

On-Site Sewerage System Feasibility Report for Subdivision

Date: May 9, 2016

Legal Description: Sec 35, Twp 25, Rg 21, W5M, Ld 26, LS 2.

Property Owner: Barry Palumbo.

Please note that all percolation testing, soils analysis and calculations are based on information Ministry of Health "Sewerage System Standard Practice Manual".

The daily effluent discharge calculations for each proposed lot are based on a 4-bedroom house using a Type 1 System with 0.6m wide trenches spaced 1.8m on-centre and slopes under 5% as per the provided by the Interior Health – Health Protection "Subdivision Guidelines".

Proposed Lot # 1

Field # 2

Slope: 5%

Calculated Hydraulic Loading Rate: 25 litres / m² / day

Total trench length necessary would be: 113 m.

The Secondary field (Field 2) would consist of # 5 lines at 22.7 m long.

(If the Reserve field has different variables they must also be listed).

The minimum total area that would be required for field 1 for a 4-bedroom house using a Type 1 System on this Proposed Lot would be: 163 m²

The additional 10% area for construction increases the required total area to: 180 m²

(If additional area is required due to slopes over 5% they must also be identified).

The 5% slope would bring the total area needed to: 189 m²

An example of a possible size for the 'field 2' area for this Proposed Lot would be: 23.5 m long by 8.8 m wide.

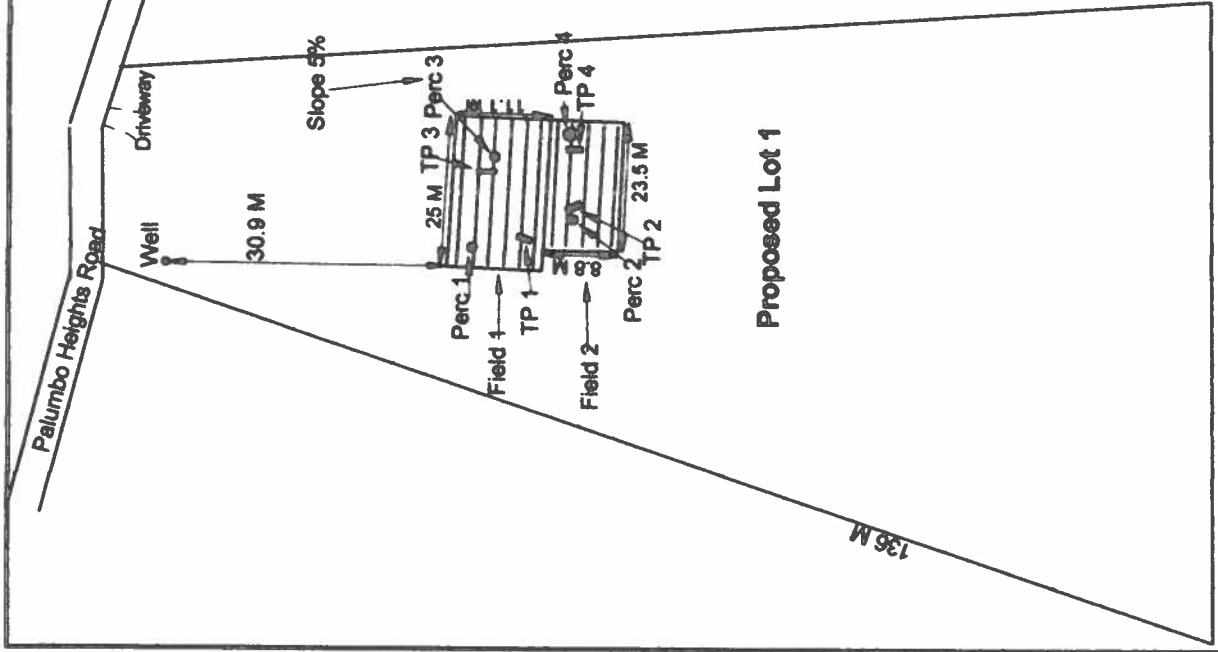
Attached is the soils analysis for the Proposed Lot # 1. Field # 2. As the Authorized Person for this site evaluation, I confirm, to the best of my ability, that the soils on this proposed lot are appropriate for a Type 1 discharge system serving a 4 bedroom house as per the requirements of the Ministry of Health "Sewerage System Standard Practice Manual" and the Interior Health Subdivision Guidelines.

Signed and Stamped,



The information provided is NOT a septic system design. It is provided for the use of the Public Health Officer for subdivision review purposes ONLY. If you have any questions or require additional information, please contact the undersigned.

Sec 35, Twp 25, Rg 21, W5M, Ld 26, LS 2



- Perc hole
- Soil test pit

Mount 77 Contractors 1981 1029 Hwy 96, Golden BC V0A-1H4 Phone: 260-344-6154 Fax: 260-344-6154
Drawn by: Mario Pecora, R.O.M.P. Registration Number: O.W.D.487
Design:
Date: May 10, 2016

Barry Palumbo
Proposed subdivision
Sec 35, Twp 25, Rg 21,
W5M, Ld 26, LS 2

Observed Soil Conditions

Test Pit Logs

NAME: Barry Palumbo

Date: May 3, 2016

Civic Address: Palumbo Heights

Logged by: Mario Pecora, ROWP

TP# 1 Pit Location: Proposed Lot 1. Field 1.

Slope: 5 %

Soil Horizons (depths measured in cm / m / in / ft)

Depth		Colour	Texture	Structure	Rupture resistance (or density)	Coarse gravel (%)	Roots depth & quantity	Mottles depth & quantity	Moisture seepage
from	to								
			Relative portions of various soil e.g. Silt, clay, sand.	Structureless 0 Weak 1 Moderate 2 Strong 3	Notes Below	35-80% Very 60-90% Extremely >90% if <10% fine earth use size class ROCK>75mm			
0	2	Black	Organic	-	-	-	Many fine	-	-
2	6	Brown	Sandy loam	1	L	-	Few fine	-	-
6	18	Brown	Loamy coarse sand	1	L	Ext	Very few fine	-	-
18	23	Grey	Coarse sandy loam	1	L	Ext	Very few fine	-	-
23	25.5	Grey	Sandy loam	1	L	-	-	-	-
23.5	26	Grey	Sandy loam	1	S	-	-	-	-
26	26.5	Black	Organic	-	-	-	-	-	-
26.5	28	Tan	Sandy loam	1	L	-	-	-	-
28	31	Tan	Coarse sand	0	L	-	-	-	-
31	35	Tan	Sandy loam	1	L	-	-	-	-
35	36.5	Tan-yellow	Sandy clay loam	2	S	-	-	-	-
36.5	44	Grey	Fine sand	0	L	-	-	-	-
44	45	Orange	Sandy clay loam	0	L	-	-	-	-
45	48.5	Grey	Sandy loam	0	L	-	-	-	-

NOTES:

Restrictive horizon present at: ___>48.5"_____. Mottling present at: _> 48.5"_____.

SHWT: _> 48.5 "_____. Rooting Depth: _21"_____.

Rupture Resistance:

DRY:
Loose (L)
Soft (S)
Slightly Hard (SH)
Mod Hard (MH)
Hard (HA)

Moist:
Loose (L)
Very Friable (VFR)
Friable (FR)
Firm (FI)
Very Firm (VFI)

Cementation:
NA
Non-Cemented
Extremely Weak (EW)
Very Weak Cemented (VW)
Weakly Cemented (W)

Block Specimen:
NA
Very Slight Force
Slight Force
Mod Force
Strong Force

Observed Soil Conditions

Test Pit Logs

NAME: Barry Palumbo

Date: May 3, 2016

Civic Address: Palumbo Heights

Logged by: Mario Pecora, ROWP

TP# 2 Pit Location: Proposed Lot 1. Field 2.

Slope: 5 %

Soil Horizons (depths measured in cm / m / in / ft)									
Depth		Colour	Texture	Structure	Rupture resistance (or density)	Coarse gravel (%)	Roots depth & quantity	Mottles depth & quantity	Moisture seepage
from	to								
			Relative portions of various soil e.g. Silt, clay, sand.	Structureless 0 Weak 1 Moderate 2 Strong 3	Notes Below	35-60% Very 60-90% Extremely >90% if <10% fine earth use size class ROCK>75mm			
0	4	Black	Organic	-	-	-	Many fine	-	-
4	8	Brown	Sandy clay loam	0	L	Very	Very few fine	-	-
8	14.5	Brown	Coarse sandy loam	0	L	Ext	Very few fine	-	-
14.5	22	Grey	Fine sandy loam	1	S	-	Very few fine	-	-
22	27.5	Grey	Sandy clay loam	1	S	-	Very few fine	-	-
27.5	29	Black	Organic	-	-	-	Very few fine	-	-
29	35.5	Grey	Sandy clay loam	1	S	-	-	-	-
35.5	43	Grey	Fine sandy loam	0	L	-	-	-	-
43	43.5	Grey	Silty loam	0	S	-	-	-	-
43.5	45.5	Grey	Fine sandy loam	0	L	-	-	-	-
45.5	47	Grey	Sandy clay loam	0	S	-	-	-	-

NOTES:

Restrictive horizon present at: ___>47"_____. Mottling present at: _> 47"_____.

SHWT: _> 47"_____. Rooting Depth: _28"_____.

Rupture Resistance:

DRY:
Loose (L)
Soft (S)
Slightly Hard (SH)
Mod Hard (MH)
Hard (HA)

Moist:
Loose (L)
Very Friable (VFR)
Friable (FR)
Firm (FI)
Very Firm (VFI)

Cementation:
NA
Non-Cemented
Extremely Weak (EW)
Very Weak Cemented (VW)
Weakly Cemented (W)

Block Specimen:
NA
Very Slight Force
Slight Force
Mod Force
Strong Force

Observed Soil Conditions

Test Pit Logs

NAME: Barry Palumbo

Date: May 3, 2016

Civic Address: Palumbo Heights

Logged by: Mario Pecora, ROWP

TP# 3 Pit Location: Proposed Lot 1. Field 1.

Slope: 5 %

Soil Horizons (depths measured in cm / m / in / ft)									
Depth		Colour	Texture	Structure	Rupture resistance (or density)	Coarse gravel (%)	Roots depth & quantity	Mottles depth & quantity	Moisture seepage
from	to								
			Relative portions of various soil e.g. Silt, clay, sand.	Structureless 0 Weak 1 Moderate 2 Strong 3	Notes Below	35-60% Very 60-90% Extremely >90% if <10% fine earth use size class ROCK>75mm			
0	6	Black	Organic	-	-		Many fine	-	-
6	15.5	Brown	Sandy clay loam	1	SH	-	Some fine	-	-
15.5	26	Grey	Silty clay loam	1	S	-	Very few fine	-	-
26	26.5	Black	Organic	-	-	-	Very few fine	-	-
26.5	30	Brown	Fine sandy loam	1	L	-	-	-	-
30	47.5	Grey	Silty loam	3	MH	-	-	-	-

NOTES:

Restrictive horizon present at: >47.5" _____ Mottling present at: > 47.5" _____

SHWT: > 47.5" _____ Rooting Depth: 26.5"

Rupture Resistance:

DRY:
Loose (L)
Soft (S)
Slightly Hard (SH)
Mod Hard (MH)
Hard (HA)

Moist:
Loose (L)
Very Friable (VFR)
Friable (FR)
Firm (FI)
Very Firm (VFI)

Cementation:
NA
Non-Cemented
Extremely Weak (EW)
Very Weak Cemented (VW)
Weakly Cemented (W)

Block Specimen:
NA
Very Slight Force
Slight Force
Mod Force
Strong Force

Observed Soil Conditions

Test Pit Logs

NAME: Barry Palumbo

Date: May 3, 2016

Civic Address: Palumbo Heights

Logged by: Mario Pecora, ROWP

TP# 4 Pit Location: Proposed Lot 1. Field 2.

Slope: 5 %

Soil Horizons (depths measured in cm / m / in / ft)

Depth		Colour	Texture	Structure	Rupture resistance (or density)	Coarse gravel (%)	Roots depth & quantity	Mottles depth & quantity	Moisture seepage
from	to								
			Relative portions of various soil e.g. Silt, clay, sand.	Structureless 0 Weak 1 Moderate 2 Strong 3	Notes Below	35-60% Very 60-90% Extremely >90% if <10% fine earth use size class ROCK>75mm			
0	9	Brown	Sandy loam	0	L	-	Med-fine	-	-
9	13	Tan	Sandy loam	1	L	-	Few fine	-	-
13	24	Grey	Coarse sandy loam	0	L	Very	Very few fine	-	-
24	31	Grey	Silty clay loam	2	SH	-	Very few fine	-	-
31	38	Grey	Coarse sand	0	L	Ext	-	-	-
38	43	Grey	Coarse sand	1	L	-	-	-	-
43	43.5	Black	Organic	0	L	-	Few med	-	-
43.5	50	Grey	Loamy sand	1	S	-	-	-	-

NOTES:

Restrictive horizon present at: ___ >50" _____. Mottling present at: _ > 50" _____.

SHWT: > 50" _____ Rooting Depth: 43"

Rupture Resistance:

DRY:
Loose (L)
Soft (S)
Slightly Hard (SH)
Mod Hard (MH)
Hard (HA)

Moist:
Loose (L)
Very Friable (VFR)
Friable (FR)
Firm (FI)
Very Firm (VFI)

Cementation:
NA
Non-Cemented
Extremely Weak (EW)
Very Weak Cemented (VW)
Weakly Cemented (W)

Block Specimen:
NA
Very Slight Force
Slight Force
Mod Force
Strong Force

Percolation Tests

NAME: Barry Palumbo _____

Date: May 4, 2016

Civic Address: Palumbo Heights Road _____

Legal Address: _____

Location: Proposed Lot 1. Field 1 and 2

Perc. Hole # 1	
Location: Field 1	
5	min. / inch
7	min. / inch
8	min. / inch
9	min. / inch
Depth: <u>27</u> inches, ____ cm	

Perc. Hole # 3	
Location: Field 1	
5	min. / inch
7	min. / inch
9	min. / inch
11	min. / inch
Depth: <u>26</u> inches, ____ cm	

Perc. Hole # 2	
Location: Field 2	
3	min. / inch
5	min. / inch
5	min. / inch
min. / inch	
Depth: <u>27</u> inches, ____ cm	

Perc. Hole # 4	
Location: Field 2	
2	min. / inch
4	min. / inch
4	min. / inch
min. / inch	
Depth: <u>24</u> inches, ____ cm	

Average Perc. Rate: 7.25 min/inch or 2.5 cm