LESSON 3.1: INTRODUCTION TO ELEVATIONS AND CONTOURS

Introduction

Measuring geographic features in the field is the fun part about being a Geotech but be careful, misrepresentation or improper labeling of features on a map can lead to unnecessary design or development plans that later will need to be corrected. The first question out of everyone's mouth will be, "who drafted this map?" and "who do I back charge?" -- Do yourself a favor and always have your maps reviewed by a second pair of eyes.

In this lesson you will be introduced to elevations and contours and how to view and identify the "lay of the land", when reading a map. After working through the lessons you will be required to identify and hand sketch different contour features and calculate the elevations and proper placement of contours on a map.

- Watch the video lessons below.
- Take the Review Quiz 3.1 after watching the videos.

The following videos will introduce you to topographic map reading and how to draft a map using contour lines to help tell the story. Keep in mind as you watch the videos, when you draft a map from your field measurements to always put yourself in the map readers chair. The challenge for every map maker is how to non-verbally communicate information on a map from a series of points connected by lines and polygons so the lay of the land is clear.

Videos:

- Rules of Contour Lines
- Drawing Contour Lines

Review Quiz

Review Quiz 3.1

LESSON 3.2: INTRODUCTION AND SETUP OF THE LEVEL AND FIELD NOTES

Introduction

The Level is one of the easiest of the measuring devices you'll get to use as a Geospatial tech. But don't let the easiness of this device fool you, the accuracy of a level can be read up to one thousands of a foot and is a much more accurate way to measure the elevation of a point in the field than those fancy GPS receivers.

In this lesson you will be introduced to how to setup and use the Level and Level rod, standard Field book note setup for proper reading and recordation of vertical field measurements and Calculation of elevation values at each point measured in the field. After working through the lessons you will be required to know the proper care, setup, and use of the Level for taking elevation measurements. In addition, our field lab will require you to submit to your instructor a properly setup Field book containing your field measurements and elevation calculations.

- Read the attached PDF on Benchmarks and Leveling
- Watch the video lessons below.
- Take the Review Quiz 3.2 after watching the videos and reading the attached PDF.

Read through the attached pdf on Benchmarks & Levels and watch the following videos on how to properly setup the automatic level, how to read the level rod, how to take notes in your field book, and how to calculate the elevations of your points measured in the field.

Videos:

- INTRODUCTION TO LEVELING
- ENGINEERING RULE
- LEVELING EXAMPLE

Review Quiz:

- Review Quiz 3.2

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