

3.4 Public Sewage

3.4.1 Existing Conditions

The Raleigh and Heiden Properties development proposes construction of a mixture of 236 single family units and duplex units on 196.9 acres of land. The Raleigh property is currently developed with a 230 room hotel, the Raleigh Hotel, which utilizes an existing on-site sand filter wastewater treatment system. The project site also includes the former Heiden hotel parcel. The Heiden Hotel burned down several years ago but other structures remain such as ancillary bungalows, outbuildings, pools, and recreational courts. These buildings do not currently utilize a wastewater treatment facility because they are not in use.

The Raleigh Hotel discharges all wastewater to an existing multi-bed open sand filter system utilizing several large capacity septic tanks for primary solids settling and chlorine disinfection of the effluent, required between June 1st and September 15th of each year. The outfall from the system is into the Sheldrake Stream east of the site. The New York State Department of Environmental Conservation (NYSDEC) State Pollutant Discharge Elimination System (SPDES) permit number for this system, which has been active for over 40 years, is #NY-0031658. This system has an effluent design flow limitation of 112,500 gallons per day (gpd). The existing septic tanks are buried between the Hotel and the sand filters and consist of a 55,000 gallon tank, three (3) 14,000 gallon tanks, and one (1) 5,000 gallon tank. This system does not have available treatment capacity to be used for the additional proposed development and therefore it is proposed to be abandoned and demolish the existing system to allow for the construction of Cluster 3. The components of the existing treatment facility will be removed from the subsurface, such as the septic tanks and the sand filter system, and disposed properly within regulatory guidelines.

The Town of Fallsburg's closest treatment plant to the project site is located on NYS Route 42 approximately 3.5 miles away. The current capacity of the plant is 3.25 million gallons per day (MGD), with a summer season influent of 3.15 MGD, leaving only 0.1 MGD available. Based on approved development plans with the Town of Fallsburg consolidated sewer district, which includes Woodbourne, Hurleyville, Old Falls, and South Fallsburg, the wastewater facility is anticipated to have been at capacity or has periodically exceeded capacity during the 2010-2011 summer seasons. The Town of Fallsburg is currently looking into upgrading the facility.

3.4.2 Potential Impacts

Flowrate

As stated above the project proposes 236 single family and duplex units at full buildout. This would require an average daily wastewater flow of approximately 90,000 gpd or 0.090 MGD. As stated above the Raleigh Hotel currently uses an on-site sand filter wastewater treatment system. This system will be abandoned and the Raleigh Hotel facility will be integrated with the proposed wastewater treatment facility. The Raleigh Hotel will add approximately 38,000 gpd and the related swimming pools and children's day camps will generate 3,000 gpd to bring the total flow to approximately 131,000 gpd or 0.131 MGD or 91 gallons per minute (gpm). The proposed wastewater treatment system will be used for the entire proposed Raleigh Heiden Properties project, including the clusters across the Sheldrake Stream. A 4-inch diameter sewage forcemain is proposed to be buried 4 feet below the streambed to convey sewage to the treatment facility from the eastern side of the proposed development to the western side of the proposed development.

The wastewater design flow computations are supplied in Table 3-1, Wastewater Design Flow Computations, located in Appendix H in the Preliminary Wastewater Collection and Treatment System Engineering Report for Raleigh and Heiden Properties Development Project (Preliminary Wastewater Engineering Report). The average design flow has been calculated by the project engineer (Glenn L. Smith, P.E. Consulting Engineer, P.C.) as approximately 131,000 gpd (91 ppm). The peak hourly flowrate has been calculated as approximately 473,000 using a peak flow factor (PFF) of 3.6.

Organic Loading

Half of the homes in the proposed development will utilize a garbage disposal in the kitchen sink along with the hotel kitchen facility generating organic solids to the wastewater flow. As shown in Appendix H Table 3-2, Organic Loadings in Wastewater, the average biological oxygen demand (BOD) concentration of 232 mg/L will utilize 254 lbs/day of BOD loading. The suspended solids (SS) anticipated by the development has been calculated to be 267 mg/L, which will result in an average daily loading of 292 lbs/day.

3.4.3 Mitigation Measures

As required by the NYSDEC any discharge of wastewater from a treatment facility into a stream, river or lake requires a SPDES permit. In addition to the wastewater treatment facility being reviewed by the NYSDEC the Delaware River Basin (DRBC) also performs a review and provides recommendations on all permit applications. This SPDES permit will regulate the flow volume and quality of the effluent into the Sheldrake Stream.

The proposed treatment facility is located in the southeasterly corner of the property, as shown in Figure 3.4-1. The primary treatment process is proposed to be a Sequencing Batch Reactor (SBR) with polishing filters. This will meet tertiary requirements and stream standards set by NYSDEC and DRBC. The effluent flow will be treated with chlorine followed by dechlorination and post-aeration or will be treated with ultraviolet and post aeration. Any sludge generated within the treatment system will be stored onsite in an aerated tank to be periodically removed for off-site disposal.

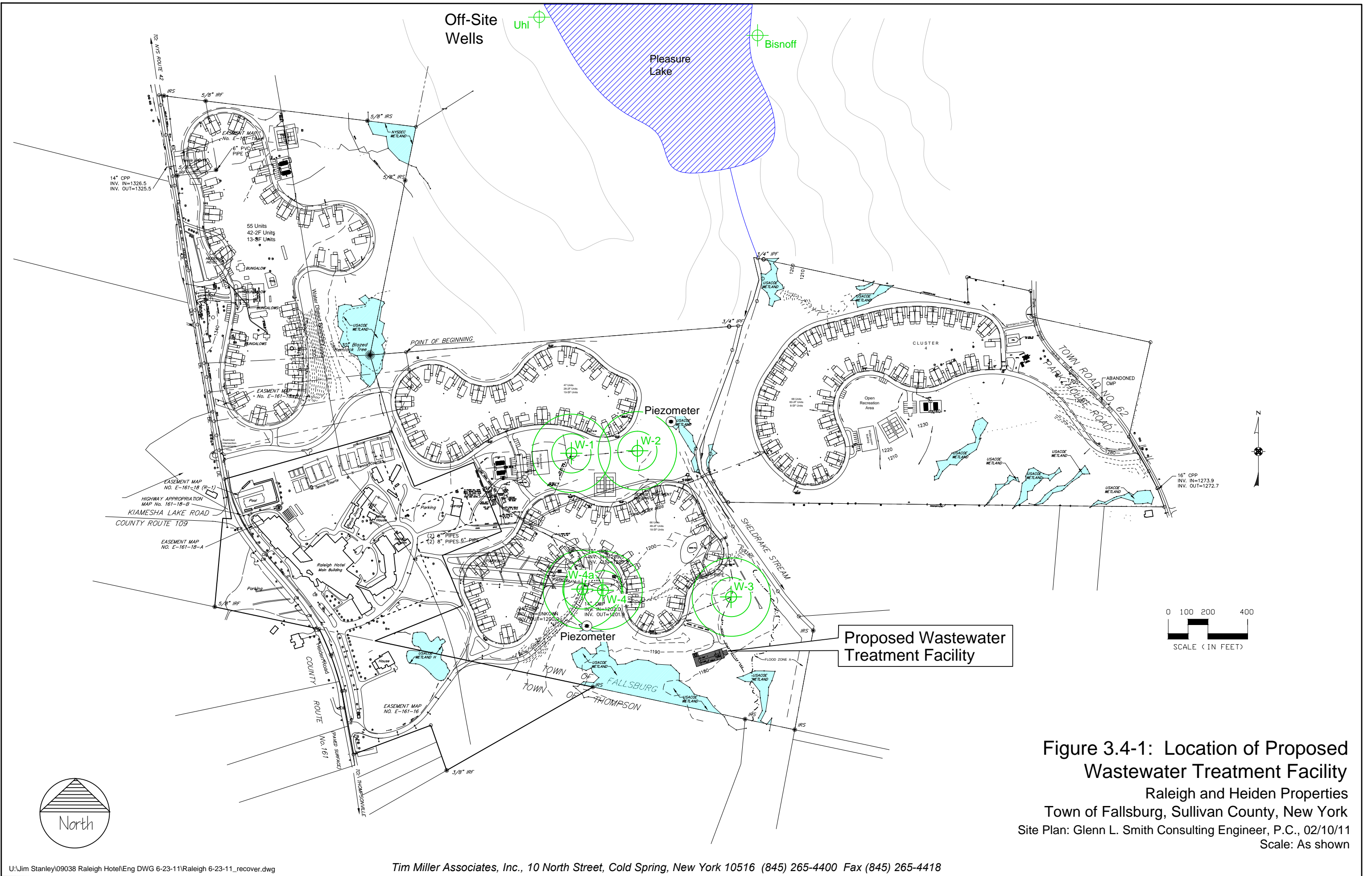


Figure 3.4-1: Location of Proposed Wastewater Treatment Facility
 Raleigh and Heiden Properties
 Town of Fallsburg, Sullivan County, New York
 Site Plan: Glenn L. Smith Consulting Engineer, P.C., 02/10/11
 Scale: As shown