

# Lefavour P.C.

Engineering and Environmental Services  
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February 21, 2006

Peter Hood, Selectboard Chair  
TOWN OF MIDDLESEX  
5 Church Street  
Middlesex, Vermont 05602

Dear Peter:

On May 4, 2005, we observed the excavation of test pits on land around the Town Hall in Middlesex. Mr. Robert Pelosi, VTDEC Assistant Regional Engineer was present during the test pit work. The test pits were excavated by Gary Lamel using the Town's backhoe. Our test pit logs are attached. It was noted that the existing water supply well probably required a permit when it was installed, but no record of this could be found. This is a violation of State law, which can be remedied administratively if the well is in reasonable compliance with the current Environmental Protection Rules.

A total of four test pits were excavated, three in the Town Hall Parking lot and one in the low are between the fire station and Route 100B. Soils suitable for a conventional in-ground wastewater disposal system were found to exist beneath the parking lot only. The estimated seasonal high water table in the area below the fire station is too high to allow any type of wastewater disposal system. No other areas were considered due to site restrictions (i.e. setbacks to property lines, steep slopes, etc.).

It would be necessary to abandon much of the parking area and relocate the well for the Town Hall, in order to use this area for wastewater disposal. We believe the entire area could provide up to 5,000 gallons of wastewater disposal capacity. The proposed use of the Town Hall for 300 seats and 6 employees, would generate flows of 1,590 gpd (300 seats assembly area @ 5 gpd = 1,500 gpd, 6 employees @ 15 gpd= 90 gpd).

Our estimate of the construction cost for the 1,590 gallon per day system is \$10,000. It would require a pumping station, 2,500 gallon septic tank, and an absorption trench disposal field. Budget \$6,000 for replacement of the water supply well.

Our fee is \$1,350 to complete the design of the system. Our fee does not include permit fees or our services during construction (i.e. staking and inspecting the system), for which we suggest you budget \$150-250.

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## Town of Middlesex

### Test Pit Logs May 4, 2005

#### Test Pit No. 1

0-12" Fill  
12-32" Sandy loam  
32-50" Gravel  
50-82" Coarse sand

No ledge or mottles encountered

#### Test Pit No. 2

Crushed stone @ 2'

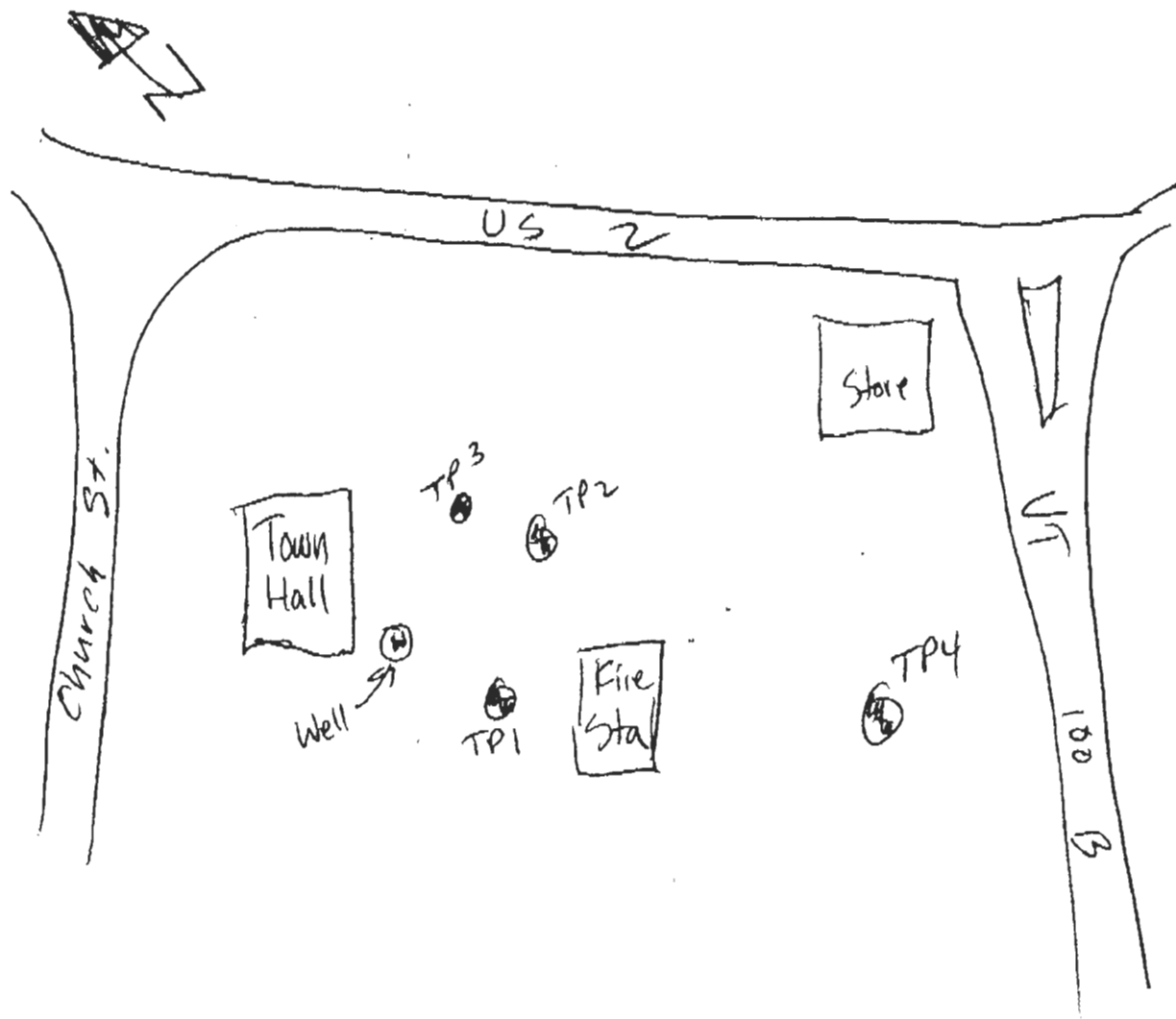
#### Test Pit No. 3

Precast concrete @ 5'

#### Test Pit No. 4

0-32" Fill  
32-44" Orange brown silty sand  
44-54" Gray mottled silty sand

Mottles @ 44"



Sketch Location of Test Pits

Not to Scale

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