DENSITY TEST WORKSHEET - SAND CONE METHOD

North Dakota Department of Transportation, Materials and Research Division

SFN59725 (Rev. 03-2015)

Project Number	PCN	Date	Tested By

TEST IDENTIFICATION		**Test Number**					
		Time					
		Station					
		Offset from centerline					
		Lane					
		Depth below finished grade ft.					

IN-PLACE DRY DENSITY DETERMINATION	a	Unit Weight of Sand (pcf) SFN 59724					
	b	Wt. material removed from test hole (lbs.)					
	c	Initial sand weight (lbs.)					
	d	Final sand weight (lbs.)					
	e	Wt. sand in funnel and hole = c - d					
	f	Cone calibration factor (lbs.) SFN 59724					
	g	Wt. sand in hole = e - f (lbs.)					
	h	Volume of Test hole = g/a (cu. ft.)					
	i	Wet Density - b/h/(lbs./cu. ft.)					
	j	Dry Density = i/(100 +p) x 100 (lbs./cu. ft.)					
		Moisture Determination					
	k	Wet weight + container					
	l	Dry weight + container					
	m	Moisture loss= k - l					
	n	Tare weight of container					
	o	Dry weight of soil = l - n					
	p	Moisture Percentage = (m/o) x 100 (%)					

MOISTURE-DENSITY RELATIONSHIP TEST		ND Procedure					
		Test Number (Proctor Test)					
		Station					
		Offset from centerline					
		Depth below finished grade					
	q	Maximum Dry Density					
		Optimum Moisture					

REQUIRED MOIS-DENS.		Required % maximum Dry Density					
		% Maximum Dry Density = (j/q) x 100					
		Required Moisture					
		Moisture = p					

Remarks