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September 15, 2012

Sherri A. Buss
City Planner, TKDA
City of Scandia
14727 209th Street North
Scandia, MN 55073

Re: Zavoral Mining and Reclamation Project
Conditional Use Permit (CUP) Application

Dear Ms. Buss:

Throughout the environmental review process for the Zavoral Mining and Reclamation Project (Project) additional information has been acquired that will bring further clarity to the Conditional Use Permit (CUP) Application. The purpose of this letter is to provide updated information that is now available as a result of the environmental review process and to describe the portions of the application that are no longer applicable to the Project.

- Sheet C-1A included as an attachment to this letter identifies: rock outcrops, power transmission poles and lines, right-of-way width and traveled portion width of roads or streets, flood elevations and sinks or basins. Significant features that were not identified in the project area through the environmental review process include: dams, dikes and impoundments of water.

- Existing berms are constructed of overburden materials and may be removed as part of final reclamation. These berms were established prior to the adoption of the current Mining Ordinance. Existing berms and future berms are identified on Sheet C-2 Site Plan, attached. Future berm construction will be in accordance with the current standards of the Mining Ordinance including the toe of the berm will begin twenty feet from an adjacent property line, the berms shall be constructed to a minimum height of 6 feet with a maximum slope of 3:1. Proposed berms as well as overburden removal were discussed in greater detail within the Final Environmental Impact Statement[1] (FEIS):

[1] AECOM. 2012. *Proposed Zavoral Mine and Reclamation Plan (Redline Version)*. Final Environmental Impact Statement. Scandia, MN.

3.1.1.1 Site Preparation
...The construction of screening berms would occur along the southwest perimeter of the Site. The screening berms would be constructed within the 50-foot mining setback, which is located between the Site boundary and the mining limits as shown in ***Figures 5 through 9****. The screening berms would be constructed from overburden materials from the Phase 1 mining area. In compliance with the City's Ordinance No. 103 the berms would have a total height of not less than 6 feet and would maintain a minimum slope of 3:1 (horizontal:vertical). The berms would be seeded and mulched. A silt fence would be placed at the base of the berm closest to the neighboring property until vegetation becomes established. The screening berms would remain as needed to provide screening throughout the life of the Project, with the potential for removal and reconstruction during certain phases of reclamation.*

3.1.1.2 Site Operations
As with most mining operations, overburden would initially be removed from new areas to be mined. The overburden would either be stored on-site within the active mine phase for later use in reclamation, or used immediately in reclamation. At times, mining and reclamation activities would be performed concurrently. This is a common practice, as it is an efficient method of using the overburden materials being extracted in the active mine phase. The concurrent activities also allow for the efficient use of the portable equipment that would be brought on-site to perform mining activities. A portion of the overburden would be used to construct the berm along the southwest perimeter of the Site during the initial stages of the Project. Since the majority of the mining would take place on previously disturbed areas, little overburden removal would be required.

- Fencing is illustrated on C-1A, attached. The fence is a four foot high chain link fence. The fence is currently used in conjunction with an in place screening berm and established vegetation to provide screening from State Highway 95. The FEIS included in-depth screening and visual analyses in Appendix A.9 and Appendix B.8. Included below is an excerpt from the Visual Assessment Technical Memorandum (Appendix B.8, FEIS) completed by AECOM:

  In summary, there would be little change in the scenic attractiveness of the overall landscape viewed from any sensitive viewpoint or area, because overall contrasts of proposed long-term Project activities with the existing landscape would be weak due to complete or partial screening of proposed activities by existing landforms and vegetation or by proposed berms. Once mining and reclamation phases are complete, the Site would be restored to a natural landscape appearance, which could enhance the natural scenic attractiveness of the Site. (pg. 19)

- There will be no process water ponds or settling basins associated with the Project as washing will not be conducted at the site. There will be temporary stormwater infiltration basins created on the floor of the mining area as mining progresses through the site. These infiltration areas will move with the advance of mining through each phase. During the environmental review process, a Stormwater Pollution Prevention Plan (SWPPP) was completed for the Project and submitted to the City of Scandia on March 24, 2010. The SWPPP has been updated to incorporate changes in the permit

requirements adopted since the plan was prepared. The updated SWPPP is included as an attachment to this submittal. Upon final reclamation, several depression areas will be created to collect stormwater run-off, promote infiltration and diversification of native vegetation and habitat within the site. The locations of these basins are indicated on Figure 4, Figure 5 and Sheets C2 through C5 contained within the Zavoral Property Reclamation Plan, Appendix A.2 of the FEIS, attached.

- Groundwater Quality Protection Plan is included as an attachment.

- In the event that lighting is necessary, portable lighting plants would be transported to the proposed Site. The lighting plant itself is erected from a trailer and typically includes two to four floodlights and a maximum of eight floodlights. The floodlights are erected to a height of 20 feet and are directed downward to reduce light dispersal. The floodlights are 400 Watts and include a shielding hood.

  The power source for the lighting plant is a small diesel generator that is operated and stored within a soundproof enclosure within the trailer. The generator operates at 72 decibels. As a comparison, normal conversation at three to five feet is 60-70 decibels.

  It is important to note that the portable lighting plant is not a permanent fixture at the proposed Site. Lighting may be necessary on a seasonal basis as daylight hours decrease. Lighting would be limited to operation hours when necessary.

Typical Lighting Plant

The FEIS provided additional information about potential plans for non-daylight lighting as follows:

> **4.16.1.2 Proposed Activities**
> *...Mine facilities would be lit at night or under low light conditions (early morning, evening, and during adverse weather conditions) for maintenance activities and safety. No night-time shifts are proposed for the Project. Non-daylight lighting is generally visible for long distances, and would potentially be visible through gaps in screening vegetation as viewed from roads and residences to the north, west, and south of the Site, and from bluffs on the Wisconsin side of the St. Croix River. However, the amount of light projected outside the Site would be minimized with the installation of downward directed lighting to illuminate only the area within the Site. The downward directed lighting would be visible to viewers within the Minnesota and Wisconsin sensitive viewing areas as well as the key viewpoints, but would likely not attract attention as the downward lighting would be screened to some extent by topography, vegetation, and the existing and proposed berms. Visual contrasts from non-daylight lighting would be weak.*

- During the environmental review process Tiller developed a detailed and complete reclamation plan. The reclamation plan, which is included as Zavoral Property Reclamation Plan and Topsoil Addendum located in Appendix A.2 of the FEIS, includes proposed landscaping and planting materials, drainage features, and a maintenance plan.

- The Surface Water Protection Plan for the Site is included in the attachments.

- Screening and fencing are discussed in greater detail under two previous bullet points.

- During the environmental review process, a Dust Control Plan was submitted to the City of Scandia on September 19, 2011. The Dust Control Plan is included in the attachments.

- The FEIS thoroughly investigated the potential noise levels that could occur during the Project and the applicable noise standards in the Noise Analysis (Section 4.15, FEIS). The excerpt included below summarizes some of the key findings of the Noise Analysis:

  4.15.4.2.3
  Operations at the Site would not cause a net increase in L50 sound levels on the Riverway, but the noise from mining operations may be audible in the Riverway at maximum mining rates due to the frequency of the noise compared to ambient noise on the Riverway; however, sound levels do not exceed applicable standards.

  Noise standards would be exceeded at a limited number of residences along TH 97 during maximum hauling conditions. However, the low and maximum traffic conditions (with the exception of Subalternative 3A) would not change as a result of the Project, and the noise impacts to residences and Scandia Elementary School are not predicted to change from current conditions. Noise levels when gravel hauling is occurring would be noticeably higher than during low noise traffic conditions.

- The SWPPP and the Emergency/Contingency Response Plan (ECRP) are included in the attachments.

- Since the CUP application has been submitted, Tiller made the decision to use the deposit as an add-rock source. That decision eliminated the following activities: crushing, screening, aggregate washing, stockpiling of aggregate material and transporting finished aggregate materials internally for subsequent processing. As a result, environmental review did not include these activities as part of the analysis and they are no longer applicable in the CUP application.

If you have any questions please do not hesitate to call either myself or Christina Morrison. We may be reached at (763) 425-4191.

Sincerely,

Tiller Corporation

Michael Caron
Director of Land Use Affairs

Cc: Ms. Anne Hurlburt, Administrator
City of Scandia

Attachments:
(1) C1-A: Land Features Within 300 Feet of the Site
(2) C2: Site Plan
(3) Stormwater Pollution Prevention Plan (SWPPP)
(4) Groundwater Quality Protection Plan
(5) Zavoral Property Reclamation and Topsoil Addendum
(6) Surface Water Plan
(7) Dust Control Plan
(8) Emergency/Contingency Response Plan