

## Documents

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### **Effect of Overconsolidation on the Angle of Shearing Resistance Under Different Laboratory Testing**

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#### **Abstract**

In this technical note, an analytical investigation was carried out in order to develop simple methods to predict the plane-strain angle of shearing resistance ( $\phi_{ps}$ ) for overconsolidated sands using direct shear or triaxial compression test results. The proposed methods were found to be suitable for lightly overconsolidated sands (i.e.,  $OCR \leq 4$ ), which represent practical range of overconsolidated ratio for granular material placed behind retaining walls. Furthermore, the predicted values of  $\phi_{ps}$ , compared to the corresponding values of direct shear and triaxial tests, are within ranges of deviation similar to those noted for normally consolidated sands. © 2019, Indian Geotechnical Society.

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