

عنوان مقاله:

Bearing Capacity Zoning of Shallow Foundations in District ۱ in Shiraz Municipality Using Geographic Information System (GIS)

محل انتشار:

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خلاصه مقاله:

This research presents the geotechnical zoning map of district ۱ in Shiraz municipality with focus on allowable bearing capacity of foundation based on data from ۱۶۰ boreholes. For this purpose, the mechanical properties are determined according to the results of direct shear, uniaxial, and SPT tests and then safe bearing capacity for strip foundations with widths of ۱, ۱.۵, ۲, and ۲.۵ m, and for Mat foundations with widths of ۸, ۱۲, ۱۶, ۲۰ and ۲۴ m have been calculated. Finally, using ArcGIS software, the bearing capacity for the various widths was zoned and the zoning map of the allowable bearing capacity is provided by considering the allowable settlement. The zoning map shows that in the eastern part of the Shiraz municipality, the bearing capacity is greater than the other parts. The western and southern parts have a lower capacity than the northern parts.

کلمات کلیدی:

Geotechnical zoning, bearing capacity, Geographic Information System, districts ۱ in Shiraz municipality

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