Engineering Report
for

LAUREL FLATS Subdivision
Soils Data for Individual Sewer System
Victor Area of Teton County, Idaho
W1/2 SE ¼ NW 1/4, Sec 15, T 3 N, R 45 E, B.M.

Prepared for

Aug 27, 2018

Michael A. Young
P.O.B. 428, Navarro, Calif 95463

by Arnold W Woolstenhulme
A W Engineering, 208-787-2952
Box 139 Victor, Idaho

TABLE OF CONTENTS REPORT PAGE

Soils Report

The purpose of this report is to present soils and other information that the Engineer has acquired to evaluate the installation of individual sewer systems with on-site drain fields for 6 lots on the proposed Laurel Flats Subdivision located in the W1/2 SE1/4 SW1/4 Section 15, Township 3North, Range 45E. B.M., Teton County, Idaho.

A-W Engineering has not dug test holes nor made any percolation tests for this subdivision yet. This work will be scheduled to complete this fall when it can be coordinated with Eastern Idaho Public Health.
A-W Engineering has completed the office research and an NRCS Soils Data Report for the site. A-W Engineering has been involved with soils test holes and studying soils on adjacent properties for the past 40 years and has extensive knowledge of the soils in the area.
Although field tests have not been completed, the loamy gravel soils in this area will have a percolation rate of 1" for 2 to 4 minutes. This number correlates with the soil type and rate of percolation that is shown in the recent NRCS Soils Study.

The Eastern Idaho Public Health Department does not use percolation tests any more for sewer drain field placement or sizing. They will classify the soils when they observe the soil test holes. The soils in this area will be classified as a B-2 soils from NRCS data and from A-W Engineering experience of testing soils in this area.

Ten years ago AW Engineering designed and was the engineer on the Southern Skies Subdivision ¼ mile west and the proposed Blackhawk Subdivision that was proposed just west of this property. The soils were classified as B-2 soils and have an application rate of 0.30 gal per square foot.

The existing home has an individual well and septic system on the property.

I.A Test Hole Data

At least 4 test pits will be dug near the proposed drain field areas at the time Eastern Idaho Public Health can schedule an inspection and evaluation.

The soils bearing capacity of this silt loam was estimated by the Engineer to be 3500 # per square ft. This is a low bearing capacity and should be reflected in the footing design.

I.B Soil Data

From A-W Engineering's knowledge and experience, the B-2 topsoil with deep loamy gravel below it will have the following structure:

0-1.5 ft silty loam organic soil (topsoil)
1.5 - +10' loamy gravel soil

No evidence of any water table above 10 feet
No evidence of any bedrock above 10 feet.

Soils from SCS findings: Alpine gravelly silt loam.
Soils at 3' depth 105 # /cf dry unit weight

Vertical Loading Allowed: 3500 lbs /sf
Vertical Loading Recommended:= 3000 lbs / sf

II. Water Table and Flood Data

No subwater was observed at 10 feet depth at any test holes dug within ½ mile of this property. No evidences of springs or any wetlands within ½ mile of property.

Warm Creek has a tributary that runs from the East to the West about ¼ mile South of this property. No other creeks or drainage are in the area.

No evidence, history of mapped area of this property lying within a 1% chance of flooding FEMA flood plain.

The irrigation ditches and canals that ran to this property and served it for flood irrigation have been plowed in and none carry water to this land today. The Trail Creek Irrigation System supplies irrigation water to the property through its pressure main lines. This property holds shares in the Trail Creek Sprinkler Irrigation Company.

III. Summary of Report

A. Soils - B-2 gravelly loam

B. Soils bearing = use 3000 #/sq ft for footings.

C. Soils have high drainage and percolation rate; there should not be drainage issues around houses.