.5	A	2800			0
		SB	0	143	0	143	0.0	A	0.3	A	0.0	A	0.3	A			2500			0
		EB	0	0	0	0	0.0	A	0.0	A	0.0	A	0.0	A			0			0
		WB	8	0	0	8	7.9	A	0.0	A	0.0	A	7.9	A			500	4	31	0
	TH 38 at Pederson Road	NB	9	246	0	255	0.9	A	0.4	A	0.0	A	0.4	A	0.8	A	2000			250
		SB	0	157	4	161	0.0	A	1.1	A	0.3	A	1.1	A			2800			250
		EB	6	0	2	8	9.4	A	0.0	A	2.2	A	6.7	A			3000	10	69	0
		WB	0	0	0	0	0.0	A	0.0	A	0.0	A	0.0	A			1300			0

Table A6

Maximum Mine Operations using TH 38 Access

2016

Grand Rapids, MN

	Intersection	Approach	Demand Volumes				Delay (s/veh)						LOS By Approach		LOS By Intersection		Queu			
			L	T	R	Total	L	LOS	T	LOS	R	LOS	Delay (S/Veh)	LOS	Delay (S/Veh)	LOS	Through Link Length	Through Avg.	Through Max	Storage
AM Peak Hour	TH 38 at County Road 61	NB	0	41	14	55	0.0	A	0.2	A	0.0	A	0.2	A	0.9	A	2500			0
		SB	19	297	0	316	0.6	A	0.5	A	0.0	A	0.5	A			1300		8	0
		EB	0	0	0	0	0.0	A	0.0	A	0.0	A	0.0	A			1200			0
		WB	34	0	11	45	5.6	A	0.0	A	1.3	A	4.3	A			2856	25	65	0
	County Road 61 at Mine Acess 2	NB	0	0	0	0	0.0	A	0.0	A	0.0	A	0.0	A	0.1	A	500			0
		SB	0	0	0	0	0.0	A	0.0	A	0.0	A	0.0	A			0			0
		EB	0	32	0	32	0.0	A	0.1	A	0.0	A	0.1	A			3000			0
		WB	0	44	0	44	0.0	A	0.1	A	0.0	A	0.1	A			3000			0
	TH 38 at Mine Access 1	NB	0	54	40	94	0.0	A	0.6	A	0.1	A	0.4	A	1.4	A	2800			0
		SB	0	330	0	330	0.0	A	1.1	A	0.0	A	1.1	A			2500			0
		EB	0	0	0	0	0.0	A	0.0	A	0.0	A	0.0	A			0			0
		WB	30	0	0	30	8.6	A	0.0	A	0.0	A	8.6	A			500	38	99	0
	TH 38 at Pederson Road	NB	10	64	16	90	2.1	A	0.5	A	0.0	A	0.6	A	2.3	A	2000			250
		SB	0	321	39	360	0.0	A	2.2	A	1.1	A	2.1	A			2800			250
		EB	33	0	4	37	8.4	A	0.0	A	6.3	A	8.2	A			3000	33	84	0
		WB	0	0	0	0	0.0	A	0.0	A	0.0	A	0.0	A			1300			0
PM Peak Hour	TH 38 at County Road 61	NB	0	226	26	252	0.0	A	0.3	A	0.0	A	0.3	A	0.8	A	2500			0
		SB	22	113	2	137	1.5	A	0.4	A	0.0	A	0.6	A			1300	5	48	0
		EB	0	2	2	4	0.0	A	10.5	B	4.1	A	7.3	A			1200	3	28	0
		WB	29	0	17	46	4.6	A	0.0	A	2.0	A	3.4	A			2856	25	74	0
	County Road 61 at Mine Acess 2	NB	0	0	0	0	0.0	A	0.0	A	0.0	A	0.0	A	0.3	A	500			0
		SB	0	0	0	0	0.0	A	0.0	A	0.0	A	0.0	A			0			0
		EB	0	48	0	48	0.0	A	0.4	A	0.0	A	0.4	A			3000			0
		WB	0	45	0	45	0.0	A	0.1	A	0.0	A	0.1	A			3000			0
	TH 38 at Mine Access 1	NB	0	252	30	282	0.0	A	0.7	A	0.0	A	0.6	A	1.1	A	2800			0
		SB	0	143	0	143	0.0	A	0.5	A	0.0	A	0.5	A			2500			0
		EB	0	0	0	0	0.0	A	0.0	A	0.0	A	0.0	A			0			0
		WB	40	0	0	40	7.7	A	0.0	A	0.0	A	7.7	A			500	38	99	0
	TH 38 at Pederson Road	NB	9	246	0	255	1.5	A	0.7	A	0.0	A	0.7	A	1.6	A	2000			250
		SB	0	163	30	193	0.0	A	1.4	A	0.8	A	1.3	A			2800			250
		EB	32	0	2	34	10.3	B	0.0	A	4.1	A	10.0	B			3000	33	84	0
		WB	0	0	0	0	0.0	A	0.0	A	0.0	A	0.0	A			1300			0

Table A7
No Build Conditions
2036
Grand Rapids, MN

	Intersection	Approach	Demand Volumes				Delay (s/veh)						LOS By Approach		LOS By Intersection		Queu			
			L	T	R	Total	L	LOS	T	LOS	R	LOS	Delay (S/Veh)	LOS	Delay (S/Veh)	LOS	Through Link Length	Through Avg.	Through Max	Storage
AM Peak Hour	TH 38 at County Road 61	NB	0	58	19	77	0.0	A	0.2	A	0.0	A	0.2	A			2500			0
		SB	26	418	0	444	0.6	A	0.6	A	0.0	A	0.6	A	1.2	A	1300	1	17	0
		EB	0	0	0	0	0.0	A	0.0	A	0.0	A	0.0	A			1200			0
		WB	48	0	15	63	8.7	A	0.0	A	2.0	A	6.7	A			2856	31	88	0
	County Road 61 at Mine Acess 2	NB	0	0	0	0	0.0	A	0.0	A	0.0	A	0.0	A			500			0
		SB	0	0	0	0	0.0	A	0.0	A	0.0	A	0.0	A	0.2	A	0			0
		EB	0	45	0	45	0.0	A	0.2	A	0.0	A	0.2	A			3000			0
		WB	0	62	0	62	0.0	A	0.2	A	0.0	A	0.2	A			3000			0
	TH 38 at Mine Access 1	NB	0	76	0	76	0.0	A	0.3	A	0.0	A	0.3	A			2800			0
		SB	0	465	0	465	0.0	A	1.0	A	0.0	A	1.0	A	0.9	A	2500			0
		EB	0	0	0	0	0.0	A	0.0	A	0.0	A	0.0	A			0			0
		WB	0	0	0	0	0.0	A	0.0	A	0.0	A	0.0	A			500			0
	TH 38 at Pederson Road	NB	13	76	8	97	2.1	A	0.2	A	0.1	A	0.5	A			2000			250
		SB	0	452	12	464	0.0	A	2.4	A	0.8	A	2.4	A	2.2	A	2800			250
		EB	3	0	5	8	7.4	A	0.0	A	8.4	A	8.0	A			3000	6	49	0
		WB	0	0	0	0	0.0	A	0.0	A	0.0	A	0.0	A			1300			0
PM Peak Hour	TH 38 at County Road 61	NB	0	319	36	355	0.0	A	0.4	A	0.0	A	0.4	A			2500			0
		SB	31	160	2	193	1.5	A	0.5	A	0.0	A	0.6	A	0.9	A	1300	8	60	0
		EB	0	2	2	4	0.0	A	10.0	B	2.9	A	7.6	A			1200	3	43	0
		WB	41	0	23	64	5.8	A	0.0	A	2.3	A	4.1	A			2856	26	70	0
	County Road 61 at Mine Acess 2	NB	0	0	0	0	0.0	A	0.0	A	0.0	A	0.0	A			500			0
		SB	0	0	0	0	0.0	A	0.0	A	0.0	A	0.0	A	0.3	A	0			0
		EB	0	68	0	68	0.0	A	0.5	A	0.0	A	0.5	A			3000			0
		WB	0	64	0	64	0.0	A	0.1	A	0.0	A	0.1	A			3000			0
	TH 38 at Mine Access 1	NB	0	355	0	355	0.0	A	0.5	A	0.0	A	0.5	A			2800			0
		SB	0	201	0	201	0.0	A	0.3	A	0.0	A	0.3	A	0.4	A	2500			0
		EB	0	0	0	0	0.0	A	0.0	A	0.0	A	0.0	A			0			0
		WB	0	0	0	0	0.0	A	0.0	A	0.0	A	0.0	A			500			0
	TH 38 at Pederson Road	NB	12	346	0	358	1.1	A	0.6	A	0.0	A	0.6	A			2000			250
		SB	0	215	0	215	0.0	A	1.5	A	0.0	A	1.5	A	1.0	A	2800			250
		EB	2	0	2	4	2.0	A	0.0	A	4.2	A	3.5	A			3000	6	49	0
		WB	0	0	0	0	0.0	A	0.0	A	0.0	A	0.0	A			1300			0

Table A8

Average Mine Operationss using CR 61 Access

2036

Grand Rapids, MN

	Intersection	Approach	Demand Volumes				Delay (s/veh)						LOS By Approach		LOS By Intersection		Queu			
			L	T	R	Total	L	LOS	T	LOS	R	LOS	Delay (S/Veh)	LOS	Delay (S/Veh)	LOS	Through Link Length	Through Avg.	Through Max	Storage
AM Peak Hour	TH 38 at County Road 61	NB	0	58	27	85	0.0	A	0.2	A	0.0	A	0.1	A	1.4	A	2500			0
		SB	26	418	0	444	0.7	A	0.8	A	0.0	A	0.8	A			1300	3	29	0
		EB	0	0	0	0	0.0	A	0.0	A	0.0	A	0.0	A			1200			0
		WB	52	0	15	67	8.5	A	0.2	A	3.3	A	6.8	A			2856	35	95	0
	County Road 61 at Mine Access 2	NB	4	0	0	4	4.7	A	0.0	A	0.0	A	4.7	A	0.4	A	500	4	31	0
		SB	0	0	0	0	0.0	A	0.0	A	0.0	A	0.0	A			0			0
		EB	0	45	8	53	0.0	A	0.3	A	0.1	A	0.3	A			3000			0
		WB	0	62	0	62	0.0	A	0.2	A	0.0	A	0.2	A			3000			0
	TH 38 at Mine Access 1	NB	0	84	0	84	0.0	A	0.3	A	0.0	A	0.3	A	0.9	A	2800			0
		SB	0	469	0	469	0.0	A	1.0	A	0.0	A	1.0	A			2500			0
		EB	0	0	0	0	0.0	A	0.0	A	0.0	A	0.0	A			0			0
		WB	0	0	0	0	0.0	A	0.0	A	0.0	A	0.0	A			500			0
	TH 38 at Pederson Road	NB	13	80	8	101	2.3	A	0.3	A	0.1	A	0.5	A	2.2	A	2000			250
		SB	0	452	16	468	0.0	A	2.4	A	1.2	A	2.4	A			2800			250
		EB	7	0	5	12	11.7	B	0.0	A	2.8	A	6.8	A			3000	8	54	0
		WB	0	0	0	0	0.0	A	0.0	A	0.0	A	0.0	A			1300			0
PM Peak Hour	TH 38 at County Road 61	NB	0	319	40	359	0.0	A	0.4	A	0.0	A	0.4	A	1.3	A	2500			0
		SB	31	160	2	193	1.8	A	0.5	A	0.0	A	0.7	A			1300	8	42	0
		EB	0	2	2	4	0.0	A	9.5	A	2.7	A	5.4	A			1200	5	39	0
		WB	49	0	23	72	8.3	A	0.4	A	3.8	A	6.5	A			2856	34	84	0
	County Road 61 at Mine Access 2	NB	8	0	0	8	4.7	A	0.0	A	0.0	A	4.7	A	0.6	A	500	11	67	0
		SB	0	0	0	0	0.0	A	0.0	A	0.0	A	0.0	A			0			0
		EB	0	68	4	72	0.0	A	0.4	A	0.9	A	0.4	A			3000			0
		WB	0	64	0	64	0.0	A	0.2	A	0.0	A	0.2	A			3000			0
	TH 38 at Mine Access 1	NB	0	359	0	359	0.0	A	0.4	A	0.0	A	0.4	A	0.4	A	2800			0
		SB	0	209	0	209	0.0	A	0.5	A	0.0	A	0.5	A			2500			0
		EB	0	0	0	0	0.0	A	0.0	A	0.0	A	0.0	A			0			0
		WB	0	0	0	0	0.0	A	0.0	A	0.0	A	0.0	A			500			0
	TH 38 at Pederson Road	NB	12	346	0	358	1.3	A	0.6	A	0.0	A	0.6	A	1.1	A	2000			250
		SB	0	219	4	223	0.0	A	1.6	A	0.2	A	1.6	A			2800			250
		EB	6	0	2	8	10.5	B	0.0	A	3.0	A	8.4	A			3000	8	54	0
		WB	0	0	0	0	0.0	A	0.0	A	0.0	A	0.0	A			1300			0

Table A9

Maximum Mine Operations using CR 61 Access

2036

Grand Rapids, MN

	Intersection	Approach	Demand Volumes				Delay (s/veh)						LOS By Approach		LOS By Intersection		Queu			
			L	T	R	Total	L	LOS	T	LOS	R	LOS	Delay (S/Veh)	LOS	Delay (S/Veh)	LOS	Through Link Length	Through Avg.	Through Max	Storage
AM Peak Hour	TH 38 at County Road 61	NB	0	58	59	117	0.0	A	0.3	A	0.1	A	0.2	A	2.2	A	2500			0
		SB	26	418	0	444	1.0	A	0.8	A	0.0	A	0.8	A			1300	2	33	0
		EB	0	0	0	0	0.0	A	0.0	A	0.0	A	0.0	A			1200			0
		WB	78	0	15	93	12.7	B	1.6	A	4.9	A	10.8	B			2856	52	133	0
	County Road 61 at Mine Access 2	NB	30	0	0	30	5.6	A	0.0	A	0.0	A	5.6	A	1.4	A	500	37	90	0
		SB	0	0	0	0	0.0	A	0.0	A	0.0	A	0.0	A			0			0
		EB	0	45	40	85	0.0	A	1.3	A	0.2	A	0.8	A			3000			0
		WB	0	62	0	62	0.0	A	0.4	A	0.0	A	0.4	A			3000			0
	TH 38 at Mine Access 1	NB	0	116	0	116	0.0	A	0.3	A	0.0	A	0.3	A	0.9	A	2800			0
		SB	0	495	0	495	0.0	A	1.1	A	0.0	A	1.1	A			2500			0
		EB	0	0	0	0	0.0	A	0.0	A	0.0	A	0.0	A			0			0
		WB	0	0	0	0	0.0	A	0.0	A	0.0	A	0.0	A			500			0
	TH 38 at Pederson Road	NB	13	86	8	107	3.3	A	0.6	A	0.1	A	0.8	A	2.5	A	2000			250
		SB	0	452	42	494	0.0	A	2.4	A	0.8	A	2.3	A			2800			250
		EB	33	0	5	38	11.1	B	0.0	A	8.8	A	10.8	B			3000	37	97	0
		WB	0	0	0	0	0.0	A	0.0	A	0.0	A	0.0	A			1300			0
PM Peak Hour	TH 38 at County Road 61	NB	0	319	66	385	0.0	A	0.5	A	0.0	A	0.4	A	1.9	A	2500			0
		SB	31	160	2	193	1.8	A	0.7	A	0.0	A	0.9	A			1300	8	56	0
		EB	0	2	2	4	0.0	A	9.7	A	2.9	A	6.3	A			1200	4	35	0
		WB	81	0	23	104	10.5	B	0.6	A	4.9	A	9.1	A			2856	49	125	0
	County Road 61 at Mine Access 2	NB	40	0	0	40	5.7	A	0.0	A	0.0	A	5.7	A	1.7	A	500	40	101	0
		SB	0	0	0	0	0.0	A	0.0	A	0.0	A	0.0	A			0			0
		EB	0	68	30	98	0.0	A	1.0	A	0.2	A	0.8	A			3000			0
		WB	0	64	0	64	0.0	A	0.4	A	0.0	A	0.4	A			3000			0
	TH 38 at Mine Access 1	NB	0	385	0	385	0.0	A	0.4	A	0.0	A	0.4	A	0.4	A	2800			0
		SB	0	241	0	241	0.0	A	0.5	A	0.0	A	0.5	A			2500			0
		EB	0	0	0	0	0.0	A	0.0	A	0.0	A	0.0	A			0			0
		WB	0	0	0	0	0.0	A	0.0	A	0.0	A	0.0	A			500			0
	TH 38 at Pederson Road	NB	12	346	0	358	1.9	A	0.9	A	0.0	A	0.9	A	1.7	A	2000			250
		SB	0	225	30	255	0.0	A	1.5	A	0.4	A	1.4	A			2800			250
		EB	32	0	2	34	12.4	B	0.0	A	2.4	A	11.8	B			3000	37	97	0
		WB	0	0	0	0	0.0	A	0.0	A	0.0	A	0.0	A			1300			0

Table A10

Average Mine Operations using TH 38 Access

2036

Grand Rapids, MN

	Intersection	Approach	Demand Volumes				Delay (s/veh)						LOS By Approach		LOS By Intersection		Queu			
			L	T	R	Total	L	LOS	T	LOS	R	LOS	Delay (S/Veh)	LOS	Delay (S/Veh)	LOS	Through Link Length	Through Avg.	Through Max	Storage
AM Peak Hour	TH 38 at County Road 61	NB	0	58	19	77	0.0	A	0.2	A	0.0	A	0.2	A	1.1	A	2500			0
		SB	26	418	0	444	0.5	A	0.6	A	0.0	A	0.6	A			1300		10	0
		EB	0	0	0	0	0.0	A	0.0	A	0.0	A	0.0	A			1200			0
		WB	48	0	15	63	7.2	A	0.1	A	1.7	A	5.7	A			2856	27	71	0
	County Road 61 at Mine Access 2	NB	0	0	0	0	0.0	A	0.0	A	0.0	A	0.0	A	0.1	A	500			0
		SB	0	0	0	0	0.0	A	0.0	A	0.0	A	0.0	A			0			0
		EB	0	45	0	45	0.0	A	0.2	A	0.0	A	0.2	A			3000			0
		WB	0	62	0	62	0.0	A	0.1	A	0.0	A	0.1	A			3000			0
	TH 38 at Mine Access 1	NB	0	76	8	84	0.0	A	0.3	A	0.0	A	0.3	A	0.9	A	2800			0
		SB	0	465	0	465	0.0	A	1.0	A	0.0	A	1.0	A			2500			0
		EB	0	0	0	0	0.0	A	0.0	A	0.0	A	0.0	A			0			0
		WB	4	0	0	4	10.0	B	0.0	A	0.0	A	10.0	B			500	7	76	0
	TH 38 at Pederson Road	NB	13	80	8	101	3.2	A	0.3	A	0.0	A	0.6	A	2.2	A	2000			250
		SB	0	452	16	468	0.0	A	2.4	A	1.0	A	2.4	A			2800			250
		EB	7	0	5	12	11.3	B	0.0	A	6.4	A	8.9	A			3000	11	67	0
		WB	0	0	0	0	0.0	A	0.0	A	0.0	A	0.0	A			1300			0
PM Peak Hour	TH 38 at County Road 61	NB	0	319	36	355	0.0	A	0.5	A	0.0	A	0.5	A	1.3	A	2500			0
		SB	31	160	2	193	2.1	A	0.6	A	0.0	A	0.8	A			1300	8	53	0
		EB	0	2	2	4	0.0	A	12.8	B	3.2	A	9.6	A			1200	3	41	0
		WB	41	0	23	64	7.4	A	0.2	A	3.1	A	5.4	A			2856	32	81	0
	County Road 61 at Mine Access 2	NB	0	0	0	0	0.0	A	0.0	A	0.0	A	0.0	A	0.3	A	500			0
		SB	0	0	0	0	0.0	A	0.0	A	0.0	A	0.0	A			0			0
		EB	0	68	0	68	0.0	A	0.4	A	0.0	A	0.4	A			3000			0
		WB	0	64	0	64	0.0	A	0.2	A	0.0	A	0.2	A			3000			0
	TH 38 at Mine Access 1	NB	0	355	4	359	0.0	A	0.5	A	0.0	A	0.5	A	0.6	A	2800			0
		SB	0	201	0	201	0.0	A	0.5	A	0.0	A	0.5	A			2500			0
		EB	0	0	0	0	0.0	A	0.0	A	0.0	A	0.0	A			0			0
		WB	8	0	0	8	8.1	A	0.0	A	0.0	A	8.1	A			500	7	76	0
	TH 38 at Pederson Road	NB	12	346	0	358	1.6	A	0.5	A	0.0	A	0.5	A	1.0	A	2000			250
		SB	0	219	4	223	0.0	A	1.6	A	0.7	A	1.6	A			2800			250
		EB	6	0	2	8	8.7	A	0.0	A	2.2	A	6.8	A			3000	11	67	0
		WB	0	0	0	0	0.0	A	0.0	A	0.0	A	0.0	A			1300			0

Table A11

Maximum Mine Operations using TH 38 Access

2036

Grand Rapids, MN

	Intersection	Approach	Demand Volumes				Delay (s/veh)						LOS By Approach		LOS By Intersection		Queu			
			L	T	R	Total	L	LOS	T	LOS	R	LOS	Delay (S/Veh)	LOS	Delay (S/Veh)	LOS	Through Link Length	Through Avg.	Through Max	Storage
AM Peak Hour	TH 38 at County Road 61	NB	0	58	19	77	0.0	A	0.2	A	0.1	A	0.2	A	1.4	A	2500			0
		SB	26	418	0	444	0.5	A	0.7	A	0.0	A	0.7	A			1300	1	33	0
		EB	0	0	0	0	0.0	A	0.0	A	0.0	A	0.0	A			1200			0
		WB	48	0	15	63	9.7	A	0.1	A	1.8	A	7.5	A			2856	29	100	0
	County Road 61 at Mine Access 2	NB	0	0	0	0	0.0	A	0.0	A	0.0	A	0.0	A	0.2	A	500			0
		SB	0	0	0	0	0.0	A	0.0	A	0.0	A	0.0	A			0			0
		EB	0	45	0	45	0.0	A	0.2	A	0.0	A	0.2	A			3000			0
		WB	0	62	0	62	0.0	A	0.2	A	0.0	A	0.2	A			3000			0
	TH 38 at Mine Access 1	NB	0	76	40	116	0.0	A	0.7	A	0.1	A	0.5	A	1.6	A	2800			0
		SB	0	465	0	465	0.0	A	1.3	A	0.0	A	1.3	A			2500			0
		EB	0	0	0	0	0.0	A	0.0	A	0.0	A	0.0	A			0			0
		WB	30	0	0	30	11.9	B	0.0	A	0.0	A	11.9	B			500	43	131	0
	TH 38 at Pederson Road	NB	13	86	8	107	3.6	A	0.4	A	0.1	A	0.7	A	2.7	A	2000			250
		SB	0	452	42	494	0.0	A	2.7	A	1.2	A	2.6	A			2800			250
		EB	33	0	5	38	11.0	B	0.0	A	7.2	A	10.4	B			3000	38	103	0
		WB	0	0	0	0	0.0	A	0.0	A	0.0	A	0.0	A			1300			0
PM Peak Hour	TH 38 at County Road 61	NB	0	319	36	355	0.0	A	0.4	A	0.0	A	0.4	A	1.1	A	2500		6	0
		SB	31	160	2	193	1.5	A	0.5	A	0.0	A	0.6	A			1300	6	42	0
		EB	0	2	2	4	0.0	A	10.5	B	2.7	A	6.6	A			1200	4	50	0
		WB	41	0	23	64	7.6	A	0.2	A	3.3	A	5.6	A			2856	32	77	0
	County Road 61 at Mine Access 2	NB	0	0	0	0	0.0	A	0.0	A	0.0	A	0.0	A	0.4	A	500			0
		SB	0	0	0	0	0.0	A	0.0	A	0.0	A	0.0	A			0			0
		EB	0	68	0	68	0.0	A	0.5	A	0.0	A	0.5	A			3000			0
		WB	0	64	0	64	0.0	A	0.2	A	0.0	A	0.2	A			3000			0
	TH 38 at Mine Access 1	NB	0	355	30	385	0.0	A	0.9	A	0.0	A	0.8	A	1.3	A	2800			0
		SB	0	201	0	201	0.0	A	0.6	A	0.0	A	0.6	A			2500			0
		EB	0	0	0	0	0.0	A	0.0	A	0.0	A	0.0	A			0			0
		WB	40	0	0	40	10.1	B	0.0	A	0.0	A	10.1	B			500	43	131	0
	TH 38 at Pederson Road	NB	12	346	0	358	1.6	A	0.8	A	0.0	A	0.8	A	1.7	A	2000			250
		SB	0	225	30	255	0.0	A	1.6	A	0.5	A	1.5	A			2800			250
		EB	32	0	2	34	12.8	B	0.0	A	3.1	A	12.3	B			3000	38	103	0
		WB	0	0	0	0	0.0	A	0.0	A	0.0	A	0.0	A			1300			0

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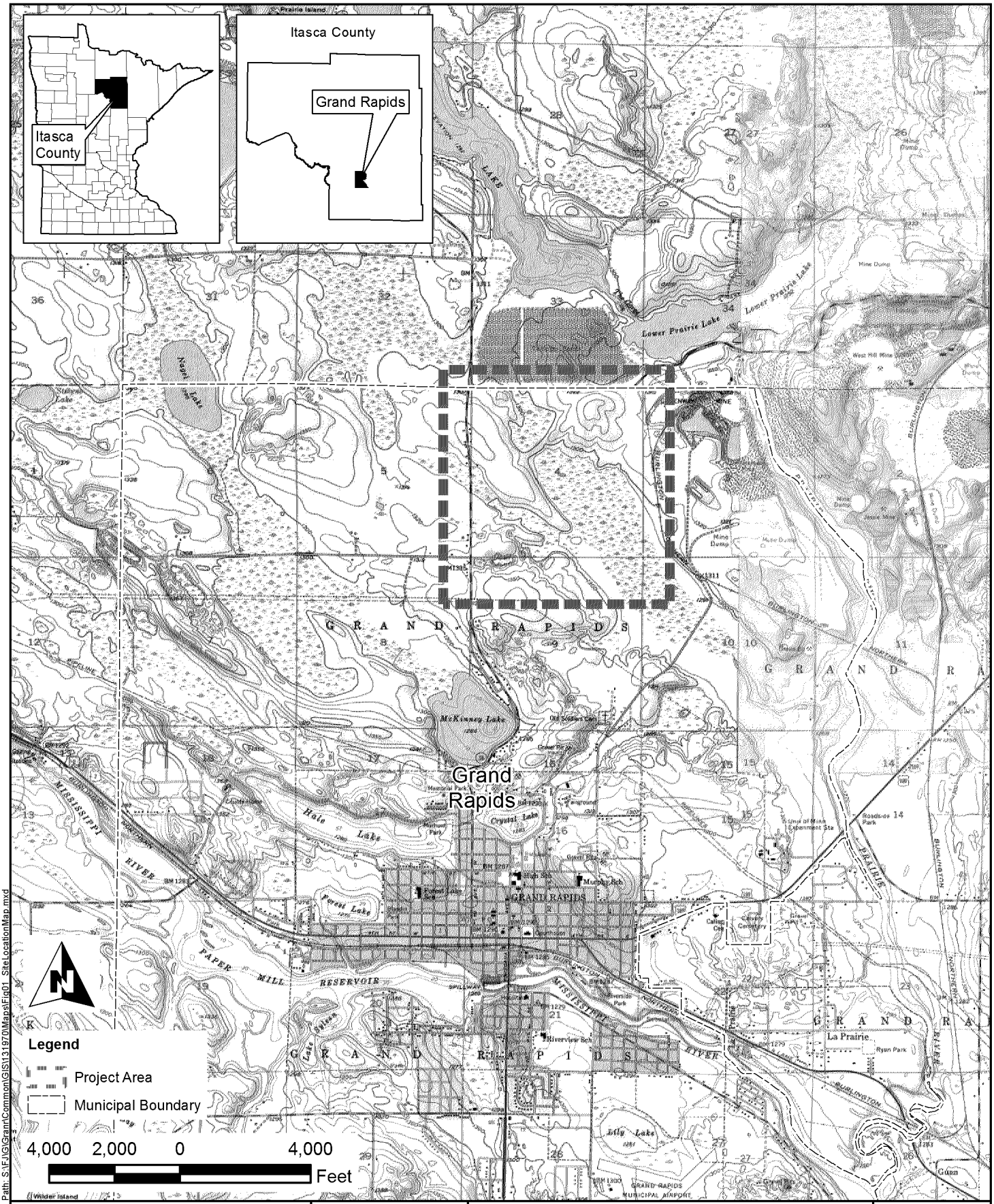
List of Figures



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TF: (800) 325-2055
www.sehinc.com

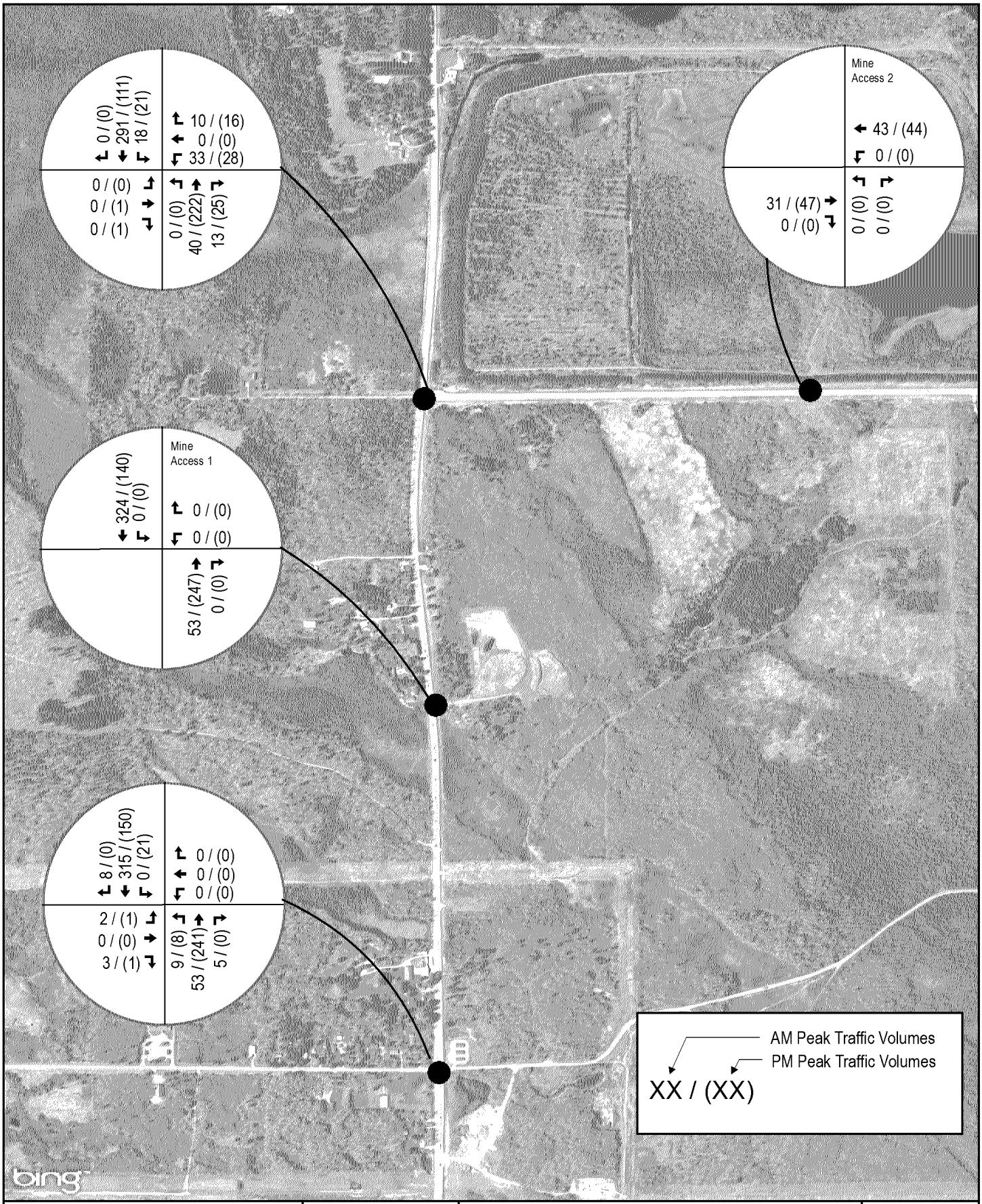
Project: GRANR 131970
Print Date: 4/17/2015

Map by: MSS
Projection: UTM, Zone 15, NAD 83, m
Source: USGS 7.5 Min. Topo, MnDOT, and SEH Inc.

Project Location

Hawkinson Construction Proposed Aggregate Mine
Grand Rapids, Minnesota

Figure 1



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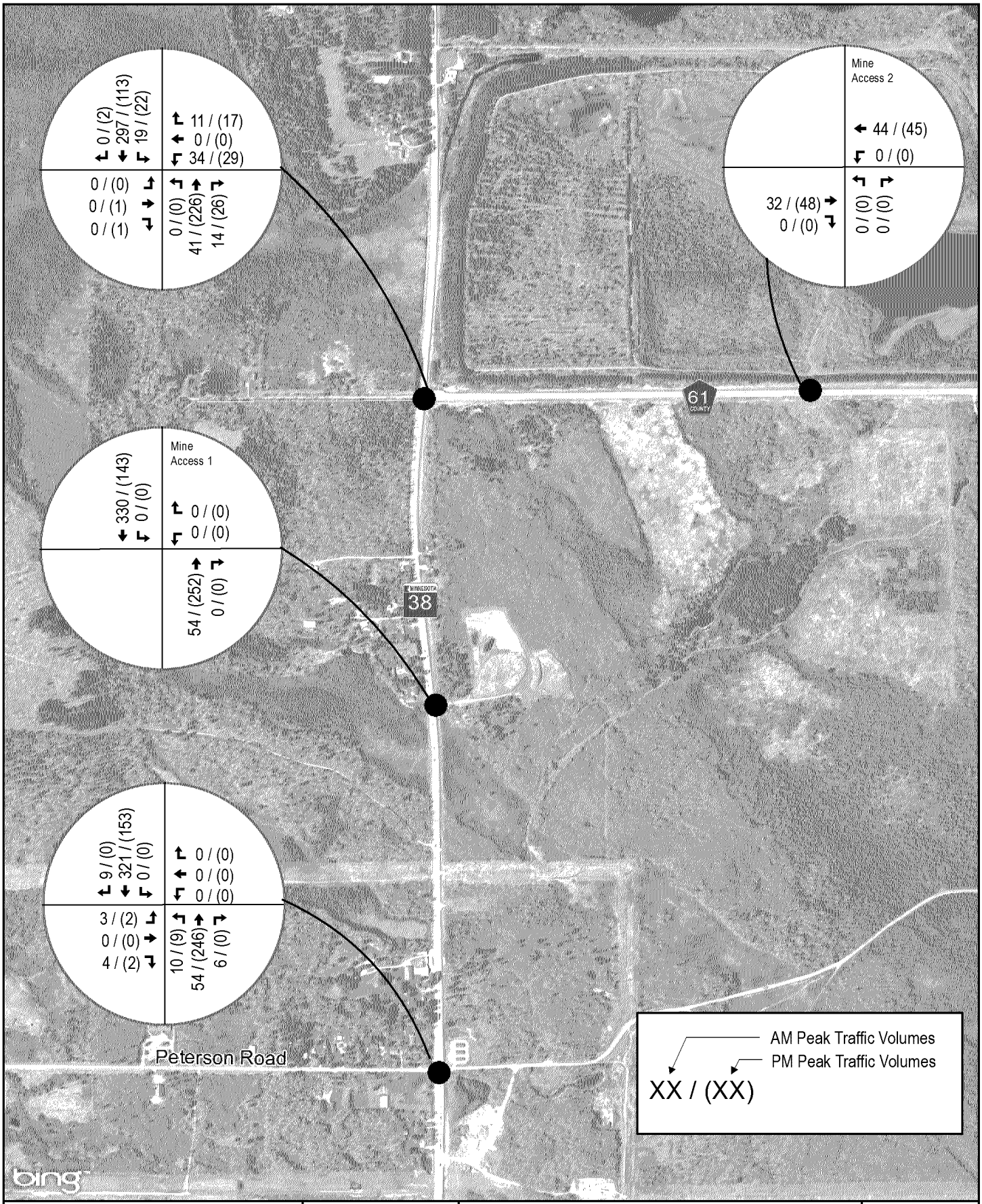
2015 Existing Counts

Hawkinson Construction Proposed Aggregate Mine
Grand Rapids, Minnesota

Figure 2



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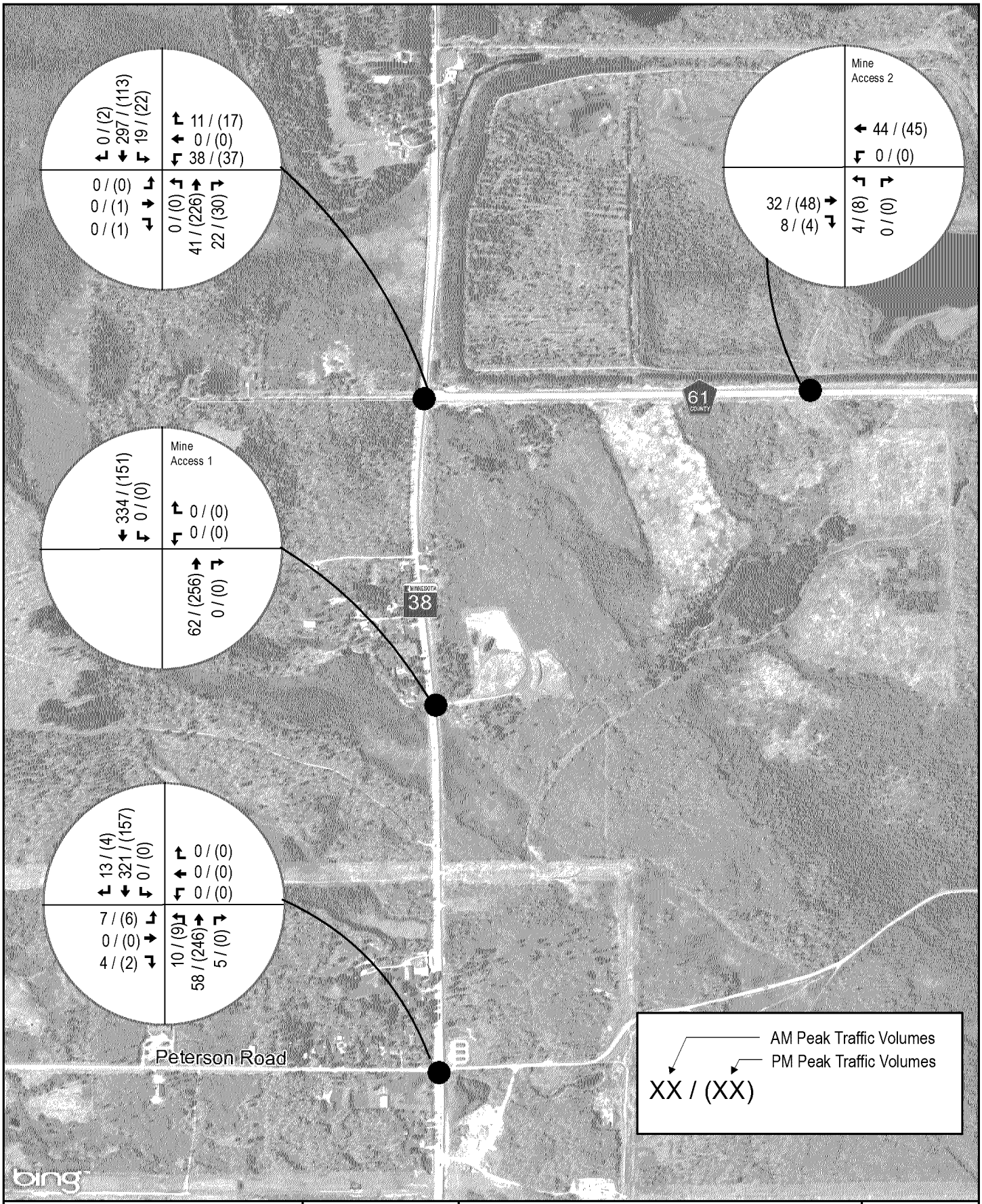
2016 No Build

Hawkinson Construction Proposed Aggregate Mine
Grand Rapids, Minnesota

Figure 3



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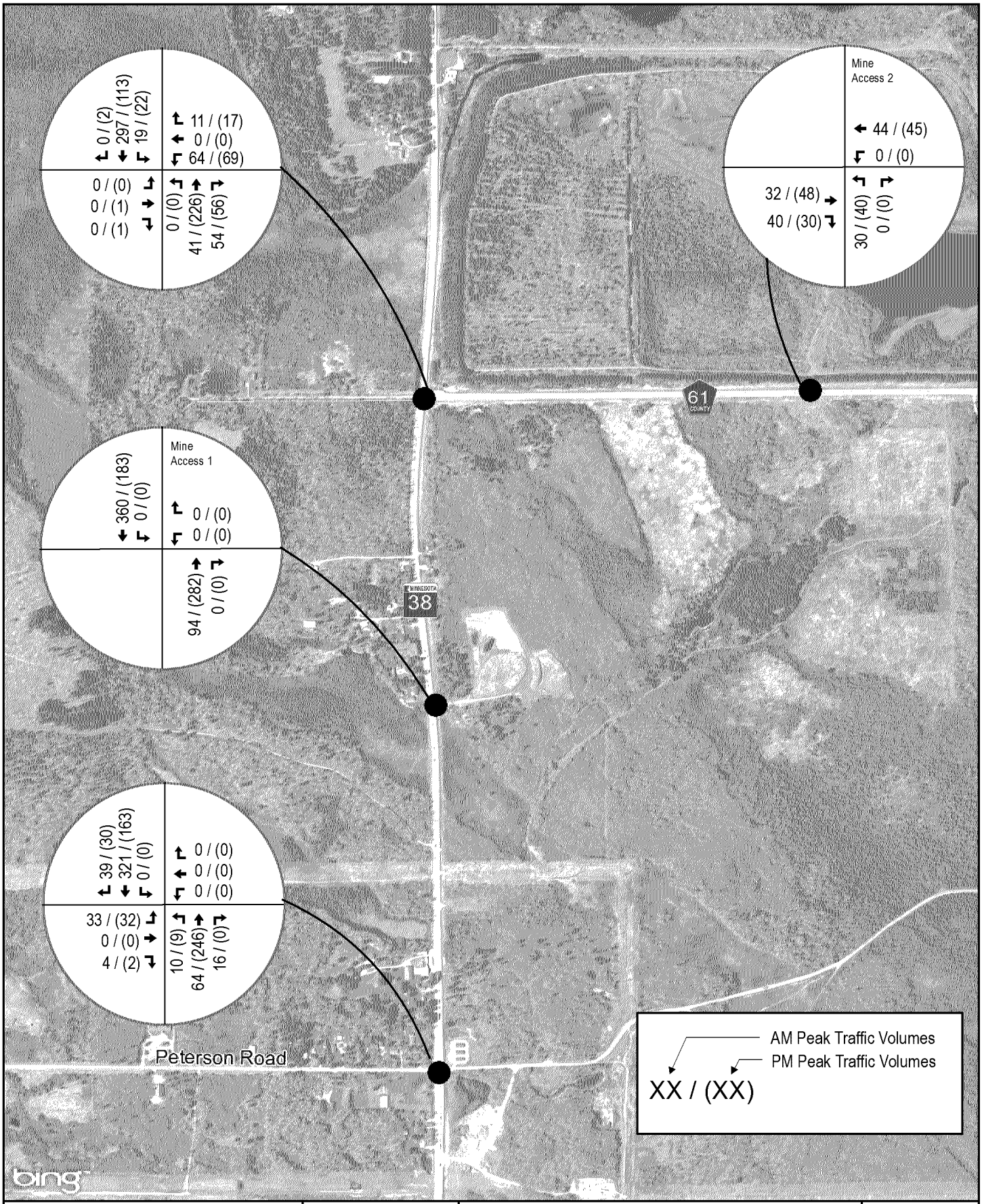
2016 Average Mine Operations Using Mine Site Access 2

Hawkinson Construction Proposed Aggregate Mine
Grand Rapids, Minnesota

Figure 4



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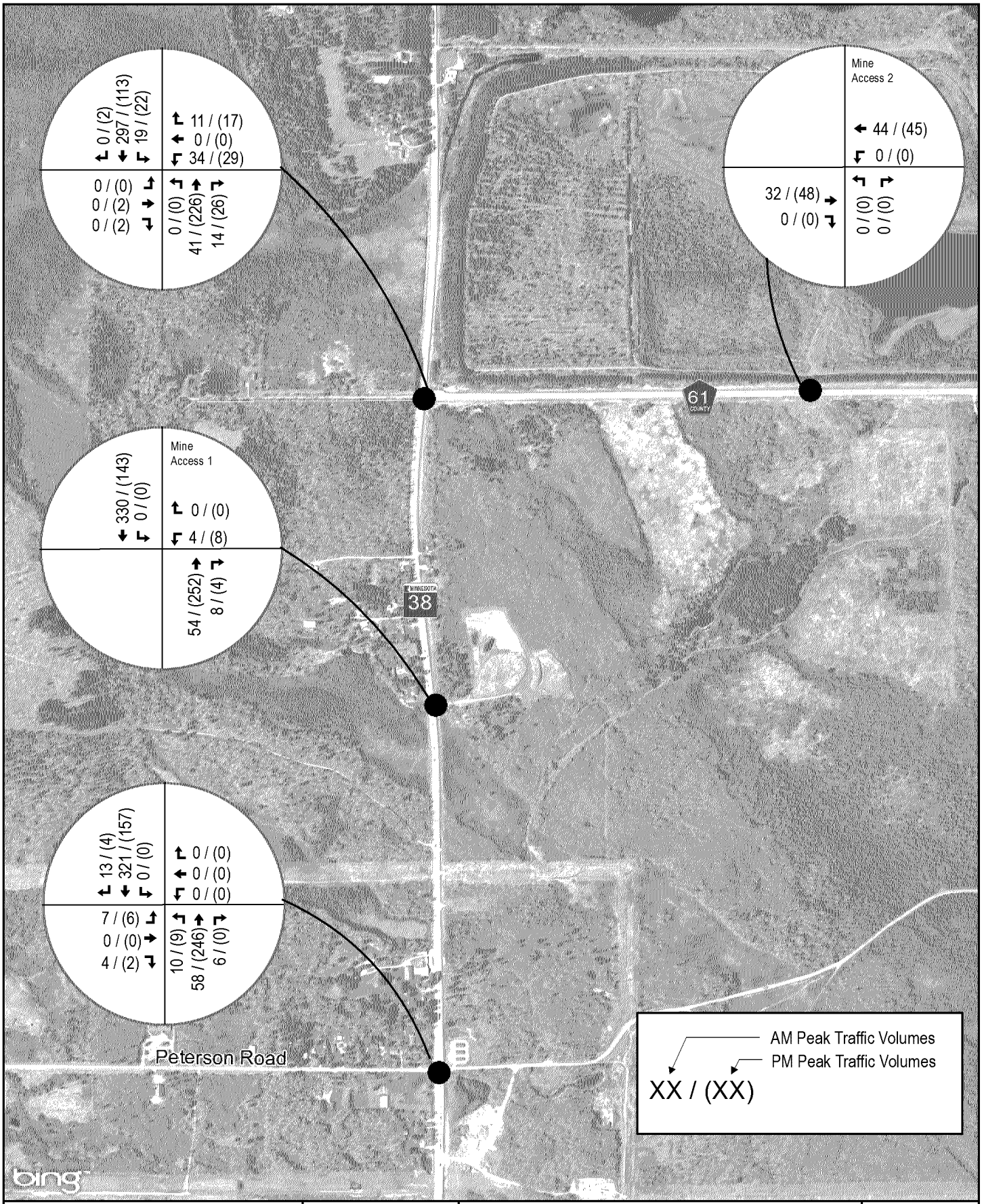
2016 Maximum Mine Operations Using Mine Site Access 2

Hawkinson Construction Proposed Aggregate Mine
Grand Rapids, Minnesota

Figure 5



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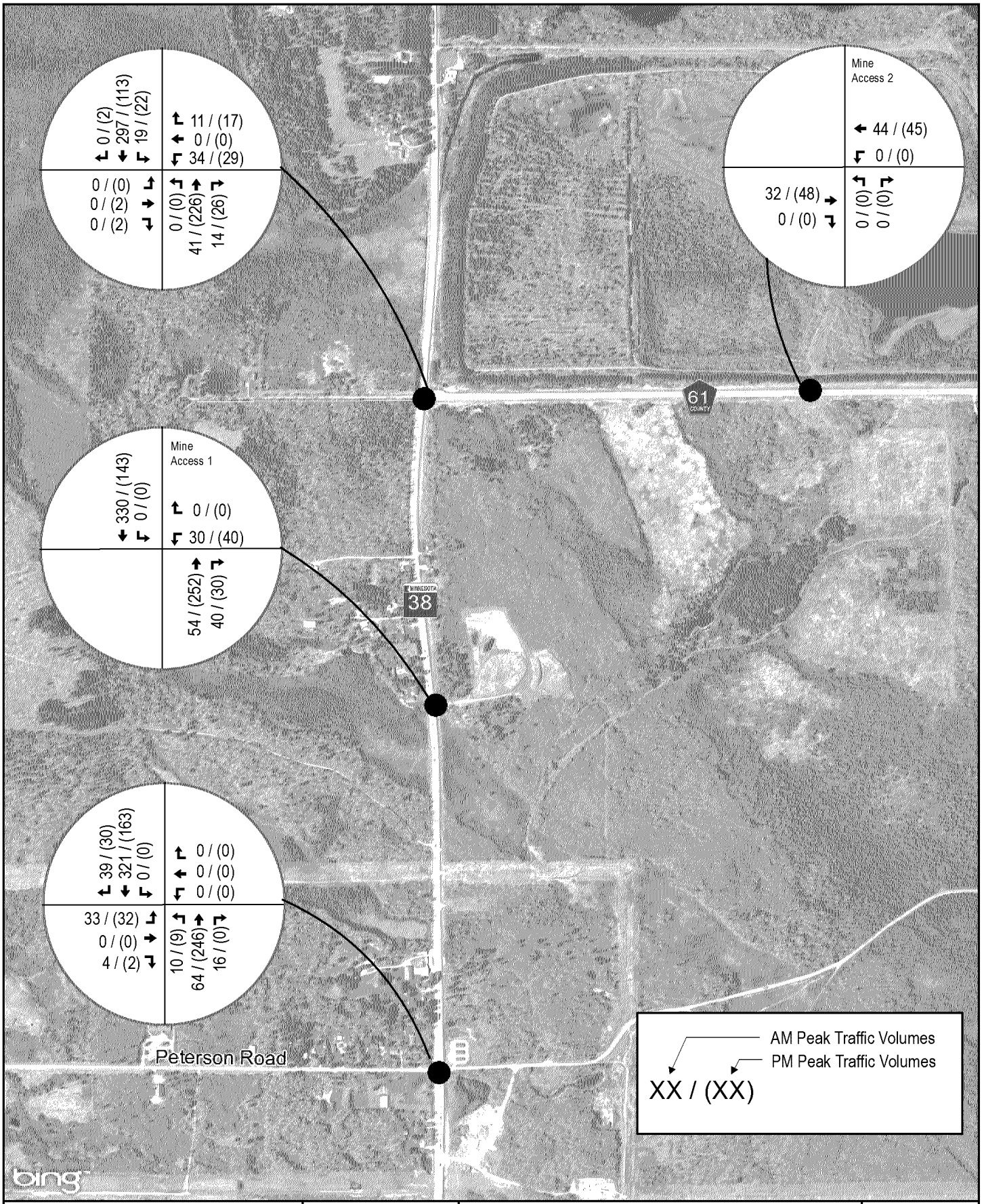
2016 Average Mine Operations Using Mine Access 1

Hawkinson Construction Proposed Aggregate Mine
Grand Rapids, Minnesota

Figure 6



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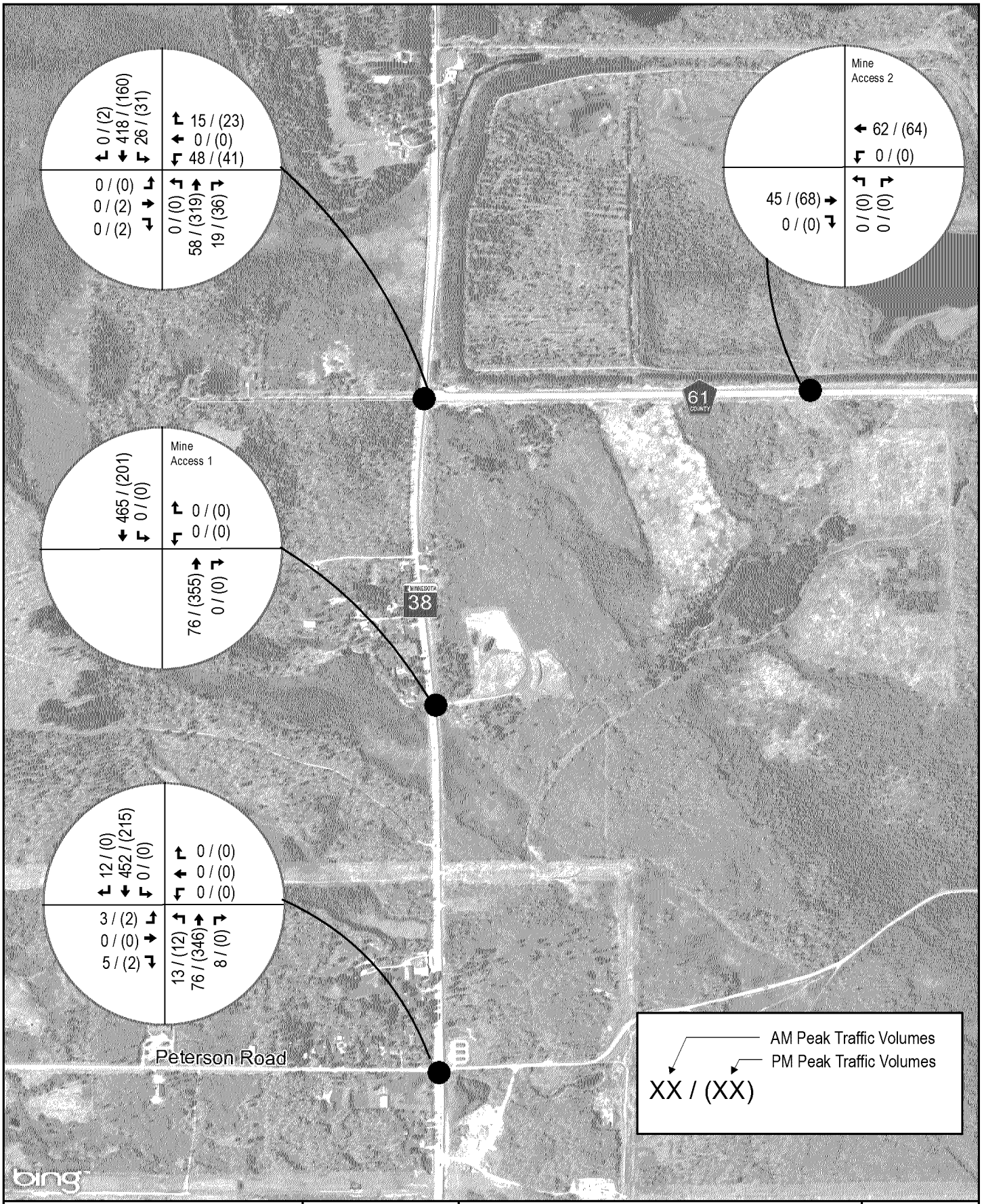
2016 Maximum Mine Operations Using Mine Site Access 1

Hawkinson Construction Proposed Aggregate Mine
Grand Rapids, Minnesota

Figure 7



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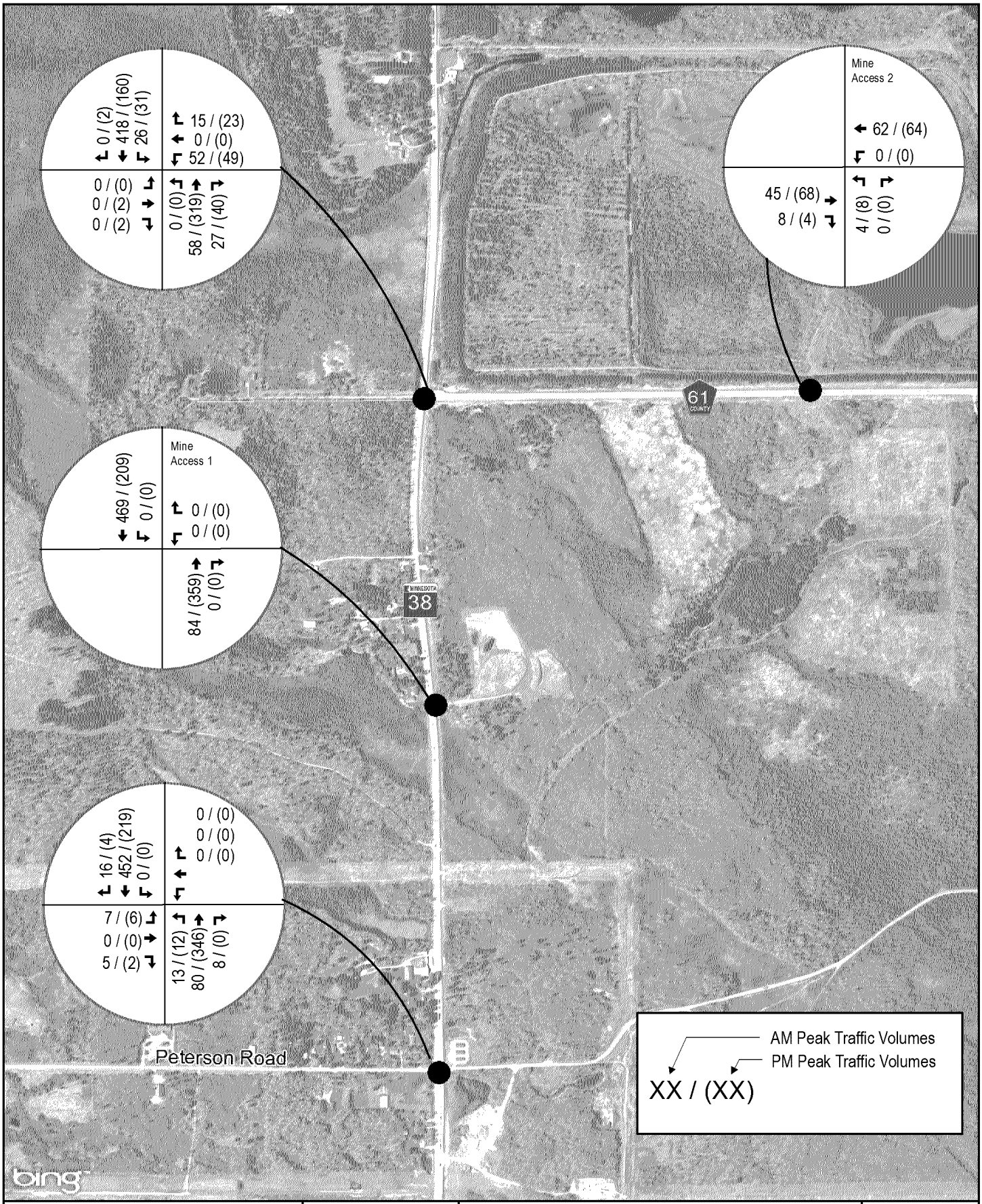
Map by: msteuernagel
Projection: Itasca County
Source: BING, MnDOT

2036 No Build

Hawkinson Construction Proposed Aggregate Mine
Grand Rapids, Minnesota

Figure 8



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SEH
3535 VADNAIS CENTER DR.
ST. PAUL, MN 55110
PHONE: (651) 490-2000
FAX: (888) 908-8166
TF: (800) 325-2055
www.sehinc.com

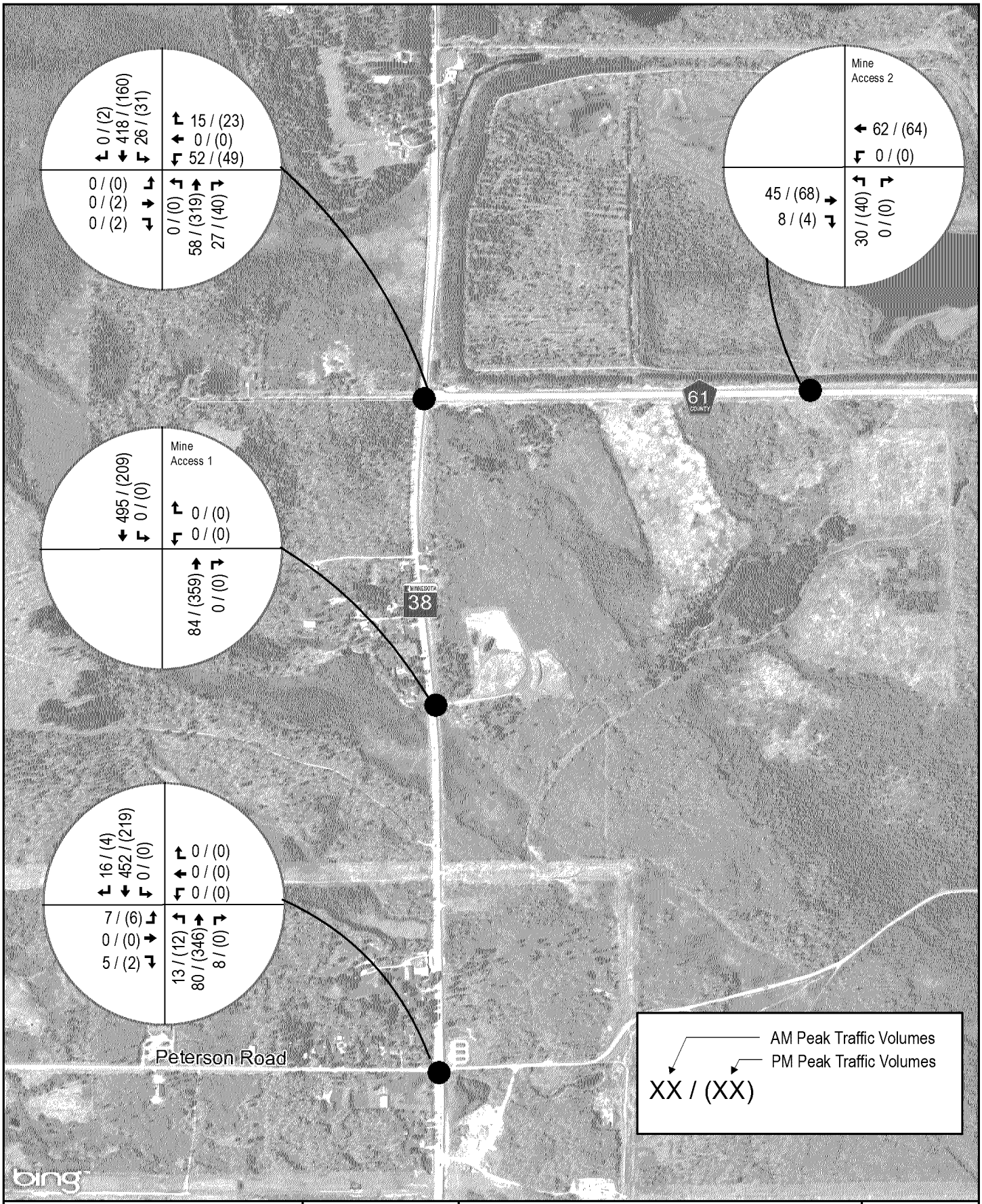
Project: GRANR 131970
Print Date: 4/17/2015

Map by: msteuernagel
Projection: Itasca County
Source: BING, MnDOT

2036 Average Mine Operations Using Mine Access 2

Hawkinson Construction Proposed Aggregate Mine
Grand Rapids, Minnesota

Figure 9



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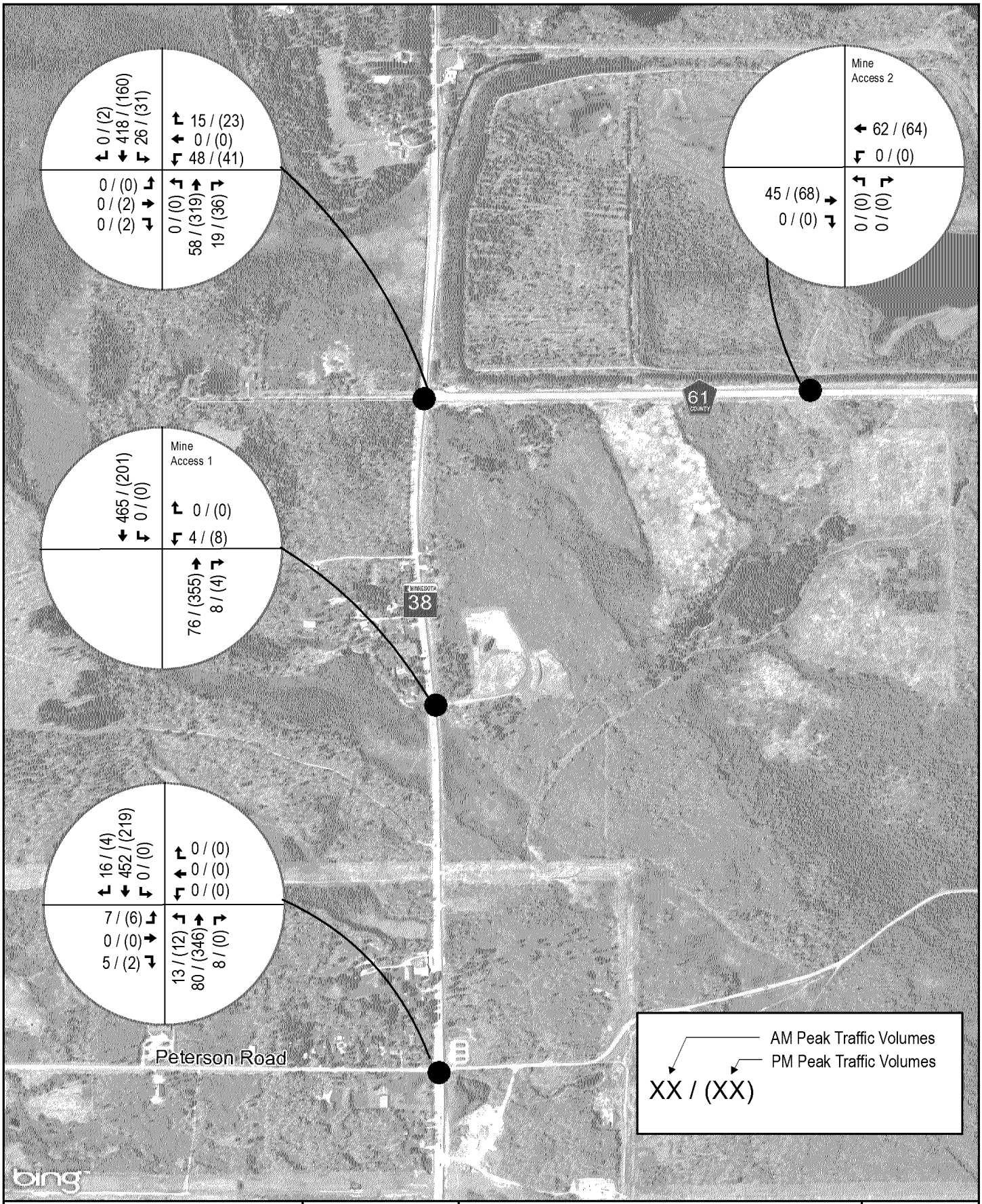
Project: GRANR 131970
Print Date: 4/17/2015

Map by: msteuernagel
Projection: Itasca County
Source: BING, MnDOT

2036 Maximum Mine Operations Using Mine Access 2

Hawkinson Construction Proposed Aggregate Mine
Grand Rapids, Minnesota

Figure 10



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SEH

3535 VADNAIS CENTER DR.
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www.sehinc.com

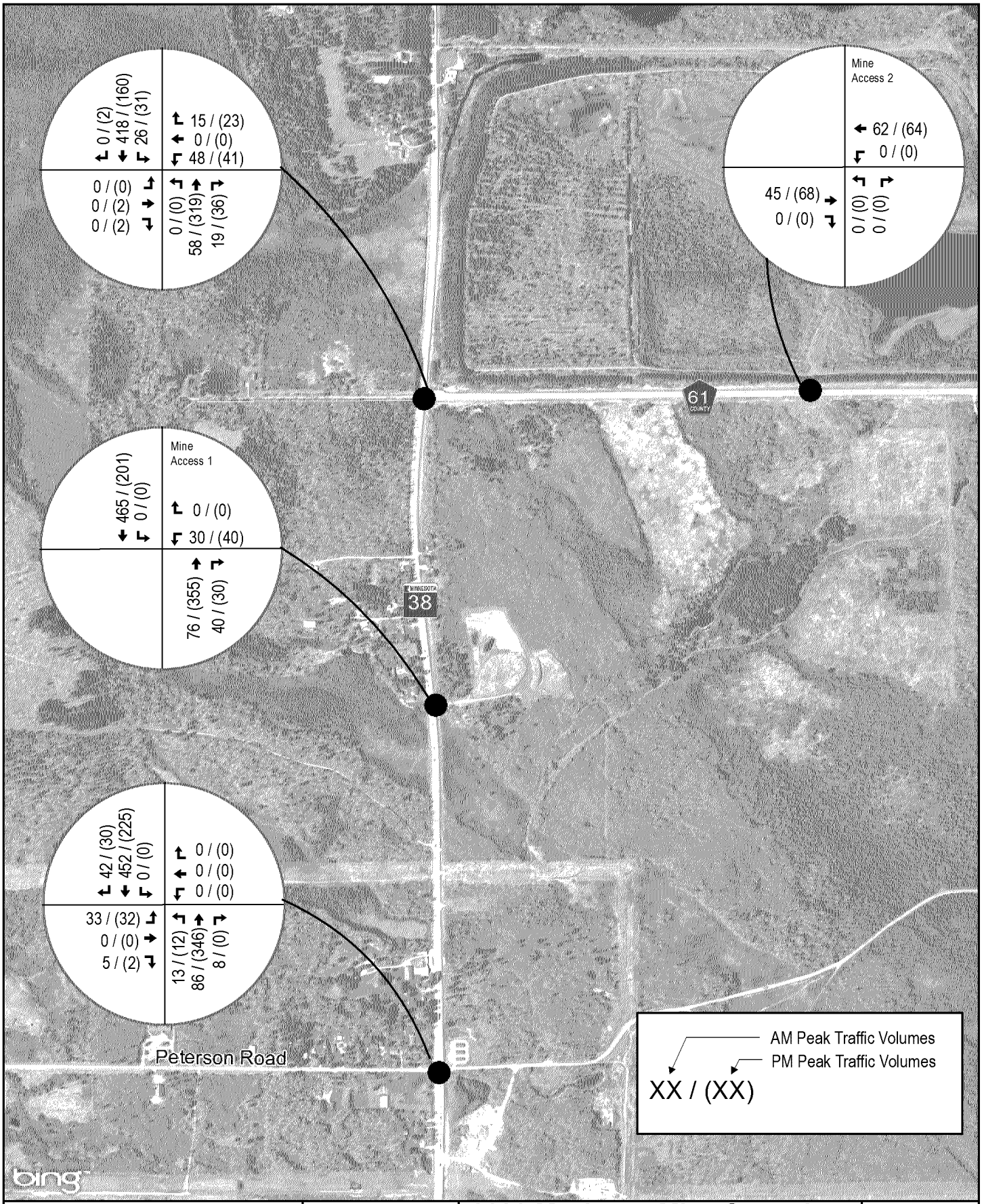
Project: GRANR 131970
Print Date: 4/17/2015

Map by: msteuernagel
Projection: Itasca County
Source: BING, MnDOT

2036 Average Mine Operations Using Mine Site 1

Hawkinson Construction Proposed Aggregate Mine
Grand Rapids, Minnesota

Figure 11



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SEH
3535 VADNAIS CENTER DR.
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www.sehinc.com

Project: GRANR 131970
Print Date: 4/17/2015

Map by: msteuernagel
Projection: Itasca County
Source: BING, MnDOT

2036 Maximum Mine Operations Using Mine Access 1

Hawkinson Construction Proposed Aggregate Mine
Grand Rapids, Minnesota

Figure 12

Councilor Zabinski introduced the following resolution and moved for its adoption:

RESOLUTION NO. 16-115

RESOLUTION APPROVING A NEGATIVE DECLARATION FOR THE EAW PREPARED FOR THE MINING OF NONMETALLIC AGGREGATE MATERIALS WITHIN THE CITY OF GRAND RAPIDS, AS REQUESTED BY HAWKINSON CONSTRUCTION COMPANY

WHEREAS, Hawkinson Construction Company (HCC) has declared their intentions to seek the necessary approvals and permitting for the mining of nonmetallic aggregate materials within the City of Grand Rapids on approximately 140 acres of land owned by HCC generally located at the corner of MN State Hwy. 38 and Itasca Co. Road 61; and

WHEREAS, the City of Grand Rapids is acting as the designated responsible governmental unit (RGU) and, as such, is responsible for the preparation, review and consideration of the EAW following the guidelines set forth under State environmental review procedures, Rule 4410.4300; and

WHEREAS, the City contracted with Braun Intertec Corporation (Braun Intertec) to prepare an EAW examining the potential for significant environmental impacts associated with the proposed mining operation; and

WHEREAS, an EAW was prepared and submitted to the Minnesota Environmental Quality Board for publication in the EQB Monitor on October 17, 2016, and distributed to all applicable review agencies and depositories of information; and

WHEREAS, the City conducted a public meeting on November 14, 2016 to receive oral comments from the public: and

WHEREAS, a Record of Decision document dated December 6, 2016 has been prepared reflecting all written and auditory comment with appropriate response to each comment.

WHEREAS, Findings of Fact and Conclusions have been included in said Record of Decision.

NOW THERFORE BE IT RESOLVED, that based on the review of the EAW, giving due consideration to the comments and evidence received, the City of Grand Rapids hereby adopts the Record of Decision dated December 6, 2016 and determines that a potential for significant environmental effects have been addressed in the EAW and that the preparation of an EIS for the proposed mining of nonmetallic aggregate materials is not required. City staff is hereby directed to forward both the comments and the EAW decision to all of the responding review agencies.

ADOPTED BY THE CITY COUNCIL THIS 12th DAY OF DECEMBER, 2016.

Dale Adams

Dale Adams, Mayor

ATTEST:

Kim Gibeau, City Clerk

Councilor Zeige seconded the foregoing resolution and the following voted in favor thereof Blake, Christy, Zeige, Zabinski, Adams; and the following voted against same: None; whereby the resolution was declared duly passed and adopted.

FINDINGS OF FACT AND CONCLUSIONS

PROPOSED AGGREGATE MINE EAW

Grand Rapids, Minnesota

Prepared for:
City of Grand Rapids

December 6, 2016

TABLE OF CONTENTS

FINDINGS OF FACT AND CONCLUSIONS

PROPOSED AGGREGATE MINE

CITY OF GRAND RAPIDS
ITASCA COUNTY, MINNESOTA

1.0 ADMINISTRATIVE BACKGROUND

The City of Grand Rapids (City) is the Responsible Governmental Unit for this project and Hawkinson Construction Company is the project proposer. An Environmental Assessment Worksheet (EAW) has been prepared for this project in accordance with Minnesota Rules Chapter 4410. The EAW was developed to assess the impacts of the project and other circumstances in order to determine if an Environmental Impact Statement (EIS) is warranted.

The EAW was filed with the Minnesota EQB and circulated for review and comments to the required EAW distribution list. A "Notice of Availability" was published in the EQB Monitor, and the Grand Rapids Herald Review on October 23, 2016. These notices provided a brief description of the project and information on where copies of the EAW were available, and invited the public to provide comments that would be used in determining the need for an EIS on the proposed project. The EAW was made available for public review at Grand Rapids City Hall, the Grand Rapids Public Library, and on the City's website.

A public hearing for the proposed project was held on Monday November 14, 2016, at the Grand Rapids City Hall. The hearing presented information of the proposed development and operation of an open-pit aggregate mine that will extract granite and quartzite from the underlying bedrock and identified potential environmental impacts of the project. There were no comments or questions made at the hearing by members of the public. Written comments were received through Wednesday, November 23, 2016. All comments received during the EAW comment period, including those received from the public hearing, were considered in determining the potential for significant environmental impacts. Comments received during the comment period, and responses to the comments, are provided in Appendix A.

2.0 PROJECT DESCRIPTION

The proposed project involves development and operation of an open-pit aggregate mine that will extract granite and quartzite from the underlying bedrock. The project location is east of Highway 38 and south of Highway 61 in the northern part of the City of Grand Rapids. Most rock crushing is planned to be performed at an existing nearby pit (off of Peterson Road) but some crushing may be done at the project site. The operational life of the mine is expected to be approximately 50 years.

Corrections to the EAW or Project Changes Since the EAW was Published

Since the EAW was published, the following project items have changed or been updated:

- During the public hearing, a question was raised by a Council Member about the impacts of heavy truck traffic to Peterson Road. The road was inherited by the City from the township, and there are no known design or as-built drawings related to its design or construction. Soil borings taken through the road in 2015 suggest that the road was not designed to support high volumes of heavy truck traffic, and heavy truck traffic use is anticipated to degrade the road over time. Reconstruction of the road will be needed in the future, and funding of costs for this reconstruction will be negotiated between the City and Hawkinson Construction.

3.0 DECISION REGARDING NEED FOR ENVIRONMENTAL IMPACT STATEMENT

Type, Extent, and Reversibility of Impacts

The City of Grand Rapids finds that the analysis completed for the EAW is adequate to determine whether the project has the potential for significant environmental effects. The EAW described the type and extent of impacts anticipated to result from the proposed project. Following are the findings regarding potential environmental impacts of the proposed project and the design features included to avoid, minimize, and mitigate these impacts.

Land Use Impacts

Impacts:

A potential conflict exists with the residences abutting the western boundary of the project. The potential conflict is primarily related to potential noise, dust and odors that will be generated by aggregate extraction and operations.

A potential conflict exists due to the forced relocation of the DNR-recognized snowmobile trail that currently runs through the property.

Mitigation Measures:

Land use conflict mitigation measures include:

- Adherence to City setback requirements (250' from residences);
- Preblast survey of foundations and wells of nearby residences;
- Timely prenotification of blasting activities; and
- Strict adherence to site dust control measures.
- According to Itasca County, the County is the local sponsor of the snowmobile trail and will work with the project proposer and MN DNR on the rerouting of the trail.

Wetland Impacts

Impacts:

Over the life of the mine, approximately 34 acres of wetlands will be directly impacted and need replacement.

Mitigation Measures:

Prior to impacting any wetlands, the wetland boundaries will be delineated according to MN Wetland Conservation Act requirements. A Wetland Mitigation Plan will be prepared and submitted with the wetland permit application. The Plan will include detailed design plans and data, the administrative procedures, and will address the need for wetland replacement. Wetland replacement will be done on at least a one-to-one ratio. The project location is within Minnesota Wetland Bank Service Area 5, and replacement is expected within this service area. Wetland impact permitting will require consideration of wetland impact avoidance, wetland impact minimization, and wetland replacement, and will be led by the Itasca County Soil and Water District. On-site wetland replacement will be encouraged through integration of City-required mine reclamation planning (as part of the Conditional Use Permit) with wetland permitting.

Air Emissions Impacts

Impacts:
Nearby residents have potential to be impacted by air emissions from operating equipment during construction and operation of the mine.

Mitigation Measures:
Stationary source emissions will be limited to the rock crusher(s), screens, transfer equipment (e.g., conveyors), associated diesel-fueled engines used to power the equipment, and stockpiles. Air quality standards that will be adhered to by facility operations are set forth in MPCA Rules Chapter 7001-7030.

Dust and Odor Impacts

Impacts:
Nearby resident have potential to be impacted by:

- Dust from truck movements within the facility
- Dust from blasting operations (1-2 times per year)
- Odors may be generated from operation of facility equipment engines and truck traffic and possibly from excavation and stockpiling of organic soils.

Mitigation Measures:
Dust mitigation measures will include preparing and implementing a dust control plan.

Odor mitigation measures will include minimizing equipment used on-site, minimize idling, keep engines in good repair, minimize idling truck traffic through scheduling, and covering of organic soils if needed.

Noise Impacts

Impacts:

While there are no known sensitive receptors adjacent to the project area, nearby residents have potential to be impacted by noise from:

- Heavy machinery and truck traffic during project construction
- Drilling and blasting during mine operation
- Truck noise from hauling operations during mine operation

Mitigation Measures:

Equipment will be fitted with standard noise reduction devices, such as mufflers and broad band back-up alarms.

Hours of operation will be controlled, and operations will be limited to Monday through Saturday 6:00 AM to 7:00 PM.

Berm construction around portions of perimeter areas of the project area will aid in noise reduction.

Traffic Impacts

Impacts:

Maximum mine operations have potential to produce minor delays (Level of Service degrades from A to B) during a.m. and p.m. peak traffic hours at the intersection of Peterson Road and Highway 38.

Heavy truck traffic on Peterson Road will degrade the road over time.

Mitigation Measures:

Construction of right-turn only lane on westbound Highway 61 into existing mine access, and construction of right-turn only lane on northbound Highway 38 into new mine access will minimize traffic impacts.

Reconstruction of Peterson Road will be needed in the future, and costs for this reconstruction will be negotiated between the City and Hawkinson Construction.

Cumulative Potential Effects of Related or Reasonably Foreseeable Future Projects

The area surrounding the project is mostly undeveloped. No other development activities in the area are planned by or known to the City. As described on page 22 in the EAW, there is no known potential for significant cumulative effects from the proposed project and other reasonably foreseeable future actions.

Extent to Which the Environmental Effects are Subject to Mitigation by Ongoing Public Regulatory Authority

The mitigation of environmental impacts will be designed and implemented in coordination with regulatory agencies and will be subject to the plan approval and permitting process. Permits and approvals that have been obtained or may be required prior to project construction include those listed in Table 1.

Table 1– Agency Approvals and Permits

Unit of Government	Type of Application	Status
MnDOT	*Highway Construction Permit*	*To be submitted*
Itasca County	*Highway Construction Permit*	*To be submitted*
Itasca County	*Driveway Approach Permit*	*To be submitted*
Itasca County Soil and Water Conservation District	*Wetland Permit*	*To be submitted*
Minnesota Pollution Control Agency	*Nonmetallic Mining NPDES/SDS*	*To be submitted*
Minnesota Pollution Control Agency	*Air Permit*	*To be determined*
Minnesota Department of Natural Resources	*Groundwater Appropriation permit (if necessary)*	*To be submitted*
City of Grand Rapids	*Conditional Use Permit*	*To be submitted*
City of Grand Rapids	*Stormwater Permit*	*To be submitted*

Extent to Which Environmental Effects can be Anticipated and Controlled as a Result of Other Environmental Studies

No other environmental studies are known to have been performed that provide relevant environmental information for use in evaluating the environmental effects from the proposed project.

4.0 CONCLUSIONS

1. All requirements for environmental review of the proposed project have been met.
2. The EAW related to the project has generated information which is adequate to determine whether the project has the potential for significant environmental effects.
3. Areas where potential environmental effects have been identified will be addressed during permitting and the final design of the project. Mitigation will be provided where impacts are expected to result from project construction, operation, or maintenance. Mitigative measures will be incorporated into project design, and will be coordinated with City, state and federal agencies during the permitting process.
4. Based on the criteria in Minnesota Rules part 4410.1700, the project does not have the potential for significant environmental effects.
5. An Environmental Impact Statement is not required for the proposed Aggregate Mine Project.

Dale Adams — 12-13-16

Dale Adams
Mayor, City of Grand Rapids

Date

APPENDIX A

EAW Public and Agency Comments and Responses

APPENDIX A

Proposed Aggregate Mine EAW
Grand Rapids, MN
Summary of Comments and Responses to Comments

12/6/2016

Commenter agency	Commenter name	Date of comments	Section	Comment	Response
Minnesota Office of the State Archaeologist	Amanda Gronhovd, Minnesota State Archaeologist	11/9	Not referenced	Because there is a reported archaeological site (21ICb)) within the project boundary, I recommend that a qualified archaeologist examine the area to determine if the project could result in adverse effects to archaeological resources.	The requirement for an archaeological survey will be recommended for inclusion into the conditional use permit (CUP) which will be issued by the City of Grand Rapids.
MPCA		11/23	Item 8	Please note that it may be more cost effective for the facility to obtain the single Nonmetallic Mining & Associated Activities National Pollutant Discharge Elimination System/State Disposal System (NPDES/SDS) General Permit (MNG490000), then both the General Permit for Industrial Stormwater Activity (MNR10000) and General Permit for Construction Stormwater Activity as indicated in the table in this section. For questions regarding the Nonmetallic Mining & Associated Activities NPDES/SDS General Permit, please call Jeff Udd at 218-302-6637	Comment noted.
		11/23	Item 10	Please note that soil 870C is classified as 2-12% slope in the table, but according to the Natural Resource Conservation Service soil survey it is 6-12%.	Comment noted.
		11/23	Item 11	The water quality in this watershed is very good, and projects which will reduce forest cover and impact wetlands are concerning, as they both have negative impacts on water quality. It is imperative that stormwater is sufficiently treated and that the wetland replacement strategy is in place before the project begins.	The project will be phased so as to avoid impacts to wetlands for the first phase. A wetland replacement strategy and wetland permitting will be required before any wetland impacts occur.
		11/23	Item 11	As noted in the EAW, Prairie Lake is impaired for nutrient/eutrophication biological indicators. The impairment will dictate additional increased stormwater treatment during construction and require additional increased permanent treatment post construction. These requirements will be included in the National Pollutant Discharge Elimination System/State Disposal System (NPDES/SDS) Construction Stormwater Permit. The project proposer should determine that compliance with these increased stormwater water quality treatments can be achieved on the project site or elsewhere. Information regarding the MPCA's Construction Stormwater Program can be found on the MPCA's website at http://www.pca.state.mn.us/water/stormwater/stormwater-c.html Questions regarding Construction Stormwater Permit requirements should be directed to Roberta Getman at 507-206-2629.	Comment noted.
		11/23	Item 11	It is unclear in the EAW how stormwater will be treated before flowing into the wetland, which is required. Infiltration systems are not acceptable if there will not be at least 3 feet of clearance between the bottom of the basin and the **seasonally high** groundwater table (this terminology is important - seasonally high groundwater table does not necessarily mean where groundwater is found at any given moment, but rather where hydrological indicators are found).	Comment noted.
		11/23	Item 11	Regarding water appropriation, the EAW does not describe where on site the water will be discharged, best management practices to treat the discharge, or energy dissipation measures that will be utilized.	Comment noted.
		11/23	Item 11	The EAW does not adequately address the wetland replacement strategy. The Department of Natural Resources flow lines show that the wetland on the property flows to the Prairie River. If activity on the site impacts the volume of water flowing to the River, it could have a negative impact on river levels, water chemistry, biology, habitat, etc.	The project will be phased so as to avoid wetlands for the first phase. A wetland replacement strategy and wetland permitting will be required before any wetland impacts occur.
		11/23	Item 11	The effects on water volume flowing to the Prairie River should be addressed, as well as insuring that suitable sedimentation removal occurs so that the black sandshell mussel is not negatively impacted by any decrease in water quality.	Comment noted.

APPENDIX A

Proposed Aggregate Mine EAW
Grand Rapids, MN
Summary of Comments and Responses to Comments

Commenter agency	Commenter name	Date of comments	Section	Comment	Response
		11/23	Item 17	It appears that a noise analysis has not been conducted and information provided in the EAW suggests that the Project proposer may not fully understand the Minnesota state noise rule. There are residents living across the street from this parcel. According to Min.R.7030, noise must comply with the Noise Area Classification level 1 at the residential property line. Nighttime noise standards are more stringent that daytime standards. The EAW states that operation will be restricted to 6 a.m. - 7 p.m. Minn. R. 7030 defined "nighttime" as 10 p.m. - 7 a.m., so the facility will need to comply with the nighttime noise standard from 6 a.m. - 7 a.m. The EAW also states that berm construction and vegetative screening will aid in noise reduction. Please note that vegetation may provide a visual screen, but does little to reduce noise. A rule of thumb about trees is that to noticeably reduce noise, you would need at least 100 feet of dense evergreen trees at least 15 feet tall. The MPCA recommends conducting a more detailed noise analysis or even modeling to determine the Project's likely noise impacts.	The proposed project will be required to meet the Minnesota state noise rule.
MNDNR		11/22	Wetlands	The footprints of NWI wetlands shown in the EAW (apparently derived from U.S. Fish and Wildlife online mapper) do not match the NWI wetlands GIS layer used by MNDNR, this may be due to GIS projection issues. Future wetland delineation in the field should rectify the wetland bounds. Other more recent wetland classifications might be available from the website https://gisdata.mn.gov	Comment noted.
		11/22	Wetlands	The EAW should contain more discussion on the responsibilities for wetland mitigation, as identified in Item 11b-iv(1) "Identify measures to avoid (e.g., available alternatives that were considered), minimized, or mitigate environmental effects to wetlands. Discuss whether any required compensatory wetland mitigation for unavoidable wetland impacts will occur in the same minor or major watershed, and identify those probable locations." The potential mitigation options should appear in the EAW.	The project will be phased so as to avoid wetlands for the first phase. A wetland replacement strategy and wetland permitting will be required before any wetland impacts occur.
		11/22	Land use map	The age of the Land Cover map is listed as 2016. The character of the map indicates an earlier version. If the map is from an earlier version, the actual date should be included and the map layer should be identified. The most current version of a land use map for Minnesota that I am aware of is 2013. The resolution for this layer is 15m.	Comment noted.
		11/22	Geology	The Biwabik iron formation, which is not being targeted in the proposal, lies adjacent to the Pokegama Quartzite and Giant's Ridge granite. The two geologic maps in the EAW portray the contact between the iron formation and the quartzite differently within the property. As iron formation materials are typically claimed by the mineral estate owner, if the candidate parcels are subject to split estate surface and mineral ownerships, then the project proposed will wish to ensure that extraction activities do not use, or impede use, of iron formation materials by the mineral estate owner.	Comment noted. Mineral rights are jointly owned by Hawkinson Construction and MN DNR; extractive activities will be negotiated between the two owners.
NA	Dan Miesle	11/21	Wetlands	Wetlands-34 acres to be consumed. Realizing there are processes that allow use of wetlands banks or on site I believe more specific information is required. Often banks are not located in the geographic area and site specifics [do] not replicate those lost. I am not familiar with the total 140 acre site so optimally there is a net area on site that could be used as it would be much more reflective of the composition of the ecology of the area. Therefore what and where are the specifics?	The project will be phased so as to avoid wetlands for the first phase. A wetland replacement strategy and wetland permitting will be required before any wetland impacts occur.
		11/21	Truck routing	The article noted in response to Mayor Adams question the statement was made at the hearing that traffic from the mine would use Peterson Road and not go into the city proper. I suspect some of the aggregate would be transported to areas south of Grand Rapids so please explain how you would NOT go through Grand Rapids. There is no way around the city that makes any sense from a time (and economics) of transporting. I believe specific routes other than Peterson Road must be used at some point. I believe the community should know exact routes of use of city streets will be both cause congestion and have notable weight stress on streets resulting in more frequent upgrades at taxpayer cost. Since I live on McKinney Lake any routing on Hwy 38 will add even more noise and traffic congestion for everyone along the route, notably those also using the Civic Center and High School.	The project is for new source material for the existing aggregate operation. As such, the majority of material would be moved from the project site, along Peterson Road, to the existing aggregate operation, Brink Pit. The proposed project is not intended to be an increase in production to the existing aggregate operation. Traffic from the existing aggregate operation is not anticipated to be changed based on this proposed project.

APPENDIX A

Proposed Aggregate Mine EAW
Grand Rapids, MN
Summary of Comments and Responses to Comments

Commenter agency	Commenter name	Date of comments	Section	Comment	Response
		11/21	Hours of operation	From the description this will become a large operation. Giving the washing and grading process will create added noise to this area of town. What will be the hours of operation and what enforcement will be taken for any potential violations? Will these vary [by] time of year, e.g. will expanded hours be allowed during the summer due to longer daylight hours?	The washing and grading process will be conducted at the existing aggregate operation, Brink Pit. Hours of operation at the proposed project site will be limited to Monday through Saturday 6:00AM to 7:00PM or as limited by City, state and federal rules.
Minnesota Historical Society	Sarah Beimers	11/16	Not referenced	Due to the nature and location of the proposed project, we recommend that a Phase I archaeological survey be completed. The survey must meet the requirements of the Secretary of the Interior's Standards for Identification and Evaluation, and should include an evaluation of National Register eligibility for any properties that are identified. We will reconsider the need for survey if the project area can be documented as previously surveyed or disturbed.	The requirement for an archaeological survey will be recommended for inclusion into the conditional use permit (CUP) which will be issued by the City of Grand Rapids.
Itasca County	Kory Cease	11/17	Snowmobile trail	Itasca County is the local government sponsor of this Grant In Aid snowmobile trail. We will be working with Hawkinson on any possible re-routing to ensure that trail connectivity and continued community economic impact. Communications can be directly with Itasca County Land Department and the MNDNR Parks and Trails Office on any re-alignments to the trail.	Comment noted.
		11/17	Noxious weeds	Also, the Land Department is responsible for the duties of County Agricultural Inspector to help manage noxious weeds within Itasca County. As part of these duties, we would like to inform you that Spottent knapweed, Canada thistle, and Common tansy lie within the right of way on County Road 61, and Common tansy on Hwy 38 close to the proposed aggregate site. These species are listed under the Minnesota State Noxious Weed Law in accordance to Minnesota Statutes, sections 18.75 to 18.91. We have concerns that these noxious weeds could become or are already established within the proposed site since it lies within the right of way. We would like Hawkinson to have a plan for taking appropriate precautions to ensure control of these invasives, if any are found on site before or during operations. Our office has conducted invasive control on this right of way with spraying and biological control for Spotted knapweed. If Hawkinson needs assistance is identifying any of these species that may potentially be on their property, they can contact Sara Thompson or myself at the Land Department. We are more than happy to help. Please keep us informed of the status of this proposed project.	Comment noted.
			Noise	The noise that goes with [excavating] the land. The noise that comes with the crushing of the rocks. The noise from the machinery and trucks at the site. There will be constant beeping from trucks and other machinery. My neighbors and I have to listed to the stock car races all summer long in the evening from stock cars and now this mining company wants to put ina ruck crushing mine and we, neighbors to this mine, will have to listen to their crushing of rocks, machinery and truck noises all day long for six days a week.	Comment noted. The proposed project will be required to meet the Minnesota state noise rule.
			Debris	I can just imagine the debris[s] that will be left on the roads from trucks hauling this crushed rock. We all know how much dust from this operation there will be and this comes from the mining trucks and the mining site itself.	Comment noted.
			Senior Citizens in area	On Highway 38 within a short distance from this operation is an apartment complex which houses mostly senior citizens. I can not help but to feel how the noise that comes from this mining operation may affect them. A block south of this complex is two more assisted living buildings, these senior citizens are also going to be affected by the noises coming from this mine site and this would be from the blasting, the trucks and other things that come from mining. Again there will be noises from blasting of the rocks, the machinery and truck noises. I would like to know if this blasting will affect our house and the foundations. This commotion will affect a lot people that live not to far from this proposed mining operation.	Comment noted. The proposed project will be required to meet the Minnesota state noise rule, and the project proposer will perform pre-mining building surveys of nearby buildings.

APPENDIX A

Proposed Aggregate Mine EAW
Grand Rapids, MN
Summary of Comments and Responses to Comments

Commenter agency	Commenter name	Date of comments	Section	Comment	Response
NA	Gene Bennett	11/21	Traffic	Highway 38 is a scenic highway that is used heavily by both residents but also many tourists in the summer and fall. As we know traffic is going both north and south on Highway 38 and with the addition of all the extra traffic from the mine trucks I feel it will be a traffic hazard as fully loaded trucks turning south onto Highway 38 from County Road 61 will be turning in front of vehicles. When the trucks get to the Peterson Road they have to slow down to turn and go west on the Peterson Road, with all the traffic on Highway 38 this may become a hazard as traffic maybe backing up behind them. The same thing will happen when the empty trucks come back and need to turn left to go north Highway 38 to County Road 61. All I can think of is with all this extra traffic and types of vehicles it may be a traffic hazard. I do not live on the Peterson Road but have to feel for all those residents that do. With all the extra truck traffic and vehicle noise it will not be the quiet road it was. When I mentioned heavier traffic I should bring up that I live on 20th St NE and have to use Highway 38. It is already getting harder harder to get onto Highway 38 due to the traffic but it will be harder yet due to extra traffic from other vehicles associated with this new mine. We know there will be other traffic from this mine so both me and other residents living on Highway 38 between County Rd 61 and Grand Rapids are going to find it harder and harder to get on Highway 38 due to the new traffic.	Comment noted. A traffic study was conducted to determine the expected impacts to traffic in the area.
			Mine closure	I would like to know what happens after the life span of 25 years to 50 years of the mine? Do we have just another hold in the ground and piles of useless dirt? We have this already in that area and if you go down the road east on Co Rd 61 you will see the magnetation plant and look at the mess Co Rd 61 to Coleraine is like and that mine was only open a short time.	A reclamation plan will be required as part of the conditional use permitting process.
NA	James Lane	11/18	Noise	My main concern is noise pollution from a rock crusher and large trucks going by my house. I now live one and three fourths miles east of the present pit. Eight months out of the year I can hear the rock crusher running. The proposed pit would be one and one half miles or less north east of my house which would be louder if it contained a rock crusher.	Comment noted. The proposed project will be required to meet the Minnesota state noise rule.
			Traffic	In the Herald Review article of November 16, 2016 it states the truck traffic will be using the Peterson Road. The Peterson Road is in no condition for heavy haul trucks. Three fourths of a mile runs through a swamp with no ditches. The road and the swamp are at the same level. Two inches of rain will cover part of the road. In the past when they widened Highway 38 they used the Peterson Road and had to repair it many times.	Comment noted. The road is likely to be impacted by heavy truck traffic. Reconstruction of the road will be needed in the future, and funding of costs for this reconstruction will be negotiated between the City and Hawkinson Construction.
			Traffic	This summer they used the Peterson Road for a haul road when they were resurfacing county road 49. The truck traffic was heavy, loud and fast {50 mph in a 30 mph zone}.	Comment noted.
			Not referenced	Instead of worrying so much about the effect on some wetlands you should take into consideration the effect it has on the residence and the tax payers in the area.	Comment noted.
US Army Corps of Engineers	William Baer	11/16	Not referenced	Due to the general nature of the information provided in the documents, it is unlikely that U.S. Army Corps of Engineers Regulatory staff will review or comment on the documents until we receive a jurisdictional determination request and/or a permit application.	Comment noted.

Grand Rapids Planning Commission

Grand Rapids, MN – City Hall

RULES FOR A PUBLIC HEARING

1. After the Chairperson opens the Public Hearing, background on the issue at hand will be given by our Community Development Department Staff and by other presenters.

2. Anyone who wishes to address the Commission about the issue may do so, and all who wish to speak will be heard. Please step to the lectern to use the microphone, and state your name and address for the public record. **These Proceedings are recorded**. Please keep your comments relative to the issue. Please keep in mind that you are addressing the Planning Commission, not debating others in the audience who may have conflicting viewpoints. At all times, be courteous and refrain from interrupting any other speaker present on the floor.

3. After everyone has spoken, the Public Hearing will be closed. At this point, Planning Commissioners may ask clarifying questions from citizens and presenters.

4. The Chairperson will go through the legal Considerations for the Issue of the Public Hearing, after which the Commissioners will vote on the issue.

PLANNING COMMISSION

CONSIDERATIONS

CONDITIONAL USE PERMIT

1. Will not be detrimental to the public health, safety, morals, or general welfare?
   Why/Why not?

2. Will not cause undue traffic congestion or hazards and will not result in a parking shortage?
   Why/Why not?

3. Will not be injurious to the use and enjoyment or result in a decrease in value of other property in the area?
   Why/Why not?

4. Will not impede the orderly development of other property in the area?
   Why/Why not?

5. Will not impose an excessive burden on parks and other public facilities and utilities?
   Why/Why not?

6. Is consistent with the Comprehensive Plan?
   Why/Why not?