

Section II-iii-J

Soil Features

This table gives estimates of several important soil features which are used in land use planning that involves engineering considerations. Soil features which are covered include bedrock depth and hardness, cemented pan depth and hardness, subsidence, potential frost action, and risk of corrosion for uncoated steel or for concrete.

Depth to Bedrock

This value is given if bedrock is within a depth of 60 inches. The depth is based on many soil borings and observations made during soil mapping. The rock is specified as either soft or hard. If the rock is soft, excavations can be made with trenching machines, backhoes, or small rippers. If the rock is hard or massive, blasting or special equipment generally is needed for excavation.

Cemented Pan

Cemented pan is a nearly continuous layer of indurated or strongly cemented material having a hard, brittle consistency because the particles are held together by cementing substances such as, calcium carbonate, or oxides of silicon, iron, or aluminum. These layers are identified when they occur within a depth of 60 inches. Pans are classified as "thin" or "thick". "Thin" cemented pans are thin enough so that excavations can be made with trenching machines, backhoes, or small rippers and other equipment common to construction of pipelines, sewerlines, cemeteries, and the like. "Thick" cemented pans are sufficiently thick or massive to require blasting or special equipment beyond which is considered normal in excavating for this type of construction.

Subsidence

Subsidence potential is the maximum possible loss of surface elevation from the drainage of wet soils having organic layers or semifluid mineral layers. Estimates of the depth of subsidence (in inches) that takes place soon after drainage (initial subsidence) and after oxidation (total subsidence) are given for soils that are likely to subside.

Potential Frost Action

This is the likelihood of upward or lateral movement of soil by the formation of segregated ice lenses (frost heave) and the subsequent loss of soil strength upon thawing. The following classes are used in regions where frost action is a potential problem: (1) Low -- soils are rarely susceptible to the formation of ice lenses, (2) Moderate -- soils are susceptible to the formation of ice lenses, resulting in frost heave and subsequent loss of soil strength, and (3) High -- soils are highly susceptible to the formation of ice lenses, resulting in frost heave and subsequent loss of soil strength.

Risk of Corrosion

Various metals and other materials corrode when on or in the soil, and some metals and materials corrode more rapidly when in contact with specific soils than when in contact with others. Corrosivity ratings are given for two of the common structural materials, uncoated steel and concrete. The risk of corrosion classes are low, moderate, and high.

See the National Soil Survey Handbook, Part 618, for definitions and discussion of particular properties.

Soil Features

Piscataquis County, Maine, Southern Part

Absence of an entry indicates that the feature is not a concern or that data were not estimated.

Map Symbol and Soil Name	Kind	Restrictive Layer			Subsidence		Potential for Frost Total	Risk of Corrosion		
		Depth to Top	to Top Thickness	Thickness Hardness	Hardness	Initial		Action Steel	Uncoated	Concrete
		In	In		In	In				
AdB: Adams	---	---	---	---	0	---	Low	Low	High	
AEC: Adams	---	---	---	---	0	---	Low	Low	High	
AFD: Adams	---	---	---	---	0	---	Low	Low	High	
Allagash	---	---	---	---	0	---	Moderate	Low	High	
AgB: Allagash	---	---	---	---	0	---	Moderate	Low	High	
AgC: Allagash	---	---	---	---	0	---	Moderate	Low	High	
AHC: Allagash	---	---	---	---	0	---	Moderate	Low	High	
Adams	---	---	---	---	0	---	Low	Low	High	
BeB: Berkshire	---	---	---	---	0	---	Moderate	Low	High	
BFC: Berkshire	---	---	---	---	0	---	Moderate	Low	High	

Soil Features - Continued

Piscataquis County, Maine, Southern Part

Map Symbol and Soil Name	Restrictive Layer Kind	Restrictive Layer			Subsidence		Potential for Frost Total	Risk of Corrosion		
		Depth to Top In	to Top Thickness In	Thickness Hardness	Hardness In	Initial In		Action Steel	Uncoated	Concrete
BFC: Lyman	Bedrock (lithic)	10-20	---	---	0	---	Moderate	Low	High	
BFD: Berkshire	---	---	---	---	0	---	Moderate	Low	High	
Lyman	Bedrock (lithic)	10-20	---	---	0	---	Moderate	Low	High	
BhB: Boothbay	---	---	---	---	0	---	High	Moderate	Moderate	
BOB: Boothbay	---	---	---	---	0	---	High	Moderate	Moderate	
Swanville	---	---	---	---	0	---	High	High	Low	
BP: Brayton	Dense material	10-25	---	---	0	---	High	High	Moderate	
Peacham	---	---	---	---	0	---	High	Moderate	High	
CC: Charles	---	---	---	---	0	---	High	High	Moderate	
Cornish	---	---	---	---	0	---	High	High	Moderate	
Wonsqueak	---	---	---	---	0	---	High	Moderate	Moderate	
CeB:										

Soil Features - Continued

Piscataquis County, Maine, Southern Part

Map Symbol and Soil Name	Restrictive Layer Kind	Restrictive Layer			Subsidence		Potential for Frost Total	Risk of Corrosion		
		Depth to Top	to Top Thickness	Thickness Hardness	Hardness	Initial		Action Steel	Uncoated	Concrete
		In	In		In	In				
CeB: Chesuncook	Dense material	18-26	---	---	0	---	Moderate	Low	Moderate	
CeC: Chesuncook	Dense material	18-26	---	---	0	---	Moderate	Low	Moderate	
CFD: Chesuncook	Dense material	18-26	---	---	0	---	Moderate	Low	Moderate	
Elliottsville	Bedrock (lithic)	20-40	---	---	0	---	Moderate	Low	Moderate	
Telos	Dense material	13-21	---	---	0	---	High	Moderate	Moderate	
CHD: Chesuncook	Dense material	18-26	---	---	0	---	Moderate	Low	Moderate	
Telos	Dense material	13-21	---	---	0	---	High	Moderate	Moderate	
CoB: Colonel	Dense material	17-21	---	---	0	---	High	Moderate	Moderate	
CPB: Colonel	Dense material	17-21	---	---	0	---	High	Moderate	Moderate	
Brayton	Dense material	10-25	---	---	0	---	High	High	Moderate	
Dixfield	Dense material	18-29	---	---	0	---	High	Moderate	Moderate	
CQB:										

Soil Features - Continued

Piscataquis County, Maine, Southern Part

Map Symbol and Soil Name	Kind	Restrictive Layer			Subsidence		Potential for Frost Total	Risk of Corrosion		
		Depth to Top	to Top Thickness	Thickness Hardness	Hardness	Initial		Action Steel	Uncoated	Concrete
		In	In		In	In				
CQB: Colonel	Dense material	17-21	---	---	0	---	High	Moderate	Moderate	
Brayton	Dense material	10-25	---	---	0	---	High	High	Moderate	
CRC: Colonel	Dense material	17-21	---	---	0	---	High	Moderate	Moderate	
Hermon	---	---	---	---	0	---	Low	Low	High	
CsB: Cornish	---	---	---	---	0	---	High	High	Moderate	
Charles	---	---	---	---	0	---	High	High	Moderate	
Fryeburg	---	---	---	---	0	---	High	Low	Moderate	
Cv: Cornish	---	---	---	---	0	---	High	High	Moderate	
Lovewell	---	---	---	---	0	---	High	Moderate	Moderate	
DaB: Danforth	---	---	---	---	0	---	Moderate	Low	High	
DBC: Danforth	---	---	---	---	0	---	Moderate	Low	High	
DBD:										

Soil Features - Continued

Piscataquis County, Maine, Southern Part

Map Symbol and Soil Name	Restrictive Layer	Restrictive Layer		Subsidence		Potential for Frost Total	Risk of Corrosion				
		Kind	Depth to Top	to Top Thickness	Thickness Hardness		Hardness	Initial	Action Steel	Uncoated	Concrete
			In	In			In	In			
DBD: Danforth		---	---	---	---	0	---	Moderate	Low	High	
DEC: Danforth		---	---	---	---	0	---	Moderate	Low	High	
Masardis		---	---	---	---	0	---	Low	Low	Moderate	
Peacham	Dense material	10-20	---	---	---	0	---	High	Moderate	High	
DfB: Dixfield	Dense material	18-29	---	---	---	0	---	High	Moderate	Moderate	
DXC: Dixfield	Dense material	18-29	---	---	---	0	---	High	Moderate	Moderate	
Colonel	Dense material	17-21	---	---	---	0	---	High	Moderate	Moderate	
DYC: Dixfield	Dense material	18-29	---	---	---	0	---	High	Moderate	Moderate	
Colonel	Dense material	17-21	---	---	---	0	---	High	Moderate	Moderate	
Lyman	Bedrock (lithic)	10-20	---	---	---	0	---	Moderate	Low	High	
EcB: Elliottsville	Bedrock (lithic)	20-40	---	---	---	0	---	Moderate	Low	Moderate	

Soil Features - Continued

Piscataquis County, Maine, Southern Part

Map Symbol and Soil Name	Restrictive Layer Kind	Restrictive Layer			Subsidence		Potential for Frost Total	Risk of Corrosion		
		Depth to Top	to Top Thickness	Thickness Hardness	Hardness	Initial		Action Steel	Uncoated	Concrete
		In	In		In	In				
EcB: Chesuncook	Dense material	18-26	---	---	0	---	Moderate	Low	Moderate	
EMC: Elliottsville	Bedrock (lithic)	20-40	---	---	0	---	Moderate	Low	Moderate	
Monson	Bedrock (lithic)	10-20	---	---	0	---	Moderate	Low	High	
EMD: Elliottsville	Bedrock (lithic)	20-40	---	---	0	---	Moderate	Low	Moderate	
Monson	Bedrock (lithic)	10-20	---	---	0	---	Moderate	Low	High	
END: Enchanted	Bedrock (lithic)	40-60	---	---	0	---	Moderate	Low	High	
ENE: Enchanted	Bedrock (lithic)	40-60	---	---	0	---	Moderate	Low	High	
Fr: Fryeburg	---	---	---	---	0	---	High	Low	Moderate	
HoB: Howland	Dense material	20-33	---	---	0	---	Moderate	Moderate	Moderate	
HRB: Howland	Dense material	20-33	---	---	0	---	Moderate	Moderate	Moderate	
Monarda	Dense material	12-24	---	---	0	---	High	High	High	

Soil Features - Continued

Piscataquis County, Maine, Southern Part

Map Symbol and Soil Name	Restrictive Layer Kind	Restrictive Layer			Subsidence		Potential for Frost Total	Risk of Corrosion		
		Depth to Top	to Top Thickness	Thickness Hardness	Hardness	Initial		Action Steel	Uncoated	Concrete
		In	In		In	In				
LAD: Lyman	Bedrock (lithic)	10-20	---	---	0	---	Moderate	Low	High	
Abram	Bedrock (lithic)	1-10	---	---	0	---	Low	Low	High	
LAE: Lyman	Bedrock (lithic)	10-20	---	---	0	---	Moderate	Low	High	
Abram	Bedrock (lithic)	1-10	---	---	0	---	Low	Low	High	
LTD: Lyman	Bedrock (lithic)	10-20	---	---	0	---	Moderate	Low	High	
Tunbridge	Bedrock (lithic)	20-40	---	---	0	---	Moderate	High	High	
LTE: Lyman	Bedrock (lithic)	10-20	---	---	0	---	Moderate	Low	High	
Tunbridge	Bedrock (lithic)	20-40	---	---	0	---	Moderate	High	High	
MaC: Marlow	Dense material	18-30	---	---	0	---	Moderate	Low	Moderate	
MDD: Marlow	Dense material	18-30	---	---	0	---	Moderate	Low	Moderate	
Dixfield	Dense material	18-29	---	---	0	---	High	Moderate	Moderate	
MLE:										

Soil Features - Continued

Piscataquis County, Maine, Southern Part

Map Symbol and Soil Name	Restrictive Layer Kind	Restrictive Layer			Subsidence		Potential for Frost Total	Risk of Corrosion		
		Depth to Top	to Top Thickness	Thickness Hardness	Hardness	Initial		Action Steel	Uncoated	Concrete
		In	In		In	In				
MLE: Marlow	Dense material	18-30	---	---	0	---	Moderate	Low	Moderate	
Lyman	Bedrock (lithic)	10-20	---	---	0	---	Moderate	Low	High	
Berkshire	---	---	---	---	0	---	Moderate	Low	High	
MND: Marlow	Dense material	18-30	---	---	0	---	Moderate	Low	Moderate	
Dixfield	Dense material	18-29	---	---	0	---	High	Moderate	Moderate	
Lyman	Bedrock (lithic)	10-20	---	---	0	---	Moderate	Low	High	
MrB: Masardis	---	---	---	---	0	---	Low	Low	Moderate	
MSC: Masardis	---	---	---	---	0	---	Low	Low	Moderate	
MTE: Masardis	---	---	---	---	0	---	Low	Low	Moderate	
Adams	---	---	---	---	0	---	Low	Low	High	
MvB: Monarda	Dense material	12-24	---	---	0	---	High	High	High	
MW:										

Soil Features - Continued

Piscataquis County, Maine, Southern Part

Map Symbol and Soil Name	Restrictive Layer Kind	Restrictive Layer			Subsidence		Potential for Frost Total	Risk of Corrosion		
		Depth to Top	to Top Thickness	Thickness Hardness	Hardness	Initial		Action Steel	Uncoated	Concrete
		In	In		In	In				
MW: Monarda	Dense material	12-24	---	---	0	---	High	High	High	
Burnham	Dense material	5-17	---	---	0	---	High	High	Moderate	
MXB: Monarda	Dense material	12-24	---	---	0	---	High	High	High	
Howland	Dense material	20-33	---	---	0	---	Moderate	Moderate	Moderate	
Thorndike	Bedrock (lithic)	10-20	---	---	0	---	Moderate	Moderate	High	
MYD: Monson	Bedrock (lithic)	10-20	---	---	0	---	Moderate	Low	High	
Elliottsville	Bedrock (lithic)	20-40	---	---	0	---	Moderate	Low	Moderate	
Ricker	Bedrock (lithic)	1-10	---	---	0	---	Low	High	High	
MYE: Monson	Bedrock (lithic)	10-20	---	---	0	---	Moderate	Low	High	
Elliottsville	Bedrock (lithic)	20-40	---	---	0	---	Moderate	Low	Moderate	
Ricker	Bedrock (lithic)	1-10	---	---	0	---	Low	High	High	
PeB: Penquis	Bedrock (lithic)	20-40	---	---	0	---	Moderate	Moderate	Moderate	

Soil Features - Continued

Piscataquis County, Maine, Southern Part

Map Symbol and Soil Name	Restrictive Layer Kind	Restrictive Layer			Subsidence		Potential for Frost Total	Risk of Corrosion		
		Depth to Top	to Top Thickness	Thickness Hardness	Hardness	Initial		Action Steel	Uncoated	Concrete
		In	In		In	In				
PeB: Plaisted	Dense material	20-30	---	---	0	---	Moderate	Low	High	
PeC: Penquis	Bedrock (lithic)	20-40	---	---	0	---	Moderate	Moderate	Moderate	
Plaisted	Dense material	20-30	---	---	0	---	Moderate	Low	High	
PFC: Berkshire	---	---	---	---	0	---	Moderate	Low	High	
Penquis	Bedrock (lithic)	20-40	---	---	0	---	Moderate	Moderate	Moderate	
Plaisted	Dense material	20-30	---	---	0	---	Moderate	Low	High	
PhB: Penquis	Bedrock (lithic)	20-40	---	---	0	---	Moderate	Moderate	Moderate	
Thorndike	Bedrock (lithic)	10-20	---	---	0	---	Moderate	Moderate	High	
PhC: Penquis	Bedrock (lithic)	20-40	---	---	0	---	Moderate	Moderate	Moderate	
Thorndike	Bedrock (lithic)	10-20	---	---	0	---	Moderate	Moderate	High	
Ps: Pits	---	---	---	---	0	---	None	---	---	
PtB:										

Soil Features - Continued

Piscataquis County, Maine, Southern Part

Map Symbol and Soil Name	Restrictive Layer Kind	Restrictive Layer			Subsidence		Potential for Frost Total	Risk of Corrosion		
		Depth to Top	to Top Thickness	Thickness Hardness	Hardness	Initial		Action Steel	Uncoated	Concrete
		In	In		In	In				
PtB: Plaisted	Dense material	20-30	---	---	0	---	Moderate	Low	High	
PtC: Plaisted	Dense material	20-30	---	---	0	---	Moderate	Low	High	
PWC: Howland	Dense material	20-33	---	---	0	---	Moderate	Moderate	Moderate	
Plaisted	Dense material	20-30	---	---	0	---	Moderate	Low	High	
Penquis	Bedrock (lithic)	20-40	---	---	0	---	Moderate	Moderate	Moderate	
PWD: Penquis	Bedrock (lithic)	20-40	---	---	0	---	Moderate	Moderate	Moderate	
Plaisted	Dense material	20-30	---	---	0	---	Moderate	Low	High	
Howland	Dense material	20-33	---	---	0	---	Moderate	Moderate	Moderate	
ROD: Ricker	Bedrock (lithic)	1-10	---	---	0	---	Low	High	High	
Rock Outcrop	Bedrock (lithic)	0	---	---	0	---	None	---	---	
SRD: Saddleback	Bedrock (lithic)	10-20	---	---	0	---	Moderate	Low	High	

Soil Features - Continued

Piscataquis County, Maine, Southern Part

Map Symbol and Soil Name	Restrictive Layer Kind	Restrictive Layer			Subsidence		Potential for Frost Total	Risk of Corrosion		Concrete
		Depth to Top	to Top Thickness	Thickness Hardness	Hardness	Initial	Action Steel	Uncoated		
		In	In		In	In				
SRD: Ricker	Bedrock (lithic)	1-10	---	---	0	---	Low	High	High	
SRE: Saddleback	Bedrock (lithic)	10-20	---	---	0	---	Moderate	Low	High	
Ricker	Bedrock (lithic)	1-10	---	---	0	---	Low	High	High	
SUD: Surplus	Dense material	20-30	---	---	0	---	High	Moderate	High	
Sv: Swanville	---	---	---	---	0	---	High	High	Low	
SW: Swanville	---	---	---	---	0	---	High	High	Low	
Wonsqueak	---	---	---	---	0	---	High	Moderate	Moderate	
TeB: Telos	Dense material	13-21	---	---	0	---	High	Moderate	Moderate	
THC: Telos	Dense material	13-21	---	---	0	---	High	Moderate	Moderate	
Chesuncook	Dense material	18-26	---	---	0	---	Moderate	Low	Moderate	
TLC: Telos	Dense material	13-21	---	---	0	---	High	Moderate	Moderate	

Soil Features - Continued

Piscataquis County, Maine, Southern Part

Map Symbol and Soil Name	Restrictive Layer Kind	Restrictive Layer			Subsidence		Potential for Frost Total	Risk of Corrosion		
		Depth to Top	to Top Thickness	Thickness Hardness	Hardness	Initial		Action Steel	Uncoated	Concrete
		In	In		In	In				
TLC: Chesuncook	Dense material	18-26	---	---	0	---	Moderate	Low	Moderate	
Elliottsville	Bedrock (lithic)	20-40	---	---	0	---	Moderate	Low	Moderate	
TMB: Telos	Dense material	13-21	---	---	0	---	High	Moderate	Moderate	
Monarda	Dense material	12-24	---	---	0	---	High	High	High	
TNB: Telos	Dense material	13-21	---	---	0	---	High	Moderate	Moderate	
Monarda	Dense material	12-24	---	---	0	---	High	High	High	
Monson	Bedrock (lithic)	10-20	---	---	0	---	Moderate	Low	High	
ToC: Thorndike	Bedrock (lithic)	10-20	---	---	0	---	Moderate	Moderate	High	
Abram	Bedrock (lithic)	1-10	---	---	0	---	Low	Low	High	
TRC: Thorndike	Bedrock (lithic)	10-20	---	---	0	---	Moderate	Moderate	High	
Abram	Bedrock (lithic)	1-10	---	---	0	---	Low	Low	High	

TSC:

Soil Features - Continued

Piscataquis County, Maine, Southern Part

Map Symbol and Soil Name	Restrictive Layer Kind	Restrictive Layer			Subsidence		Potential for Frost Total	Risk of Corrosion		
		Depth to Top	to Top Thickness	Thickness Hardness	Hardness	Initial		Action Steel	Uncoated	Concrete
		In	In		In	In				
TSC: Thorndike	Bedrock (lithic)	10-20	---	---	0	---	Moderate	Moderate	High	
Penquis	Bedrock (lithic)	20-40	---	---	0	---	Moderate	Moderate	Moderate	
TtB: Thorndike	Bedrock (lithic)	10-20	---	---	0	---	Moderate	Moderate	High	
Penquis	Bedrock (lithic)	20-40	---	---	0	---	Moderate	Moderate	Moderate	
Abram	Bedrock (lithic)	1-10	---	---	0	---	Low	Low	High	
UpB: Urban Land	---	---	---	---	0	---	None	---	---	
Penquis	Bedrock (lithic)	20-40	---	---	0	---	Moderate	Moderate	Moderate	
Plaisted	Dense material	20-30	---	---	0	---	Moderate	Low	High	
WB: Wonsqueak	---	---	---	---	0	---	High	Moderate	Moderate	
Bucksport	---	---	---	---	0	---	High	Moderate	High	