

and also be given more amenities for living decently.

It seems to me that we are providing two opportunities. First, an outlet for building in suburban areas on a neighborhood unit basis; and second, an opportunity for in-town areas to be rehabilitated and redeveloped on a

sounder financial basis, which has not been possible up to the present.

The question is how to build future expressways in urban areas so as to generate their maximum usefulness in promoting better community living, for highways are not an end in themselves but only a means to an end—namely civic improvement and betterment

DEPARTMENT OF SOILS INVESTIGATIONS

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REPORT OF COMMITTEE ON CLASSIFICATION OF MATERIALS FOR SUBGRADES AND GRANULAR TYPE ROADS

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SYNOPSIS

This report covers three methods for the classification of subgrade materials for highways and airfields. One prepared by a group representing highway organizations; one prepared by representatives of the Corps of Engineers, U. S. Army; and the third prepared by representatives of the Civil Aeronautics Administration.

The classification presented by the highway group is based on the sieve analysis, the liquid limit and the plasticity index. The seven main groups presented are modifications of the A-1 to A-7 groups in the Public Roads Administration classification, which eliminate overlapping. In addition, suggestions are made for the subdivision of several groups and a "group index" is introduced for the relative evaluation of soils within a given group. Under average conditions of good drainage and thorough compaction the value of a material as subgrade may be assumed as an inverse ratio to its group index.

In the "Soil Classification for Airfields," utilized by the Corps of Engineers, U. S. Army, the materials are divided into two principal types, fine and coarse-grained soils. These types are subdivided, the coarse-grained primarily on the basis of grading, and the fine-grained on the basis of compressibility and composition. Typical descriptive names are assigned to each group. General characteristics which are of importance in relation to the behavior of soils as subgrade or base course materials are presented in classification charts.

The classification presented by the Civil Aeronautics Administration is based on the mechanical analysis, plasticity characteristics, expansive qualities and California bearing ratio of the soils. Ten groups have been established, four of which include the granular soils, while the remaining six are nongranular soils. Since soil characteristics and supporting power can be so greatly affected by excessive moisture and frost, identifying F and R symbols are used to reflect the soil properties under such conditions and are helpful in determining from design curves the thickness required for flexible (F) and rigid (R) pavements.