

GRADING and WEIGHTING PROCESS

OVERVIEW: At the lowest level, each criterion is either assigned a grade automatically through an automated process or via a direct input where a large number of factors are manually evaluated and a grade is assigned. With the exception of certain aggregate criteria, these grades are either RED, YELLOW, or GREEN. To get to the next higher level, a weighted average of each grade on a level is computed and recoded as a grade. The weighted grade is

$$\text{Weighted_Grade} \equiv \frac{\sum_{\text{criterion}} (\text{Criterion_Grade} * \text{Criterion_Weight})}{\sum_{\text{criterion}} \text{Criterion_Weight}}$$

The numerical value of each Criterion grade is assigned based on the following table:

RED	RED +	YELLOW -	YELLOW	YELLOW +	GREEN -	GREEN
-1.00	-0.67	-0.33	0.00	0.33	0.67	1.00

If a grade has been marked as Not Applicable (No Grade), both the grade and the weight are omitted from the sums. Use of this formula allows the components of a level grade to be expressed as a percentage (0 to 100) or as a relative weight (N times as important). The color grade and the numeric grade (used in computations at the next higher level) of the weighted grade is determined based on the following table:

If Weighted_Grade Is	< -0.835	>= -0.835 < -0.500	>= -0.500 < -0.165	>= -0.165 < +0.165	>= +0.165 < +0.500	>= +0.500 < +0.835	>= +0.835
Then Color Grade Is	RED	RED +	YELLOW -	YELLOW	YELLOW +	GREEN -	GREEN
And Numeric Grade	-1.00	-0.67	-0.33	0.00	0.33	0.67	1.00

Color grades are assigned to elements in Criterion I, II, III, VII, and VIII. Numerical measures of merit are computed for Criterion IV, V, and VI. The analysis results are presented at the highest level (overall roll-up) for BCEG use in determining which of the 3 Tiers is used to characterize the base.