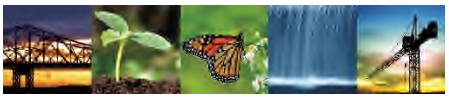

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MEMORANDUM

Date: January 23, 2018

To: Gregory M. Reesman, Chairman, The Reesman Company

From: Bernard G. Fenelon, P.G., GZA GeoEnvironmental, Inc.

File No.: 20.0154927

Re: Proposed 14520 Braun Road Development
Yorkville, Wisconsin

GZA GeoEnvironmental, Inc. (GZA) is pleased to submit this Memorandum related to the Clay Borrow Pit proposed for a 45-acre parcel of land at 14520 Braun Road Yorkville, Wisconsin ("Site"). This Memorandum provides GZA's opinion regarding the potential impact to groundwater quality related to development of the Site as a Clay Borrow Pit.

Based on information from The Reesman Company, the proposed Clay Borrow Pit will cover approximately 10 acres of the Site and be excavated to depths up to 40 feet. The excavated material consists of clay-rich soil. The soil will be transported off the Site for use in construction. After completion of the clay Borrow Pit, the pit will be filled with locally generated storm water.

Based on geotechnical information obtained from four soil borings drilled within and on the margins of the footprint of the proposed Clay Borrow Pit, subsurface conditions consist primarily of gray and brown silty-clay soil to the 41-foot drilling depth in the four soil borings. Based on hydraulic conductivity testing in samples collected from the four borings, the clay soil has an average hydraulic conductivity of approximately 1.6 10^{-7} centimeters per second (cm/sec) and a range of 4.9 x 10^{-7} to 1.8 x 10^{-8} cm/sec. With these hydraulic conductivity results, the native clay soil has similar properties for low hysdraulic conductivity clay that the Wisconsin Department of Natural Resources requires for liners and caps for sanitary landfills.

GZA reviewed approximately 25 well construction reports for well drilled over the last 50 years within approximately one mile of the Site. Based on the geology recorded in the well construction reports, the area water-supply aquifer (Silurian Dolomite and sand and gravel layers overlying the bedrock are present generally at depths greater than 150 feet. The soil overlying the bedrock aquifer and sand and gravel layers was logged as primarily clay, like that encountered in the geotechnical borings drilled to 41 feet at the Site.

In GZA's opinion, completion of the proposed Clay Borrow Pit and filling with storm water will not impact local groundwater quality in the local water-supply aquifer because:

- The water filling the pit will be locally-derived storm water;
- The base of the Clay Borrow Pit will be lined by native in-place clay with similar properties as landfill liners which will protect the shallow aquifer from incidental chemicals that may be present in the storm water; and
- The clayey soil extends to the depth of the local water-supply aquifer generally greater than depths of 150 feet.