

CASE STUDY

Quick4 Chambers Installed in Tight Space for New Lakeside Condos

Eagle River, WI

"Infiltrator chambers were chosen because of the ease of installation in tight quarters and in difficult soils. The grassed area above the system is fully utilized for recreation." -Peter Wade, PGA Inc.

SYSTEM SPECIFICATIONS

9,200 GPD Wastewater Treatment System

INSTALLATION DATE

May 2007

PRODUCTS

Quick4® Standard Chambers

OWNER

GPS Inc., Eagle River, WI

INSTALLER

PGA Inc., Weston, WI

DESCRIPTION

Kee-Mi-Con Lodge sits on prime lake frontage on Eagle Lake in Wisconsin. This new 24-unit condominium development is surrounded by trees and natural beauty. Because of the sensitive area and permeable soil conditions, the wastewater system design for the development was critical in order to protect the natural resources and obtain project approvals.

Designers of the property and onsite wastewater treatment system already had several challenges in determining the best way to approach the project. One major hurdle was the mandate by the property owner to develop the site to accommodate a large in-ground pool for visitors. In addition, the wastewater treatment system needed to handle waste typical of vacation locations, and to filter the effluent to extremely high levels to protect the groundwater as well as the river and nearby lake.

"It was critical to be sure that the groundwater was protected as well as being concerned about the water people could see," said Peter Wade of PGA Plumbing, Heating, and Cooling Inc. "We felt it would be better to filter the effluent to above the required levels and ensure the best result possible for the long-term."

Two individual wastewater treatment systems were designed with the in-ground swimming pool sited in between. The combined daily flow of the two systems is 9,200 gallons. The Site A system serves 12 condos with a total of 28 bedrooms and has a design flow of 4,200 GPD. It includes three 3,000-gallon septic tanks and one 2,500-gallon pump tank. The Site B system for the remaining 12 condos has a capacity of 4,979 GPD and incorporates one 5,000-gallon septic tank, two 3,000-gallon septic tanks, and one 2,500-gallon pump tank. The multiple tanks are used to accomplish proper settling prior to filtration. Effluent exits the septic tanks and goes through two filters. It then travels into the pump chamber equipped with a duplex pump system with alternating switch. Each pump tank and the last septic tank for each system have an alarm unit with audible external and visible alarms. From the filter, effluent is then pumped

to a distribution box to provide proper distribution to the drainfield. Each individual system pumps the effluent to its own drainfield. Combined, the two drainfields include 658 Quick4 Standard chambers. Observation ports at surface level have green poly covers so they are not visible, nor do they interfere with the recreational use of the area.



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