INTERPRETED GEOLOGICAL CHARACTERISTICS CHART

LANDFORM MAP SYMBOL	LANDFORM NAME	TOPOGRAPHY AND AREAL DISTRIBUTION	INTERPRETED ENGINEERING SOIL TYPES	SLOPE CLASS	DRAINAGE AND PERM-EABILITY	EROSION POTENTIAL	GROUND-WATER TABLE	PERMAFROST DISTRIBUTION	FROST HEAVE POTENTIAL	THAW SETTLEMENT POTENTIAL	LIQUE-FACTION POTENTIAL	BEARING STRENGTH	SLOPE STABILITY	SAND & GRAVEL MATERIAL SOURCE POTENTIAL
Bx *Bx-w*	all igneous, metamorphic, and sedimentary bedrock lithologies	mountainous alpine areas, ridge tops and slopes, and bluffs along stream and river cuts	not applicable	moderate to steep	not applicable	low	shallow to deep	not applicable	low	none to low	none to low	high to very high	moderate to high	none to poor
Fd *Ff*	delta deposits alluvial fan deposits	where streams and rivers enter lakes and bays fan-shaped cones at the base of slopes where tributary streams enter a valley	GW and SW	gentle to moderate	good to high	low to moderate	shallow (Fd) to intermediate (Ff)	unfrozen (Fd) discontinuous/ continuous (Ff)	low to moderate	low	high (Fd) low (Ff)	low (Fd) high (Ff)	low (Fd) high (Ff)	fair to good (fd) excellent (Ff)
Fp	flood-plain deposits	stream and river valley bottoms and areas adjacent to channels	GW, GP, SW, SP, SM, ML	flat to gentle	poor to good	high	shallow	discontinuous to continuous	low in sand and gravel high in silt	usually low, but can be high	moderate to high	usually high, low in silts	high	good to excellent
Fpb *Fpb-c*	braided flood-plain deposits braided flood-plain cover deposits	stream and river valley bottoms, and areas adjacent to braided channels	GW, GP, SW, SP, SM, ML	flat to gentle	poor to good	high	shallow	discontinuous to continuous	low in sand and gravel high in silt	usually low, but can be high	moderate to high	usually high, low in silts	high	good to excellent
Fpm *Fpm-c*	meander flood-plain deposits meander flood-plain cover deposits	stream and river valley bottoms, and areas adjacent to meandering channels	GW, GP, SW, SP, SM, ML	flat to gentle	poor to good	moderate to high	shallow	discontinuous to continuous	low in sand and gravel high in silt	usually low, but can be high	moderate to high	usually high, low in silts	high	good to excellent
Fpa *Ft* *Fto*	abandoned flood-plain deposits terrace deposits old terrace deposits	flat, bench-like areas in stream and river valley bottoms, and flat areas adjacent to channels	GW, GP, SW, SP, SM, ML	flat to gentle	good to high	low to moderate	intermediate to shallow	usually continuous	low in sand and gravel high in silt	usually low, but can be high	low to moderate	usually high, low in silts	high	good to excellent
Cbs	basin colluvium and slopewash deposits	at the base and on the flanks of gentle slopes and hillsides, along low gradient piedmont slopes	surface is Pt, upland tundra tussock vegetation underlain by GP ,GM , SP ,ML, and MH	gentle to moderate	poor to moderate	moderate to high	shallow, usually frozen	usually continuous	high	high	moderate to high	low	low to moderate	poor
Cc	coarse colluvium	found on steep upper slopes and on relatively flat upland surfaces	GW, GP, SW, SP, and angular frost-riven rock fragments	flat or steep	moderate to good	low on flat upland surface high on steep slopes	shallow	discontinuous to continuous	low to moderate	low	low	high	low to moderate	poor
Cgs	gelisolifluction deposits	found as lobes, benches, and sheets on moderate to steep slopes	surface is Pt, upland tundra tussock vegetation underlain by GP ,GM , SP ,ML, and MH	moderate to steep	poor	high	shallow	continuous	high	high	high	low	low	poor
Crg *Cl* *Ct*	rock glacier deposits landslide deposits talus deposits	rugged alpine mountainous areas, in cirques and at the base or on the flanks of steep slopes (Crg, Ct) at the base of gentle to steep slopes (Cl)	GP, GM, SP, and poorly sorted, coarse angular bedrock rubble	gentle to steep	good (Ct) poor to moderate (Crg, Cl)	high	intermediate (Ct) shallow, usually frozen (Crg, Cl)	frozen (Crg) unfrozen (Ct) discontinuous to continuous (Cl)	low (Ct, Crg) moderate to high (Cl)	high (Crg, Cl) low (Ct)	high (Cl) low (Ct, Crg)	low	very low	poor
Gmy *Gmo*	younger glacial moraine deposits older glacial moraine deposits	ridges and mounds along the lateral and terminal margins of existing, receded, or disappeared glaciers in rugged alpine mountainous areas	GW, GM, SW, SM, ML, CL	gentle to steep	moderate to good	low to moderate	intermediate to deep	discontinuous to continuous	low to moderate	low	low	moderate to high	moderate to high	poor to fair
Gty *Gto*	younger glacial till deposits older glacial till deposits	discontinuous and veneer on steep slopes, and is fluted, rilled, and gullied with a "plastered on" appearance - thick deposits form ridges, knolls and hummocks in valley bottoms and plains	GW, GM, SW, SM, ML, CL	gentle to steep	moderate to good	low to moderate	intermediate to deep	usually continuous	moderate	low to moderate	low	moderate	moderate	poor
El	loess deposits	mantles most upland and lowland areas	ML	gentle to flat	good	high	shallow, usually frozen	usually continuous	high	high	moderate to high	low (unfrozen) high (frozen)	low	poor
Mp *Mb* *Mbe*	coastal plain deposits beach deposits emerged beach deposits	Norton Sound, Kotzebue Sound, and Bering Sea coastal areas	GW, GM, SW, SM, ML, CL, MH, CH	flat to low	poor to good	high (Mb) low (Mbe, Mp)	shallow (Mb, Mbe) shallow to intermediate (Mp)	unfrozen (Mb) discontinuous to continuous(Mbe, Mp)	low (Mb) moderate (Mbe, Mp)	low to moderate	moderate to high	low (Mb) moderate to high (Mbe, Mp)	high	poor to good
O *Mf*	organic deposits man-made fill deposits	marshes, muskeg, and swampy areas(O) dredge tailings, stream-river valley bottoms, and on coastal plain (Mf)	Pt, Ol, OH (O) not applicable (Mf)	flat to low	poor (O) good (Mf)	low (O) high (Mf)	at surface (O) not applicable (Mf)	usually frozen (O) unfrozen (Mf)	high (O) low (Mf)	high (O) low (Mf)	high (O) not applicable (Mf)	low	not applicable	poor (O) fair to good (Mf)
Ttl *Tbd*	thaw lake and thaw basin deposits beaded drainage deposits	in large valley and basin bottoms and on coastal plains	Pt, Ol	flat	low	moderate	at surface or shallow	continuous	high	high	moderate to high	low (unfrozen) high (frozen)	not applicable	poor
Ppg *Pp*	patterned ground deposits pingo deposits	lowland and upland flat to gentle slopes	Pt, Ol (Ppg) Pt, Ol, GM, GC, (Pp)	flat to gentle	low	moderate	shallow	continuous	high (Ppg) very high (Pp)	high	moderate	low (unfrozen) high (frozen Ppg)	not applicable	poor

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