



# KASETSART UNIVERSITY

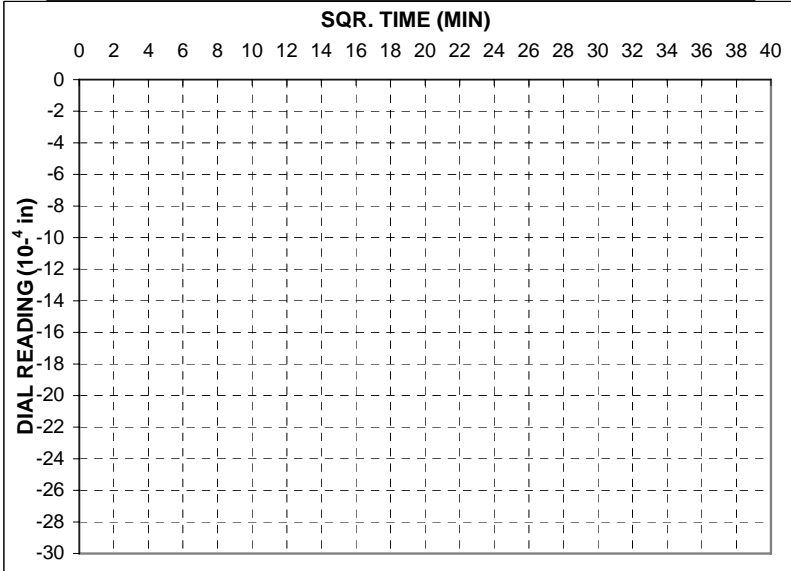
DEPARTMENT OF CIVIL ENGINEERING, GEOTECHNICAL ENGINEERING LABORATORY  
**CONSOLIDATION TEST (ASTM D-2435)**

PROJECT \_\_\_\_\_ OWNER \_\_\_\_\_ JOB NO. \_\_\_\_\_  
 TEST BY \_\_\_\_\_ DATE \_\_\_\_\_ CHECK BY \_\_\_\_\_

**PRESSURE INCREMENT**

APPLIED PRESSURE \_\_\_\_\_ ksc. TO \_\_\_\_\_ ksc.  
 SCALE LOAD \_\_\_\_\_ Kg. TO \_\_\_\_\_ Kg.

DATE	TIME	ELAPSED TIME	SQR. TIME	DIAL READING (mm.) 0.0001"



t<sub>90</sub> \_\_\_\_\_ min

Approved by: \_\_\_\_\_

- Remarks:
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WATER CONTENT		BEFORE		AFTER	
Specimen Location		A	B		
Container No.					
Weight of Wet Soil + Container	g.				
Weight of Dry Soil + Container	g.				
Weight of Water	g.				
Weight of Container	g.				
Weight of Dry Soil	g.				
Water Content, w	%				
Soil sample _____ Specific Gravity, G <sub>s</sub> _____ Location _____ Boring No. _____ Depth _____ m Test By _____					
<b>APPARATUS MEASUREMENTS</b>					
Lever Arm Ratio					
Ring Diameter	cm				
Ring Height, 2H	cm				
Ring Area, A	cm <sup>2</sup>				
Ring Volume, V	cm <sup>3</sup>				
Solid Height, H <sub>s</sub> = W <sub>s</sub> / (G <sub>s</sub> × A <sub>w</sub> ) _____ cm Void Height, H <sub>v</sub> = 2H - H <sub>s</sub> _____ cm					

SOIL SAMPLE						Initial	Final
Sample Ring No.							
Weight of Soil + Ring	g.						
Weight of Ring	g.						
Weight of Soil, W <sub>t</sub>	g.						
Volume of Sample, V	cm <sup>3</sup>						
Total Unit Weight, γ = W <sub>t</sub> / V	g/cm <sup>3</sup>						
Dry Unit Weight, γ <sub>d</sub> = γ / (1 + w/100)	g/cm <sup>3</sup>						
Void Ratio, e							
Degree of Saturation, S	%						
Void Ratio, e = (2H - H <sub>s</sub> ) / H <sub>s</sub> _____ Saturation, S = (w/G <sub>s</sub> ) / e _____ %							
Applied Pressure	Kg/cm <sup>2</sup>						
Scaled Load	Kg.						
Final Dial	in × 10 <sup>-4</sup>						
Accumulative Dial Change	cm						
Sample Height	2H, cm						
Void Height	2H - H <sub>s</sub> , cm						
Void Ratio	e						
Average Sample Height	2H <sub>av</sub> , cm						
Fitting Time, sec	t <sub>90</sub>						
C <sub>v</sub>	cm <sup>2</sup> / sec × 10 <sup>-4</sup>						
C <sub>v</sub> = 0.848 H <sub>av</sub> <sup>2</sup> / t <sub>90</sub>							

Approved by: \_\_\_\_\_

Remarks: \_\_\_\_\_

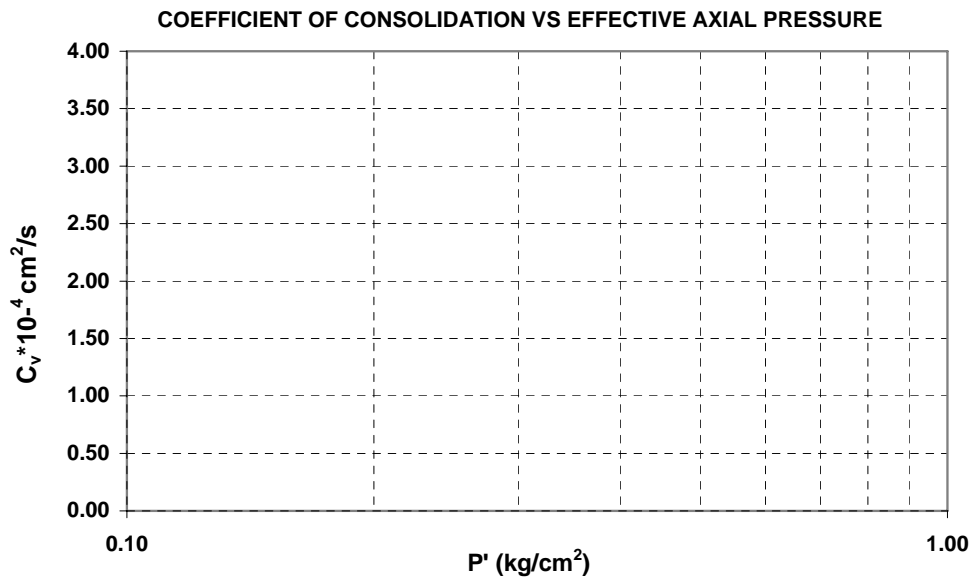
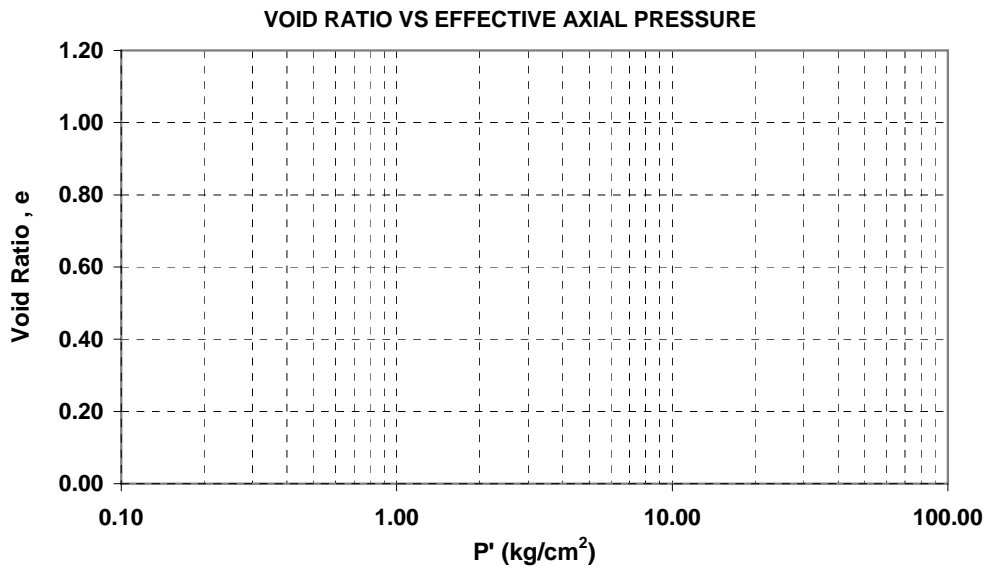
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EFFECTIVE AXIAL PRESSURE :



Compressibility Index,  $C_c$  = \_\_\_\_\_ Maximum Past Pressure \_\_\_\_\_ ksc.

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