



in which: a = That portion of the percentage passing No. 200 sieve greater than 35 percent and not exceeding 75 percent, expressed as a positive whole number (0 to 40);  
b = That portion of the percentage passing No. 200 sieve greater than 15 percent and not exceeding 55 percent, expressed as a positive whole number (1 to 40);  
c = That portion of the percentage passing No. 200 sieve greater than 40 and not exceeding 60, expressed as a positive whole number (1 to 20);  
d = That portion of the numerical plasticity index greater than 10 and not exceeding 30, expressed as a positive whole number (1 to 20).

Soil type <sup>a</sup>	Description	Origin	Engineering properties				Suitable compaction equipment
			In place	Stability as a wearing surface <sup>b</sup>	Stability as an embankment material <sup>c</sup>	Stability as a subgrade <sup>d</sup>	
A-M12	Nonplastic to slightly plastic, gravelly and sandy soil.	Fluvial deposits of Pleistocene age.	Excellent	Good if surface is A-1. Excellent to good, depending on binder, if surface is A-2.	Excellent	Excellent	Subber-tired equipment.
A-M14	Nonplastic to slightly plastic, gravelly and silt soil.	Fluvial deposits of Pleistocene age.	Excellent if material left after grading is predominantly A-1. Fair if material left after grading is predominantly A-4.	Good if surface is A-1. Poor if surface is A-2.	Excellent if predominant material is A-1. Fair if predominant material is A-4.	Excellent if predominant material is A-1. Poor if predominant material is A-4.	Subber-tired equipment.
A-M2	Nonplastic to slightly plastic sandy soil.	Fluvial deposits of Pleistocene age.	Good	Excellent to good depending on binder present.	Good	Good	Rubber-tired equipment.
A-M23	Nonplastic, generally poorly graded sandy soil.	Fluvial deposits of Pleistocene age.	Good to Fair	Excellent to good depending on binder present. Fair if surface is A-2.	Good if predominant material is A-2. Fair if predominant material is A-3.	Good if predominant material is A-2. Poor if predominant material is A-3.	Subber-tired equipment for soil which is predominantly A-2.
A-M24	Nonplastic to slightly plastic, sandy and silt soil.	Fluvial deposits of Pleistocene age.	Good if material left after grading is predominantly A-1. Fair if material left after grading is predominantly A-4.	Good if surface is A-1. Fair to poor if surface is A-4.	Good if predominant material is A-1. Fair if predominant material is A-4.	Good if predominant material is A-1. Fair if predominant material is A-4.	Subber-tired equipment.
A-M34	Nonplastic to slightly plastic, sandy and silt soil	Fluvial deposits of Pleistocene age.	Fair	Fair if surface is A-3. Fair to poor if surface is A-4.	Fair. Good if A-3 and A-4 are combined as a well graded mixture.	Good if A-3 and A-4 are combined as a well graded mixture. Poor if predominant material is A-4.	Vibratory equipment for soil which is predominantly A-3. Rubber-tired equipment for soil which is predominantly A-4.
M3	Nonplastic to slightly plastic sandy soil.	Marine deposits of Pleistocene age.	Good	Excellent to good depending on binder present.	Good	Good	Rubber-tired equipment.
M23	Nonplastic, generally poorly graded sandy soil.	Marine deposits of Pleistocene age.	Good to fair	Excellent to good depending on binder present. Fair if surface is A-2. Poor if surface is A-3.	Good if predominant material is A-2. Fair if predominant material is A-3.	Good if predominant material is A-2. Poor if predominant material is A-3.	Subber-tired equipment for soil which is predominantly A-2. Vibratory equipment for soil which is predominantly A-3.
M3	Nonplastic, poorly graded sandy soil.	Marine deposits of Pleistocene age.	Fair	Fair	Fair	Fair	Vibratory equipment.
M311	Nonplastic gravelly and poorly graded sandy soil.	Marine beach deposits.	Fair	Fair	Fair	Fair	Vibratory equipment.
M33	Nonplastic, poorly graded sandy soil.	Marine beach deposits.	Fair	Fair	Fair	Fair	Vibratory equipment.
AR	Alluvial gravel, sand, silt and clay.	Alluvium of Recent age.	Variable	Variable	Variable	Variable	Variable.
F	Fill, in general, nonplastic to slightly plastic, sandy soil.	Undetermined	Variable	Variable	Variable	Variable	Variable.
M7M	Soil rich in organic material and subject to immediate by high water.	Tidal marine deposits.	Variable	Variable	Variable	Variable	Variable.
U	Urban areas where soil has been altered extensively by man.	Undetermined	Variable	Variable	Variable	Variable	Variable.
Z	Soil rich in organic material and frequently poorly drained. May be underlain at shallow depths by gravel, sand or silt.	Swamp deposits of Recent age.	Variable	Variable	Variable	Variable	Variable.

<sup>1</sup>Two different soil types may be combined into a single map symbol (AM2/24), but the engineering characteristics of the individual soil types are described separately.