The plan attached includes a septic system design for a 5-bedroom single-family residential building. Answer the following questions below based on your review of the plan.

1. Determine the minimum drop required for the 4-inch diameter building sewer pipe from the building foundation to the septic tank inlet.
   _______________________(inches)  _______________________(feet)

2. How much effective leaching area (ELA) is required? ________________________(sq ft)

3. How much effective leaching area (ELA) is provided? ________________________(sq ft)

4. What is the minimum size septic tank required? ______________________________(gal)

5. Determine the average slope (gradient) of the ground in the leaching system area (use two arrows shown on plan for horizontal distances).__________________________(%)

6. What is the general direction of the downhill slope (gradient)? north  south  east  west

7. Based on the deep-hole test pit data, what is the maximum depth the bottom of the leaching system can be located below original grade? _________________________________(inches)

8. Determine the minimum leaching system spread (MLSS) for the system:
   MLSS = HF_________ X FF_________ X PF___________ = ______________ (feet)

9. As proposed on the plan, what would be the minimum finished grade elevations for each row?
   ROW#1 = ______________________(feet)
   ROW#2 = ______________________(feet)

10. List at least two problems noted on the proposed plan regarding the leaching system design, separation distances, well location, etc.

________________________________________________________________________________
________________________________________________________________________________
________________________________________________________________________________

Revised 2018
TEST PIT A
0-20” FINE SANDY LOAM
20-66” COMPACT SILTLOAM
LEDGE @ 66”
MOTTLING@ 19”

TEST PIT B
0-21” FINE SANDY LOAM
21-60” COMPACT SILT LOAM
LEDGE @ 60”
MOTTLING@ 19”

PERC RATES
P1 = 18 MIN/INCH @ 16” DEEP
P2 = 14 MIN/INCH @ 18” DEEP
DATE 3/1/2017

TEST PIT C
0-20” FINE SANDY LOAM
20-82” COMPACT SILT LOAM
LEDGE @ 64”
MOTTLING@ 19”

TEST PIT D
0-22” FINE SANDY LOAM
2-78” COMPACT SILT LOAM
LEDGE @ 67”
MOTTLING@ 19”

PROPOSED LEACHING SYSTEM
180 LINEAR FEET OF
12-INCH HIGH CONCRETE
GALLERIES

CLASSROOM EXERCISE #2 (PLAN)