Anchor Piled Footings – An Alternative Foundation Technique in Expansive Soils

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***Abstract*—A search for alternative foundation systems in expansive soils has been continued since their problems were recognized all over the world. Despite the availability of a good number of remedial techniques, their adoptability and effectiveness under varied geographical and climatic conditions have remained questionable. The present paper discusses the field investigations on the recently promulgated technique of anchor piled footings in expansive soils. These studies have revealed that the granular anchor piles exhibit promising pullout capacity even under fully wet condition compared to conventional concrete piles. The heave of model footings provided with granular anchor piles decreased by about 73-93% while for footings provided with conventional concrete piles the heave value is decreased by 40 - 75%. It is felt from this study that the above technique of anchor piled footings can be an effective alternative to conventional pile foundations in expansive soils.**

***Index Terms*— Expansive soil, Granular anchor piles, Concrete anchor piles, Heave measurements, Pullout capacity.**

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