

CHIA
Sanitary Memorandum

To: The Town of Mansfield, CT

CC: Cumberland Gulf Group of Companies

From: Michael Hollowood, P.E.

Date: December 9, 2011

Re: Proposed Convenience Store at 643 Middle Turnpike and 1660 Storrs Road



Cumberland Gulf Group of Companies (CGGC) intends to raze an existing convenience store with automobile fuel dispensing equipment at 1660 Storrs Road along with an existing restaurant at 643 Middle Turnpike and construct a new convenience store having a gross area of 3634 square feet and an automobile fueling facility having 8 filling positions serviced by 4 fuel dispensers. The two separate lots will be consolidated into one lot prior to construction of the project.

An existing subsurface sewage disposal system is located within the restaurant parcel. Subsurface Sewage Disposal plans prepared by Lenard & Dilaj Engineering, Inc. of Storrs, CT dated August 1981 states a design capacity of 2,572 gallons per day (gpd) for the existing system. A typical Cumberland Farms convenience store of the size proposed for this site uses an average of approximately 350 gallons of water per day. This correlates well with standard design flows stipulated in Connecticut's subsurface disposal system design standards. Those standards are 0.1 gpd per square foot of gross retail space. For this project the design flow would be $0.1 \text{ gpd/SF} \times 3634 \text{ SF} = 364 \text{ gpd}$. Because this is well below the existing system's design capacity, it is evident that the existing septic system will be able to readily dispose of all sewage flows from the proposed convenience store.

Similarly, CGGC intends to use the existing well located on the restaurant parcel as a water source for the new convenience store. This well has been used for many years as a water source for the restaurant. The new convenience store's demand for water will be substantially less than that of the existing restaurant, therefore it is evident that the existing well is capable of supplying the water needed for the proposed convenience store. CGGC will conduct water quality testing to confirm that the well meets current public water standards.