Rodrigue, Rene

SOIL
REPORT

RENE RODRIGUE + SON SUBDIVISION

EIGHT ROD ROAD AUGUSTA, MAINE

PREPARED BY

William W. Rideout

Licensed Site Evaluator #51

January 3, 1978

1. INTRODUCTION

1.1 This Subdivision of approximately 22 acres is located on the easterly side of the Eight Rod Road in the City of Augusta, Kennebec County, Maine. Twenty-two lots are proposed. The project is to be developed by Rene Rodrigue and Son, Augusta, Maine.

1.2 Field observations of the property were made before snowfall to determine drainage characteristics and other natural features. This work was performed in early December 1977. Subsurface soil information was obtained on all lots by use of a backhoe. The test pits were excavated in late December, 1977.

1.3. A log of the soil profiles may be found in Appendix A. Table I relates the soil properties to Table 9-1 of the Maine Plumbing Code, Part II. A copy of this table may be found in the back of the report. The location of the test pits have been plotted on a copy of the survey plan as prepared by Mr. Poulin, Registered Land Surveyor.

1.4 A summary of the soils data and observation show two predominent soil types within the project area. The first type consists of a reworked glacial deposit tending to be quite sandy. The second soil type consists of a sandy loam of glacial origin. The first type falls into Group 4, Part II, Table 9-1 and the latter into Group 2 of the Maine Plumbing Code. Several test pits encountered ledge ranging in depth from 17" to over 5'. Field observations in early December, 1977 showed several outcrop areas within the proposed Subdivision. Mottling, an indication of slow permeability was found in nearly all of the test pits ranging from 17 to 26 inches in depth. The test pits have been located so as to provide adequate disposal area and comply with the Maine Plumbing Code, Part II.

1.5 Surface drainage is to the southwest via several small, ill-defined depressions or gullies. It appears that the drainage ways have stabilized at their present gradient with a thick organic layer and tree growth throughout. A shallow depression in the vicinity of the cul-de-sac at Station 16+50 is to be used as a waste area for excess excavation. With proper ditching and grading this area can be drained. Due to the natural permeability of the soil, infiltration takes care of much of the annual rainfall and snow melt.

APPENDIX A

T.P. # 1 Lot # 1: Station A6+15, 30 Lt;
+2" organic, 20" red brown loamy sand, 34" grey brown loamy sand, mottled 21", no impervious layer, ledge 54".

T.P. # 2 Lot # 2: Station A4+25, 35 Lt;
+1" organic, 22" red brown loamy sand, mottled 24", no impervious layer, no ledge.

T.P. # 3 Lot # 3: Station A2+40, 35 Lt;
+2" organic, 20" red brown loamy sand, 41" grey brown loamy sand, mottled 22", no impervious layer, no ledge.

T.P. # 4 Lot # 4: Station 3+70, 70 Lt;
+2" organic, 22" red brown fine sand, 38" grey brown fine sand, mottled 22", no impervious layer, no ledge.

T.P. # 5 Lot # 5: Station 3+60, 75 Rt;
+2" organic, 24" red brown fine sand, 36" grey brown fine sand, mottled 24", no impervious layer, ledge possible 54".

T.P. # 6 Lot # 6: Station A6+20, 35 Rt;
+2" organic, 17" red brown sandy loam, 7" grey brown sandy loam, mottled 18", no impervious layer, ledge 24".

T.P. # 7 Lot # 7: Station A5+30, 65 Rt;
+2" organic, 19" red brown sandy loam, 17" grey brown sandy loam, mottled 20", no impervious layer, ledge 36".

T.P. # 8 Lot # 8: Station A3+50, 50 Rt;
+2" organic, 19" red brown loamy sand, 23" grey brown loamy sand, mottled 22", no impervious layer, ledge 42".

T.P. # 9 Lot # 9: Station 6+25, 75 Lt;
+2" organic, 18" red brown loamy sand, 44" grey brown loamy sand, mottled 20", no impervious layer, ledge 62".

T.P. #10 Lot #10: Station 5+75, 75 Rt;
+1" organic, 18" red brown loamy sand, 36" grey brown fine sand, mottled 21", no impervious layer, ledge possible 54".

T.P. #11 Lot #11: Station 8+30, 50 Lt;
+2" organic, 17" red brown loamy sand, 25" grey brown loamy sand, mottled 20", no impervious layer, ledge 42".

T.P. #12 Lot #12: Station 9+15, 65 Rt;
+2" organic, 24" red brown loamy sand, mottled 22", no impervious layer, ledge 24".

APPENDIX A (con't)

T.P. #13 Lot #13: Station 16+60, 105 Lt;
+2" organic, 15" red brown sandy loam, 45" grey brown glacial till, mottled 24", no impervious layer, no ledge.

? T.P. #14 Lot #14: Station 15+00, 100 Lt;
+1" organic, 20" red brown sandy loam, mottled 17", no impervious layer, ledge 20".

T.P. #15 Lot #15: Station 13+05, 185 Lt;
+1" organic, 26" red brown loamy sand, 10" grey brown loamy sand, mottled 24", no impervious layer, ledge 36".

T.P. #16 Lot #16: Station 11+75, 50Lt;
+2" organic, 24" red brown loamy sand, 26" grey brown loamy sand, mottled 24", no impervious layer, ledge 50".

T.P. #16A Lot #16: Station 12+75, 140 Lt;
+2" organic, 22" red brown loamy sand, 20" grey brown loamy sand, mottled 24", no impervious layer, ledge 42".

? T.P. #17 Lot #17: Station 10+40, 65 Rt;
+1" organic, 17 to 24" red brown loamy sand, no mottling, no impervious layer, ledge varies 17 to 24".

T.P. #18 Lot #18: Station 17+20, 30 Rt;
+2" organic, 26" red brown sandy loam, 10" grey brown glacial till, mottled 26", no impervious layer, ledge 36".

T.P. #19 Lot #19: Station 16+00, 100 Rt;
+2" organic, 24" red brown sandy loam, mottled 22", no impervious layer, ledge 24".

? T.P. #20 Lot #20: Station 15+10, 95 Rt;
+2" organic, 25" red brown sandy loam, 22" grey brown glacial till, mottled 25", no impervious layer, ledge 47".

? T.P. #21 Lot #21: Station 13+40, 60 Rt;
+1" organic 18" red brown sandy loam, no mottling, no impervious layer, ledge 18".

T.P. #22 Lot #22: Station 11+75, 35 Rt;
+1" organic, 28" red brown sandy loam, 20" grey brown glacial till, mottled 26", no impervious layer, ledge 48".

TABLE 1

LOT #	SOIL GROUP	DEPTH TO MOTTLING	DEPTH TO LEDGE	SLOPE %	SYSTEM SIZE
1	4-C	21	54	12	medium
2	4-C	24	-----	10	medium
3	4-C	22	-----	11	medium
4	4-C	22	-----	10	medium
5	4-C	24	-----	5	medium
6	2-C	18	24	10	medium large
7	2-C	20	-----	8	medium large
8	4-C	22	42	8	medium
9	4-C	20	62	5	medium
10	4-C	21	54 possible	6	medium
11	4-C	20	42	11	medium
12	4-C	22	24	8	medium
13	2-C	24	-----	1	medium large
14	2-C	17	20	3	medium large
15	4-C	24	36	14	medium
16	4-C	24	50	6	medium
16A	4-C	24	42	14	medium
17	4-A	----	varies 17-24"	9	medium
18	2-C	26	36	2	medium large
19	2-C	22	24	2	medium large
20	2-C	25	47	3	medium large
21	2-A	----	18	7	medium large
22	2-C	26	48	9	medium large

TABLE 9—1 Soil conditions → Type and size of systems permitted

SOIL GROUPS ↓ / BEDROCK AND GROUNDWATER CONDITIONS →	Shallow to Bedrock (15" to 40" Deep) NOTE: If depth to Bedrock is less than 15" below the bottom of the organic horizon a N.D. System is required. A	Seasonal groundwater at greater than 40" below the bottom of the organic horizon. B	Seasonal groundwater at 15" to 40" below the bottom of the organic horizon. C	Seasonal groundwater at 0" to 15" below the bottom of the organic horizon. D	Seasonal groundwater ponding on the surface. E
1 SILT LOAM ≧ 40", or until bedrock	LARGE Bed, Mound or Special System Thorndike, Mapleton, Benson	MED LARGE Trench, Bed, Chamber or Special System Ranger, Caribou, Linneus, Perham	LARGE Bed, Mound or Special System Dixmont, Conant	NON-DISCHARGE Monarda, Easton, Daigle	NONE Burnham, Washburn
2 SANDY LOAM-LOAM ≧ 40", or until bedrock	MEDIUM LARGE Trench, Bed, Chamber or Special System Lyman, Hollis	MEDIUM Trench, Bed, Chamber or Special System Charlton, Berkshire	MED LARGE Trench, Bed, Chamber or Special System Sutton	NON-DISCHARGE Leicester	NONE Whitman
3 SANDY LOAM-LOAM over impervious layer (e.g. clay, pan) found less than 40"	LARGE Bed, Mound or Special System	LARGE Bed, Mound or Special System Marlow, Plaisted, Potsdam, Paxton, Becket	LARGE Bed, Mound or Special System Howland, Crary, Peru, Woodbridge, Sherry	NON-DISCHARGE Monarda, Ridgebury	NONE Burnham, Whitman
4 LOAMY SAND ≧ 40", or until bedrock	MEDIUM Trench, Bed, Chamber or Special System Canaan	SMALL Trench, Bed, Chamber or Special System Hermon, Gloucester, Canton	MEDIUM Trench, Bed, Chamber or Special System Waumbek	NON-DISCHARGE	NONE
5 SANDY LOAM-LOAM over SAND or GRAVEL ≧ 40", or until bedrock	MEDIUM Trench, Bed, Chamber or Special System	SMALL Trench, Bed, Chamber or Special System Merrimac, Agawam, Allagash	MEDIUM Trench, Bed, Chamber or Special System Sudbury, Winigret, Madawaska	NON-DISCHARGE Walpole, Red Hook	NONE Scarboro, Atherton
6 LOAMY SAND (or GRAVELLY PHASES) over SAND or GRAVEL ≧ 40", or until bedrock	SMALL Trench, Bed, Chamber or Special System	VERY SMALL Trench, Bed, Chamber or Special System Colton, Hinckley, Adams, Windsor, Statson	SMALL Trench, Bed, Chamber or Special System Dunbar, Croghan, Deerfield, Machias, Skowhegan	NON-DISCHARGE Aupres, Saugatuck, Freder	NONE Scarboro, Halsey
7 LOAMY SAND-SAND (or GRAVELLY PHASES) over impervious layer (e.g. clay, pan) less than 40"	MED LARGE Trench, Bed, Chamber or Special System	MEDIUM Trench, Bed, Chamber or Special System Melrose	MED LARGE Trench, Bed, Chamber or Special System Elsewood	NON-DISCHARGE Swanton	NONE Whately
8 SILT LOAM over stratified silts and clays and very fine sands ≧ 40", or until bedrock	LARGE Bed, Mound or Special System	LARGE Bed, Mound or Special System Salmon, Hartland	LARGE Bed, Mound or Special System Nicholville, Belgrade	NON-DISCHARGE Raynham, Canandaigua	NONE
9 SILT ≧ 40", or until bedrock	EXTRA LARGE Mound or Special System	EXTRA LARGE Mound or Special System Suffield	EXTRA LARGE Mound or Special System Buxton	NON-DISCHARGE Scantic	NONE Biddeford
10 ALLUVIAL SOILS	NONE	NONE Hadley, Ondawa, Suncook	NONE Podunk, Winooski	NONE Limerick, Runney	NONE Saco
11 Muck, Peat, Swamp, Bog, Marsh (Fresh & Tidal Water)	NONE	NONE	NONE	NONE	NONE
	Partly decayed plant material. Mostly organic. Highly fibrous with visible plant remains. Thoroughly decomposed organic material with considerable mineral soil material. Usually black in color with a few fibrous remains. Odorous when dried and burnt. Found as deposits in swamps, marshes, peat bogs and muskeg. Easily identified. May contain some sand or silt.				
12 Made Land - Cut and Fill	When a site consists of made land, cut and fill land and similar situations, the suitability of the site shall be determined by an on-site investigation. The site investigation report shall list the identity and characteristics of both the fill and the soil that the fill was placed on or in. The more limiting of the two (fill and original soil) shall be the criteria for whether a system can be permitted and which systems and size systems are approvable. See Section 8.7 of the Maine Plumbing Code, Part II.				

Note: Laundry waste systems are allowed on those soils where beds, chambers, mounds or special systems are allowed.