

November 21, 2016

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Ms. Jennifer Borski, Hydrogeologist
Wisconsin Department of Natural Resources
625 East County Road Y, Suite 700
Oshkosh, Wisconsin 54901-9731

**RE: Eagle Point Senior Living – Development at Historic Fill Site or Licensed
Landfill Exemption Application (REVISED TEXT). BRRS ID #02-45-530084**

07-45-552735

Dear Ms. Borski:

A senior living development (Eagle Point Senior Living) is being proposed by IconiCare, LLC, on the Former Foremost Farms site located at 935 E. John Street in Appleton, Wisconsin. I previously submitted a Development at Historic Fill Site or Licensed Landfill Exemption Application (Form 4400-226 R 5/16). Please exchange the enclosed text with what was submitted with the application. After seeing the CSM for the property I realized I had incorrectly referenced the Lots in the text.

If you have any questions on the enclosed information, please contact me at 920/830-6141 or by email at bwayner@omni.com.

Sincerely,
OMNI Associates, Inc.

Brian D. Wayner

Brian D. Wayner, P.E.
Environmental Manager

Enclosures

cc: Mr. Patrick L. Eagan, Director of Engineering, IconiCare, LLC, 901 Deming Way,
Madison, WI 53717

Section V.

Summary of Existing and Potential Impacts

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1.0 EXISTING SITE CONDITIONS

1.1 Existing Site Conditions Including Waste Types

Additional site information can be found in the *Soil and Waste Management Plan*, dated October 24, 2016.

A residential development (Eagle Point Senior Living) is being proposed by IconiCare, LLC, on an approximately eight-acre site located at 935 E. John Street in Appleton, Wisconsin. The Eagle Point Senior Living facility is a redevelopment of the former Foremost Farms Dairy site. On May 16, 2014, the Wisconsin Department of Natural Resources (DNR) issued a case closure letter for the former Foremost Farms Dairy property (BRRTS # 02-45-530084). Soil and groundwater contamination remained on-site at the time of closure. Closure conditions included complying with a *Cap Maintenance Plan and Material Handling Plan*, dated February 2014. A prior *Development at Historic Fill Site or Licensed Landfill Exemption Application*, dated April 9, 2012, was prepared by ARCADIS. The DNR provided a *Conditional Case-by-Case Grant of Exemption for the Development of a Property Where Solid Waste has been Disposed* response, dated April 25, 2012. (Reference Appendix 1 for copies of the 2012 *Development at Historic Fill Site or Licensed Landfill Exemption Application* and the DNR's response.)

The proposed Eagle Point Senior Living development would be constructed on the former Foremost Dairy property located in the SW $\frac{1}{4}$ of the SW $\frac{1}{4}$ of section 25, and the NW $\frac{1}{4}$ of the NW $\frac{1}{4}$ of section 36, T 21N, R17E, Appleton, Outagamie County, WI. (Reference Figure 1 – Location Map, Appendix 2.) The property is currently owned by the Appleton Redevelopment Authority (sale pending) and is zoned R3, Multifamily District.

The 8.1-acre property is bordered by the Fox River to the west and south, by a relatively steep slope along the west border with residential properties at the top of the slope, and generally wooded and shallower sloped residential property to the north. The College Avenue Bridge is also located north of the site. The west side of the Appleton lower dam intersects the shoreline near the east central portion of the site. It is our understanding that where the dam intersects the shoreline is property owned by another party. John Street dead-ends at the property's west border.

Various industries have operated at the site since the late 1800's. (Reference Figure 2 – Historical Orthophotos – 1938 to 2010, Appendix 2.) The early development of the site involved significant filling of the site and construction of raceways to direct water for energy production. Early site operations involved papermaking, tanning, machining, and quilting. Most recently, from the 1950's until 2003, the property was used as a whey processing facility by Foremost Farms. When the Foremost Farms facility ceased operations at the site the majority of the machinery was removed. The aboveground storage tanks at the site were removed in 2002 and 2004. The site was placed in the Wisconsin DNR's Voluntary Party Liability Exemption (VPLE) program in 2004 (BRRTS # 06-45-523605), and underwent soil and groundwater investigations.

The City of Appleton acquired the property on June 28, 2011, and began to demolish buildings later that year, completing the process in June 2012. A capping plan was carried out, in which direct contact with

contaminated soils at the site has been minimized by the placement of fill over contaminated areas. The DNR issued a Low Hazard Grant of Exemption for Beneficial Reuse of Contaminated Materials on October 27, 2011, to allow placement of 1,200 cubic yards of lead-bearing painted concrete at the eastern face of the western building basement wall. A Low Hazard Grant was also issued on June 26, 2012, to allow placement of 7,750 cubic yards of contaminated soils within the former building basement. In both cases, the materials were covered with five to eight feet of clay. These areas are located within the site's "development zone". The site achieved closure on May 16, 2014.

Past investigations and remedial activities have provided soil data across the site. Fill material throughout the entire site contains polycyclic aromatic hydrocarbons (PAHs), and select metals at concentrations that exceed direct contact criteria. Select volatile organic compounds (VOCs), PAHs, and metals exceed applicable groundwater pathway criteria; however, groundwater monitoring indicated no VOCs, PAHs, and metals present in groundwater at concentrations above regulatory standards. Sediment within the abandoned head raceway contained polychlorinated biphenyls (PCBs), PAHs, and metals. The total PCB concentrations in sediment were below the United States Environmental Protection Agency Toxic Substances Control Act rule. All soils and sediments beneath the established engineered barriers should be considered impacted.

Historical groundwater monitoring data at the site indicated exceedances of the ch. NR 140 Wis. Adm. Code, enforcement standard for sulfate at monitoring well MW1. The DNR granted an exemption to sulfate in the groundwater

Based on the geotechnical investigations coordinated by OMNNI in 2014 and 2016, the fill material on the site generally consists of various combinations of lean clay, silty sand, and gravel. The native soils on the subject property consist generally of glacial till consisting of lean clay with varying amounts of sand and gravel, as well as some apparently discontinuous organic deposits. The bedrock in the subsurface of the subject property is Ordovician dolomite of the Sinnipee group and is encountered at depths ranging from 14 to 35 fbs.

The site is planned to be divided into three separate development lots. Lot 1 is proposed to be used for the Eagle Point Senior Living campus. Lots 2 and 3 will be future development areas. It is anticipated that excavation depths will range from approximately 6 to 10 feet across the planned senior housing development in Lot 1. The slab-on-grade area in the far southern portion of the south wing will require 2 to 6 feet of fill to bring the existing grades to plan slab on grade elevation.

On the western side of the senior living housing development, proposed grading plans are indicating existing site grades for parking. On the eastern side of the senior housing development, existing grades for parking, drive and lawn areas are higher than plan grades in the southern portion of the lot and near plan grades in the northern portion of the lot. Small cuts and fills are anticipated in the northern portion of Lot 1 on the east side of the senior living housing development, and cuts are anticipated in the southern portion of the lot on the east side of the development.

New infrastructure including sewer, water, storm water, curb and gutter will also be required on the site. In addition to this infrastructure, a lift station is planned in the northwest corner of Lot 1 near boring B04-IC. (Reference Figure 3 – Site Detail Map, Appendix 2.)

1.2 Potential for Impacts

At this time the contamination from the historic fill detected does not appear to be impacting: species, habitat, or ecosystems sensitive to the contamination; wetlands; outstanding resource waters; or sites or facilities of historic or archaeological significance. However, laboratory analysis indicates that both the soil and groundwater have concentrations of contaminants.

1.3 Evaluation of Existing Impacts

Results from soil investigations conducted by ARCADIS indicated that a majority of the unsaturated fill material beneath the subject property contained PAHs and metals at concentrations exceeding direct contact criteria. (Reference Figure 3 – Site Detail Map, Appendix 2 and ARCADIS Table 3. Summary of Analytical Results for Soil Located Outside of the Development Area, Former FFUSA Site, Appendix 3.) The source of the PAHs is likely the historic deposition of fill from unknown sources to develop the subject property. Although select PAH, metals, and VOC concentrations in the soil exceeded their respective soil-to-groundwater pathway criteria, these constituents were not detected in groundwater above regulatory criteria. Sediment sampled from the head raceway area contained PAH, metal, and PCB concentrations that exceeded applicable direct contact criteria. The total PCB concentrations in sediment were below the United States Environmental Protection Agency Toxic Substances Control Act rule. All soils and sediments beneath the established engineered barriers should be considered impacted¹.

Groundwater monitoring results indicated that sulfate exceedances at the subject property were limited to one groundwater monitoring well (MW-1).

The DNR publication *Development At Historic Fill Sites And Licensed Landfills: Considerations And Potential Problems* (PUB-RR-685, April 2002) lists factors that should be considered when evaluating whether the planned land development is compatible with the waste conditions at the property. These factors and evaluations include:

- Methane gas accumulation in buildings and other enclosed structures
 - The lack of VOC concentrations and organic materials indicate that methane gas accumulation is unlikely.
- Toxic gases collection in buildings and other structures
 - VOC concentrations were not observed at levels that would pose a threat to indoor air quality. The developer was encouraged to install at least the underground infrastructure and make provisions for the equipment and venting for a radon type system.
- Disturbance of the soil cap

¹ Paraphrased from the *Cap Maintenance Plan and Materials Handling Plan*, dated February 2014.

- A *Cap Maintenance Plan and Material Handling Plan*, dated February 2014, was prepared for the site. The *Soil and Waste Management Plan*, dated October 24, 2016, proposes how the materials will be handled during the redevelopment and proposes that the *Cap Maintenance Plan and Material Handling Plan* be amended to reflect the post-construction redevelopment.
- Utility lines acting as conduits for gas and leachate
 - The probability of the utility lines acting as a conduit for gas and leachate is unlikely due to the nature of the residual contamination, which is primarily PAHs. The site and surrounding area are serviced by the local municipal water supply system, which obtains drinking water from Lake Winnebago.
- Dewatering problems
 - If dewatering is necessary for the redevelopment, an application to the City of Appleton’s Waste Water Treatment Plant will be submitted.
- Worker exposure
 - The developer is aware of the contamination present at the site and has been provided copies of the *Cap Maintenance Plan and Material Handling Plan* and the *Soil and Waste Management Plan* in addition to this document for his workers and subcontractors.
- Settlement problems
 - OMNNI conducted geotechnical surveys for the developer. The reports include recommendations for foundation design.
- Prohibition on water supply wells within 1200 feet of the waste limits
 - The property will be serviced by a municipal water supply. There are no known water supply wells within 1200 feet of the site.
- Material Handling
 - In addition to the existing *Cap Maintenance Plan and Material Handling Plan*, a *Soil and Waste Management Plan* was prepared for the redevelopment.

2.0 PROPOSED DEVELOPMENT SUMMARY

The proposed Eagle Point Senior Living facility will consist of 99 units, including 73 congregate independent units, 25 assisted living units, and one guest suite. Common areas will provide space for activities and socializing. Spaces will include a lobby with seating, library, game room, dining room and pub, two activity rooms, theater/chapel, beauty/barbershop, exercise pool, locker rooms, spa and exercise room. There will also be 70 underground parking stalls and individual storage lockers for use by the residents.

Preliminary Design of the Eagle Point Senior Living Facility Campus



West Side of Eagle Point Senior Living Facility (Entrance Side)



East Side of Eagle Point Senior Living Facility (River Side)



The site is planned to be divided into three (3) separate development lots. Lot 1 is proposed to be used for the Eagle Point Senior Living campus. Lots 2 and 3 will be future development areas. One main building is proposed in Lot 1 with a general north to south orientation and has a central rectangular shaped common area as well as a northern and southern wing orientated with a slight skew from the central common section of the building. The structure is proposed to have a basement and three stories with the exception that no basement will be constructed under the far southern portion of the southern wing. The far southern wing of the senior living building will consist of slab on grade construction with planned shallow foundations.

The basement areas will predominantly consist of underground parking in the central common section, the northern wing of the building, and the northern portion of the southern wing of the building. The basement area is also planned to include a pool area, fitness and spa room, and general maintenance space on the eastern portion of the central common section. The main floor will predominantly consist of living quarters as well as a lobby, kitchen, and dining areas in the central common section. The second and third floor will consist mainly of living quarters.

Parking areas are proposed along the west side of the senior living building on Lot 1 with drive areas located around the perimeter of the building.

There are approximately 45 residences within 300 feet of the site. There are approximately 83 residences between 300 feet and 1,000 feet of the site. The nearest known private well is 2,244 feet to the southwest of the site on the other side of the Fox River. The nearest building is 26 feet west of the site. (Reference Figure 4 – Historic Fill Exemption – Distances, Appendix 2.)

3.0 SUMMARY OF ACTIONS TO BE TAKEN

The site design of the Eagle Point Senior Living campus tried to work within the development areas. (Reference Figure 5 – Development Zones, Appendix 2.) The site design also factored in the contaminated materials on-site by raising the building and surrounding grade elevations. However, because of the grade changes across the site, there are still areas that are required to be cut and filled to allow the design to work. The final site design attempted to keep existing materials on-site and reduce the need for off-site materials.

Based on the proposed design, there would be an estimated 11,330 cubic yards of materials that would be cut for the development. The amount of cut materials includes clean fill that was brought to the site to create the development areas and materials beneath the clean fill and materials outside the development area, which are assumed to be contaminated. The volume of materials assumed to be contaminated is approximately 3,350 cubic yards. This volume will vary depending on the amount of clean fill that was brought in to cap the contaminated material. (Reference Figure 6 – Contaminated Soil Excavation, Appendix 2.) The main cut areas are for the building, a biofilter, and a stormwater pond. The biofilter and stormwater pond will have two-foot compacted clay liners. The notice of intent and Chapter 30 permits documentation has been submitted and approved.

The fill required for the development is estimated to be 10,000 cubic yards. The fill estimate includes volume that will be taken up by paved surfaces and topsoil. (Reference Figure 7 – Proposed Overall Fill Locations, Appendix 2.) The main fill areas are the parking area and around the building, including the southern part of the building, which will not have a lower level. (Reference Figure 8 – Proposed Cut/Fill Section Views, Appendix 2.)

Although the DNR agreed conceptually with the approach of placing a significant portion of the contaminated soil under the parking area, which is located above the former raceway, the U.S. Army Corps of Engineers requires that “fill material must consist of suitable material free from toxic pollutants in other than trace quantities”. Nick Domer from the U.S. Army Corps of Engineers thought that “free from toxic pollutants in other than trace quantities” was interpreted to mean above laboratory detection limits. Therefore, the fill in the former raceway footprint will need to be from the clean cut material from the development areas.

The Phase II (Lot 2) development area has not been completely designed and can allow for more or less fill depending on the material actually encountered during construction. (Reference Figure 3 – Site Detail Map, Appendix 1 for future single family development (Phase II/Lot 2) area.) At this point approximately 2,700 cubic yards of fill is anticipated to be placed in the area of the future residential development. Every six-inch elevation change in the Phase II development area is approximately 620 cubic yards.

The northern part of the Eagle Point Senior Living building may encounter the fill material placed in the former building foundation. (Reference Figure 3 – Site Detail Map, Appendix 2 to compare proposed development to former building footprint.) If encountered, this material would be moved to an adjacent area requiring fill.

Areas that are disturbed and that are not covered by buildings or paved surface will have a soil cap of at least six-inches.

Because of the amount of cut and fill across the site, and because all soils and sediments beneath the established engineered barriers should be considered impacted, it is proposed that the existing Cap Maintenance Plan and Material Handling Plan be amended to reflect the new development.

Portions of the Eagle Point Senior Living building and supporting infrastructure may penetrate the geotextile barrier separating the clean fill from the contaminated material. Replacement of the geotextile barrier is not proposed, since the areas will be covered by structures, the clean fill relocation (other than over the former raceway) will not be tracked, and the entire site will be under a revised cap maintenance plan.

4.0 STANDARD OF CARE

The conclusions presented in the *Development at Historic Fill Site or Licensed Landfill Exemption Application* and the accompanying supplemental material were arrived at using generally accepted hydrogeologic and engineering practices. The conclusions presented herein represent our professional

opinions, based on data collected at the time of the investigation, at the specific boring and sampling locations discussed in this application. Conditions at other locations on the property may be different than described in this application. The scope of this application is limited to the specific project and location described herein.

5.0 SIGNATURE OF ENVIRONMENTAL PROFESSIONAL

"I, Brian D. Wayner, hereby certify that I am a registered professional engineer in the State of Wisconsin, registered in accordance with requirements of ch. A-E 4, Wis. Adm. Code; that this document has been prepared in accordance with the Rules of Professional Conduct in ch. A-E 8, Wis. Adm. Code; and that, to the best of my knowledge, all the information contained in this document is correct and the document was prepared in compliance with all applicable requirements in chs. NR 700 to 726, Wis. Adm. Code."

Prepared by:


Brian D. Wayner, P.E.

