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15203 South Telegraph
Road Monroe, Michigan
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December 16th, 2022

Township Planning Commission,

Stoneco provides the responses set forth below in response to the Planning Commission's Document ADDITIONAL INFORMATION NEEDED IN ORDER TO COMPLETE THE APPLICATION, Carlisle Wortman Associates, Inc. review dated November 18, 2022.

Comments provided from the Sharon Township Planning Commission, Re: ADDITIONAL INFORMATION NEEDED IN ORDER TO COMPLETE THE APPLICATION

1. The mining is proposed to be accomplished on three "cells," with two cells (#s 1 and 3) being north of Pleasant Lake Road, and one cell (# 2) being south of the Road. Cells 1 and 3 are proposed to be conducted for a relatively short period of time, 6 to 7 ½ years for both. Cell 2 is proposed to be conducted for a period of about 14 years, which is twice as long as the time for both of the cells on the north side of the Road combined. However, the processing of resources is indicated in the plans to be only on the north side of Pleasant Lake Road. In other words, based on what has been submitted to date, the part of the operation that will by far be conducted for the longest period of time is on the opposite side of the road as the processing operation. In addition, there is no explanation on how the mined resources will be transported from the south side of the road for processing on the north side of the road for 14 years. A full discussion and explanation must be provided on this subject.

With respect to transportation of mined materials and the location of the processing plant, it is very common to use conveyors to transport mined materials from the mining site to the processing site, sometimes over distances exceeding a mile or more. At many of our quarry locations, these conveyors may cross above or below public roads. Stoneco's current intention is to convey material mined from the south side of Pleasant Lake Road to the processing plant north of Pleasant Lake Road, under the road through a culvert, pending approval by the Washtenaw County Road Commission. Alternatively, the processing plant could be re-located to the south side of Pleasant Lake Road. Any such alterations would be addressed in a future renewal of the mining permit.

2. Throughout the Township hearings on “need,” there was testimony, argument, and discussion on the point that a substantial portion of the property proposed to be mined is excellent farm land. This excellent farmland is a natural resource which is just as important as the natural resources the applicant seeks to excavate. It was also discussed at length during the hearings that, under the law, Michigan has placed very significant emphasis on the preservation of excellent farm land resources, again, just as much emphasis as is placed on the development of natural resources. The Township’s Master Plan also recognizes the high priority of excellent farm land, and its preservation in Sharon Township. Part E of the Township’s Application for Special Land Use Approval for Excavation of Natural Resources calls for the submission as part of the application “any additional statements and information that would be relevant to the Township’s analysis of whether the proposed use is likely to result in ‘no very serious consequences.’” It is clear that the applicant seeks to mine the entire site below the water table and create three lakes, meaning that the excellent farmland on the property would be lost. A full discussion and explanation of how the Township should analyze the importance of the preservation of farmland on the property sought to be mined, as balanced against the importance of producing sand and gravel resources for sale and ultimate use. This balance directly relates to the question of the extent the destruction of all or substantially all of the important farmland on this property would contribute to a conclusion that the mining would cause very serious consequences. Therefore, additional statements and information on this subject is relevant and significant.

With respect to the value of farmland, Stoneco agrees that farmland is an important resource, and that Michigan law provides unique protections for farmland, such as the Right To Farm Act. Similarly, applicable zoning laws, including the Michigan Zoning Enabling Act (“ZEA”), provide unique protections for mining. Section 205 of the ZEA prohibits any ordinance from preventing the extraction of natural resources by mining, unless “very serious consequences” would result from the extraction. Neither the Right To Farm Act, nor the ZEA, nor any other applicable statute, prohibits or regulates the use of agricultural land for mining, unless such mining would cause “very serious consequences.” While the ZEA does not specifically define “very serious consequences,” it does identify six factors to be considered, and competing land uses for the same property are not one of those factors. Moreover, the courts have been applying this standard for over fifty years, and not a single case identifies the loss of agricultural use (or any other use for that matter) as a consequence rising to the level of “very serious.”

What is clear from the ZEA and the decades of case law is that “very serious consequences” cannot include those consequences that are necessarily common to every mining operation. Otherwise, every proposed mine would necessarily result in “very serious consequences” and that is clearly not the case. Since the vast majority of aggregate mines are located on former agricultural property, and many of those mines ultimately result in the creation of lakes, no case has ever held that the elimination of farmland by mining is a “very serious consequence.”

It is important to recognize that neither the Right to Farm Act, nor Section 205 of the ZEA, prohibit the protected resource from being used for a different purpose, including other uses that would prevent the use of the resource. For example, neither the Right to Farm Act nor Section 205 of the ZEA would prevent a developer from developing agricultural land, nor minable land for some other purpose that would prevent both farming



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and mining. Likewise, the use of agricultural land for mining is not regulated in any way by the Right to Farm Act or any other statute.

Similarly, neither the Right to Farm Act nor the ZEA permits a governmental body from requiring that a property owner with farmland actually farm it, or that a land owner with minable land actually mine it. Rather, because our laws respect private property rights, a governmental body may only place certain limited, reasonable restrictions on how land may be used, and thereby incentivize the use of various land for certain purposes. But the law also places limits on what a government may restrict, and in the case of mining of natural resources, the government may not prevent mining (whether by Special Use Application, Mining Permit, Master Plan or otherwise) unless the mining will result in “very serious consequences.” Michigan case law has repeatedly held that a mere inconsistency with a Master Plan cannot be a “very serious consequence.”

It is also relevant to consider that there are significant differences between agricultural resources and mining resources. Farmland is not a depletable resource whereas mining is. With proper management, an agricultural parcel can be farmed for centuries. However, that same parcel might only support mining for a decade or less. Second, there has not been a demonstration of a material shortage of farmland. In contrast, various studies have confirmed a shortage of permitted mining reserves.

In response to Spicer's set of comments dated November 10th, 2022.

From Spicer: We will have a formal list of specific questions and comments prior to the Planning Commission meeting. Examples include (examples only, not a complete list):

- The applicant needs to identify how raw material will be transported from the parcel south of Pleasant Lake Road to the processing equipment on the north side of the road, and the impacts this transport will have on the infrastructure.

With respect to transportation of mined materials and the location of the processing plant, it is very common to use conveyors to transport mined materials from the mining site to the processing site, sometimes over distances exceeding a mile or more. At many of our other quarry locations, these conveyors may cross above or below public roads. Stoneco's current intention would be to convey material mined from the south side of Pleasant Lake Road to the processing plant north of Pleasant Lake Road, under the road through a culvert, pending approval by the Washtenaw County Road Commission. Alternatively, the processing plant could be re-located to the south side of Pleasant Lake Road. Any such alterations would be addressed in a future renewal of the mining permit.

- Specifics of the needed improvements to Pleasant Lake Road.

With respect to improvements to Pleasant Lake Road, as mentioned above, the Washtenaw County Road Commission will dictate what improvements are required. Stoneco will comply with the Road Commission's requirements.

- Remedies for criteria such as noise if the planned measures prove to be ineffective.

With respect to remedial measures for noise or other alleged violations of any of the operating limitations or restrictions that may be included in a Mining Permit, any such complaints or alleged violations will be immediately investigated, and if verified, the cause will be identified, and addressed on a case by case basis. Without knowing what the specific exceedance or alleged violation is, or its cause, we cannot specifically state what remedial measures, if any, would be necessary.

Below addresses bulleted comments made from Carlisle Wortman Associates, Inc. review dated November 18, 2022.

Application Completeness

a. A Site Plan. (item 5.12.D.4.b)

Sheets 3, 3a and 3b as submitted by the applicant lacks the following required information:

- Parking areas for equipment is not shown. The location, number and typical dimensions of spaces, aisle widths, angle of spaces, and surface type must be provided.

The parking areas have been added to Sheets 3 and 3a. There are ten (10) mobile equipment parking spaces on gravel with the dimensions of 15'x45'. Additionally, south of the scale house, there are fifteen (15) parking spaces 9'x18' per space for employee/visitor parking.

Sheet 7 as submitted by the applicant lacks the following required information:

- The date of the aerial photograph is not provided.

The date of the aerial photograph has been added to Sheet 7.

- The method by which material from Cell 2, south of Pleasant Lake Road, will be delivered to stockpiles and processing plant in Cell 3, north of Pleasant Lake. Conveyors are shown for transport of material from Cell 1 to the stockpiles and processing plant in Cell 3, but the mining plan does not show the same for Cell 2. Since Pleasant Lake Road must be crossed, the method of material transport is particularly important. If vehicles will be used, this traffic must be accounted for in the traffic study as well as any impacts to the integrity of the road itself.

With respect to transportation of mined materials and the location of the processing plant, it is very common to use conveyors to transport mined materials from the mining site to the processing site, sometimes over distances exceeding a mile or more. At many locations these conveyors may cross above or below public roads. Stoneco's current intention would be to convey material mined from the south side of Pleasant Lake Road to the processing plant north of Pleasant Lake Road under the road through a culvert, pending approval by the Washtenaw County Road Commission. Alternatively, the processing plant could be re-located to the south side of Pleasant Lake Road. Any such alterations would be addressed in a future renewal of the mining permit. Lastly, Trucks will not be utilized to transport material from Cell 2 to Cell 3.

- Whether gravel roads or driveways are proposed on the south side of Pleasant Lake Road when Cell 2 is being excavated.

A gravel drive will be utilized on the south side of Pleasant Lake Road between the existing house and well shed to access Cell 2. This drive has been added to Sheets 3, 3a and 3b.

- Whether the truck staging area is the truck stacking area and, if not, the delineation of the truck stacking area. The truck staging area is two hundred feet in length and fifty feet in width. Assuming 60 feet in length and 12 feet in width for each stacking space, we estimate that 15 trucks could be accommodated in the staging area. With an estimated 15-20 trucks per hour based on the figures supplied by the applicant and the peak waves of 45 trucks on the site mentioned in the traffic study, we would like clarification on where the maximum number of trucks waiting to be loaded would be on site.

The truck staging area is for trucks queued to get weighed in on the inbound scale. Trucks staging to be loaded will be located along the internal roads nearest to the stockpile material. There are approximately 4000 feet of 50 foot wide internal road in the stockyard. This conservatively allows 114 trucks with sufficient spacing to stage alongside either side of the internal road. Additionally truck staging prior to the scale allows for 15 trucks to “queue” to scale in.

- Cross-sections of berms should be provided. We recommend that the berms undulate and are formed to mimic natural land forms.

Cross-sections of the berms are already located on Sheet 3. A note indicating the berms will undulate is already included on Sheet 3.

- A note should be added to the mining plans that equipment used for screening and crushing shall be not less than 400 feet from the nearest property line.

Note 24 has been added to Sheets 3, 3a and 3b indicating that equipment used for screening and crushing will meet the setback requirements provided in the ordinance.

- Clarification as to whether the existing buildings on-site will be removed or will remain. If the buildings will be removed, the phase in which each building will be removed should be noted. If the buildings remain during any phase of the project, the use of each building must be noted. Once the special land use is granted, the extraction operation will be the principal use of the property and the single-family home on site cannot be used as a residence.

Plan Notes were added to sheet 3 and 3A with respect to the buildings. The notes indicate which buildings will be removed during the mining of the Phase 3 area and notes were added to sheet 3, 3A, and 3B depicting the use of buildings. Stoneco disagrees with the statement that “once the special land use is granted, ...the single-family home on site cannot be used as a residence.” Under that logic, the currently farmed properties would no longer be permitted to be used for agricultural purposes, which is clearly no one’s intention.

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- Clarification as to whether mining in each cell will overlap or not. The approximate duration of mining for each cell is provided but it is unclear if those timelines will overlap.

It is likely that the extraction timing of each cell will overlap due to the market and production dynamics. The provided time frames are the best available estimates and these may vary based on market conditions. This information will be updated every year in the annual report required as part of the Mineral Extraction License.

- Page 4 of the application notes that the setback location from the existing natural gas pipelines is subject to change until the easements are finalized. An estimate of when those easements will be finalized should be provided.

The amendment of the easement is currently in process, Stoneco estimates the amended easement will be finalized in three months.

- Page 5 of the application states, “The material processing plant will initially be located in Cell 3 on the subject property.” We recommend the subsequent location of the processing plant be specified and a note added to the site plan that details of its location will be included in the site plan submittal for that phase of the project.

The processing plant will remain in cell 3 until cell 1 and 2 are exhausted, when cell 3 is exhausted to the point where the current plant can no longer exist, a small mobile portable plant will be brought onsite to process the remainder of the material in cell 3. The precise location of this plant is hard to predict due to the dynamic nature of the mining process, therefore it should be a review during that applicable timeframe of the yearly Mineral Extraction License process.

- The mining plans have a symbol for “tree location.” The plans should be revised to note existing trees to be removed and trees that are to be preserved. For trees proposed for preservation, details of fencing or protection during construction should be included during the site plan stage of approval.

Section 5.12.A.1 General Intent of the Sharon Township ordinance states: “Therefore, the special standards in this Section shall apply rather than the usual standards in this Zoning Ordinance for the review of special land use applications.” Note that the ordinance states “rather than the usual standards,” not “in addition to the usual standards” (emphasis added). Consequently, Stoneco’s site plans include a tree depiction as a general reference. All trees marked on the site plans, or unmarked, are subject to removal, trees adjacent to neighboring parcels are intended to remain as they aid in natural screening. However, there are no specific requirement in Section 5.12 that requires the applicant to identify tree location or preservation plan, though our intentions are noted above.

- A note should be added to the mining plans that reflects the commitment made on page 4 of the application that “stockpiles associated with the mining operations will be no more than 25-feet above the surrounding area grade.”

Note 26 has been added to Sheets 3, 3a and 3b indicating that stockpiles associated with the mining operations will be no more than 25-feet above the surrounding grade.

- The height of the structures associated with the processing plant and the grade at which they will be placed must be provided. The visibility of those structures cannot be evaluated without that information. Section 5.12.D.4.b, item (4) requires screening or buffering of processing equipment from the view and impact of a person standing at ground level on any parcel of land improved for residential purposes located adjacent to or which fronts on any of the roads forming the boundaries of the mining site. Parcels with single-family homes on both Pleasant Lake Road and Smythe Road are adjacent to the site. In a site visit to the Burmeister plant on Zeeb Road, we observed that some buildings and equipment were visible from Zeeb Road, despite the fence and berms.

Structures associated with the processing plant will not exceed 45-feet in height. Sheet 5D Line of Sight Cross Section has been provided to better illustrate the view of a person standing at ground level. Additional berm was added along the west side of cell 1 to screen adjacent residential developed property.

- A detail and description of the materials for the proposed six-foot fence on all property lines. A fence similar to the one at the Burmeister operation on Zeeb Road could be used.

A typical welded wire farm fence will be installed. This is similar to the fences installed at the other operations.

- The use of the property south of Pleasant Lake Road during the first phase of the project should be provided. We recommend the applicant consider keeping that property in agricultural use.

Stoneco's intention are to maintain agricultural use of any unstripped land in Cells 1, 2 or 3 (which is currently in agricultural use) during the extraction process.

- A change in either the uses listed or design of the reclamation plan to coincide with current zoning parameters and agricultural practices. The reclamation plans state that conceptual end uses may include agricultural, wetlands/waterfowl habitat conservation area and/or low-density residential. While all of these uses are allowed by right in the A-1 zoning district, the design of the reclamation plan could likely not be developed for low-density residential. The A-1 zoning district requires a minimum of 10-acre lots with a minimum lot width of 300 feet that have a 1:4 width to depth ratio. Under that zoning, Cell 1 would not be redeveloped due to lack of road frontage and likely four to six lots could be developed on Cells 2 and 3. If a residential community of one acre lots were allowed, the space between the edge of the lake and the side lots lines is not deep enough to accommodate a road with houses on both sides of the road, which typically needs a depth of 650 feet. Also, without examples or documentation, it is difficult to discern how the proposed reclamation design could be used for agricultural production.

"Low-density residential" has been removed from the list of conceptual end uses on the reclamation site plans.

- The applicant has provided a "Vibration Discussion" that evaluated the vibration from the Stoneco Burmeister Pit in September 2021, that concluded that vibration readings at 150 and 240 feet from the active mining area were negligible. However, this study did not address the concern expressed by representatives of the Sharon

United Methodist Church, that the increased truck traffic could negatively impact this building, a historic site recognized by the State of Michigan. Church staff and congregation members have mentioned the degradation of the curb in front of the church during recent road construction and vibration in the building due to truck traffic.

The church is located at the intersection of a County highway (Pleasant Lake Road) and a state highway, M-52. Traffic levels and vibration relating to the use of these roads is subject to County Road Commission and MDOT regulation. If the church is concerned about degradation of its curb in front of the church due to current traffic levels, that concern should be addressed to the Road Commission and/or MDOT. However, as confirmed by the traffic study, Stoneco's proposed use and related truck traffic will not cause any exceedance in the use of these roads beyond their current design standards.

The applicant should note that the proposed site plan does not comply with following provisions required for all special land uses, as they are subject to site plan review approval:

- Site plans are required to have a conceptual landscape plan showing plant materials to be preserved and the location of proposed planting and screening, fencing, and lighting.

As stated above, the township's ordinance clearly states that "... the special standards in this [Mining] Section shall apply rather than the usual standards in this Zoning Ordinance for the review of special land use applications." A conceptual landscape plan was not provided because it is not identified as a requirement in the No Very Serious Consequences portion of the SLU application or noted in ordinance 5.12.

- Section 17.04 requires landscaped front, side, and rear yard buffers. We recommend the applicant revise the site plan to show how the required landscaping would be installed relative to the proposed berms and fence. The buffers must meet the following requirements:
 - The side and rear yard buffers must be 50 feet in depth (the required setback for the A-1 zoning district) and planted with evergreens - such as spruce, pines, or firs, and deciduous trees - at a rate of at least one (1) evergreen tree per fifty (50) linear feet and one (1) deciduous tree per one hundred fifty (150) linear feet in addition to the proposed berms.
 - The front yard buffer must be 75 feet in depth (the required setback for the A-1 zoning district) and have one (1) tree per each seventy-five (75) feet with the remainder of the front yard buffer area landscaped in grass, shrubs, trees and/or other ground cover. The access ways are not subtracted from the lineal dimension used to determine the number of required trees.
 - At the time of planting, evergreen trees must be a minimum of five (5) feet in height, and deciduous trees must have a caliper of at least two and a half (2 1/2) inches, measured five (5) feet above the ground surface and a minimum height of twelve (12) feet.

The "usual standards" of section 17.04 were not considered or specifically addressed in this application because Section 5.12.A.1 General Intent states that "... the special standards in this Section shall apply rather than the usual standards in this Zoning Ordinance for the review of special land use applications." (emphasis added).



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Consequently, any buffer requirements outside of those specifically identified in Section 5.12 are inapplicable to this Site Plan.

The following items are not necessarily required at this time, but the applicant should consider providing as these items could minimize the very serious consequences of the proposal:

- The potential impact of the proposed extraction operation may not be found to be commiserate with the low-to-moderate need finding by the Township Board. We recommend the applicant consider limiting the extraction operation to the portion of the property south of Pleasant Lake Road.

Stoneco will not agree to limit its proposed extraction operation to the south side of Pleasant Lake Road.

- The traffic impact study states that the site driveway should be designed with a right-turn deceleration lane. The deceleration is not shown on the site plan submitted and should be included in any revisions.

The Washtenaw County Road Commission has not made any comments on road improvements or deceleration lanes presented by our traffic study because our application is still pending with Sharon Township. With this in mind, we haven't included this information in the current site plans because anything we add to the plans would be speculation until WCRC issues its final approval on the haul design and haul route permit.

Items to be Addressed: Provision by the applicant of required application items.

Please feel free to contact me with any questions with my contact below.

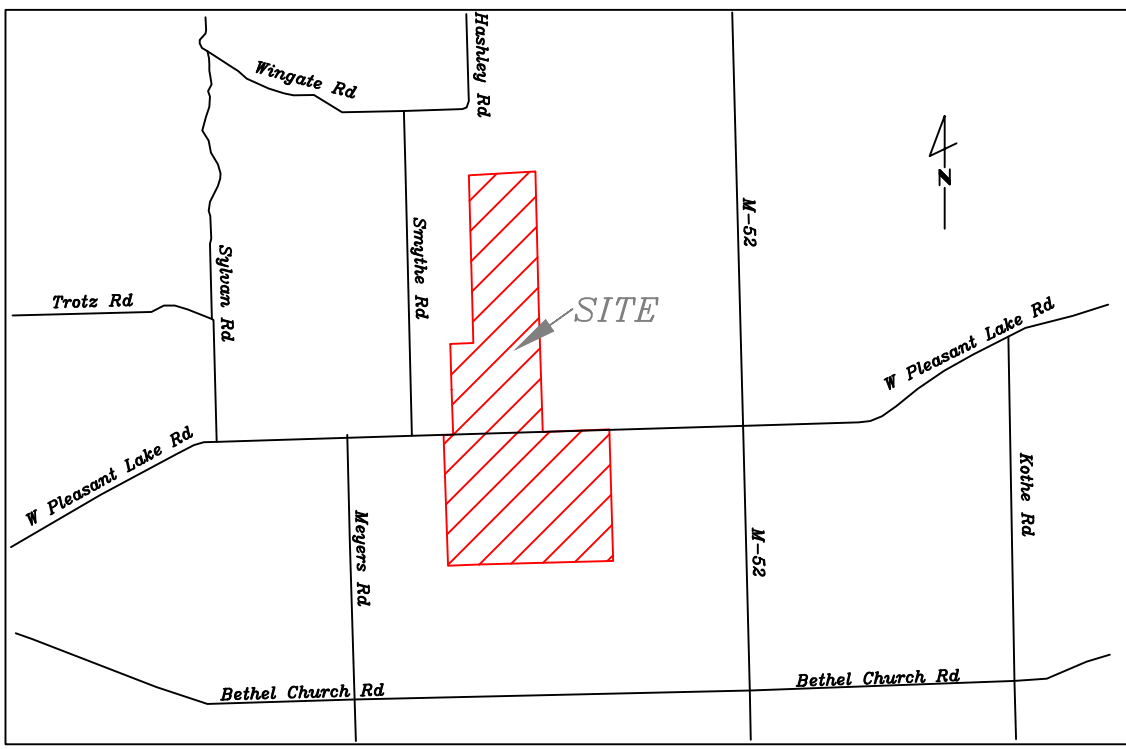
Respectfully,

Austin Fisher

Austin.Fisher@mipmc.com
15203 S. Telegraph Road, Monroe MI

EXTRACTION SITE PLANS & LAKE DESIGNS FOR: STONECO OF MICHIGAN INC.

19024 PLEASANT LAKE ROAD, MANCHESTER, MI 48158



Location/Vicinity Map
NO SCALE

APPLICANT:
STONECO OF MICHIGAN, INC.
A CRH COMPANY
15203 S. TELEGRAPH RD.
MONROE, MI 48161
(734) 241-8966

OWNER:
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A CRH COMPANY
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CONSULTANT:
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NATURAL RESOURCES MANAGEMENT, LLC
7901 SYLVANIA AVENUE
SYLVANIA, OH 43560
(419) 841-3232

ZONING INFORMATION:
ZONED: A-1 GENERAL AGRICULTURE

EXISTING LAND USE:
FARM FIELDS, OPEN SPACE & WOODS

PERMITTED USES:
ZONING ORDINANCE:
ARTICLE 5, SECTION 5.12 SPECIAL LAND USE EXTRACTION OPERATION, SOIL REMOVAL AND MINING OPERATION

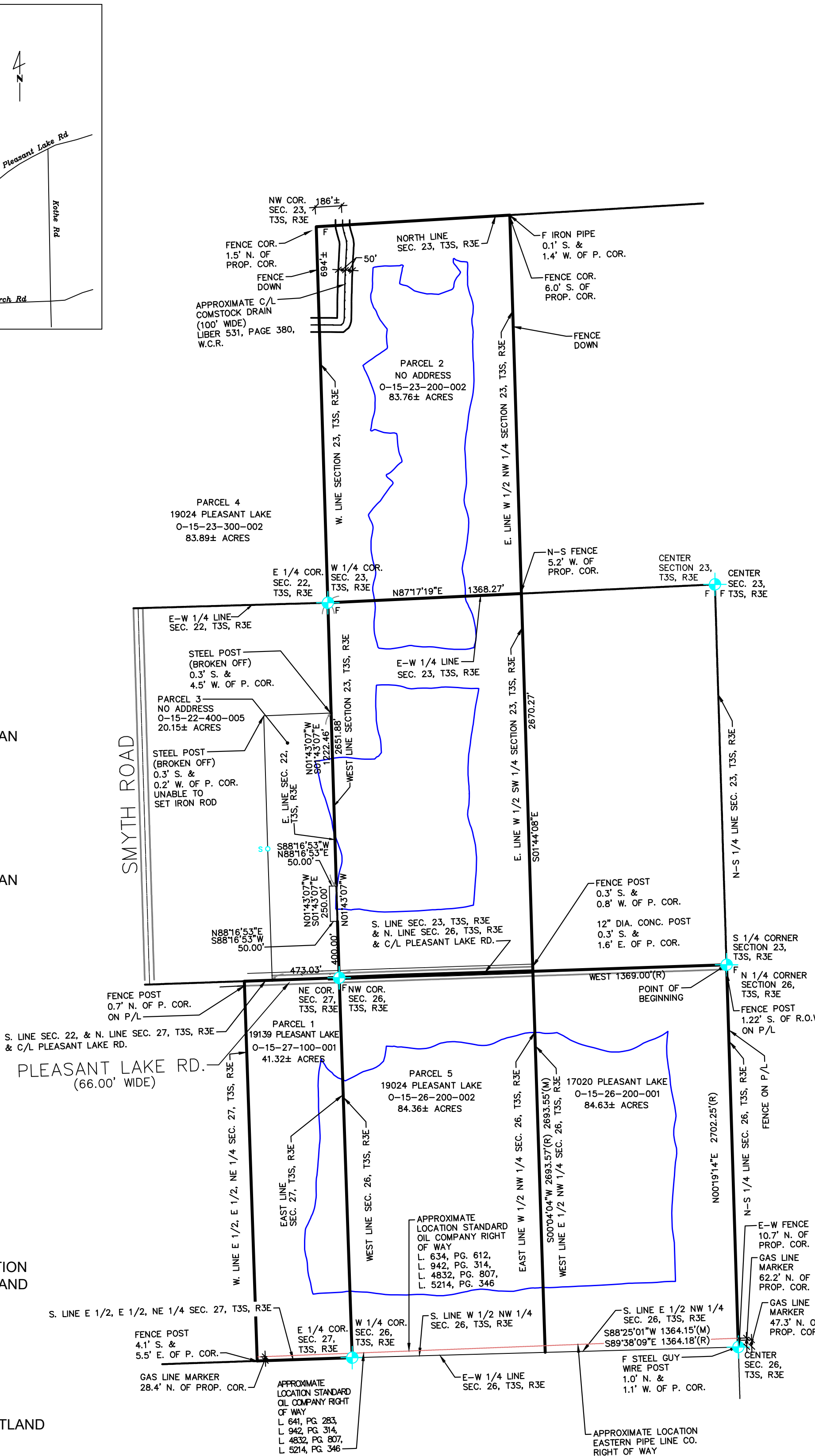
CODIFIED ORDINANCES:
CHAP. IV, ARTICLE 2 MINERAL EXTRACTION

WETLAND AREAS:
PROPOSED EXCAVATION AREAS ARE CREATED TO AVOID IMPACTS TO THE WETLANDS IDENTIFIED ON SITE. NO WETLAND AREAS WILL BE EXCAVATED OR DISTURBED.

PARCEL COVERAGE CALCULATIONS:
TOTAL PARCEL ACREAGE = 398.1± ACRES

PROPOSED NORTH LAKE = 38.4± ACRES
PROPOSED CENTRAL LAKE = 32.2± ACRES
PROPOSED SOUTH LAKE = 99.1± ACRES
TOTAL LAKE ACREAGE = 169.7± ACRES

169.7 / 398.1 = 42.6% PARCEL COVERAGE



LEGAL DESCRIPTION:

(Taken from First American Title Insurance Company Title Commitment File No. 893617)

Land in the Township of Sharon, Washtenaw County, Michigan, described as follows:

Land situated in Sharon Township, Washtenaw County, Michigan, being a part of the East 1/2 of the Northwest 1/4 of Section 26, Town 3 South, Range 3 East, further described by Michael J. Bartolo, Professional Surveyor, as beginning at the North 1/4 corner of Section 26; thence West, 1369.00 feet along the North line of Section 26 (centerline of Pleasant Lake Road); thence South 00 degrees 04 minutes 04 seconds West 2693.57 feet to the East-West 1/4 line of Section 26; thence South 89 degrees 38 minutes 09 seconds East, 1364.18 feet along said East-West 1/4 line of the Center of Section 26; thence North 00 degrees 19 minutes 14 seconds East, 2702.25 feet along the North-South 1/4 line of Section 26 to the point of beginning.

BEING SUBJECT TO:

14. Right-of-Way Grant in favor of Panhandle Eastern Pipe Line Company and the Covenants, Conditions and Restrictions contained in instrument recorded in Liber 552, page 576. Affidavit and Notice of Location Panhandle Eastern Pipe Line Company Facilities recorded in Liber 2673, page 255. Assignment recorded in Liber 3958, page 569. Assignment recorded in Liber 4039, page 941. (BLANKET IN NATURE)

15. Right of Way Contract in favor of Standard Oil Company and the Covenants, Conditions and Restrictions contained in instrument recorded in Liber 942, page 314. Non Fee Property Assignment and Conveyance Agreement recorded in Liber 4832, page 807. Assignment and Conveyance recorded in Liber 5214, page 346. (BLANKET IN NATURE)

16. Affidavit Attesting that Qualified Agricultural Property or Qualified Forest Shall Remain Qualified Agricultural Property recorded in Liber 5006, page 709. (BLANKET IN NATURE)

17. Any rights, title interest or claim thereof to that portion of the land taken, used or granted for streets, roads or highways.

**TOGETHER WITH:
LEGAL DESCRIPTIONS:**

(Taken from First American Title Insurance Company Title Commitment File No. 893643)

Land in the Township of Sharon, Washtenaw County, Michigan, described as follows:

PARCEL 1:
The East 1/2 of the East 1/2 of the Northeast 1/4 of Section 27, Town 3 South, Range 3 East, Sharon Township, Washtenaw County, Michigan.

PARCEL 2:
The West 1/2 of the Northwest 1/4 of Section 23, Town 3 South, Range 3 East, Sharon Township, Washtenaw County, Michigan.

PARCEL 3:
Beginning at the Southeast Corner of Section 22, Town 3 South, Range 3 East, Sharon Township, Washtenaw County, Michigan (also being the Southwest Corner of Section 23, Town 3 South, Range 3 East, Sharon Township, Washtenaw County, Michigan), thence North 88 degrees 00 minutes 13 seconds West 473.03 feet along the South line of said Section 22 and the centerline of Pleasant Lake Road (66.00 feet wide); thence North 01 degrees 57 minutes 20 seconds West 928.40 feet; thence North 01 degrees 42 minutes 36 seconds West 940.40 feet; thence North 87 degrees 33 minutes 53 seconds East 476.77 feet; thence South 01 degrees 43 minutes 07 seconds East 1222.46 feet along the East line of said Section 22; thence South 88 degrees 16 minutes 53 seconds West 50.00 feet; thence South 01 degree 43 minutes 07 seconds East 250.00 feet; thence North 88 degrees 16 minutes 53 seconds East 50.00 feet; thence South 01 degree 43 minutes 07 seconds East 43 minutes 07 seconds West 400.00 feet along the West line of said Section 23; thence North 01 degree 43 minutes 07 seconds West 400.00 feet along the West line of said Section 23; thence South 88 degrees 16 minutes 53 seconds West 50.00 feet; thence North 01 degrees 43 minutes 07 seconds West 250.00 feet; thence North 88 degrees 16 minutes 53 seconds East 50.00 feet; thence North 01 degrees 43 minutes 07 seconds West 2001.88 feet along the West line of said Section 23 to the West 1/4 Corner of said Section 23 (also being the East 1/4 Corner of Section 22, Town 3 South, Range 3 East, Sharon Township, Washtenaw County, Michigan); thence North 87 degrees 17 minutes 19 seconds East 1368.27 feet along the East-West 1/4 line of said Section 23; thence South 01 degrees 44 minutes 08 seconds East 2670.27 feet along the East line of the West 1/2 of the Southwest 1/4 of said Section 23; thence South 88 degrees 03 minutes 31 seconds West 1368.86 feet along the South line of said Section 23 and the centerline of Pleasant Lake Road (66.00 feet wide) to the Point of Beginning.

PARCEL 4:
Beginning at the Southwest Corner of Section 23, Town 3 South, Range 3 East, Sharon Township, Washtenaw County, Michigan (also being the Southeast Corner of Section 22, Town 3 South, Range 3 East, Sharon Township, Washtenaw County, Michigan), thence North 01 degree 43 minutes 07 seconds West 400.00 feet along the West line of said Section 23; thence South 88 degrees 16 minutes 53 seconds West 50.00 feet; thence North 01 degrees 43 minutes 07 seconds West 250.00 feet; thence North 88 degrees 16 minutes 53 seconds East 50.00 feet; thence North 01 degrees 43 minutes 07 seconds West 2001.88 feet along the West line of said Section 23 to the West 1/4 Corner of said Section 23 (also being the East 1/4 Corner of Section 22, Town 3 South, Range 3 East, Sharon Township, Washtenaw County, Michigan); thence North 87 degrees 17 minutes 19 seconds East 1368.27 feet along the East-West 1/4 line of said Section 23; thence South 01 degrees 44 minutes 08 seconds East 2670.27 feet along the East line of the West 1/2 of the Southwest 1/4 of said Section 23; thence South 88 degrees 03 minutes 31 seconds West 1368.86 feet along the South line of said Section 23 and the centerline of Pleasant Lake Road (66.00 feet wide) to the Point of Beginning.

PARCEL 5:
The West 1/2 of the Northwest 1/4 of Section 26, Town 3 South, Range 3 East, Sharon Township, Washtenaw County, Michigan.

BEING SUBJECT TO:

11. Right-of-way Grant in favor of Panhandle Eastern Pipe Line Company and the Covenants, Conditions and Restrictions contained in instrument recorded in Liber 360, page 280, as to Parcels 2 and 3. (BLANKET IN NATURE)

12. Right-of-way in favor of Consumers Power Company and the Covenants, Conditions and Restrictions contained in instrument recorded in Liber 429, page 363, as to Parcel 4. (DOES NOT AFFECT SUBJECT PROPERTY)

13. Release of Right-of-way in favor of the County of Washtenaw and the Covenants, Conditions and Restrictions contained in instrument recorded in Liber 531, page 380, as to Parcel 2. (PLOTTED)

14. Right-of-way Contract Option in favor of Standard Oil Company and the Covenants, Conditions and Restrictions contained in instrument recorded in Liber 634, page 618, as to Parcel 5. Assignment of Rights of Way recorded in Liber 942, page 314. Non Fee Property Assignment and Conveyance Agreement recorded in Liber 4832, page 807. Assignment and Conveyance recorded in Liber 5214, page 346. (BLANKET IN NATURE)

15. Right-of-way Contract Option in favor of Standard Oil Company and the Covenants, Conditions and Restrictions contained in instrument recorded in Liber 641, page 283, as to Parcel 1. Assignment of Rights of Way recorded in Liber 942, page 314. Non Fee Property Assignment and Conveyance Agreement recorded in Liber 4832, page 807. Assignment and Conveyance recorded in Liber 5214, page 346. (BLANKET IN NATURE)

16. Oil, Gas and Mineral Lease in favor of Great Lakes Energy, as disclosed by instrument dated January 18, 1995, and recorded in Liber 3088, page 703, and Mesne Assignments thereof, if any. (BLANKET IN NATURE) This exception does not constitute a statement as to the ownership of this interest or right. There may be leases, grants, exceptions or reservations of such interests that are not listed.

17. Any rights, title interest or claim thereof to that portion of the land taken, used or granted for streets, roads or highways.

18. Rights of other riparian owners and to the public trust in and to the waters of the drain crossing subject property.

BEING MORE PARTICULARLY DESCRIBED AS FOLLOWS:

Beginning at the N 1/4 Corner of Section 26, T3S, R3E, Sharon Township, Washtenaw County, Michigan, (also being the S 1/4 Corner of Section 23, T3S, R3E);
thence S 01°45'56" E 2702.08 feet along the N-S 1/4 line of said Section 26 to the Center of said Section 26;
thence S 88°25'01" W 2728.30 feet along the E-W 1/4 line of said Section 26 to the W 1/4 Corner of said Section 26 (also being the E 1/4 Corner of Section 27, T3S, R3E);
thence S 88°02'02" W 671.05 feet along the South line of the E 1/2 of the NE 1/4 of said Section 27;
thence N 01°56'23" W 2684.67 feet along the West line of the E 1/2 of the NE 1/4 of said Section 27;
thence N 88°00'13" E 196.77 feet along the North line of said Section 27 (also being the South line of Section 22, T3S, R3E) and along the centerline of Pleasant Lake Road (66.00 feet wide);
thence N 01°57'20" W 928.40 feet;
thence N 01°42'36" W 940.40 feet;
thence N 87°33'53" E 476.77 feet;
thence N 01°43'07" W 779.42 feet along the East line of said Section 22 to the E 1/4 Corner of said Section 22 (also being the W 1/4 Corner of Section 23, T3S, R3E);
thence N 01°45'38" W 2658.00 feet along the West line of said Section 23 to the NW Corner of said Section 23;
thence N 86°33'26" E 1368.86 feet along the North line of said Section 23;
thence S 01°45'23" E 2675.48 feet along the East line of the W 1/2, of the NW 1/4 of said Section 23;
thence S 01°44'08" E 2670.27 feet along the East line of the W 1/2, of the SW 1/4 of said Section 23;
thence N 88°03'32" E 1368.86 feet along the South line of said Section 23 and the centerline of said Pleasant Lake Road to the S 1/4 Corner of said Section 23 (also being the N 1/4 Corner of said Section 26), to the POINT OF BEGINNING. Being a part of the E 1/2 of the SE 1/4 of Section 22, T3S, R3E and the W 1/2 of Section 23, T3S, R3E and the NW 1/4 of Section 26 and the E 1/2 of the E 1/2 of the NE 1/4 of Section 27 and containing 398.11 acres of land, more or less.

SITE PLAN INDEX

COVER	COVER SHEET	DATE CREATED	LAST REVISION
SHEET 1A	SURVEY	11/19/2020	11/28/2022
SHEET 1B	SURVEY	8/12/2020	NA
SHEET 2	EXISTING CONDITIONS	8/12/2020	NA
SHEET 3	EXISTING CONDITIONS	11/19/2020	9/26/2022
SHEET 3A	MINING PLAN	11/19/2020	12/13/2022
SHEET 3B	NORTH MINING PLAN DETAIL	2/8/2021	12/13/2022
SHEET 3C	SOUTH MINING PLAN DETAIL	2/8/2021	12/13/2022
SHEET 4	RECLAMATION PLAN	11/19/2020	11/28/2022
SHEET 4A	NORTH RECLAMATION PLAN DETAIL	9/26/2022	11/28/2022
SHEET 4B	SOUTH RECLAMATION PLAN DETAIL	9/26/2022	11/28/2022
SHEET 5A	CROSS SECTIONS	11/19/2020	9/26/2022
SHEET 5B	CROSS SECTIONS	11/19/2020	9/26/2022
SHEET 5C	CROSS SECTIONS	11/19/2020	9/26/2022
SHEET 6A	NORTH SESC PLAN	9/23/2022	NA
SHEET 6B	SOUTH SESC PLAN	9/23/2022	NA
SHEET 7	TOPOGRAPHIC AERIAL OVERLAY	9/27/2022	11/28/2022

COVER SHEET
MANCHESTER MINING OPERATION
19024 PLEASANT LAKE ROAD, MANCHESTER, MI 48158

Revised:
9-26-2022
11-28-2022
12-13-2022

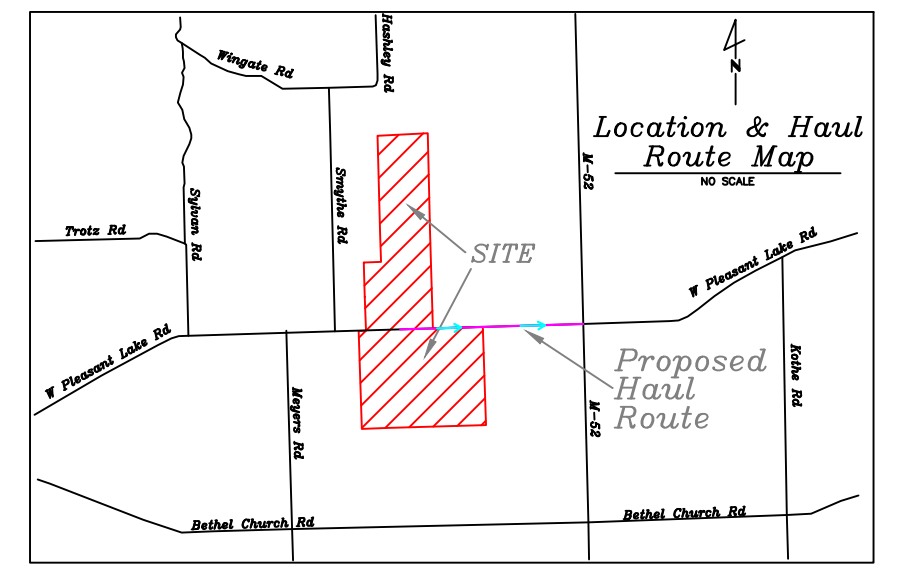
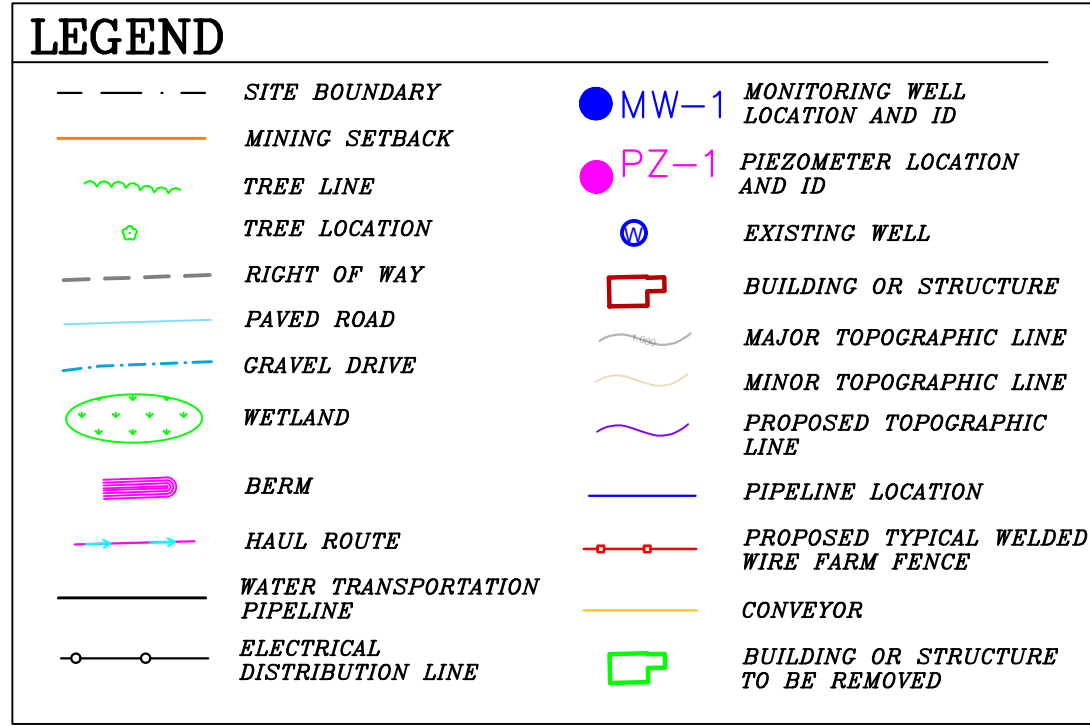
PREPARED BY:
SUSANNE HANF P.E. (MI 6201056892)
STONECO OF MICHIGAN, INC.
FRANK "CHIP" TOKAR JR., C.P.G. (10865)
NATURAL RESOURCES MANAGEMENT, LLC

PREPARED FOR:
STONECO OF MICHIGAN, INC.
15203 S TELEGRAPH RD, MONROE, MI 48161
DATE: 11-19-2020

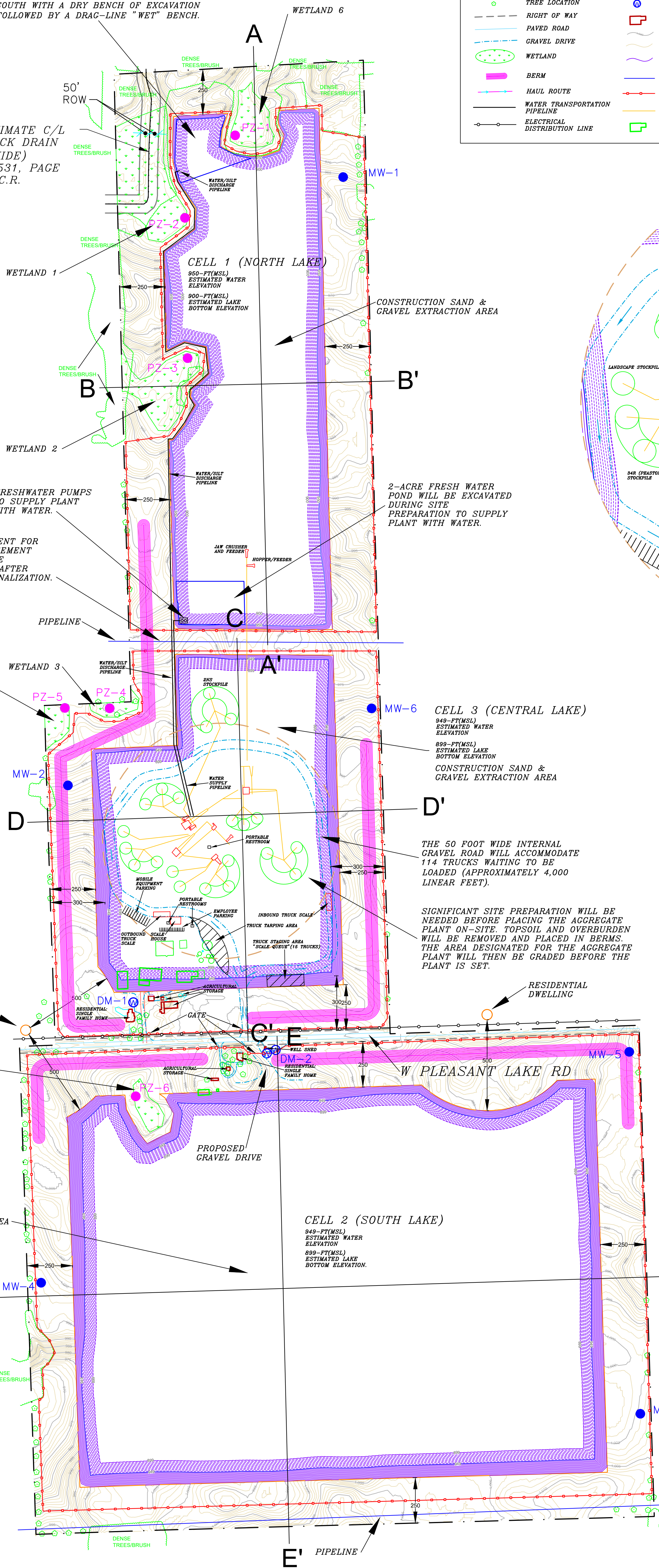
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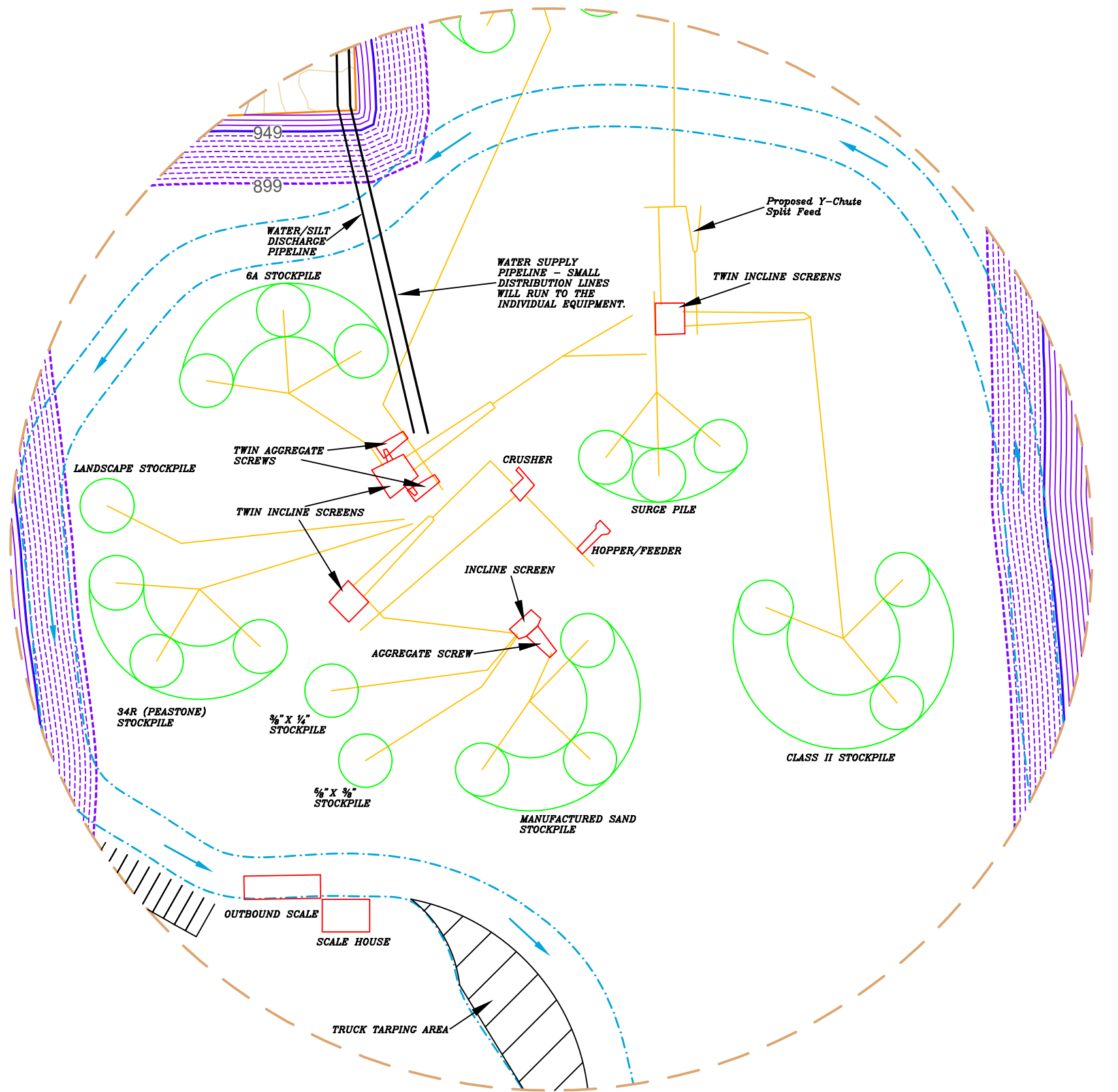
CELL 1 EXCAVATION TO BEGIN WITH THE CREATION OF A SETTLING POND. STORM WATER FLOW AND SEDIMENTATION DURING EXCAVATION WILL BE DIRECTED TO THE SETTLING POND. MINING WILL THEN MOVE FROM NORTH TO SOUTH WITH A DRY BENCH OF EXCAVATION FOLLOWED BY A DRAG-LINE "WET" BENCH.



APPROXIMATE C/L COMSTOCK DRAIN (100' WIDE) LIBER 531, PAGE 380, W.C.R.



PLANT DETAIL:



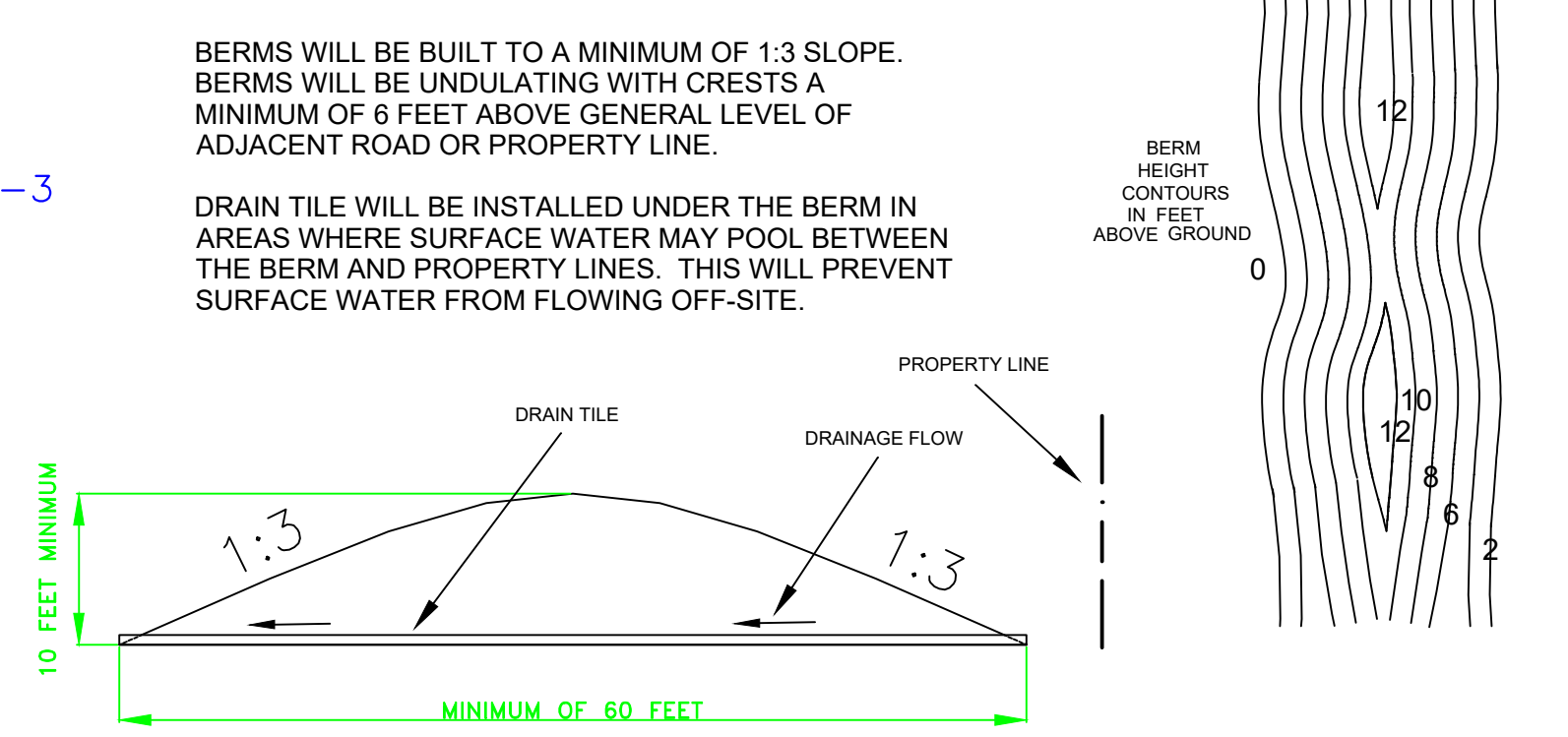
GENERAL NOTES:

1. THIS MINING OPERATION WILL BE REMOVING SAND AND GRAVEL CONSTRUCTION AGGREGATE FROM ALL 3 MINING CELLS.
2. ALL DISTURBED AREAS WILL BE SLOPED TOWARDS THE ON-SITE LAKES SO THAT ALL STORM WATER FLOWS WILL BE DIRECTED TO THE PROPOSED ON-SITE LAKES.
3. SETBACKS FOR THE PIPELINE ARE SUBJECT TO CHANGE BASED ON THE FINALIZED PIPELINE EASEMENT AREA.
4. BEFORE PLACING THE AGGREGATE PLANT ON-SITE, SIGNIFICANT SITE PREPARATION MUST BE COMPLETED. TOPSOIL AND OVERBURDEN WILL BE REMOVED FROM THE PROPOSED AGGREGATE PLANT LOCATION AND PLACED IN THE PROPOSED BERMS. A FRESHWATER POND, USED TO SUPPLY THE PLANT WITH WATER, WILL ALSO BE EXCAVATED IN THE SOUTHWEST CORNER OF CELL 1.
5. MINING IN CELL 1 WILL BEGIN AS DRY MINING MOVING FROM NORTH TO SOUTH. EQUIPMENT THAT MAY BE USED FOR DRY MINING ARE DOZERS, EXCAVATORS, HAUL TRUCKS, LOADERS, WATER TRUCKS, FEED BINS, AND CONVEYORS.
6. WET MINING IN CELL 1 WILL BEGIN MOVING FROM NORTH TO SOUTH. EQUIPMENT THAT MAY BE USED FOR WET MINING ARE EXCAVATORS, DRAGLINES, DREDGES, HAUL TRUCKS, LOADERS, WATER TRUCKS, FEED BINS, AND CONVEYORS.
7. WET MINING WILL NOT EXCEED 50 FEET BELOW THE WATER SURFACE.
8. MINING IN CELL 2 WILL BEGIN AS DRY MINING MOVING FROM SOUTH TO NORTH. EQUIPMENT THAT MAY BE USED FOR DRY MINING ARE DOZERS, EXCAVATORS, HAUL TRUCKS, LOADERS, WATER TRUCKS, FEED BINS, AND CONVEYORS.
9. WET MINING IN CELL 2 WILL BEGIN MOVING FROM SOUTH TO NORTH. EQUIPMENT THAT MAY BE USED FOR WET MINING ARE EXCAVATORS, DRAGLINES, DREDGES, HAUL TRUCKS, LOADERS, WATER TRUCKS, FEED BINS, AND CONVEYORS.
10. MINING IN CELL 3 WILL BEGIN AS DRY MINING MOVING FROM NORTH TO SOUTH. EQUIPMENT THAT MAY BE USED FOR DRY MINING ARE DOZERS, EXCAVATORS, HAUL TRUCKS, LOADERS, WATER TRUCKS, FEED BINS, AND CONVEYORS.
11. WET MINING IN CELL 3 WILL BEGIN MOVING FROM NORTH TO SOUTH. EQUIPMENT THAT MAY BE USED FOR WET MINING ARE EXCAVATORS, DRAGLINES, DREDGES, HAUL TRUCKS, LOADERS, WATER TRUCKS, FEED BINS, AND CONVEYORS.
12. DURING MINING OF CELL 3 THE PROCESSING PLANT WILL BE REMOVED AND A PORTABLE PLANT WILL BE USED TO FINISH AGGREGATE PROCESSING.
13. CELL 1 HAS APPROXIMATELY 5,167,000 CUBIC YARDS OF MINABLE NATURAL RESOURCE MATERIAL. CELL 1 WILL TAKE APPROXIMATELY 3.5 YEARS TO COMPLETE MINING.
14. CELL 2 HAS APPROXIMATELY 20,082,000 CUBIC YARDS OF MINABLE NATURAL RESOURCE MATERIAL. CELL 2 WILL TAKE APPROXIMATELY 14 YEARS TO COMPLETE MINING.
15. CELL 3 HAS APPROXIMATELY 6,092,000 CUBIC YARDS OF MINABLE NATURAL RESOURCE MATERIAL. CELL 3 WILL TAKE APPROXIMATELY 4 YEARS TO COMPLETE MINING IF THE FARMING STRUCTURES IN THE SOUTHWEST CORNER OF THE CELL ARE REMOVED. CELL 3 WILL TAKE APPROXIMATELY 2.5 YEARS TO MINE IF THE FARMING STRUCTURES IN THE SOUTHWEST CORNER OF CELL 3 REMAIN.
16. BERMS WILL BE A MINIMUM HEIGHT OF 10 FEET TALLER THAN THE CENTERLINE OF THE ADJACENT ROAD OR INTERIOR PROPERTY LINE. THE SLOPE WILL BE 1(VERTICAL):3(HORIZONTAL) OR FLATTER.
17. BERMS WILL BE INSTALLED USING OVERBURDEN AND TOPSOIL STRIPPED FROM THE MINING AREAS.
18. BERMS WILL ALSO HELP PREVENT STORM WATER FROM THE PLANT AND STOCKPILE AREA FROM FLOWING OFF-SITE.
19. SLOPES WILL BE STABILIZED USING CREEPING RED FESCUE AND/OR PERENNIAL RYEGRASS OR EQUIVALENT MIXTURE, BASED ON EGLE SUGGESTED MIXTURE FOR WELL AND MODERATELY WELL DRAINED SAND AND LOAMY SAND (COARSE TEXTURED SOILS). STRAW OR ALTERNATE MULCHING MATERIAL WILL BE USED AFTER SEEDING TO PROTECT SOILS FROM IMPACT OF FALLING RAIN, PRESERVE SOIL MOISTURE AND TO PROTECT GERMINATING SEEDS.
20. THE WOVEN WIRE FENCE WILL BE A MINIMUM OF 6 FEET TALL WITH "DANGER KEEP OUT" SIGNS POSTED EVERY 200 FEET AT A MINIMUM.
21. NO OFF-SITE POWER DISTRIBUTION LINES WILL BE AFFECTED BY THE PROJECT.
22. COMMERCIAL TRUCK TRAFFIC PATTERN WILL BE COUNTER CLOCKWISE.
23. PARKING AREA FOR MOBILE EQUIPMENT LOCATED JUST TO THE WEST OF THE OUT BOUND SCALE. THE SIZE OF THE PARKING SPACES ARE 15'X45'. THE SURFACE TYPE WILL BE GRAVEL.
24. THE FOLLOWING MINIMUM SETBACKS OF EQUIPMENT USED FOR SCREENING AND CRUSHING WILL APPLY:
 - 24.1. NOT LESS THAN 300 FEET FROM THE NEAREST PUBLIC ROADWAY.
 - 24.2. NOT LESS THAN 200 FEET FROM THE NEAREST ADJOINING NON-RESIDENTIAL PROPERTY LINE, AND 400 FEET FROM THE NEAREST RESIDENTIAL PROPERTY LINE.
 - 24.3. NOT LESS THAN 500 FEET FROM THE NEAREST RESIDENTIAL DWELLING ON ADJACENT PROPERTY AS OF THE DATE OF SUBMITTAL OF THE PLAN FOR EXTRACTION.
25. OPERATIONS WILL BE CONDUCTED IN ACCORDANCE WITH OPERATIONAL REQUIREMENTS OF SPECIAL LAND USE ORDINANCE 5.12.
26. STOCKPILES ASSOCIATED WITH THE MINING OPERATIONS WILL BE NO MORE THAN 25 FEET ABOVE THE SURROUNDING AREA GRADE.
27. THE GREEN HIGHLIGHTED BUILDINGS WILL BE REMOVED DURING THE MINING OF CELL 3.

BERM CONSTRUCTION NOTES:

BERMS WILL BE BUILT TO A MINIMUM OF 1:3 SLOPE. BERMS WILL BE UNDULATING WITH CRESTS A MINIMUM OF 6 FEET ABOVE GENERAL LEVEL OF ADJACENT ROAD OR PROPERTY LINE. DRAIN TILE WILL BE INSTALLED UNDER THE BERM IN AREAS WHERE SURFACE WATER MAY POOL BETWEEN THE BERM AND PROPERTY LINES. THIS WILL PREVENT SURFACE WATER FROM FLOWING OFF-SITE.

TYPICAL BERM LAYOUT



BERM DETAIL CROSS-SECTION

SHEET 3: MINING PLAN
MANCHESTER MINING OPERATION
19024 PLEASANT LAKE ROAD, MANCHESTER, MI 48158

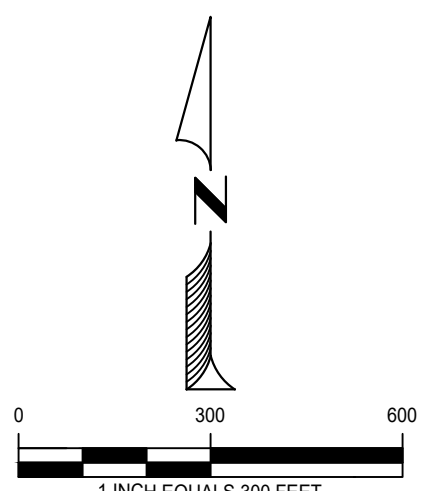
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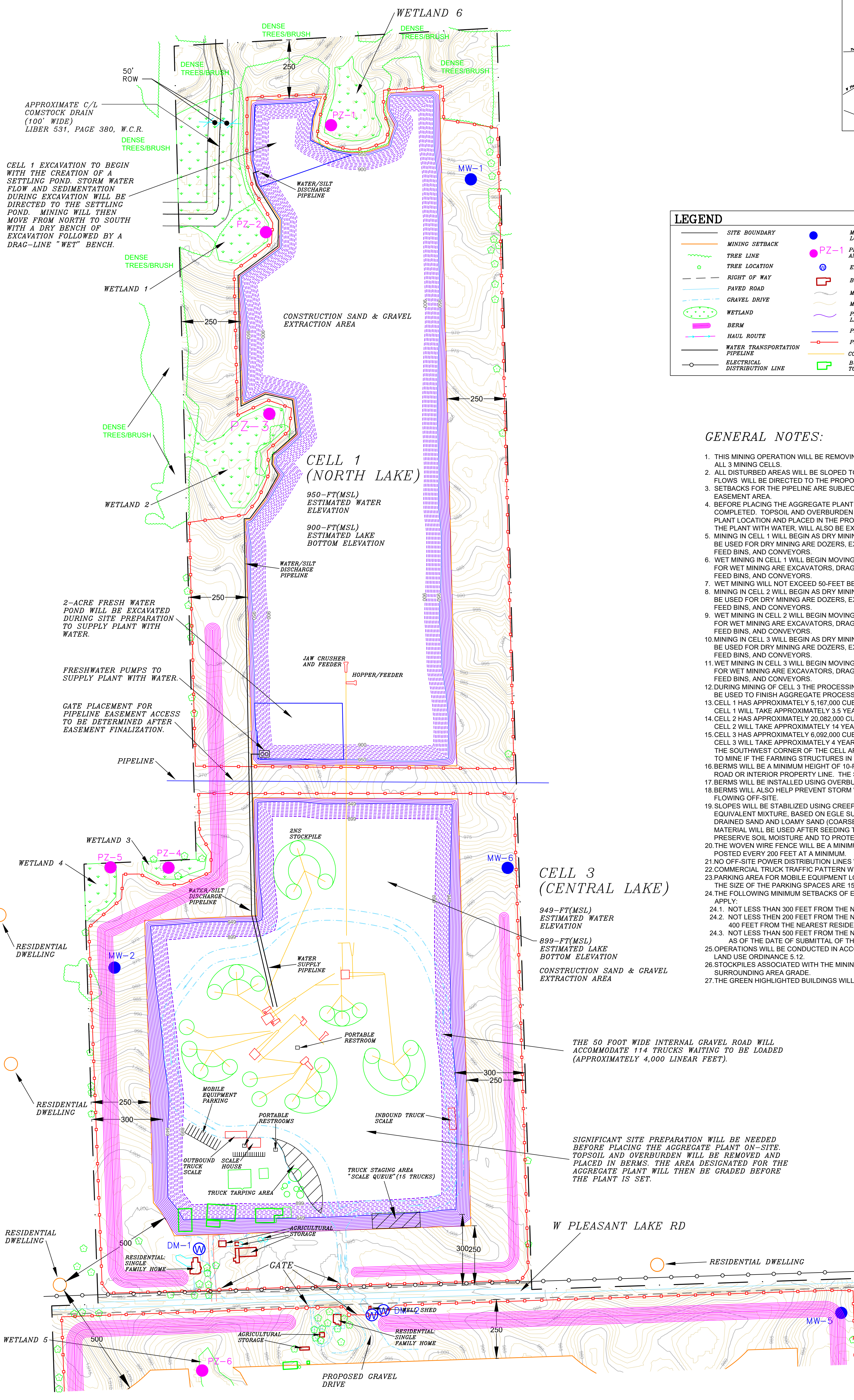
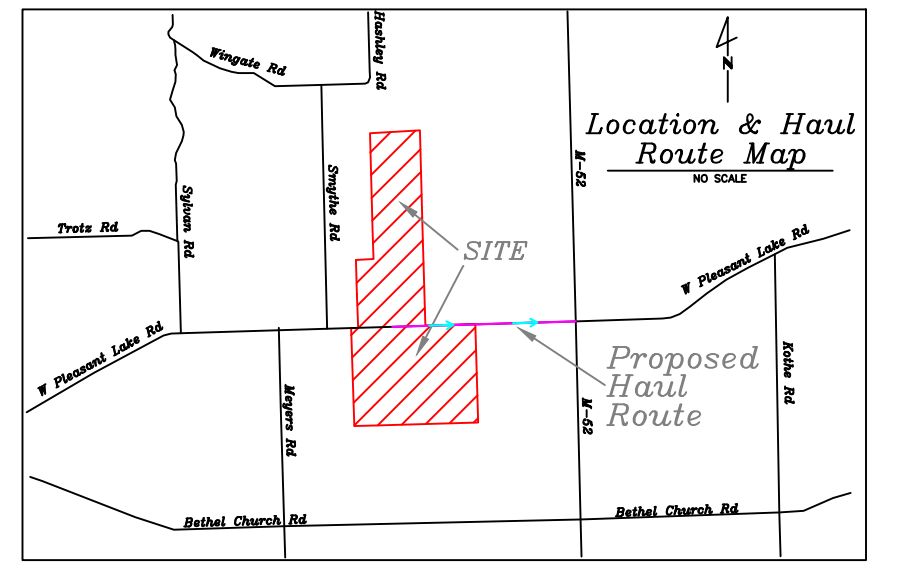
PREPARED FOR:
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DATE: 2-8-2021

Revised:
9-26-2022
11-28-2022
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Susanne Hanf P.E.

Frank Tokar C.P.G.





LEGEND

—	SITE BOUNDARY	●	MONITORING WELL LOCATION AND ID
—	MINING SETBACK	●	PZ-1 PIEZOMETER LOCATION AND ID
—	TREE LINE	○	EXISTING WELL
—	TREE LOCATION	□	BUILDING OR STRUCTURE
—	RIGHT OF WAY	—	MAJOR TOPOGRAPHIC LINE
—	PAVED ROAD	—	MINOR TOPOGRAPHIC LINE
—	GRAVEL DRIVE	—	PROPOSED TOPOGRAPHIC LINE
—	WETLAND	—	PIPELINE LOCATION
—	BERM	—	PROPOSED FENCE
—	HAUL ROUTE	—	CONVEYOR
—	WATER TRANSPORTATION PIPELINE	—	BUILDING OR STRUCTURE TO BE REMOVED
—	ELECTRICAL DISTRIBUTION LINE		

GENERAL NOTES:

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- WET MINING WILL NOT EXCEED 50-FEET BELOW THE WATER SURFACE.
- MINING IN CELL 2 WILL BEGIN AS DRY MINING MOVING FROM SOUTH TO NORTH. EQUIPMENT THAT MAY BE USED FOR DRY MINING ARE DOZERS, EXCAVATORS, HAUL TRUCKS, LOADERS, WATER TRUCKS, FEED BINS, AND CONVEYORS.
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- MINING IN CELL 3 WILL BEGIN AS DRY MINING MOVING FROM NORTH TO SOUTH. EQUIPMENT THAT MAY BE USED FOR DRY MINING ARE DOZERS, EXCAVATORS, HAUL TRUCKS, LOADERS, WATER TRUCKS, FEED BINS, AND CONVEYORS.
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- BERMS WILL BE A MINIMUM HEIGHT OF 10-FEET TALLER THAN THE CENTERLINE OF THE ADJACENT ROAD OR INTERIOR PROPERTY LINE. THE SLOPE WILL BE 1(VERTICAL):3(HORIZONTAL) OR FLATTER.
- BERMS WILL BE INSTALLED USING OVERBURDEN AND TOPSOIL STRIPPED FROM THE MINING AREAS.
- BERMS WILL ALSO HELP PREVENT STORM WATER FROM THE PLANT AND STOCKPILE AREA FROM FLOWING OFF-SITE.
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 - NOT LESS THAN 200 FEET FROM THE NEAREST ADJOINING NON-RESIDENTIAL PROPERTY LINE, AND 400 FEET FROM THE NEAREST RESIDENTIAL PROPERTY LINE.
 - NOT LESS THAN 500 FEET FROM THE NEAREST RESIDENTIAL DWELLING ON ADJACENT PROPERTY AS OF THE DATE OF SUBMITTAL OF THE PLAN FOR EXTRACTION.
- OPERATIONS WILL BE CONDUCTED IN ACCORDANCE WITH OPERATIONAL REQUIREMENTS OF SPECIAL LAND USE ORDINANCE 5.12.
- STOCKPILES ASSOCIATED WITH THE MINING OPERATIONS WILL BE NO MORE THAN 25-FEET ABOVE THE SURROUNDING AREA GRADE.
- THE GREEN HIGHLIGHTED BUILDINGS WILL BE REMOVED DURING THE MINING OF CELL 3.

THE 50 FOOT WIDE INTERNAL GRAVEL ROAD WILL ACCOMMODATE 114 TRUCKS WAITING TO BE LOADED (APPROXIMATELY 4,000 LINEAR FEET).

SIGNIFICANT SITE PREPARATION WILL BE NEEDED BEFORE PLACING THE AGGREGATE PLANT ON-SITE. TOPSOIL AND OVERBURDEN WILL BE REMOVED AND PLACED IN BERMS. THE AREA DESIGNATED FOR THE AGGREGATE PLANT WILL THEN BE GRADED BEFORE THE PLANT IS SET.

SHEET 3A: NORTH MINING PLAN DETAIL
MANCHESTER MINING OPERATION
 19024 PLEASANT LAKE ROAD, MANCHESTER, MI 48158

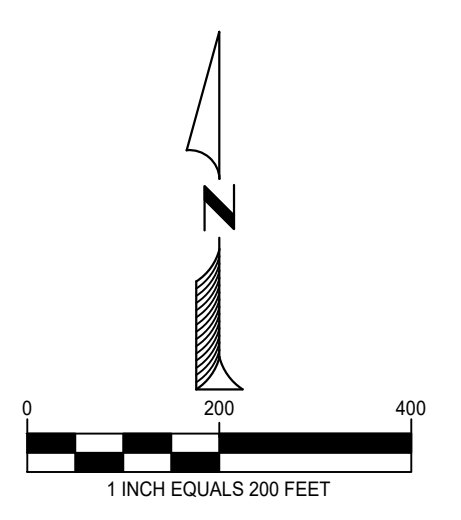
Revised:
 4-5-2021
 9-26-2022
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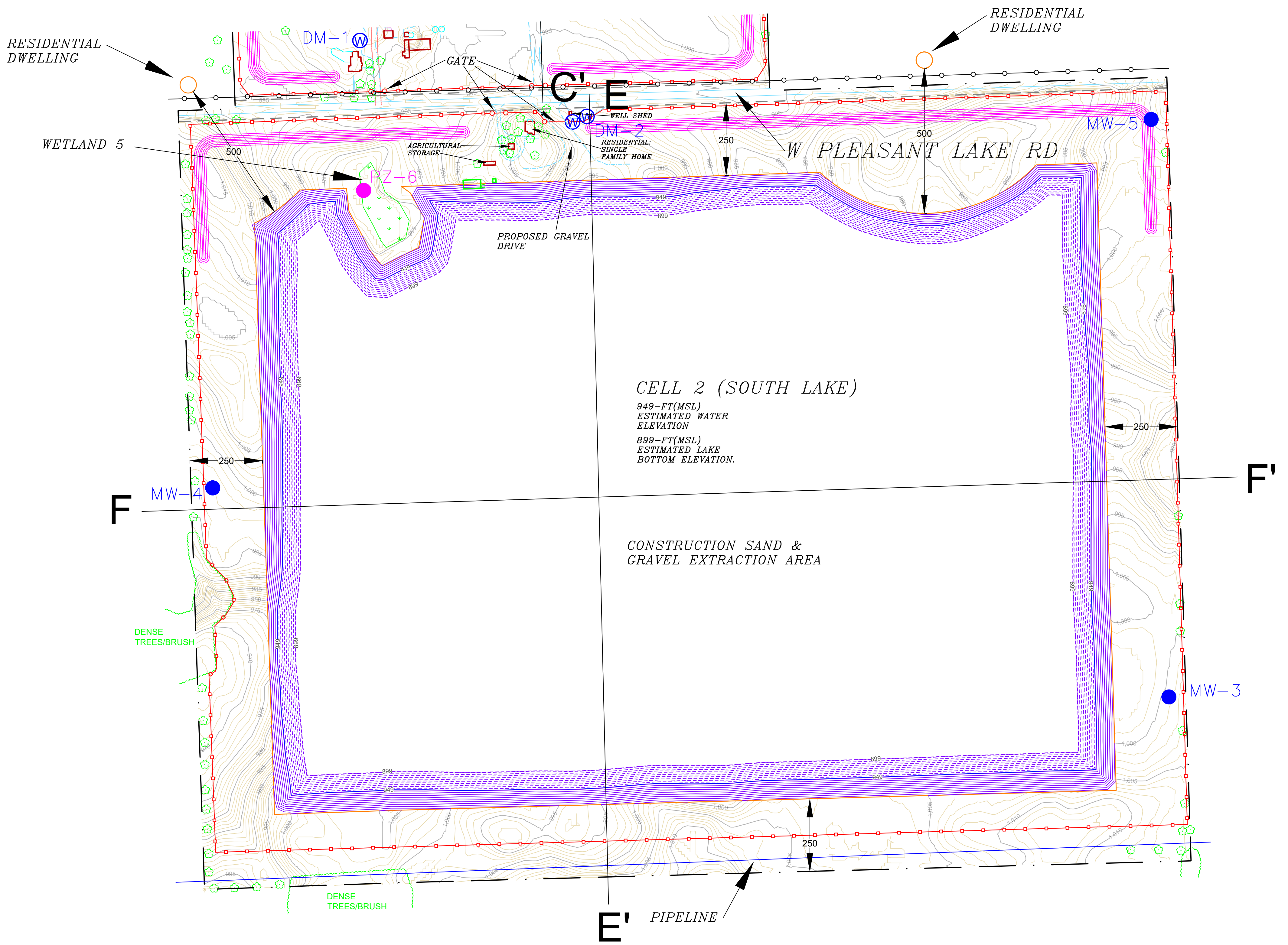
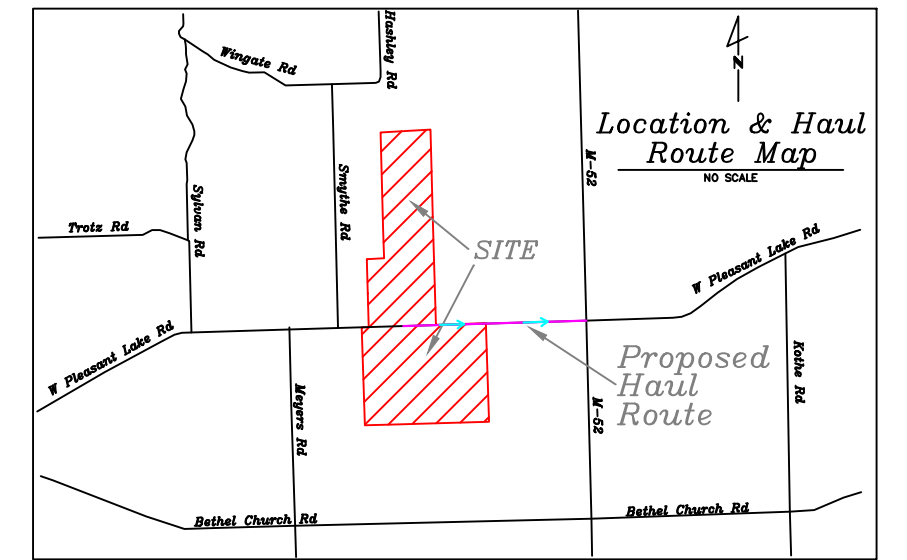
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 15203 S TELEGRAPH RD, MONROE, MI 48161
 DATE: 2-8-2021

Susanne Hanf P.E.

Frank Tokar C.P.G.





CELL 2 (SOUTH LAKE)

949-FT(MSL)
ESTIMATED WATER
ELEVATION
899-FT(MSL)
ESTIMATED LAKE
BOTTOM ELEVATION.

CONSTRUCTION SAND &
GRAVEL EXTRACTION AREA

GENERAL NOTES:

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2. ALL DISTURBED AREAS WILL BE SLOPED TOWARDS THE ON-SITE LAKES SO THAT ALL STORM WATER FLOWS WILL BE DIRECTED TO THE PROPOSED ON-SITE LAKES.
3. SETBACKS FOR THE PIPELINE ARE SUBJECT TO CHANGE BASED ON THE FINALIZED PIPELINE EASEMENT AREA.
4. BEFORE PLACING THE AGGREGATE PLANT ON-SITE, SIGNIFICANT SITE PREPARATION MUST BE COMPLETED. TOPSOIL AND OVERBURDEN WILL BE REMOVED FROM THE PROPOSED AGGREGATE PLANT LOCATION AND PLACED IN THE PROPOSED BERMS. A FRESHWATER POND, USED TO SUPPLY THE PLANT WITH WATER, WILL ALSO BE EXCAVATED IN THE SOUTHWEST CORNER OF CELL 1.
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7. WET MINING WILL NOT EXCEED 50-FEET BELOW THE WATER SURFACE.
8. MINING IN CELL 2 WILL BEGIN AS DRY MINING MOVING FROM SOUTH TO NORTH. EQUIPMENT THAT MAY BE USED FOR DRY MINING ARE DOZERS, EXCAVATORS, HAUL TRUCKS, LOADERS, WATER TRUCKS, FEED BINS, AND CONVEYORS.
9. WET MINING IN CELL 2 WILL BEGIN MOVING FROM SOUTH TO NORTH. EQUIPMENT THAT MAY BE USED FOR WET MINING ARE EXCAVATORS, DRAGLINES, DREDGES, HAUL TRUCKS, LOADERS, WATER TRUCKS, FEED BINS, AND CONVEYORS.
10. MINING IN CELL 3 WILL BEGIN AS DRY MINING MOVING FROM NORTH TO SOUTH. EQUIPMENT THAT MAY BE USED FOR DRY MINING ARE DOZERS, EXCAVATORS, HAUL TRUCKS, LOADERS, WATER TRUCKS, FEED BINS, AND CONVEYORS.
11. WET MINING IN CELL 3 WILL BEGIN MOVING FROM NORTH TO SOUTH. EQUIPMENT THAT MAY BE USED FOR WET MINING ARE EXCAVATORS, DRAGLINES, DREDGES, HAUL TRUCKS, LOADERS, WATER TRUCKS, FEED BINS, AND CONVEYORS.
12. DURING MINING OF CELL 3 THE PROCESSING PLANT WILL BE REMOVED AND A PORTABLE PLANT WILL BE USED TO FINISH AGGREGATE PROCESSING.
13. CELL 1 HAS APPROXIMATELY 5,167,000 CUBIC YARDS OF MINABLE NATURAL RESOURCE MATERIAL. CELL 1 WILL TAKE APPROXIMATELY 3.5 YEARS TO COMPLETE MINING.
14. CELL 2 HAS APPROXIMATELY 20,082,000 CUBIC YARDS OF MINABLE NATURAL RESOURCE MATERIAL. CELL 2 WILL TAKE APPROXIMATELY 14 YEARS TO COMPLETE MINING.
15. CELL 3 HAS APPROXIMATELY 6,092,000 CUBIC YARDS OF MINABLE NATURAL RESOURCE MATERIAL. CELL 3 WILL TAKE APPROXIMATELY 4 YEARS TO COMPLETE MINING IF THE FARMING STRUCTURES IN THE SOUTHWEST CORNER OF THE CELL ARE REMOVED. CELL 3 WILL TAKE APPROXIMATELY 2.5 YEARS TO MINE IF THE FARMING STRUCTURES IN THE SOUTHWEST CORNER OF CELL 3 REMAIN.
16. BERMS WILL BE A MINIMUM HEIGHT OF 10-FEET TALLER THAN THE CENTERLINE OF THE ADJACENT ROAD OR INTERIOR PROPERTY LINE. THE SLOPE WILL BE 1(VERTICAL):3(HORIZONTAL) OR FLATTER.
17. BERMS WILL BE INSTALLED USING OVERBURDEN AND TOPSOIL STRIPPED FROM THE MINING AREAS.
18. BERMS WILL ALSO HELP PREVENT STORM WATER FROM THE PLANT AND STOCKPILE AREA FROM FLOWING OFF-SITE.
19. SLOPES WILL BE STABILIZED USING CREEPING RED FESCUE AND/OR PERENNIAL RYEGRASS OR EQUIVALENT MIXTURE, BASED ON EGLE SUGGESTED MIXTURE FOR WELL AND MODERATELY WELL DRAINED SAND AND LOAMY SAND (COARSE TEXTURED SOILS). STRAW OR ALTERNATE MULCHING MATERIAL WILL BE USED AFTER SEEDING TO PROTECT SOILS FROM IMPACT OF FALLING RAIN, PRESERVE SOIL MOISTURE AND TO PROTECT GERMINATING SEEDS.
20. THE WOVEN WIRE FENCE WILL BE A MINIMUM OF 6 FEET TALL WITH "DANGER KEEP OUT" SIGNS POSTED EVERY 200 FEET AT A MINIMUM.
21. NO OFF-SITE POWER DISTRIBUTION LINES WILL BE AFFECTED BY THE PROJECT.
22. COMMERCIAL TRUCK TRAFFIC PATTERN WILL BE COUNTER CLOCKWISE.
23. PARKING AREA FOR MOBILE EQUIPMENT LOCATED JUST TO THE WEST OF THE OUT BOUND SCALE. THE SIZE OF THE PARKING SPACES ARE 15'X45'. THE SURFACE TYPE WILL BE GRAVEL.
24. THE FOLLOWING MINIMUM SETBACKS OF EQUIPMENT USED FOR SCREENING AND CRUSHING WILL APPLY:
 - 24.1. NOT LESS THAN 300 FEET FROM THE NEAREST PUBLIC ROADWAY.
 - 24.2. NOT LESS THAN 200 FEET FROM THE NEAREST ADJOINING NON-RESIDENTIAL PROPERTY LINE, AND 400 FEET FROM THE NEAREST RESIDENTIAL PROPERTY LINE.
 - 24.3. NOT LESS THAN 500 FEET FROM THE NEAREST RESIDENTIAL DWELLING ON ADJACENT PROPERTY AS OF THE DATE OF SUBMITTAL OF THE PLAN FOR EXTRACTION.
25. OPERATIONS WILL BE CONDUCTED IN ACCORDANCE WITH OPERATIONAL REQUIREMENTS OF SPECIAL LAND USE ORDINANCE 5.12.
26. STOCKPILES ASSOCIATED WITH THE MINING OPERATIONS WILL BE NO MORE THAN 25-FEET ABOVE THE SURROUNDING AREA GRADE.
27. THE GREEN HIGHLIGHTED BUILDINGS WILL BE REMOVED DURING THE MINING OF CELL 3.

LEGEND			
	SITE BOUNDARY		MW-4 MONITORING WELL LOCATION AND ID
	MINING SETBACK		PZ-1 PIEZOMETER LOCATION AND ID
	TREE LINE		EXISTING WELL
	TREE LOCATION		BUILDING OR STRUCTURE
	RIGHT OF WAY		MAJOR TOPOGRAPHIC LINE
	PAVED ROAD		MINOR TOPOGRAPHIC LINE
	GRAVEL DRIVE		PROPOSED TOPOGRAPHIC LINE
	WETLAND		PIPELINE LOCATION
	BERM		PROPOSED FENCE
	HAUL ROUTE		CONVEYOR
	WATER TRANSPORTATION PIPELINE		BUILDING OR STRUCTURE TO BE REMOVED
	ELECTRICAL DISTRIBUTION LINE		

SHEET 3B: NORTH MINING PLAN DETAIL
MANCHESTER MINING OPERATION
19024 PLEASANT LAKE ROAD, MANCHESTER, MI 48158

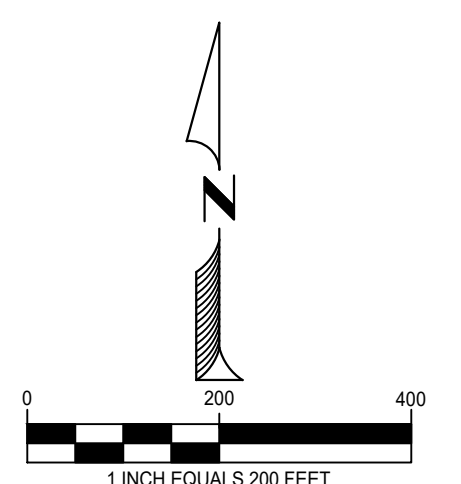
Revised:
4-5-2021
9-26-2022
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12-13-2022

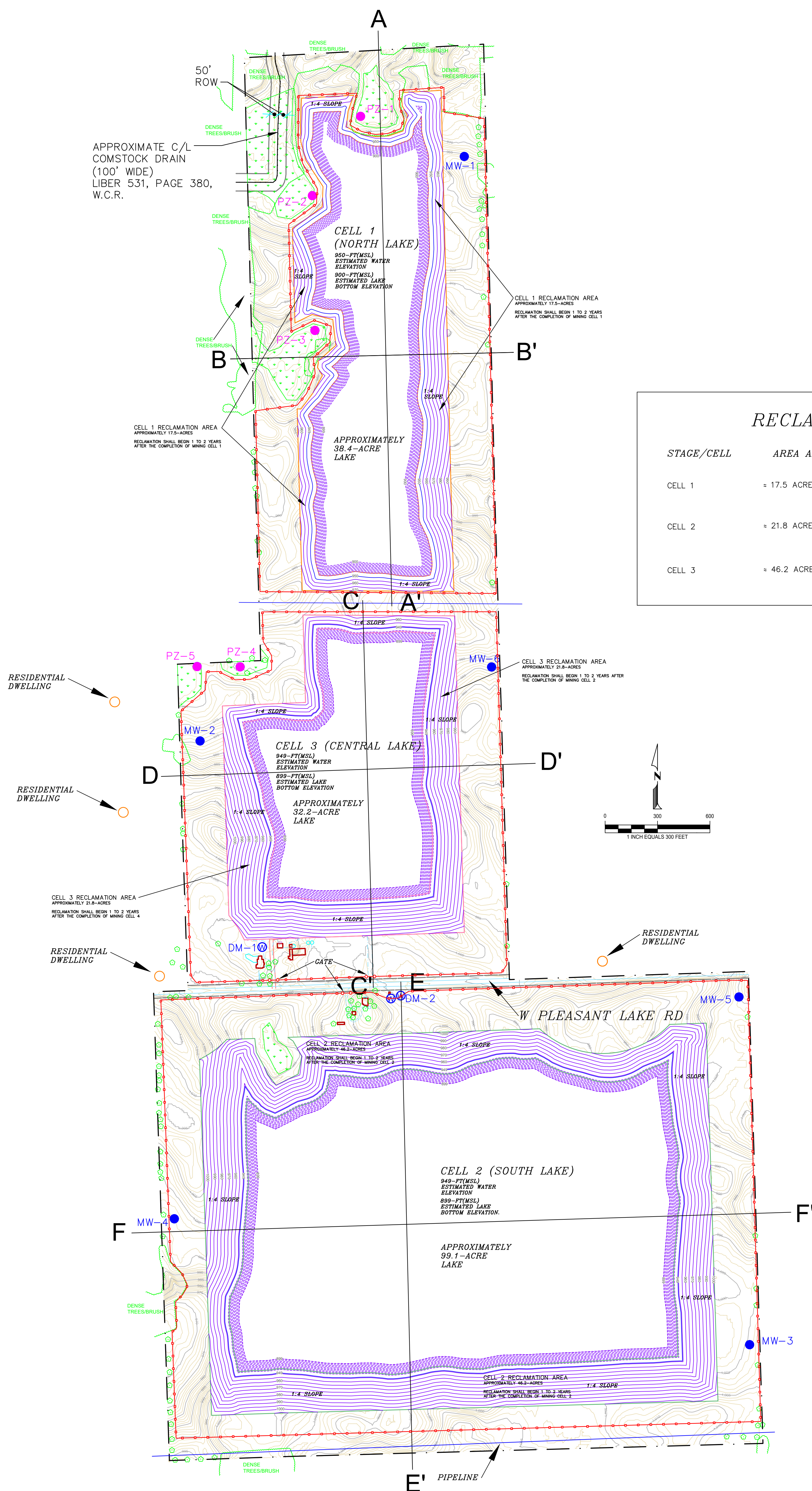
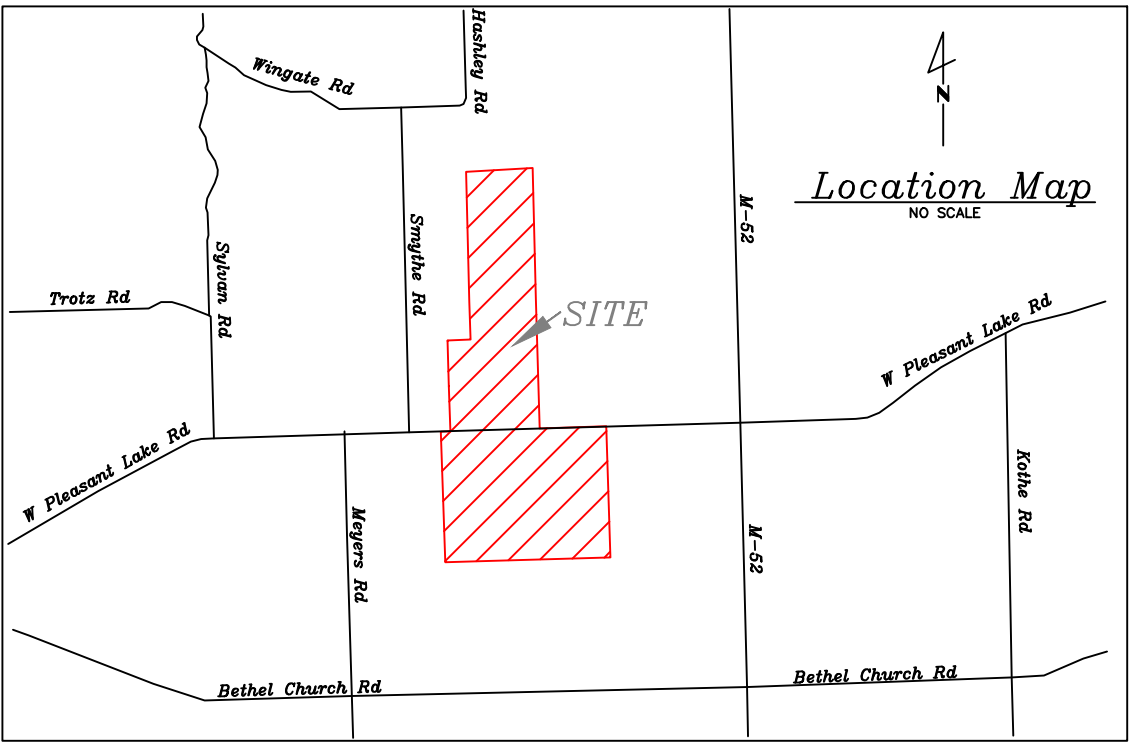
PREPARED BY:
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STONECO OF MICHIGAN, INC.
FRANK "CHIP" TOKAR JR., C.P.G. (10865)
NATURAL RESOURCES MANAGEMENT, LLC

PREPARED FOR:
STONECO OF MICHIGAN, INC.
15203 S TELEGRAPH RD, MONROE, MI 48161
DATE: 2-8-2021

Susanne Hanf P.E.

Frank Tokar C.P.G.





RECLAMATION SCHEDULE		
STAGE/CELL	AREA AFFECTED	RECLAMATION ACTIVITIES
CELL 1	≈ 17.5 ACRES	AREA WILL BE GRADED TO A 1:4 SLOPE 1 TO 2 YEARS AFTER MINING IS COMPLETED IN CELL 1. AREA WILL BE SEEDING AND MULCHED AT A SEASONALLY APPROPRIATE TIME AFTER FINAL GRADING.
CELL 2	≈ 21.8 ACRES	AREA WILL BE GRADED TO A 1:4 SLOPE 1 TO 2 YEARS AFTER MINING IS COMPLETED IN CELL 2. AREA WILL BE SEEDING AND MULCHED AT A SEASONALLY APPROPRIATE TIME AFTER FINAL GRADING.
CELL 3	≈ 46.2 ACRES	AREA WILL BE GRADED TO A 1:4 SLOPE 1 TO 2 YEARS AFTER MINING IS COMPLETED IN CELL 3. AREA WILL BE SEEDING AND MULCHED AT A SEASONALLY APPROPRIATE TIME AFTER FINAL GRADING.

RECLAMATION NOTES:

- DURING RECLAMATION, DOZERS, EXCAVATORS, TRUCKS, WHEEL SCRAPERS, AND LOADERS MAY BE UTILIZED IN SLOPING THE BANKS OF THE EXCAVATED AREA. OVERBURDEN STORED ONSITE WILL BE UTILIZED IN THE SLOPING. THE TYPE OF EQUIPMENT USED FOR SEEDING OF THE SLOPED AREAS WILL DEPEND ON THE METHOD EMPLOYED.
- ALL RESTORED SLOPES ABOVE THE WATER TABLE WILL BE AT A MINIMUM OF ONE (1) FOOT VERTICAL TO FOUR (4) FEET HORIZONTAL.
- SLOPES WILL BE STABILIZED USING CREEPING RED FESCUE AND/OR PERENNIAL RYEGRASS OR EQUIVALENT MIXTURE, BASED ON MDEQ/EGLE SUGGESTED MIXTURE FOR WELL AND MODERATELY WELL DRAINED SAND AND LOAMY SAND (COARSE TEXTURED SOILS). STRAW OR ALTERNATE MULCHING MATERIAL WILL BE USED AFTER SEEDING TO PROTECT SOILS FROM IMPACT OF FALLING RAIN, PRESERVE SOIL MOISTURE AND TO PROTECT GERMINATING SEEDS.
- THE SLOPES UNDER THE WATER SURFACE FOR THE FIRST FIVE (5) FEET OF DEPTH WILL BE A MINIMUM OF ONE (1) FOOT VERTICAL TO FIVE (5) FEET HORIZONTAL.
- THE BERMS WILL BE REMOVED AND ANY ADDITIONAL OVERBURDEN AND TOPSOIL STOCKPILED ON SITE WILL BE USED FOR RECLAMATION.
- THE FINAL END USE IS INTENDED TO COINCIDE WITH THE CURRENT ZONING AND AT THIS TIME IS PRE-MATURE TO DETERMINE AND PROVIDE A SKETCH; HOWEVER, CONCEPTUAL END USES MAY INCLUDE, AGRICULTURAL OR WETLANDS/WATERFOWL HABITAT CONSERVATION AREA.

LEGEND			
	SITE BOUNDARY		PROPOSED WELL LOCATION AND ID
	TREE LOCATION		EXISTING WELL
	TREE LINE		BUILDING OR STRUCTURE
	RIGHT OF WAY		MAJOR TOPOGRAPHIC LINE
	PAVED ROAD		MINOR TOPOGRAPHIC LINE
	GRAVEL DRIVE		PROPOSED TOPOGRAPHIC LINE
	WETLAND		PIPELINE LOCATION
			CROSS SECTION

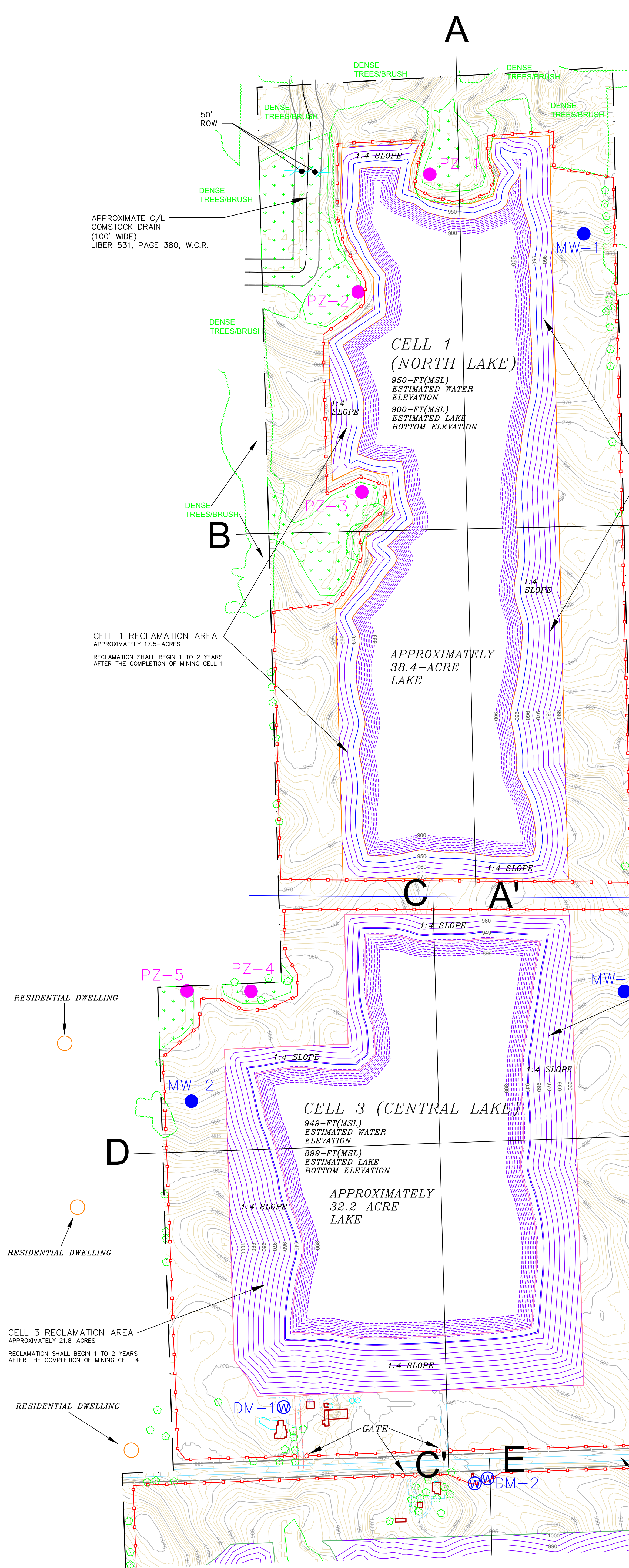
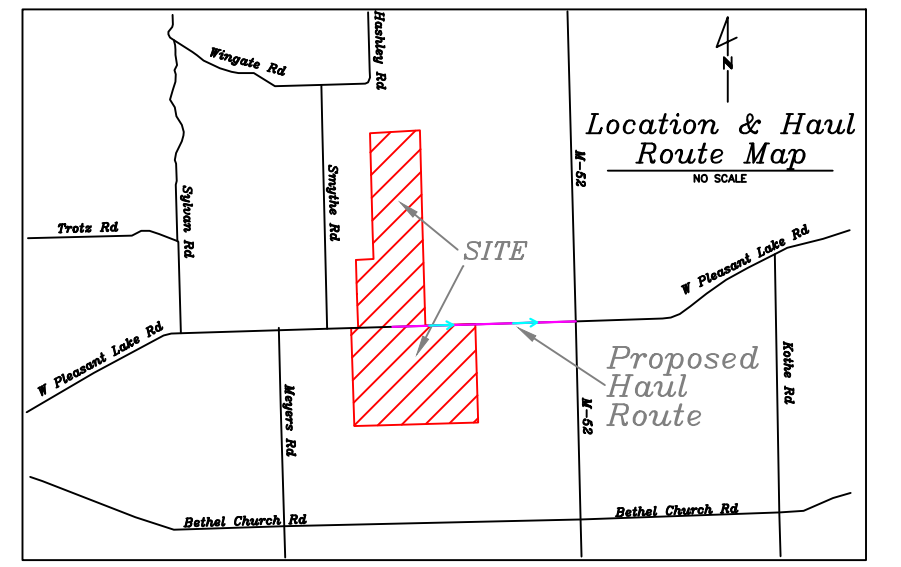
SHEET 4: RECLAMATION PLAN
MANCHESTER MINING OPERATION
 19024 PLEASANT LAKE ROAD, MANCHESTER, MI 48158

PREPARED BY:
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PREPARED FOR:
 STONECO OF MICHIGAN, INC.
 15203 S TELEGRAPH RD, MONROE, MI 48161
 DATE: 11-19-2020

Revised:
 9-26-2022
 11-28-2022

Susanne Hanf P.E. Frank Tokar C.P.G.



LEGEND

	SITE BOUNDARY		PROPOSED WELL LOCATION AND ID
	TREE LOCATION		EXISTING WELL
	TREE LINE		BUILDING OR STRUCTURE
	RIGHT OF WAY		MAJOR TOPOGRAPHIC LINE
	PAVED ROAD		MINOR TOPOGRAPHIC LINE
	GRAVEL DRIVE		PROPOSED TOPOGRAPHIC LINE
	WETLAND		PIPELINE LOCATION
			CROSS SECTION

RECLAMATION SCHEDULE

STAGE/CELL	AREA AFFECTED	RECLAMATION ACTIVITIES
CELL 1	≈ 17.5 ACRES	AREA WILL BE GRADED TO A 1:4 SLOPE 1 TO 2 YEARS AFTER MINING IS COMPLETED IN CELL 1. AREA WILL BE SEEDED AND MULCHED AT A SEASONALLY APPROPRIATE TIME AFTER FINAL GRADING.
CELL 2	≈ 21.8 ACRES	AREA WILL BE GRADED TO A 1:4 SLOPE 1 TO 2 YEARS AFTER MINING IS COMPLETED IN CELL 2. AREA WILL BE SEEDED AND MULCHED AT A SEASONALLY APPROPRIATE TIME AFTER FINAL GRADING.
CELL 3	≈ 46.2 ACRES	AREA WILL BE GRADED TO A 1:4 SLOPE 1 TO 2 YEARS AFTER MINING IS COMPLETED IN CELL 3. AREA WILL BE SEEDED AND MULCHED AT A SEASONALLY APPROPRIATE TIME AFTER FINAL GRADING.

- RECLAMATION NOTES:**
- DURING RECLAMATION, DOZERS, EXCAVATORS, TRUCKS, WHEEL SCRAPERS, AND LOADERS MAY BE UTILIZED IN SLOPING THE BANKS OF THE EXCAVATED AREA. OVERBURDEN STORED ON-SITE WILL BE UTILIZED IN THE SLOPING. THE TYPE OF EQUIPMENT USED FOR SEEDING OF THE SLOPED AREAS WILL DEPEND ON THE METHOD EMPLOYED.
 - ALL RESTORED SLOPES ABOVE THE WATER TABLE WILL BE AT A MINIMUM OF ONE (1) FOOT VERTICAL TO FOUR (4) FEET HORIZONTAL.
 - SLOPES WILL BE STABILIZED USING CREEPING RED FESCUE AND/OR PERENNIAL RYEGRASS OR EQUIVALENT MIXTURE, BASED ON MDEQ/EGLE SUGGESTED MIXTURE FOR WELL AND MODERATELY WELL DRAINED SAND AND LOAMY SAND (COARSE TEXTURED SOILS). STRAW OR ALTERNATE MULCHING MATERIAL WILL BE USED AFTER SEEDING TO PROTECT SOILS FROM IMPACT OF FALLING RAIN, PRESERVE SOIL MOISTURE AND TO PROTECT GERMINATING SEEDS.
 - THE SLOPES UNDER THE WATER SURFACE FOR THE FIRST FIVE (5) FEET OF DEPTH WILL BE A MINIMUM OF ONE (1) FOOT VERTICAL TO FIVE (5) FEET HORIZONTAL.
 - THE BERMS WILL BE REMOVED AND ANY ADDITIONAL OVERBURDEN AND TOPSOIL STOCKPILED ON SITE WILL BE USED FOR RECLAMATION.
 - THE FINAL END USE IS INTENDED TO COINCIDE WITH THE CURRENT ZONING AND AT THIS TIME IS PRE-MATURE TO DETERMINE AND PROVIDE A SKETCH; HOWEVER, CONCEPTUAL END USES MAY INCLUDE, AGRICULTURAL OR WETLANDS/WATERFOWL HABITAT CONSERVATION AREA.

SHEET 4A: NORTH RECLAMATION PLAN DETAIL
MANCHESTER MINING OPERATION
 19024 PLEASANT LAKE ROAD, MANCHESTER, MI 48158

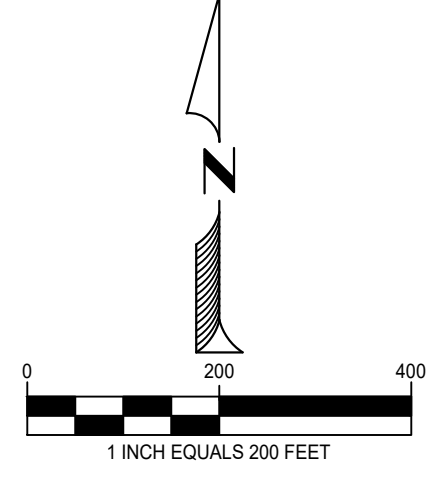
Revised:
11-28-2022

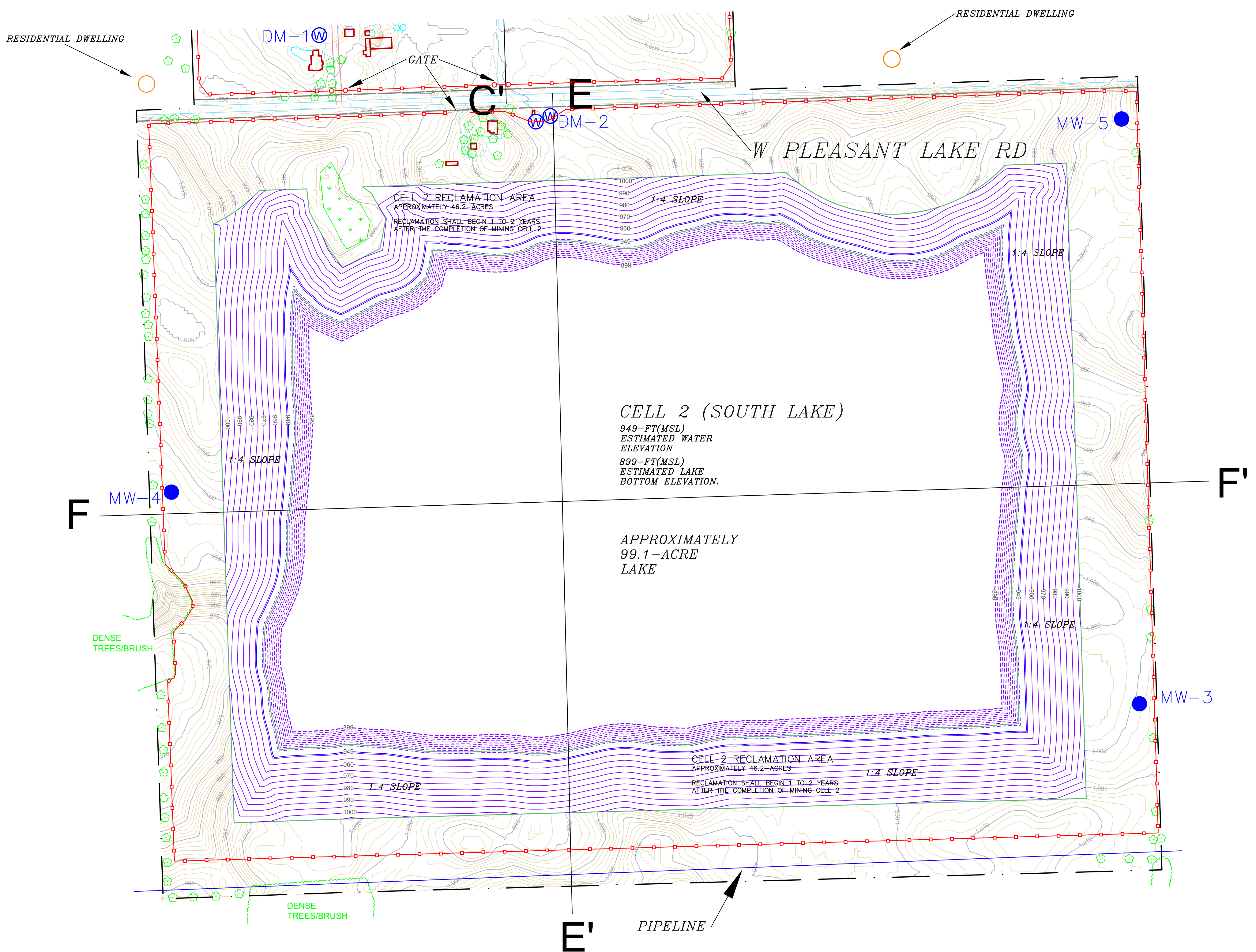
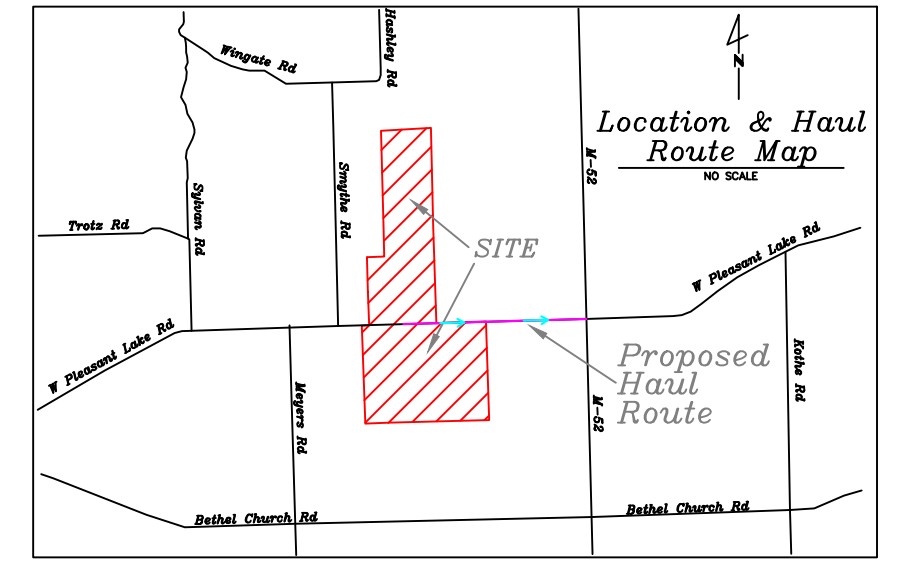
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PREPARED FOR:
 STONECO OF MICHIGAN, INC.
 15203 S TELEGRAPH RD, MONROE, MI 48161
 DATE: 9-26-2022

Susanne Hanf P.E.

Frank Tokar C.P.G.





RECLAMATION SCHEDULE

STAGE/CELL	AREA AFFECTED	RECLAMATION ACTIVITIES
CELL 1	≈ 17.5 ACRES	AREA WILL BE GRADED TO A 1:4 SLOPE 1 TO 2 YEARS AFTER MINING IS COMPLETED IN CELL 1. AREA WILL BE SEEDED AND MULCHED AT A SEASONALLY APPROPRIATE TIME AFTER FINAL GRADING.
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- THE FINAL END USE IS INTENDED TO COINCIDE WITH THE CURRENT ZONING AND AT THIS TIME IS PRE-MATURE TO DETERMINE AND PROVIDE A SKETCH; HOWEVER, CONCEPTUAL END USES MAY INCLUDE, AGRICULTURAL OR WETLANDS/WATERFOWL HABITAT CONSERVATION AREA.

LEGEND

	SITE BOUNDARY		PROPOSED WELL LOCATION AND ID
	TREE LOCATION		EXISTING WELL
	TREE LINE		BUILDING OR STRUCTURE
	RIGHT OF WAY		MAJOR TOPOGRAPHIC LINE
	PAVED ROAD		MINOR TOPOGRAPHIC LINE
	GRAVEL DRIVE		PROPOSED TOPOGRAPHIC LINE
	WETLAND		PIPELINE LOCATION
			CROSS SECTION

SHEET 4B: SOUTH RECLAMATION PLAN DETAIL
MANCHESTER MINING OPERATION
 19024 PLEASANT LAKE ROAD, MANCHESTER, MI 48158

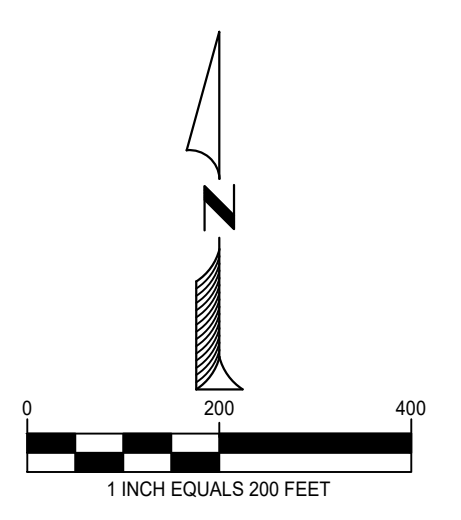
Revised:
11-28-2022

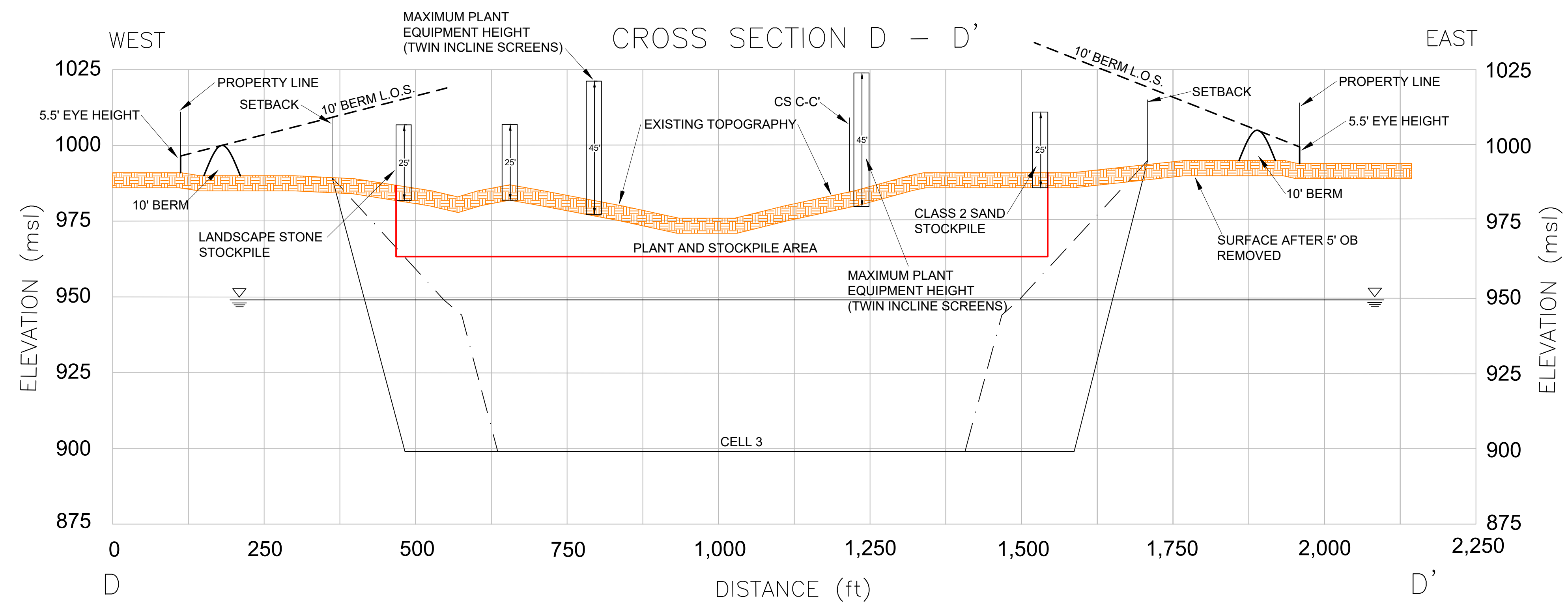
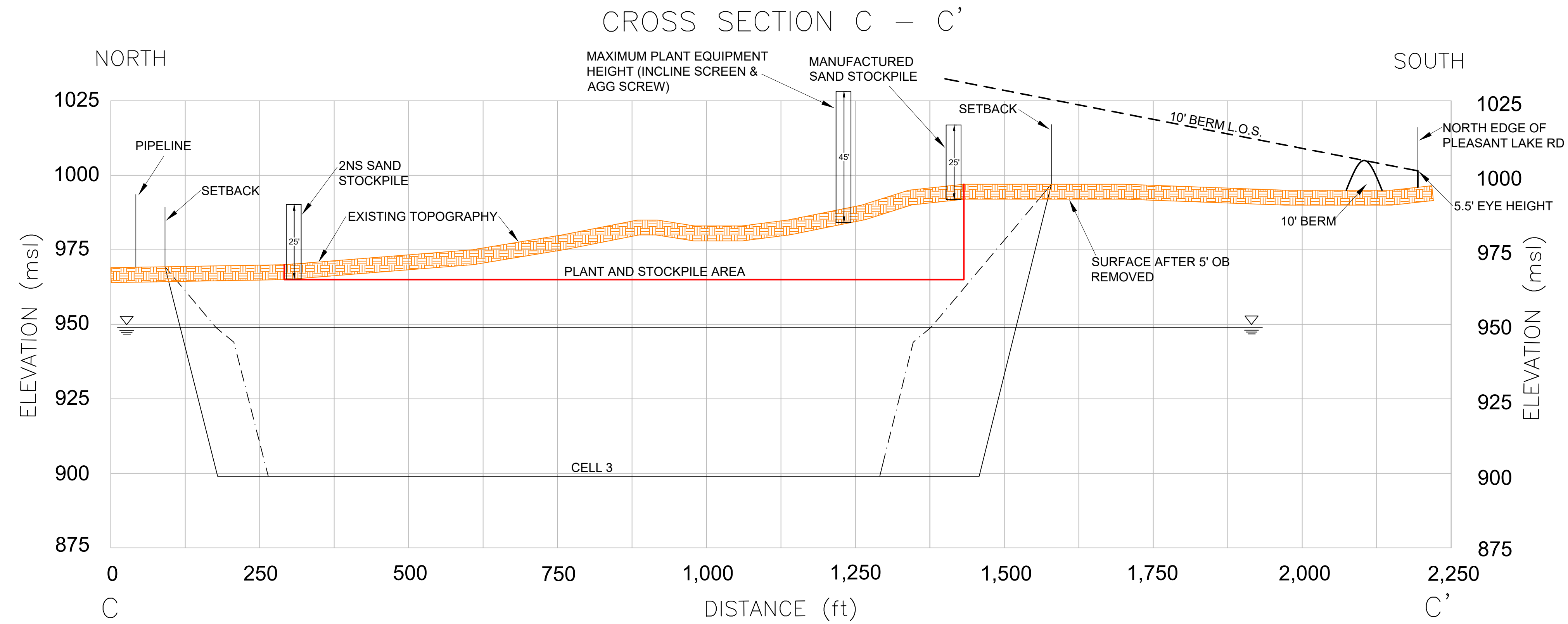
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PREPARED FOR:
 STONECO OF MICHIGAN, INC.
 15203 S TELEGRAPH RD, MONROE, MI 48161
 DATE: 9-28-2022

Susanne Hanf P.E.

Frank Tokar C.P.G.





SHEET 5D: LINE OF SITE CROSS SECTIONS
MANCHESTER MINING OPERATION
 19024 PLEASANT LAKE ROAD, MANCHESTER, MI 48158

Revised:
 12-13-2022

PREPARED BY:

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PREPARED FOR:

STONECO OF MICHIGAN, INC.
 15203 S TELEGRAPH RD, MONROE, MI 48161
 DATE: 12-13-2020

 Susanne Hanf P.E.

 Frank Tokar C.P.G.

SCALE:
 HORIZONTAL: 1"=125'
 VERTICAL: 1"=25'



SHEET 7: TOPOGRAPHIC AERIAL OVERLAY
MANCHESTER MINING OPERATION
 19024 PLEASANT LAKE ROAD, MANCHESTER, MI 48158

Revised:
 11-28-2022

GOOGLE EARTH AERIAL IMAGE FROM MARCH OF 2021.

PREPARED BY:
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