METHODS OF SAMPLING AND TESTING
MT 224-04
TERMS RELATING TO SUBGRADE, SOIL AGGREGATE
AND FILL MATERIALS

1  Scope:

1.1  These definitions cover terms used in descriptions and specifications of materials occurring
as or employed in the construction of sub-grades, soil-aggregate base and surface courses
and fills.

2  Definitions of Rock and Soil:

2.1  Rock - Natural solid mineral matter occurring in large masses of fragments.

2.2  Soil - Sediment or other unconsolidated accumulation of solid particles produced by the
physical and chemical disintegration of rocks and which may or may not contain organic
matter.

2.3  Broken Rock - Angular fragments of rock which will be retained on a 3-inch sieve.

2.4  Boulders - Rounded fragments of rock, which will be retained on a 3-inch sieve.

3  Definitions of Soil- Aggregate and its Components:

3.1  Soil – Aggregate (Dense- Grade Aggregate) - Natural or prepared mixtures consisting
predominately of stone, gravel, or sand and containing silt-clay (minus No. 200 material).

3.2  Stone - Crushed or naturally angular particles or rock which will pass a 3- inch sieve and be
retained on a No. 10 sieve.

3.2.1  Coarse Stone - Stone passing the 3-inch sieve and retaining on the 1-inch sieve.

3.2.2  Medium Stone - Stone passing the 1-inch sieve and retaining on the 3/8-inch sieve.

3.2.3  Fine Stone - Stone passing the 3/8-inch sieve and retaining on the No. 10 sieve.

3.3  Gravel - Rounded particles of rock, which will pass a 3-inch sieve and be retained on a No.
10 sieve.

3.3.1  Coarse Gravel - Gravel passing the 3-inch sieve and retaining on the 1 –inch sieve.

3.3.2  Medium Gravel - Gravel passing the 1-inch sieve and retaining on the 3/8-inch sieve.

3.3.3  Fine Gravel - Gravel passing the 3/8-inch sieve and retained on the No. 10 sieve.

3.4  Sand - Granular material resulting from the disintegration, grinding, or crushing of rock and
which will pass the No. 10 sieve and be retained on the 200 sieve.

3.4.1  Coarse Sand - Sand passing the No. 10 sieve and retaining on the No. 40 sieve.

3.4.2  Fine Sand - Sand passing the No. 40 sieve and retaining on the No. 200 sieve.
3 Definitions of Soil- Aggregate and its Components: (continued)

3.5 Silt-Clay (minus No. 200) - Fine soil particles which will pass the No. 200 sieve.

3.5.1 Silt Fraction - Material passing the No. 200 sieve and larger than .005 mm.

3.5.2 Clay Fraction - Materials smaller than .005 mm.

3.6 Colloids - Materials smaller than .001 mm.

4 Definitions of Pavement Substructure Components:

4.1 Embankment Foundation - The material on which an embankment is placed.

4.2 Embankment (Fill) - A raised structure of soil, soil-aggregate, or rock.

4.3 Sub-grade - The prepared and compacted soil immediately below the pavement system and extending to such depth as will affect the structural system.

4.4 Sub-base - The layer used in pavement system between the sub-grade and the base course.

4.5 Base - The layer used in a pavement system to reinforce and protect the sub-grade or sub-base.