

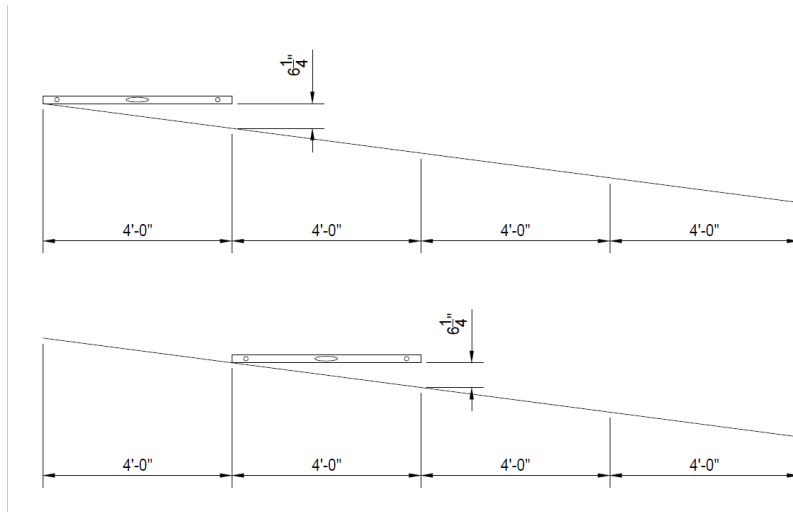
How To Field Measure Elevations

Although not as accurate as using a site level, laser level, or transit, elevations and slopes can also be attained using a box or beam level.

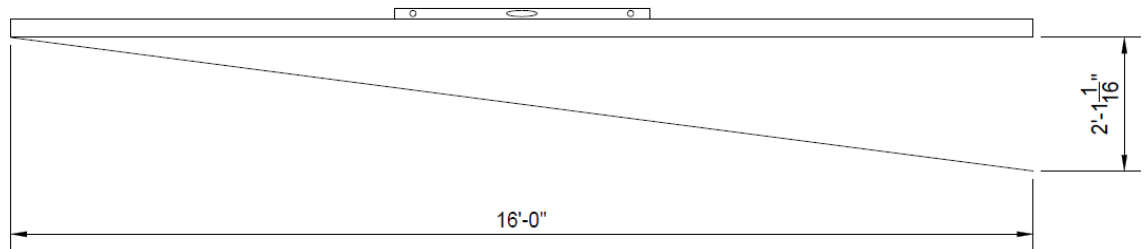
To get field measurements for a slope using a level you are simply going to find the rise and run of the slope. Rise measures how many units you move down or up over a given distance. Run means how many units you run out from your given point. To adequately measure run, you must follow a level line. In other words, you do not measure out following the slope to get your run.

In the example below, we will find the rise and run over the slope.

1. Using a 48" level, we know that the run is 4'. Just to be sure, measure your 4' level to be sure it is exactly 4'. If you were measuring a considerable distance, this small +/- delta could make a big impact.
2. Once you assure that the level is true, level, you measure the amount of drop. This provides you with the rise. In this case $6\frac{1}{4}"$.



3. After the first dimension, you simply move down the slope taking subsequent measurements.
4. If the slope is consistent, another option is to use a 2 x 4 or other straight edge. By placing the level on top of the 2 x 4 and measuring the drop.



5. If you are plotting these dimensions on CAD or laying these out on a table, it is a good idea to also get the dimension along the slope over the length of rise and run. You can use this dimension as a check and balance as it should form a triangle with all points meeting together.