

## 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

Androscoggin And Sagadahoc Counties, Maine

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

Map Symbol and Soil Name	Restrictive Layer				Subsidence		Potential for Frost Total	Risk of Corrosion		
	Kind Kind	Depth to Top	to Top Thickness	Thickness Hardness	Hardness	Initial		Action Steel	Uncoated	Concrete
AaB: Adams	---	---	---	---	0	---	Low	Low	High	
AaC: Adams	---	---	---	---	0	---	Low	Low	High	
AaD: Adams	---	---	---	---	0	---	Low	Low	High	
AbD: Adams	---	---	---	---	0	---	Low	Low	High	
AdA: Agawam	---	---	---	---	0	---	Low	Low	Moderate	
AdB: Agawam	---	---	---	---	0	---	Low	Low	Moderate	
AdC: Agawam	---	---	---	---	0	---	Low	Low	Moderate	
AdD: Agawam	---	---	---	---	0	---	Low	Low	Moderate	
B.P.: Borrow Pits	---	---	---	---	0	---	None	---	---	
BgB:										

## Soil Features - Continued

Androscoggin And Sagadahoc Counties, Maine

Map Symbol and Soil Name	Kind 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				
BgB: Belgrade	---	---	---	---	0	---	High	Low	Moderate	
BgC: Belgrade	---	---	---	---	0	---	High	Low	Moderate	
Bo: Biddeford	---	---	---	---	0	---	High	High	Moderate	
BuB2: Buxton	---	---	---	---	0	---	High	High	Moderate	
BuC2: Buxton	---	---	---	---	0	---	High	High	Moderate	
CfB: Charlton	---	---	---	---	0	---	Moderate	Low	High	
CfC2: Charlton	---	---	---	---	0	---	Moderate	Low	High	
CfD2: Charlton	---	---	---	---	0	---	Moderate	Low	High	
ChB: Charlton	---	---	---	---	0	---	Moderate	Low	High	
ChC: Charlton	---	---	---	---	0	---	Moderate	Low	High	

## Soil Features - Continued

Androscoggin And Sagadahoc Counties, Maine

Map Symbol and Soil Name	Kind 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				
ChD: Charlton	---	---	---	---	0	---	Moderate	Low	High	
Ck: Coastal Beach	---	---	---	---	0	---	Low	High	High	
Du: Dune Land	---	---	---	---	0	---	None	---	---	
EmB: Elmwood	---	---	---	---	0	---	High	Moderate	Moderate	
EmC2: Elmwood	---	---	---	---	0	---	High	Moderate	Moderate	
G.P.: Sand And Gravel Pits	---	---	---	---	0	---	None	---	---	
Ha: Hadley	---	---	---	---	0	---	High	Low	Moderate	
HfB: Hartland	---	---	---	---	0	---	High	Low	Moderate	
HfC2: Hartland	---	---	---	---	0	---	High	Low	Moderate	
HfD2: Hartland	---	---	---	---	0	---	High	Low	Moderate	

## Soil Features - Continued

Androscoggin And Sagadahoc Counties, Maine

Map Symbol and Soil Name	Restrictive Layer				Subsidence		Potential for Frost Total	Risk of Corrosion		
	Kind Kind	Depth to Top In	to Top Thickness In	Thickness Hardness ---	Hardness In	Initial In		Action Steel	Uncoated	Concrete
HkB: Hinckley	---	---	---	---	0	---	Low	Low	High	
HkC: Hinckley	---	---	---	---	0	---	Low	Low	High	
HkD: Hinckley	---	---	---	---	0	---	Low	Low	High	
HrB: Hollis	Bedrock (lithic)	10-20	---	---	0	---	Moderate	Low	High	
HrC: Hollis	Bedrock (lithic)	10-20	---	---	0	---	Moderate	Low	High	
HrD: Hollis	Bedrock (lithic)	10-20	---	---	0	---	Moderate	Low	High	
HsB: Hollis	Bedrock (lithic)	10-20	---	---	0	---	Moderate	Low	High	
HsC: Hollis	Bedrock (lithic)	10-20	---	---	0	---	Moderate	Low	High	
HsD: Hollis	Bedrock (lithic)	10-20	---	---	0	---	Moderate	Low	High	
Lc: Leicester	---	---	---	---	0	---	High	High	Moderate	

## Soil Features - Continued

Androscoggin And Sagadahoc Counties, Maine

Map Symbol and Soil Name	Kind 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				
Le: Leicester	---	---	---	---	0	---	High	High	Moderate	
Lk: Limerick	---	---	---	---	0	---	High	High	Moderate	
Md: Made Land	---	---	---	---	0	---	---	---	---	
MeB: Melrose	---	---	---	---	0	---	Moderate	Moderate	Moderate	
MeC: Melrose	---	---	---	---	0	---	Moderate	Moderate	Moderate	
Mf: Made Land	---	---	---	---	0	---	None	---	---	
MkB: Merrimac	---	---	---	---	0	---	Low	Moderate	High	
MkC2: Merrimac	---	---	---	---	0	---	Low	Moderate	High	
MkD2: Merrimac	---	---	---	---	0	---	Low	Moderate	High	
NgB: Ninigret	---	---	---	---	0	---	Moderate	Moderate	High	

## Soil Features - Continued

Androscoggin And Sagadahoc Counties, Maine

Map Symbol and Soil Name	Kind 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				
On: Ondawa	---	---	---	---	0	---	Moderate	Low	Moderate	
Pa: Peat	---	---	---	---	0	---	High	High	High	
Muck	---	---	---	---	0	---	High	High	High	
PbB: Paxton	---	---	---	---	0	---	Moderate	Low	Moderate	
PbC: Paxton	---	---	---	---	0	---	Moderate	Low	Moderate	
PbD: Paxton	---	---	---	---	0	---	Moderate	Low	Moderate	
PfB: Paxton	---	---	---	---	0	---	Moderate	Low	Moderate	
PfC: Paxton	---	---	---	---	0	---	Moderate	Low	Moderate	
PfD: Paxton	---	---	---	---	0	---	Moderate	Low	Moderate	
Py: Podunk	---	---	---	---	0	---	High	Moderate	Moderate	
QU.:										

## Soil Features - Continued

Androscoggin And Sagadahoc Counties, Maine

Map Symbol and Soil Name	Restrictive Layer	Subsidence		Potential for Frost Total	Risk of Corrosion		Concrete			
		Kind	Depth to Top		to Top Thickness	Hardness		Initial	Action Steel	Uncoated
		Kind	In		In	In		In		
QU.: Quarries	Bedrock (lithic)	0	---	---	0	---	None	---	---	
RhC: Rock Land	Bedrock (lithic)	0	---	---	0	---	None	---	---	
Hollis	Bedrock (lithic)	10-20	---	---	0	---	Moderate	Low	High	
RhD: Rock Land	Bedrock (lithic)	0	---	---	0	---	None	---	---	
Hollis	Bedrock (lithic)	10-20	---	---	0	---	Moderate	Low	High	
S.L.: Stripped Land	---	---	---	---	0	---	---	---	---	
Sa: Saco	---	---	---	---	0	---	High	High	Moderate	
ScA: Scantic	---	---	---	---	0	---	High	High	Moderate	
So: Scarboro	---	---	---	---	0	---	Moderate	High	High	
SuC2: Suffield	---	---	---	---	0	---	High	High	Moderate	
SuD2:										

## Soil Features - Continued

Androscoggin And Sagadahoc Counties, Maine

Map Symbol and Soil Name	Kind 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				
SuD2: Suffield	---	---	---	---	0	---	High	High	Moderate	
SxB: Sutton	---	---	---	---	0	---	High	Moderate	Moderate	
SxC: Sutton	---	---	---	---	0	---	High	Moderate	Moderate	
SyB: Sutton	---	---	---	---	0	---	High	Moderate	Moderate	
SyC: Sutton	---	---	---	---	0	---	High	Moderate	Moderate	
SzA: Swanton	---	---	---	---	0	---	High	High	Moderate	
Tn: Tidal Marsh	---	---	---	---	0	---	High	High	High	
Wa: Walpole	---	---	---	---	0	---	High	Low	High	
Wg: Whately	---	---	---	---	0	---	High	High	Moderate	

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Map Symbol and Soil Name	Kind 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				
Wh: Whitman	---	---	---	---	0	---	High	High	High	
Wn: Winooski	---	---	---	---	0	---	High	Moderate	Moderate	
WrB: Woodbridge	---	---	---	---	0	---	High	Moderate	Moderate	
WsB: Woodbridge Moderate		---	---	---	---		0	---	High	Moderate