

# LEGEND AND CLASSIFICATION OF SOILS

**203-1**

January 1999

Ref. Section

**203**

SYMBOL	LEGEND DESCRIPTION	GROUP DESIGNATION		PASS. #10 %	PASS. #40 %	PASS. #200 %	LIQUID LIMIT (LL)	PLASTICITY INDEX (PI)	GROUP INDEX MAX.	REMARKS
		H.R.B.	DHIO							
○○○○○	GRAVEL AND/OR STONE FRAGMENTS	A-1-q		50 MAX.	30 MAX.	15 MAX.		6 MAX.	0	
○○○○○	GRAVEL AND/OR STONE FRAGMENTS WITH SAND	A-1-b			50 MAX.	25 MAX.		6 MAX.	0	
●●●●●	FINE SAND	A-3			51 MIN.	10 MAX.	NON-PLASTIC		0	
●●●●●	COARSE AND FINE SAND	A-3g				35 MAX.	40 MAX.	6 MAX.	0	MIN. OF 50% COMBINED COARSE AND FINE SAND SIZES
●●●●●	GRAVEL AND/OR STONE FRAGMENTS WITH SAND & SILT	A-2-4				35 MAX.	40 MAX.	10 MAX.	0	
●●●●●	GRAVEL AND/OR STONE FRAGMENTS WITH SAND, SILT, & CLAY	A-2-6				35 MAX.	40 MAX.	11 MIN.	4	
●●●●●	SANDY SILT	A-4q				36 MIN.	40 MAX.	10 MAX.	B	LESS THAN 50% SILT SIZES
+++++	SILT	A-4b				50 MIN.	40 MAX.	10 MAX.	B	50% OR MORE SILT SIZES
//////	ELASTIC SILT & CLAY WITH OR WITHOUT ORGANIC MATERIAL	A-5				36 MIN.	41 MIN.	10 MAX.	12	
//////	SILT AND CLAY	A-6g				36 MIN.	40 MAX.	11 - 15	10	
//////	SILTY CLAY	A-6b				36 MIN.	40 MAX.	16 MIN.	15	
//////	ELASTIC CLAY	A-7-5				36 MIN.	41 MIN.	≤ LL-30	20	
//////	CLAY	A-7-6				36 MIN.	41 MIN.	> LL-30	20	
//////	TOP SOIL									
XXXXX	BERM MATERIAL									
XXXXX	CINDERS WITH OR WITHOUT SOIL									
XXXXX	ROCK-SOIL MIXTURE									60-100% LARGER THAN 3 INS
XXXXX	PEAT OR ORGANIC MATERIAL									
C	COAL OR COAL BLOSSOM									
XXXXX	LIMESTONE									
XXXXX	SANDSTONE									
XXXXX	SHALE									

CLASSIFIED BY VISUAL INSPECTION

CLASSIFICATION PROCEDURE

WITH THE REQUIRED TEST DATA, PROCEED FROM TOP TO BOTTOM ON ABOVE CHART AND CORRECT GROUP WILL BE FOUND BY PROCESS OF ELIMINATION. THE FIRST GROUP FROM THE TOP INTO WHICH TEST DATA FITS IS THE CORRECT CLASSIFICATION.

ABBREVIATIONS & SYMBOLS

H.R.B. - HIGHWAY RESEARCH BOARD

≤ - LESS THAN OR EQUAL TO

> - GREATER THAN