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## Safety:

RACINE COUNTY

**Question:** A traffic study shall be conducted that utilizes WisDOT (Wisconsin Department of Transportation) FDM (Facilities Development Manual) standards to describe existing conditions and proposed enhancements (if any). The design vehicle used for the study shall be SU (Single Unit) truck or similar vehicle that will utilize this access point. See Technical Memo prepared August 13, 2020 (Exhibit 1. Attached).

**Answer:** A traffic study is being conducted for the improvements needed for the trucks entering and leaving the site by Cardinal Engineering.

**Question:** How will the site be secured? Fencing? Warning signs? Safety berms? Gate on access that can lock when there is not quarrying activity occurring?

Answer: There will be a series of informational signs with information and safety procedures required to enter the mine. There will also be NO TRESPASSING signs posted at the perimeter of the mine. There will be a gate placed for security where the new driveway to the pit leaves the existing driveway southeast of the existing security gate near the farm house.

**Question:** Will people be residing in the homes during quarrying activity? Will the campground be in operation during quarrying activities? Although this may be simple, all information needs to be disclosed in proposal narrative for transparency.

**Answer:** The existing farmhouse will be rented, with the intent that people there will be alert to trespassers after working hours, like a gate keeper. The house by the pond at the south end of the property will not be rented but will be used by the Kordus family for recreation. The campground activities are closed.

Question: Safety measures for Phase 2? How will stable slopes be achieved?

**Answer:** The access driveway into the mined area will have berms of gravel built on each side for safety. The road to the bottom level will be paved with asphalt. During reclamation the access road will remain in place for access to the fields and cottage.

The slopes of the reclaimed mine will have a minimum of one foot of clay and four to six inches of topsoil, this material will come from the next phase to be mined. We will also import additional outside material to augment the slope cover. The imported material will be clean fill as defined by the WDNR. The slopes will be seeded per WDOT standards. Tree limbs and brush will be chipped and used to cover the topsoil, mulch of this type is good for slope stabilization and also augments the carbon content of the soil per the WDNR. The top of a slope will be graded to redirect water from the slope. A berm, with maximum height of 3 feet, will be constructed where needed.

**Question:** What proposed upgrades to the roadway and access location have been planned? Please submit for proper engineering review.

Answer: The existing asphalt driveway will be widened to a 24-foot-wide paved road from Highway P to the entrance to the new pit driveway. The additional width should not add additional water runoff because much of the existing drive is currently shouldered. In addition, the existing runoff and any additional runoff would follow the existing drainage pattern. The elevation of the existing road or shoulders will not be changed. The existing 12" culvert that channels water from the Hillside property to the wetland on the Newholm property will be extended as needed. A mine road will be built and redirected from the existing drive into the open field South of the existing farmhouse and structures. The road will stay a minimum of 100 feet from any existing structure on the property. The driveway will be paved with asphalt to the truck scale.

When trucks arrive at the pit they will be checked in and wait at the truck scale or stockpile area. There will be no trucks lined up on the ½ mile-long driveway to the pit.

The access off Cty Hwy P is being engineered by Cardinal Engineering and will be subject to the approval of the town and county engineers. (See Exhibit 7)

# **Operations:**

**Question:** Have any studies been done to give evidence for depths of materials? If so, what methods were used and what are the depths?

**Answer:** Test holes were dug with a backhoe in various locations on the property. Due to the height of the hills, it is not possible to dig through the full depth of the hill. The Cretex and Hillside mines adjacent to this property have excavated gravel at the same elevation proposed in the reclamation plan. The current well record, on the Losacco property, near the cottage represent gravel to a depth of 85 feet or more. Other wells

near the proposed mine area show gravel depths of 54', 82', 102', and 63'. These depths are lower than the proposed reclamation plan.

**Question:** What studies have been done for depth of groundwater? What studies have been done for all wells within 1,000 ft?

Answer: Ground water elevation is shown in the existing pond near the south property line at roughly 804. We have also review WDNR well logs in the extended area, (over 1000'). We have reviewed WDNR well logs. (See Exhibit 5)

There are two wells for houses within 1000 feet of the pit excavation, both at the south end which will be the last phase excavated. The two wells on the pit property are drilled 180 feet and 152 feet deep. Ground water in the extend area along McHenry St. and Walburg Ln indicate water levels/pump levels at 63'/135', 78'/90', 55'/62' and 58'/77'.

Ground water can be monitored and reported each year from the pond water elevation on the property. We would contact the owners of the two adjacent property wells before operation begins and if given permission, we would have a well drilling contractor do a report on each well.

Question: Will you be mining below the water table? Where will the freshwater for the ponds be coming from if not mining below the water table?

Answer: Mining will be above the water table. The only mining below water would happen when we excavate the two new ponds. Water for gravel washing will be pumped from the existing pond on the property until new ponds can be dug after the gravel is excavated.

The water used during a washing operation is not consumed, it is used for washing and then returned to the ponds.

**Question:** How much usable topsoil is currently on site? Illustrate on the operations plans where all topsoil stockpiles will be with estimated volumes.

Answer: There is an average of one foot of topsoil on the hills and three feet of topsoil in the valleys or kettle holes that were dug. If we use a conservative average of 18", there is approximately 2'-3' of clay cover on average on the site. Based on the total area, this represents approximately 152,000 CY of topsoil and 254,000 CY of clay available for restoration. We are proposing a phased mining-restoration process to minimize redundancy in material handling, we will not be exporting any clay or topsoil from the site and will accept good clean fill per WDNR standards. Based on the quantities available and phased mining pattern, there should be no shortage of restoration materials.

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There will be original berms created per the submitted Cardinal Engineering plans, subsequently, overburden removed from a subsequent phase will used to restore the previously mined area. Thus, there will only be minimal stockpiles/berms on subsequent phases if all materials are not used for the subsequent area restoration. (See Exhibit 3)

**Question:** Illustrate on the phasing plan where the location of topsoil, overburden and material stockpiles for each phase?

**Answer:** Refer to phasing plan. Our plan as mentioned previously is to reduce the amount of stock piles/berms by performing ongoing restoration.

**Question:** Illustrate locations of existing homes that will remain on the property as well as access drives for these two homes on operations and reclamation plans

**Answer:** Please refer to the submitted Cardinal Engineering Plans that show the existing homes that will remain on the property per the operations and reclamation plans.

**Question:** How will you establish and maintain erosion control within the pit and with the slopes that are being proposed? (Not just after a rainfall.)

Answer: During mining, the top of a slope will be graded to redirect water from the slope. A berm, with maximum height of 3 feet, will be constructed where needed. After soils are replaced on the slopes or the bottom of the pit, seeding and fertilizer will be planted within seven days. In addition, tree limbs and brush will be chipped and used to cover the topsoil, mulch of this type is good for slope stabilization and also augments the carbon content of the soil per the WDNR. The work will conform to the Racine County seeding requirements that are attached. A tackifier can also be used if necessary, to create slope stabilization. (See Exhibit 4)

Very little of the 200-foot setback will be disturbed in order to preserve the existing trees. A narrow portion at the top of the slope will be disturbed to fit the contour of the slope to the existing ground elevation. A low soil berm perhaps three-foot-high may be placed at the top of the slop to redirect water away from washing down the slope.

When the groundwater ponds are excavated and shaped, a fifty-foot-wide buffer of soil will be placed around it and seeded.

When slopes are restored, seeded and mulched, silt fence or waddles will be installed at the bottom of the slopes and maintained until a full growth of grass has been established. After the groundwater ponds are dug, waddles will be installed and maintained until reclamation is completed in the buffer.

Question: Access drive must be 24' wide at a minimum per Chapter 20 Zoning Ordinance

**Answer:** The access road will be 24 feet wide, paved with asphalt.

Question: How will the current structures and infrastructure be handled?

Answer: The existing homes and buildings will remain. The existing barn may be dismantled for lumber and the foundation will be leveled and area restored with top soil. With the exception of the soil berms, the pit operations will be 100 feet or more away from any building or septic field. The existing driveway to the farmhouse will continue to be used for residential use, not trucking. The driveway to the cottage by the pond will moved several times to allow for mining but then a permanent gravel drive will be built as shown on the reclamation plan.

**Question:** What protections will be put in place for the wetlands on the property? Will there be any dewatering of the existing wetlands in this proposal? Illustrate locations of the wetlands on the operations/phasing/reclamation plan

**Answer:** We will not be operating within the wetland areas. The border of the wetlands is below elevation 820 will not be disturbed. This will leave a natural barrier that leaves no connection between the mine and the wetlands. There will be no dewatering in wetland areas. The wetlands area delineated on the Cardinal Engineering plans. (See Exhibit 7)

**Question:** During contemporaneous reclamation, will agricultural operations be taking place on reclaimed areas?

Answer: Because of all the roots and wood that will be in the topsoil there will not be any annual tillage for crops. As reclaimed areas below the slopes are stabilized with grass cover, there may be an option to plant alfalfa for hay. This change may happen when more than 5 to 10 acres increments are top soiled.

Question: What are the anticipated figures for truck traffic coming and going from the site?

Answer: The average truck traffic hauling to our asphalt plant should be 50 loads per day. Outside sales to other customers use a variable number of trucks that cannot be estimated. With the improved traffic engineering, existing trucking and source of trucking in near mines accompanied by the age of adjacent mines accompanied by the fact that we are already trucking to import materials on the same road, the aggregate miles traveled by ACI trucks on Cty. Hwy P will be reduced. Logically, since we currently travel the entire distance through the town on Hwy P and will only be traveling from Fish Hatchery Rd. North, our truck traffic on Hwy P will be reduced. Meaning the aggregate truck traffic will be reduced.

Question: What measures will be taken for air pollution during crushing activities and handling dust?

**Answer:** The crushing activities in the pit are regulated by the DNR. We have a permit for our crusher and will comply with state and federal regulations.

In addition, a water truck will be used similar to the process used at adjacent existing mines. In addition we will use a sweeper truck with a pick up broom and water to clean any debris at the entrance or in turn lanes. Other adjacent mines currently do not provide this service. This is an additional process that we provide at our other existing crushing sites.

**Question:** In the reclamation plan written overview, it was mentioned that there may been trees valued for harvesting and the rest will be firewood? Are you going to be milling and processing this wood on site? Will the burning meet burning ordinance requirements with the township? Is it safe to bury the wood?

**Answer:** We intend to grind most of the excess wood into chips which will be used for soil stabilization and soil amendment mulch on the soil. The township does not require burning permits. We have people interested in the firewood. If the excess wood becomes too large, we may burn occasionally. Please refer to the WDNR NR135 bulletin attached, wood can be buried. ( See Exhibit 2)

**Question:** Hours of operation proposed is not consistent with another pit operating in close proximity. You have proposed Monday – Friday 6:00 am – 6:00 pm; Saturday 7:00 am – 3:00 pm, no Sunday or Holidays. This departments recommendation will be Monday – Friday 7:00 am – 5:00 pm, Saturday 7:00 am – 12:00 pm, no Sunday or Holiday

**Answer:** Asphalt Contractors will comply with the hours of operation permitted. However, we may do maintenance on equipment outside those hours.

### **Reclamation:**

**Question:** Cross sectional views of the existing and proposed elevations? This must be reviewed as a part of the reclamation plan

Answer: See new cross section.

**Question:** What are the depths of the proposed ponds? Will there be vegetated buffer zones surrounding the proposed ponds? Cross sectional views of the proposed pond with safety shelves must be submitted and reviewed as a part of this reclamation plan.

**Answer:** The ponds will be 15 feet deep, see cross section for safety shelf. There will be a 50-foot-wide buffer around each pond that will have topsoil placed and seeded. There

will be waddle placed around the ponds for erosion control until the grass has completely covered the buffer area.

**Question:** What is the revegetation plan? Include timing of seed distribution and methods for seed bed preparations and mulching/netting and erosion control.

Answer: Refer to attached reclamation plan. (See Exhibit 6)

### **Questions: Financial Assurance**

- Cost of reclamation for each stage with the additional information requested below quoting figures from WisDOT
- What are the topsoil or topsoil substitute material volumes anticipated for this proposed reclamation?
- What are the erosion control costs for each of the phases?
- What is the cost for safety shelves for the ponds?
- What is the cost for removing the existing structures and abandonment of the existing infrastructure?
- What is the cost for the final access drives for the N&S residences? What is the cost for the paved access drive?

Answer: Refer to Financial Assurance. (See Exhibit 3.)

The restoration volumes in aggregate are the same as previously mentioned. We are proposing a phased mining-restoration process to minimize redundancy in material handling, we will not be exporting any clay or topsoil from the site and will accept good clean fill per WDNR standards. Based on the quantities available and phased mining pattern, there should be no shortage of restoration materials.

We will be minimizing erosion control costs during phasing by performing ongoing restoration and eliminating double handling of clay and topsoil during subsequent phase development. We are using WDOT cost estimated for financial assurance. The actual cost would be far less.

There is no addition cost for the safety shelves in the ponds. The shelves are simply shaped by the backhoe when the pond is dug.

There should be no need to consider removal of structures in the reclamation bond. The building sites will remain as they are. All of the old campground infrastructure is removed to accomplish the gravel mining. We are not replacing any of those facilities. The current owner and WE Energies are responsible for removing electrical utilities.

The access drive to the north residence will remain the same using the old driveway. The access drive to the south house will use the driveway built to access the pit

which will remain after the pit is reclaimed. The house will always have a gravel driveway access for the property owner which will remain; there is no additional cost in the reclamation that was not already in use during the pit operation.

Question: How will fill material being brought in be inspected and ensured it is clean?

**Answer:** Refer to the NR 135 bulletin defining clean fill to a gravel pit. There will be a loader operator or scale person on site to witness clean fill that is being dumped and take action by calling the owner if there is a problem. (See Exhibit 2)

The site is not unique for reclamation. All remnants of the campground will be removed during excavation in the ground below and will not be replaced.

A reclamation bond for 15 acres should be adequate, however please explain how a bond of \$92,000.00 for 32 acres for TTT real estate and \$73,500.00 for 24.5 acres is adequate. A bond over \$150,000.00 would be too much.

Question: Will you have a tree replacement program, or will there be a need for hydroseeding?

**Answer:** There is no tree replacement program. We are leaving a 200-foot-wide buffer of trees in the setback. Trees in the bottom of the pit would not be compatible with a hay field.

#### **Citizen Concerns:**

Question: Runoff from existing driveway/access flooding abutting property

Answer: Mr. Newholm has explained to me his concern about increased water running into his field south of the driveway. I told him it is mapped as a wetland which he did not know. There is an existing culvert that drains water from the Hillside aggregate field to his wetland. We will not be changing the grade of the road so there will be no change in the flow of storm water. Mr. Epping, the current owner of Hillside Aggregates stated at the previous meeting that he will developing his site into a sub-division. A sub-division will bring many non-pervious surfaces such as roads and roofs. These non-pervious surfaces will create significantly greater runoff than the driveway into this mine.

**Question:** Truck volume: proposal 50 trucks per day. But each truck making 5-6 trips per day 5x50=300

**Answer:** Asphalt contractors expects on average 50 truck loads being hauled out to the Burlington asphalt plant each day during the paving season. The number of trucks from other customers will vary.

Question: Trucks using narrow drive

**Answer:** The driveway will be widened to 24 feet.

Please note, most of the travel lanes in the Town of Burlington, including Fish Hatchery and Fishman are between 21' and 23'6" wide.

Question: Noise control, no jake brake

**Answer**: We will post many safety signs, we will also post signs prohibiting the use of jake brakes.

Question: Potential well problems

**Answer:** There are two wells withing 1000 feet of the pit excavation. We will not be drilling new wells. We will offer well inspection to document their existing condition. Per the WDNR well reports the adjacent wells are currently dug well below the mine elevations. In addition, gravel mines offer replenishment and purification of rain water to the aguifer.

Question: Too many pits in area already

Answer: Pits are being rapidly depleted as witnessed by the number of trucks on the Burlington bypass each day. The blue dump trucks are trucking from their pit north of Elkhorn which demonstrates the changes happening in the market. The Wilson is practically crushed out to the zoning lines with some excavation going to happen below water to build a large pond. Mr. Epping said at the town of Burlington public hearing that he expects to start selling home lots in 5 years on his reclaimed pit. The Reesman truck traffic generally goes south to Highway 50.

Question: Environmental corridor preservation

**Answer:** Most of the wooded area being excavated were campground sites with roads and utilities. We are willing to leave an additional 100-foot-wide strip of woods around the setback that could have been used for storing soil where there were no campgrounds.

**Question:** Can this proposed operation work with the existing pits to possibly minimize entrances, truck traffic and enhance traffic safety

**Answer:** Cretex has no permitted access to Highway P, Hillside Aggregates is not interested at this time. And is anticipated to be a residential sub-division

Question: Street cleaning responsibilities and timing

**Answer:** A water truck will be used similar to the process used at adjacent existing mines. In addition, we will use a sweeper truck with a pickup broom and water to clean any debris at the entrance or in turn lanes. Other adjacent mines currently do not provide this service. This is an additional process that we provide at our other existing crushing sites.

Question: Hours of operation

**Answer:** Hours of operation will be the same as the other pits on Highway P. The anticipated hours of operation will be Monday – Friday 7:00 am – 5:00 pm, Saturday 7:00am – 12:00 pm, no Sunday or Holiday hours.

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