The data given on the angles of friction of soil on concrete as a function of the type of soil, its water content, and consistency (for clay soils) can be used for calculating shear along the base of foundations.

It should also be noted that for calculating the bearing capacity of beds it is necessary to know the values of the angles of internal friction of soil, which have a considerable effect on bearing capacity. In particular, shear and triaxial tests of medium-grained sand, which was used in our experiments, made it possible to establish that angle φ depends substantially on the void ratio e: A change of e from 0.5 to 0.66 changes φ from 26 to 40°. Furthermore, the nonlinearity of the relation between the normal and shear stresses in shear was established.

CONCLUSIONS

1. Experiments showed that the total influence of the coefficients taking into account the inclination of the load in conformity with SNiP II-15-74 substantially underestimates the bearing capacity of beds. Correction of the values of these coefficients is possible, provided the accumulation of considerable experimental data.

2. The bed bearing capacity does not depend on the sign of eccentricity in the plane of one of the axes of the foundation.

3. For large inclinations of the load it is expedient to change to foundations with an inclined base, which permits increasing the bed bearing capacity as much as 40%.

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ERRATA

In V. V. Luzhnikov and V. F. Bystrykh's article "Pressure meter for testing weak soils" (No. 5, 1979) a misprint was allowed through the fault of the authors: In the caption to Fig. 3, it should read

$$\lambda_{a_1 p} = \operatorname{tg}(45° \mp \varphi/2)$$