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Memo

To: Brad Packard, AICP
Director of Development & Planning
Ciminelli Real Estate Corporation
Centerpointe Corporate Park
350 Essjay Road
Williamsville, NY 14221

From: Jason Utzig, P.E.

Date: December 19, 2014

Re: Westwood Project – Preliminary Engineering Design & Site
Planning Services – Task 5 – Stormwater Management Planning

File: O76.003.001

The following is a supplement to the Preliminary Drainage Analysis Report for the Westwood Mixed Use Neighborhood Project, prepared by Professional Civil Engineering, L.L.C., dated May 19, 2014.

As mentioned in the Preliminary Drainage Analysis Report, post development stormwater discharge from the northernmost drainage area (identified as PDA1 in the Westwood PostDevelopment HydroCad report) will be conveyed to the stormwater management lake via a stormwater pumping station and ultimately to Ellicott Creek.

Due to the preliminary/conceptual nature of this task, detailed grading and utility plans were not prepared. We do however, have a general idea of the proposed elevations needed to be established in order to determine the elevations of the stormwater detention ponds, proposed stormwater discharge locations and/or the need for a stormwater pump station. To accomplish this, the Preliminary Conceptual Master Plan was overlaid with LIDAR topography, which includes 1-foot contour intervals. Additionally, the assumption was made that the proposed grades will generally follow the existing elevations.

The 3 detention ponds at the north end of the site are 7-foot deep (from a permanent water surface elevation of 590 to a top of bank elevation of 597). The proposed water surface elevation of the stormwater lake is 597.25. Due to the elevation difference between the 3 ponds and the stormwater lake, the 3 ponds

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cannot discharge by gravity to the lake. Therefore, a stormwater pump station will be needed.

A preliminary design of the stormwater pump station is included with this letter. The design parameters to start with were 10-feet of static head, 2,000 linear feet of forcemain and a total combined discharge rate of 15 cfs (6,732 gal/min) to discharge from the stormwater ponds to the stormwater lake. Given those parameters, a triplex submersible pump station (with two pumps running and a third pump as a backup) was selected. To obtain the approximately 6,800 gpm of discharge, each pump will be an 8" Fairbanks Morse solids handling submersible pump, 75 horsepower capacity, and capable of handling 3,400 gpm each. The pumps will discharge through a 16-inch diameter forcemain. Each pump will be on a guiderail system and all three pumps will be placed within a 9-foot diameter wet well (manhole) with an external valve vault. Note that as design progresses, the pumping system may be modified to reflect expanded or reconfigured ponds. The above is a preliminary design assessment.

It is intended that pump station ownership and operation will be accomplished through the establishment of a drainage district that will include all residents/owners within the project limits. A contract for the station's maintenance will be awarded to a local mechanical contractor.

As the project progresses from conceptual planning to design development, a more detailed design of the stormwater management system will ensue.