

**Washington State University**  
**Department of Civil and Environmental Engineering**  
**Geotechnical Engineering Laboratory**

**Instructor:** Dr. A. Rodríguez-Marek  
**Section Number:** *Section Number*

**Title:** *Title of Experiment*

**Reporter Name:** *Name of student writing the report*

**Group Members:** *First Group Member*  
*Second Group Member*  
*Third Group Member*

**Date Experiment Performed:** *Date Performed*

**Date Report Submitted:** *Date Submitted*

### **Introduction and Objective**

Describe the purpose of the test and its relevance to Geotechnical Engineering. Briefly discuss this test in the context of other relevant experimental procedures (e.g. discuss alternatives to the compaction test performed in the lab, etc.). Include any information that could be helpful for the reader to understand the experiment. *Make sure that this section includes at least one statement about the specific goal or final output of the experiment.*

### **Sample Description**

Provide a brief description of the soil tested in the lab. If the sample was obtained in the field, a brief visual description is acceptable. Indicate as well the location where the soil was obtained. If the soil sample was constructed in the lab, include any information on its constituents.

### **Test Procedure**

Give a brief description of the experiment here. This section may be as brief as stating the ASTM procedure (e.g. ASTM D-854), or very detailed if significant departures from the standard procedure are made. Include appropriate sketches of experimental set-ups when necessary. *The procedure section should allow a replication of the test by any technically competent reader.*

### **Test Results**

Numerical results should be presented in this section. Only present graphs and tables that are needed to compute the tested parameters. Additional tables, graphs, and raw data should be placed in the appendix. *Do not include a discussion of the test results in this section.*

### **Interpretation of Results**

Discuss any problems, mistakes, discrepancies, etc. with the test. Include any factors that you believe may have affected the results. Comment on the reliability of the results and whether you feel the results are reasonable. This section engages the responsibility of the author, who has to evaluate the validity of the test data. Keep in mind the question: Are my results in agreement with existing theories, or are they contradicting them?

### **Appendix**

Include raw data collected as well as the calculations required in order to obtain the results. Calculations need to be complete and easy to follow. This means that all variables need to be identified and appropriate units must be used. You may also include here additional graphs and tables that complement the Test Results section.

**Additional Notes:**

Lab reports should be as brief as possible but without leaving out any pertinent information. Typically one or two pages of written material is enough. Since this class has an “M” designation, composition, neatness, and clarity will count for a significant portion of the lab grade. Therefore, spelling and grammar are important. Tables should have titles and column headings. Graphs should have both axes labeled with appropriate units shown and should be presented in a professional format.

Beware of using personal pronouns when writing a professional laboratory report. Instead of “we tested the sample” use “the sample was tested.” An important objective of this laboratory class is to teach technical and professional writing. The instructor’s role is to provide suggestions through grading, and the student’s role is to make an effort towards improving his written communication.

**Table Format: Example**

Observe that the caption goes on top of the table. Note table is numbered and caption on the left side. The table is centered and all rows and columns are clearly labeled.

Table 1. Parameters for Equation 1.

	T = 0.1 s			T = 0.5 s		
	a	b	$\sigma$	a	b	$\sigma$
All	1.93	-0.11	0.24	2.82	-0.15	0.37
FD	1.85	-0.11	0.23	3.44	-0.26	0.35
Non-FD	2.56	-0.19	0.22	2.87	-0.13	0.32

**Figure Format: Example**

Observe that the caption goes at the bottom of the figure. The axes of the figure are clearly labeled and the caption describes each of the lines.

