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U.S. Army Corps of Engineers (USACE)

DIRECT SHEAR TEST - SPECIMEN DATA

For use of this form, see EM 1110-2-1906; the Proponent agency is CECW-EC.

Purpose: The purpose of this form is to document direct shear tests using specimen data.

1. Project:	2. Date:
3. Boring No.:	4. Sample No.:
5. Shear Box No.:	6. Normal Stress: T/sq. ft.
7. Specimen No.:	8. Classification:

9. Tare No.			(1) Before Test				(2) After Test	
			(a) Specimen	(b) Trimmings			(a) Specimen	
			Cutter and Glass Plates					
Weight in Grams	9.1. Tare Plus Wet Soil							
	9.2. Tare Plus Dry Soil							
	a. Water	W_w		W_{wo}		W_{wf}		
	9.3. Tare							
	a. Wet Soil	W						
	b. Dry Soil	W_s						
9.4. Water Content		W		W_o		W_f		

10. Initial Condition of Specimen					
a. Area in sq. cm.	A		e. Volume of Solids in cc.	V_s	
b. Height in cm.	H_o		f. Void Ratio = $(V_o - V_s) \div V_s$	e_o	
c. Volume in cc = A x H_o	V_o		g. Saturation, %	S_o	
d. Specific Gravity of Solids	G_s		h. Dry Density in lb. / cu. ft.	γ_d	

11. Condition of Specimen After Consolidation					
a. Change in Height During Consolidation, in.	ΔH_o		c. Volume in cc = A x H_c	V_c	
b. Height in cm = H_o - 2.54 x ΔH_o	H_c		d. Void Ratio = $(V_c - V_s) \div V_s$	e_f	

12. Condition of Specimen After Test					
a. Change in Height During Shear Test, in.	ΔH_o		d. Volume in cc = A x H_f	V_f	
b. Height in cm = H_c - 2.54xΔH	H_f		e. Void Ratio = $(V_f - V_s) \div V_s$	e_f	
c. Saturation, %	S_f				

$W_S = W / (1 + W_o/100)$ $\quad V_S = W_s / G_s$ $\quad S_o = (W_o / 100 \times W_s / \gamma_w) / (V_o - V_s) \times 100$

$S_f = (W_f / 100 \times W_s / \gamma_w) / (V_f - V_s) \times 100$ $\quad \gamma_d = (W_s / V_o) \times 62.4$

Remarks

Technician (*Last, First Mi*)	b. Date	c. Technician's Signature
Computed By (*Last, First Mi*)	b. Date	c. Computed By Signature
Checked By (*Last, First Mi*)	b. Date	c. Checked By Signature