

Table 8. Interpretations for selected engineering uses.

Series	Map Unit Symbol	Topsoil
Albrights	AbB,AbC,AcB,AcC	Fair on AbB and AbC; Poor on AcB and AcC: Large stones
Allegheny	AlB	Fair: small stones
Andover	AnB,AnC,AoB,AoC	Poor: small stones; large stones on AoB and AoC; high water table
Armagh	ArA,ArB	Poor: high water table
Atkins	At	Poor: high water table
Basher	Ba	Fair; small stones
*Berks	BkB,BkC,BKD,BID,BMF (For Weikert part of BMF, see Weikert series)	Poor: small stones
Brinkerton	BrA,BrB,BrC,BsB	Poor: large stones on BsB; high water table
Buchanan	BtB,BuB,BuC,BxB,BxD	Poor: small stones; large stones on BxB and BxD
Calvin	(Mapped only with Leck Kill)	Poor: small stones;
Carlisle	CA	Poor organic material; high water table
Cavode	CdA,CdB	Fair; thin layer; small stones
Chagrin	Ch	Good
Clarksburg	CkA,CkB	Good
Clymer	CIB,CIC,CvB,CvD	Fair on CIB and CIC: small stones; Poor on CvB and CvD: large stones
Dekalb	(Mapped only with Hazelton)	Poor: small and large stones
Dunning	Du	Poor: high water table
Edom	EdB,EdC,EdD	Fair: small stones; too clayey
Ernest	ErB,ErC,ErD,EvB,EvD	Poor: small stones; large stones on EvB and EvD
Gilpin	GIB,GIC,GID	Poor: small stones
Hagerstown	HaA,HaB,HaC,HcB,HcC,HcD	Fair: difficult to revegetate borrow areas
*Hazelton	HhB,HhC,HhD,HSB,HSD,HTF (For Dekalb part of HTF,see Dekalb series.)	Poor: small stones; large stones on HSB,HSD, and HTF

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Table 8. Interpretations for selected engineering uses.

Suitability as a source of Sand and Gravel	Road Fill	Highway and Road Location
Unsuited: excessive fines	Fair: frost action	Frost action; large stones on AcB and AcC Seasonal high water table; seepage above fragipan Frost action
Poor: excessive fines	Fair: frost action	
Unsuited: excessive fines	Poor: high frost action; medium to low strength; high water table	High water table; frost action; large stones on AoB and AoC; seepage above fragipan
Unsuited: excessive fines	Poor: frost action; low strength; high water table	High water table; frost action; shrink-swell
Unsuited: excessive fines; locally poor in substratum	Poor: frost action; high water table	Floods; frost action; high water table
Poor: excessive fines; locally poor in substratum	Fair: frost action	Floods; frost action; seasonal high water table
Unsuited: excessive fines	Poor: thin layer	Rippable bedrock at a depth of 1.5 to 3.5 feet
Unsuited: excessive fines	Poor: frost action; medium to low strength; high water table	High water table; frost action; shrink-swell potential; large stones on BsB; seepage above fragipan
Unsuited: excessive fines	Fair: frost action; large stones on BxB and BxD	Frost action; large stones on BxB and BxD; seasonal high water table; seepage above fragipan
Poor: excessive fines	Poor: thin layer	Rippable bedrock at a depth of 1.5 to 3.5 feet; steep
Unsuited: organic material	Unsuited: organic material; shrink-swell; frost action	Organic material; frost action; shrink-swell; unstable; floods; high water table
Unsuited: excessive fines	Poor: frost action; low strength	Frost action; seasonal high water table; shrink-swell
Unsuited: excessive fines	Fair; frost action; low strength	Floods; frost action
Unsuited: excessive fines	Fair; frost action; low strength	Frost action; shrink-swell; seasonal high water table
Poor: excessive fines	Good	Large stones on CvB and CvD
Poor: excessive fines	Poor: thin layer	Hard bedrock at depth of 1.5 to 3.5 feet; steep; large stones
Unsuited: excessive fines	Poor: frost action; low strength; high water table	Floods; high water table; frost action; shrink-swell; low strength
Unsuited: excessive fines	Poor: low strength	Frost action; shrink-swell; low strength
Unsuited: excessive fines	Fair; frost action	Frost action; large stones on EvB and EvD; shrink-swell; seasonal high water table
Unsuited: excessive fines	Poor: thin layer	Rippable bedrock at a depth of 1.5 to 3.5 feet; frost action
Unsuited: excessive fines	Poor: low strength	Frost action: shrink-swell; low strength; sinkholes
Poor: excessive fines; large stones	Good on HhB, HhC, and HhD. Fair on HSB, HSD, and HSF: large stones	Large stones on HSB, HSD, and HTF

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Table 8. Interpretations for selected engineering uses.

Reservoir Areas	Embankments	Drainage
Moderately slow permeability	Fair to good compaction; medium to low strength; large stones on AcB and AcC	Moderately slow permeability; seasonal high water table; fragipan
Moderate permeability; pervious substratum	Fair to good compaction; medium strength susceptible to piping	Well drained
Fair to good compaction; medium to low strength; large stones on AoB and AoC	Fair to good compaction; medium to low strength; large stones on AoB and AoC	Slow permeability; high water table; fragipan
Slow permeability; high water table	Fair to good compaction; low strength	Slow permeability; high water table
Floods; moderately slow and slow permeability; high water table; possible pervious substratum	Fair compaction; medium strength; susceptible to piping; floods	Floods; moderately slow and slow permeability; high water table
Floods; moderate permeability; pervious substratum	Fair compaction; medium strength; floods; susceptible to piping	Floods; moderate permeability; seasonal high water table
Pervious bedrock at a depth of 1.5 to 3.5 feet; moderately rapid permeability	Limited material; bedrock at a depth of 1.5 to 3.5 feet; medium strength; susceptible to piping; slopes	Well drained
Slow permeability; high water table; large stones on BsB	Fair to good compaction; medium to low strength	Slow permeability; high water table; fragipan
Slow permeability	Fair to good compaction; medium strength; large stones on BxB and BxD	Slow permeability; seasonal high water table; fragipan
Pervious bedrock at a depth of 1.5 to 3.5 feet; moderately rapid permeability	Limited material; bedrock at a depth of 1.5 to 3.5 feet; medium strength; susceptible to piping	Well drained
Organic material; floods; high water table; moderately rapid permeability	Unstable organic material; poor compaction; low strength	Floods; organic material; moderately rapid permeability; high water table
Slow permeability; seasonal high water table	Fair to good compaction; low strength	Slow permeability; seasonal high water table
Floods; moderate permeability; pervious substratum	Susceptible to piping; fair to poor compaction; floods	Floods; well drained
Slow permeability; seasonal high water table	Fair to good compaction; low strength; susceptible to piping	Slow permeability; seasonal high water table; fragipan
Moderately rapid permeability; slope	Fair compaction; large stones on CvB and CvD; medium permeability when compacted	Well drained
Moderately rapid permeability; pervious bedrock at a depth of 1.5 to 3.5 feet	Limited material; hard bedrock at at depth of 1.5 to 3.5 feet; large stones; susceptible to piping	Well drained
Floods; slow permeability; high water table; possible pervious substratum	Low strength; floods; poor compaction; high compressibility	Floods; slow permeability; high water table
Moderate: permeability; slope	Low strength; high compressibility; poor compaction	Well drained
Moderately slow and slow permeability; seasonal high water table	Medium and low strength; fair and good compaction; large stones on EvB and EvC	Moderately slow and slow permeability; seasonal high water table; fragipan
Pervious bedrock at depth of 1.5 to 3.5 feet; moderate permeability	Limited material; rippable bedrock at at depth of 1.5 to 3.5 feet; susceptible to piping	Well drained
Moderate permeability; sinkholes	Low strength; high compressibility; fair and poor compaction	Well drained
Moderately rapid and rapid permeability	Medium and high permeability when compacted; large stones on HSB, HSD, and HTF; susceptible to piping	Well drained

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Table 8. Interpretations for selected engineering uses.

Sprinkler Irrigation	Soil features affecting Terraces and Diversions	Grassed Waterways
Seasonal high water table; fragipan; moderately slow permeability; large stones on AcB and AcC Moderate permeability; high available water capacity*	Moderately slow permeability; seasonal high water table; erodes easily Moderately permeability; erodes easily	Erodes easily; seasonal high water table; seepage above fragipan; large stones on AcC and AcB Erodes easily; high available water capacity;
High water table; fragipan; slow permeability; large stones on AoB and AoC High water table; slow permeability	Slow permeability; erodes easily; high water table Slow permeability; high water table; erodes easily	Erodes easily; seepage above fragipan; large stones on AoB and AoC; high water table Erodes easily; clayey subsoil; high water table
High water table; moderately slow and slow permeability; floods	High water table; floods	Floods; high water table
Seasonal high water table; moderate permeability; floods; high available water capacity Moderately rapid permeability; very low available water capacity	Seasonal high water table; floods Rippable bedrock at a depth of 1.5 to 3.5 feet	Seasonal high water table; floods Rippable bedrock at 1.5 to 3.5 feet; low available water capacity
High water table; slow permeability; fragipan; large stones on BsB	Slow permeability; erodes easily; high water table	Erodes easily; seepage above fragipan; large stones on BsB; high water table
Seasonal high water table; slow permeability; fragipan; large stones on BxB and BxD Low to moderate available water capacity; moderately rapid permeability High water table; organic material; high available water capacity; floods Seasonal high water table; slow permeability	Slow permeability; seasonal high water table large stones on BxB and BxD Rippable bedrock at a depth of 1.5 to 3.5 feet Unstable organic material; high water table	Seasonal high water table; seepage above fragipan; large stones on BxB and BxD Rippable bedrock at a depth of 1.5 to 3.5 feet low to moderate available water capacity Floods; organic material; high water table
Floods; high available water capacity; moderate permeability	Slow permeability; seasonal high water table; erodes easily Floods	Erodes easily; seasonal high water table Floods
Seasonal high water table; slow permeability; fragipan	Slow permeability; erodes easily; seasonal high water table	Erodes easily; seepage above fragipan; seasonal high water table
Moderately rapid permeability; moderate available water capacity; large stones on CvB and CvD Very low and low available water capacity; moderately rapid permeability; large stones High water table; slow permeability; floods	Moderately rapid permeability; large stones on CvB and CvD Hard bedrock at a depth of 1.5 to 3.5 feet; large stones Floods; high water table	Erodes easily; large stones on CvB and CvD Hard bedrock at a depth of 1.5 to 3.5 feet; low and very low available water capacity; large stones Floods; high water table
Moderate permeability; moderate and high available water capacity;	Moderate permeability; erodes easily; clayey subsoil	Erodes easily; moderate and high available water capacity; clayey subsoil; sinkholes
Seasonal high water table; moderately slow and slow permeability; fragipan; large stones on EvB and EvD; slope Moderate permeability; low and moderate available water capacity;	Moderately slow and slow permeability; seasonal high water table; large stones on EvB and EvD Rippable bedrock at a depth of 1.5 to 3.5 feet	Seasonal high water table; seepage above fragipan; large stones on EvB and EvD; erodes easily Rippable bedrock at a depth of 1.5 to 3.5 feet; Erodes easily; low and moderate available water capacity
Moderate permeability; high available water capacity	Moderate permeability; erodes easily; clayey subsoil	Erodes easily; high available water capacity; clayey subsoil; sinkholes
Moderately rapid and rapid permeability; low and moderate available water capacity; large stones on HSB, HSD, and HTF.	Moderately rapid and rapid permeability; large stones on HSB, HSD, and HTF	Erodes easily; low and moderate available water capacity; large stones on HSB, HSD, and HTF

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Table 8. Interpretations for selected engineering uses.

Winter Grading	Pipeline Construction and Maintenance
Seasonal high water table; forms large frozen clods; large stones on AcC and AcB	Seasonal high water table; high corrosion potential; large stones on AcC and AcB
May form large frozen clods; fair trafficability	Subject to caving
Forms large frozen clods; high water table; poor trafficability; large stones on AoB and AoC	High water table; high corrosion potential; large stones on AoB and AoC
Forms large frozen clods; high water table; poor trafficability	High water table; high corrosion potential
Floods; high water table; forms large frozen clods	High water table; high corrosion potential; subject to caving; floods
Floods; seasonal high water table; forms large frozen clods	Seasonal high water table; subject to caving; floods; moderate corrosion potential
All features favorable	Rippable bedrock at a depth to 15. To 3.5 feet
Forms large frozen clods; poor trafficability; large stones on BsB; high water table	High water table; high to moderate corrosion potential; large stones on BsB
Seasonal high water table; forms large frozen clods; large stones on BxB and BxD	Seasonal high water table; moderate corrosion potential; large stones on BxB and BxD
All features favorable	Rippable bedrock at a depth of 15. to 3.5 feet
Floods; high water table; forms large frozen clods; organic material; poor trafficability	High water table; high corrosion potential; subsidence; organic material
Forms large frozen clods; poor trafficability; seasonal high water table	Seasonal high water table; high corrosion potential
May form large frozen clods; floods	Subject to caving; floods
Seasonal high water table; forms large frozen clods	Seasonal high water table; moderate corrosion potential
Forms large frozen clodes in places; large stones on CvB and CvD; fair compaction	Large stones on CvB and CvD; moderate corrosion potential
Large stones	Hard bedrock at a depth of 1.5 to 3.5 feet; large stones
Floods; forms large frozen clods; poor trafficability	High water table; high corrosion potential; subject to caving; floods
Forms large frozen clods; poor compaction	High corrosion potential; clayey subsoil; sinkholes
Seasonal high water table; forms large frozen clods; large stones on EvB and EvD	Seasonal high water table; moderate corrosion potential; large stones on EvB and EvD
Forms large frozen clodes in places; fair and good compaction	Rippable bedrock at a depth of 1.5 to 3.5 feet
Forms large frozen clodes in places; fair and good compaction	High corrosion potential; clayey subsoil; sinkholes
Large stones on HSB, HSD, and HTF	Large stones on HSB, HSD, and HTF

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Table 8. Interpretations for selected engineering uses.

Hublersburg	HuA,HuB,HuC,HuD	Fair: small stones; difficult to vegetate borrow areas
Hublersburg	HuB	
Laidig	LaB,LaC,LaD,LcB,LcD,LDF	Poor: small stones on LaB, LaC, LaD; large stones on LcB, LcD, and LDF
*Leck Kill	LkB,LkC,LkD,LlB,LlD,LMF (For Calvin part of LMF; see Calvin series.)	Poor: small stones on LkB, LkC, and LkD; large stones on LlB,LlD, and LMF
Leetonia	LtB,LvB,LvC	Poor: large stones; too sandy
Leetonia variant	LvB,LvC	Poor: too sandy
Linside	Lx	Good
Markes	MaB	Poor; high water table
Meckesville	MeB,MeC,MkB,MkD	Fair on MeB and MeC: small stones; slope. Poor on MkB and MkD: large stones
Melvin	Mm	Poor; high water table
Millheim	MnB,Mnc,MnD	Fair: too clayey
Monongahela	MoB	Fair: small stones
Morrison	MrB,MrC,MrD, MsB,MsD,MTF	Fair on MrB,MrC, and MrD: small stones. Poor on MsB,MsD, and MTF: large stones
Murrill	MuA,MuB,MuC,MuD,MvB,MvD	Poor: small stones; large stones on MvB and MvD
Nolin	No	Good
*Opequon	OhB,OhC,.OhD,ORFOxB,OxD (For Hagerstown part of OhB, see Hagerstown series; Rock outcrop parts of OxB and OxD not interpreted because they are areas of exposed bedrock.)	Poor: too clayey; thin layer
*Philo	Ph,Pk (For Atkins part of Pt, see Atkins series.)	Good on Ph; Poor on Pk: large stones
Pope	Po	Fair: small stones
Purdy	Pu	Poor; high water table
Rayne	RaB	Fair; small stones
Rubble land	Ru	Poor large stones
Strip mines	Sm	Poor: small stones; acid materials
Tyler	Ty	Good

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Table 8. Interpretations for selected engineering uses.

Unsuited: excessive fines	Poor: low strength	Frost action; shrink-swell; sinkholes; low strength
Unsuited: excessive fines	Good on LaB, LaC, and LaD. Fair on LcB, LcD, LdF: large stones	Large stones on LcB,LcD, LdF; seepage above fragipan
Unsuited: excessive fines	Fair: frost action	Large stones on LIB,LIC, and LMF; frost action; rippable bedrock at a depth of 3.5 to 6 feet;
Fair: excessive fines	Fair: large stones	Large stones; hard bedrock at a depth of 3.5 to 4 feet
Fair: excessive fines	Good	Erodes easily
Unsuited: excessive fines	Fair: frost action	Floods; frost action; low strength; seasonal high water table
Unsuited: excessive fines	Poor: high frost action; thin layer; high water table	Frost action; shrink-swell; rippable bedrock at a depth of 1.5 to 3.5 feet; high water table
Unsuited: excessive fines	Fair: frost action	Large stones on MkB and MkD; frost action
Unsuited: excessive fines	Poor: frost action; high water table	Floods; high water table; frost action
Unsuited: excessive fines	Poor: low strength	Frost action; shrink-swell; low strength
Unsuited: excessive fines	Fair: frost action	Frost action; seasonal high water table
Unsuited: excessive fines	Fair: frost action	Frost action; large stones on MsB, MsD, and MTF
Unsuited: excessive fines	Poor: low strength	Frost action: sinkholes; large stones on MvB and MvD; low strength
Unsuited: excessive fines	Fair: frost action	Frost action; rarely floods
Unsuited: excessive fines; thin layer	Poor: low strength; thin layer; shrink-swell	Shrink-swell; low strength; hard bedrock at a depth of 1 to 1.5 feet
Poor: excessive fines	Fair: frost action	Floods; frost action; large stones on Pk; seasonal high water table
Poor: excessive fines	Fair: frost action; low strength	Floods; frost action
Unsuited: excessive fines	Poor: frost action; low strength; high water table	Frost action; shrink-swell; high water table
Unsuited: excessive fines	Fair: frost action	Frost action
Unsuited: large stones	Poor: large stones	Large stones
Unsuited: soft shale and siltstone fragments	Fair: large stones	Large stones; acid materials
Unsuited: excessive fines	Poor: front action; low strength	Frost action; low strength; shrink-swell; seasonal high

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Table 8. Interpretations for selected engineering uses.

Moderate permeability; sinkholes	Low strength; high compressibility; fair and poor compaction	Well drained
Moderately slow permeability	Fair and good compaction; large stones on LcB, LcD and LDF	Well drained
Moderately rapid permeability	Fair and good compaction; large stones on LIB, LIC, and LMF	Well drained
Moderately rapid permeability; pervious bedrock at a depth of 3.5 to 4 feet	Susceptible to piping; high permeability when compacted; large stones; hard bedrock at a depth of 3.5 to 4 feet	Well drained
Rapid permeability	Susceptible to piping; high permeability	Well drained
Floods; moderate permeability; pervious substratum	Fair compaction; susceptible to piping; floods	Floods; moderate permeability; seasonal high water table
Slow permeability; rippable bedrock at a depth of 1.5 to 3.5 feet; high water table	Limited material; rippable bedrock at a depth of 1.5 to 3.5 feet fair and good compaction	Slow permeability; rippable bedrock at at depth of 1.5 to 3 feet; high water table
Moderately slow permeability	Fair and good compaction; medium and low strength; large stones on MkB and MkD	Moderately slow permeability; fragipan
Moderate permeability; high water table; floods; possible pervious substratum	Fair compaction; medium and low strength; susceptible to piping; floods	Floods; moderate permeability; seasonal high water
Moderate permeability	Low strength; high compressibility; poor compaction	Well drained
Moderately slow permeability; possible pervious substratum	Fair and good compaction; medium and low strength; susceptible to piping	Moderately slow permeability; seasonal high water table; fragipan
Moderately rapid permeability	Susceptible to piping; medium permeability when compacted;	Well drained
Moderate permeability; sinkholes	Low strength; susceptible to piping; high compressibility	Well drained
Moderate permeability; possible pervious substratum	Fair compaction; susceptible to piping	Well drained
Moderate permeability; pervious bedrock at a depth of 1 to 1.5 feet; sinkholes	Limited material; hard bedrock at a depth of 1 to 1.5 feet; sinkholes	Well drained
Floods; moderate permeability; pervious substratum; seasonal high water table	Floods; fair and poor compaction; medium strength; susceptible to piping	Floods; moderate permeability; seasonal high water
Floods; moderately rapid permeability; pervious substratum	Floods; fair compaction; susceptible to piping	Well drained; floods
Slow permeability; high water table; possible pervious substratum	Fair and good compaction; low strength	Slow permeability; high water table
Moderate permeability	Fair compaction; medium strength; susceptible to piping	Well drained
Pervious substratum	Large stones; high permeability when compacted	Well drained; large stones
pervious substratum	Small and large stones; poor compaction; high permeability when compacted; susceptible to piping	Features variable
Slow permeability; seasonal high water table; possible	Fair compaction; low strength; susceptible to piping	Slow permeability; seasonal high water table; fragipan

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Table 8. Interpretations for selected engineering uses.

Moderate permeability; high available water capacity; slope	Moderate permeability; erodes easily; clayey subsoil	Erodes easily; high available water capacity; clayey subsoil; sinkholes
Moderately slow permeability; fragipan; large stones on LcB, LcD, LDF	Moderately slow permeability; large stones on LcB, LcD, and LDF	Large stones on LcB, LcD, and LDF
Moderately rapid permeability; moderate and high available water capacity; large stones on LIB, LIC, and LMF	Moderately rapid permeability; large stones on LIB, LIC, and LMF; erodes easily	Erodes easily; large stones on LIC, LID, and LMF; moderate and high available water capacity
Moderately rapid permeability; very low available water capacity; large stones	Moderately rapid permeability; large stones; hard bedrock at a depth of 3.5 to 4 feet	Very low available water capacity; hard bedrock at a depth of 3.5 to 4 feet; large stones
Rapid permeability; very low available water capacity	Rapid permeability; erodes easily	Erodes easily; very low available water capacity
Seasonal high water table; moderate permeability; floods; high available water capacity	Floods; seasonal high water table	Seasonal high water table; floods
High water table; slow permeability; low and moderate available water capacity; rippable bedrock at a depth of 1.5 to 3.5 feet	Slow permeability; erodes easily; rippable bedrock at a depth of 1.5 to 3.5 feet	Rippable bedrock at a depth of 1.5 to 3.5 feet; Erodes easily; low and moderate available water capacity; high water table
Moderately slow permeability; fragipan; large stones on MkB and MkD	Moderately slow permeability; large stones on MkB and MkD; erodes easily	Erodes easily; large stones on MkB and MkD
High water table; moderate permeability; floods	Floods; high water table	Floods; high water table
Moderate permeability; moderate available water capacity; slope	Moderate permeability; erodes easily; clayey subsoil	Erodes easily; moderate available water capacity; clayey subsoil
Seasonal high water table; moderately slow permeability; fragipan	Moderately slow permeability; seasonal high water table; erodes easily	Erodes easily; seasonal high water table; seepage above fragipan
Moderately rapid permeability; moderate available water capacity; large stones	Moderately rapid permeability; large stones on MsB, MsD, and MTF; erodes easily	Erodes easily; moderate available water capacity; large stones on MsB, MsD, and MTF
Moderate permeability; moderate and high available water capacity; large stones on MvB and MvD	Moderate permeability; erodes easily; clayey subsoil; sinkholes; large stones on MvB and MvD	Erodes easily; moderate and high available water capacity; clayey subsoil; large stones on MvB and MvD
Moderate permeability; high available water capacity	Moderate permeability; erodes easily; rarely floods	Erodes easily; high available water capacity
Moderate permeability; low available water capacity;	Hard bedrock at a depth of 1 to 1.5 feet; clayey subsoil; moderate permeability; steep slopes; sinkholes	Hard bedrock at a depth of 1 to 1.5 feet; low available water capacity; clayey subsoil; erodes easily sinkholes
Seasonal high water table; moderate permeability; floods; large stones on Pk; moderate and high available water capacity	Floods; seasonal high water table	Seasonal high water table; floods
Moderately rapid permeability; moderate and high available water capacity; floods	Floods	Floods
Slow permeability; high water table	Slow permeability; wetness; high water table	High water table
Moderate permeability; moderate and high available water capacity	Moderate permeability; erodes easily	Erodes easily; moderate and high available water capacity;
Large stones	Large stones	Large stones
Acid material; low and very low available water capacity; small and large stones	Small and large stones; acid material	Low and very low available water capacity
Seasonal high water table; slow permeability; fragipan	Slow permeability; seasonal high water table; fragipan	Seasonal high water table; erodes easily

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Table 8. Interpretations for selected engineering uses.

Forms large frozen clods; fair poor compaction	High corrosion potential; clayey subsoil; sinkholes
Large stones on LcB, LcD, and LDF; fair to good compaction	Moderate corrosion potential; large stones on LcB, LcD, and LDF
Forms large frozen clods in places; large stones on LIB, LIC, and LMF	Large stones on LIB, LIC, and LMF
Large stones; good trafficability	Large stones; hard bedrock at a depth of 3.5 to 4 feet
All features favorable	Subject to caving
Floods; seasonal high water table; forms large clods in places	Seasonal high water table; subject to caving; moderate corrosion potential; floods
Forms large frozen clods; poor trafficability; high water table	High water table; high corrosion potential; rippable bedrock at a depth of 1.5 to 3.5 feet
Forms large frozen clods in places; large stones on MkB and MkD	Moderate corrosion potential; large stones on MkB and MkD
Floods; high water table; forms large frozen clods	High water table; high corrosion potential; subject to caving; floods
Forms large frozen clods; poor compaction	High corrosion potential
Seasonal high water table; forms large frozen clods	Season high water table; high corrosion potential; subject to caving
Large stones on MsB, MsD, and MTF	Large stones on MsB, MsD, and MTF
Forms large frozen clods in places; large stones on MvB and MvD; fair or poor compaction	Moderate corrosion potential; clayey subsoil; sinkholes; large stones on MvB and MvD
Forms large frozen clods in places	Subject to caving
Forms large frozen clods; poor compaction	Hard bedrock at a depth of 1 to 1.5 feet; high corrosion potential; sinkholes clayey subsoil
Floods: seasonal high water table; may form large frozen clods; large stones on Pk	Seasonal high water table; subject to caving; floods; large stones on Pk; moderate corrosion potential
Floods; may form large frozen clods	Subject to caving; floods
Forms large frozen clods; high water table; poor trafficability	High corrosion potential; subject to caving; high water table
Forms large frozen clods in places	All feature favorable
Large stones; poor trafficability	Large stones
Small and large stones	High corrosion potential
Froms large frozen clods; poor trafficability; high water table	High corrosion potential; subject to caving; seasonal high water table

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Table 8. Interpretations for selected engineering uses.

Ungers	UmB, UmC,UmD,UnB,UnD	Poor: small stones; large stones on UnB and UnD
*Urban land	URB	Too variable to be rated. Onsite investigation required. For Hagerstown part, see Hagerstown series.
Vanderlip	VaC	Poor; too sandy
Weikert	WeC,WeD	Poor; small stones; thin layer
Wharton	WhA,WhB,WhC	Fair: thin layer
Wyoming	Wy	Poor: small stones

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Table 8. Interpretations for selected engineering uses.

Poor: excessive fines	Good where slope is less than moderately steep Fair where slope is moderately steep	water table Large stone on UnB and UnD
Fair: excessive fines Poor; excessive fines	Good Poor: thin layer	Erodes easily Rippable bedrock at a depth of 1 to 1.5 feet
Unsuited: excessive fines	Poor: frost action; low strength	Frost action; shrink-swell; seasonal high water table; low strength
Fair: excessive fines	Good	Favorable; rarely floods

*An asterisk in the first column indicates that at least one mapping unit of that series is made up of two or more kinds of soil.

Table 8. Interpretations for selected engineering uses.

pervious substratum Moderate: permeability; slope	Fair compaction; large stones on UnB and UnD; medium permeability when compacted; susceptible to piping	Well drained
Rapid permeability Pervious bedrock at depth of 1 to 1.5 feet; moderately rapid permeability Moderately slow permeability; seasonal high water table Rapid permeability; pervious substratum	High permeability when compacted; susceptible to piping Limited material; bedrock at a depth of 1 to 1.5 feet; high permeability when compacted Fair and poor compaction; low strength High permeability when compacted; susceptible to piping	Well drained Well drained Moderately slow permeability; seasonal high water table Somewhat excessively drained

*An asterisk in the first column indicates that at least one mapping unit of that series is made up of two or more kinds of soil.

Table 8. Interpretations for selected engineering uses.

Moderate permeability; moderate available water capacity; large stones on UnB and UnD	Moderate permeability; large stones on UnB and UnD	Erodes easily; large stones on UnB and UnD; moderate available water capacity
Rapid permeability; very low and moderate available water capacity Moderately rapid permeability; very low available water capacity	Rapid permeability; erodes easily Rippable bedrock at a depth of 1 to 1.5 feet; moderately rapid permeability	Erodes easily; low and moderate available water capacity; Rippable bedrock at a depth of 1 to 1.5 feet; very low water capacity
Season high water table; moderately slow permeability; high available water capacity Rapid permeability; very low and low available water capacity	Moderately slow permeability; seasonal high water table; eroded easily Rapid permeability; rarely floods	Erodes easily; high available water capacity Low available water capacity

*An asterisk in the first column indicates that at least one mapping unit of that series is made up of two or more kinds of soil.

Table 8. Interpretations for selected engineering uses.

Forms large frozen clods in places; large stones on UnB and UnD; fair compaction	Large stones on UnB and UnD; moderate corrosion potential
All features favorable	Subject to caving
All features favorable	Rippable bedrock at a depth of 1 to 1.5 feet
Forms large frozen clods; poor trafficability; seasonal high water table	High corrosion potential; seasonal high water table
All features favorable	Subject to caving

*An asterisk in the first column indicates that at least one mapping unit of that series is made up of two or more kinds of soil.