TOWN OF AMHERST

ENGINEERING DEPARTMENT

ERIE COUNTY – NEW YORK

JEFFREY S. BURROUGHS, P.E. – TOWN ENGINEER

January 19, 2017

TO: Ellen M. Kost, AICP – Associate Planner

FROM: Jeffrey S. Burroughs, PE – Town Engineer JSB

SUBJECT: Request to Rezone 146.7+/- Acres – Amendment I
RC to TND, MFR-7 & GB & Planned Unit Development
Z-2014-23

ADDRESS: 772 North Forest Road and 385 & 391 Maple Road
(Westwood Country Club)

PETITIONER: Mensch Capital Partners, LLC

This office has reviewed the Rezoning Application for the Planned Unit Development, dated December 19, 2016 and offers the following comments:

1 The petitioner has defined a potential solution to the sanitary sewer downstream capacity issues of the Sheridan Drive/west side interceptor by identifying an alternate route for the sewage generated by the development. Given the analysis provided in the application, the Engineering Department requests the following information to complete its review:

   a. A conceptual agreement of and modifications to the language in the document that confirms that the capacity upgrades to the Amherst Manor sewer (from Maple Road to its termination on Augspurger Drive) as detailed in Figure 2-1 of Exhibit T(Downstream Sanitary Sewer Capacity Analysis) will be financed and constructed entirely by the petitioners under a public improvement permit.
   b. Acknowledgement from the State University of New York at Buffalo accepting the additional 1 MGD peak flow within its sewer on Augspurger Drive.
   c. Acknowledgement that the Town of Amherst is not willing to accept the ownership, and/or the responsibility of operation and maintenance of a sanitary sewage pump station associated with this development. The responsibility for ownership, operation and maintenance must be assumed by the petitioner or a contractual third-party with appropriate financial assurances to satisfy the Town.

2 As stated in its prior review, it is the Town of Amherst Engineering Department's understanding of the NYSDEC's I&I offset requirement that project sponsors must provide I&I reductions of 4 times the peak flow, which for this development would be 3,997,600 gallons per day (999,400 gallons per day X 4). The proposed use of a sanitary retention facility is unacceptable and will not be approved for I&I offset credits within the Town of Amherst.

3 Please review the attached excerpt from Section 2 of Exhibit T. The Engineering Department recommends making the referenced changes shown in Exhibit T.

4 At the bottom of page 4 of the Cover Letter to Eric W. Gillert, AICP, Planning Director it states that the "...existing sanitary sewer infrastructure can accommodate the projected sanitary sewer flows...". The Engineering Department is requesting that the statement reads "...existing sanitary sewer infrastructure can accommodate the projected **dry weather** sanitary sewer flows..."

5 Although there is recognition by the applicant to find a solution such that stormwater does not need to be pumped, the Town of Amherst will not accept the responsibility for the ownership, operation and maintenance of a stormwater pump station. As defined in the prior reviews, please note that this arrangement would also dictate other infrastructure ownership and maintenance responsibilities as no public stormwater can be tributary to a private pump station.

6 The Town of Amherst Engineering Department is concerned about the traffic management and capacity issues in the Sheridan Drive corridor adjacent to this project. The Town of Amherst Engineering Department is interested in the methods of the NYSDOT's arterial management project for the heavily trafficked Sheridan Drive corridor. It would be helpful if the petitioner would explain the mitigation measures proposed by the NYSDOT project in the application for rezoning.

7 The Town of Amherst Engineering Department recommends that an independent consultant be engaged to review the final traffic impact study funded. The independent consultant should be hired by the Town, but funded by the petitioner.

cc: Barry A. Weinstein, M.D. – Town Supervisor

Downstream Sanitary Sewer Capacity Analysis

A downstream sanitary sewer capacity analysis was performed by comparing the capacity of the downstream sewer with the combination of the proposed new sanitary flows and current flows. These flows were obtained from recent wet weather flow monitoring data as the NYSDEC Sewer Extension Application Guidance and Related I/I Flow Offset Requirements recommends. The guidance documents further require that flow data is collected from a minimum of three key nodes during a significant rainfall event. A significant rainfall event is defined as a daily rainfall amount of 0.5" or greater.

TECSmith, Inc. performed flow monitoring of three downstream locations for this project between the dates of November 16, 2016 and December 6, 2016. Flow monitoring results are:

- Node 1 – Amherst Manor Drive (North of Maple Road):
  - Pipe Size: 15-inch diameter
  - Capacity: 1.70 million gallons per day (MGD)
  - Average daily Flow: 0.3 MGD
  - Daily Peak Flow: 0.48 MGD
  - Peak Hourly Flow from 2016 Flow Monitoring Data: 1.61 MGD
- Node 2 – 2031 Sweet Home Road (between Skinnersville Road and Durham Drive):
  - Pipe Size: 36-inch diameter @ 0.05%
  - Capacity: 18.5 million gallons per day (MGD) 9.75
  - Average daily Flow: 1.10 MGD
  - Daily Peak Flow: 1.85 MGD
  - Peak Hourly Flow from 2016 Flow Monitoring Data: 3.48 MGD
- Node 3 – University of Buffalo (UB) Outfall (intersection of Sweet Home and Chestnut Ridge):
  - Pipe Size: 36-inch diameter @ 0.20%
  - Capacity: 18.5 million gallons per day (MGD)
  - Average daily Flow: 1.10 MGD
  - Daily Peak Flow: 1.85 MGD
  - Peak Hourly Flow from 2016 Flow Monitoring Data: 2.83 MGD

The downstream capacity analysis was performed utilizing the sewer capacity of the three locations monitored and comparing it to a combination of the peak flows monitored and the proposed flows from the development with and without flow equalization. The table below represents the results of the downstream sanitary sewer capacity analysis with and without the use of an onsite equalization basin.

Sanitary Sewer Capacity Analysis								
Sewer Name	Sewer Diameter (inches)	Existing Sewer Capacity (MGD)[1]	2016 Peak Hourly Flow Monitoring Results (MGD)[2]	Available Sewer Capacity (MGD)	Proposed Flow w/o Eq (MGD)	Proposed Flow with Eq (MGD)	Proposed Available Sewer Capacity w/o Eq (MGD)	Proposed Available Sewer Capacity with Eq (MGD)
Amherst Manor Drive	15	1.7	1.61	0.09	1.00	0.49	-0.91	-0.40
2031 Sweet Home Road @ 0.05%	36	18.5 9.75	3.48	15.02 6.27	1.00	0.49	14.02 5.27	14.53 5.78
UB Outfall @ 0.20%	36	18.5	2.83	15.67	1.00	0.49	14.67	15.18