

**NC Department of Insurance  
Office of the State Fire Marshal - Engineering Division  
1202 Mail Service Center, Raleigh, NC 27699-1202  
919-647-0000**

**Retaining Wall Cumulative Vertical Height**

**Code:** 2018 Building Code  
**Section:** 1807.2.5

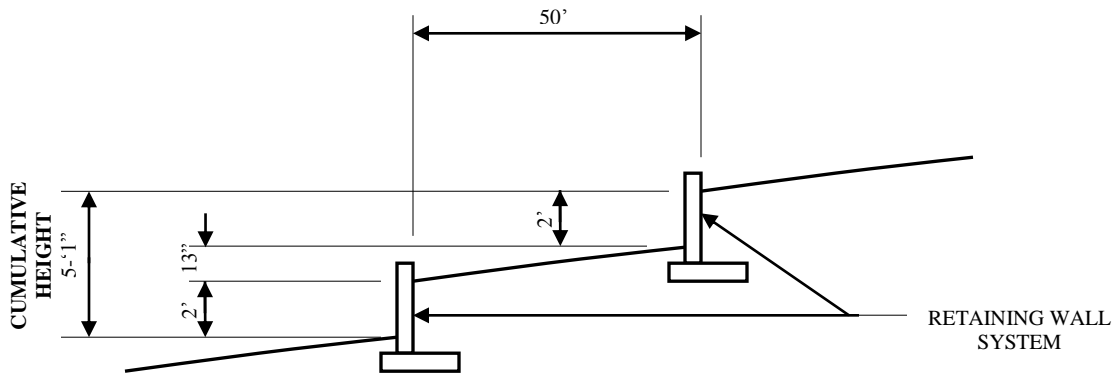
**Date:** September 13, 2018

**Question:**

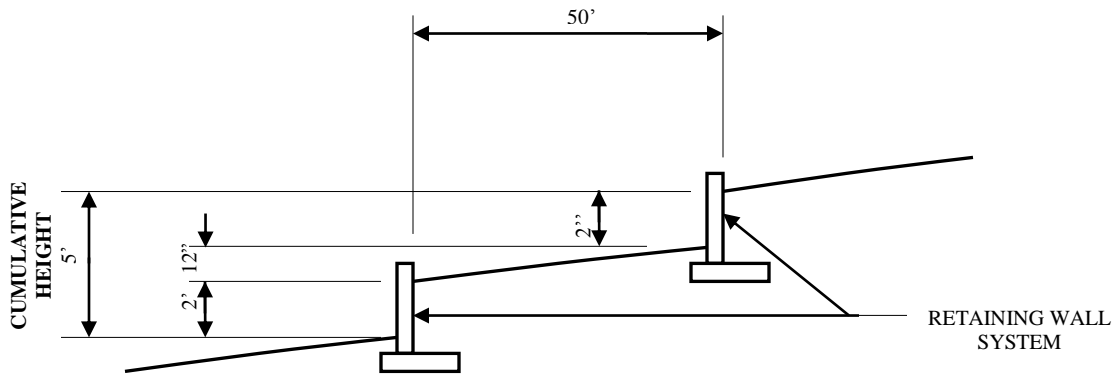
Is Section 1807.5.2 of the code indicating that a retaining wall or series of retaining walls that retain more than 5' in height of earth within a linear 50' distance measured perpendicular to the retaining wall is required to be designed by a NC registered design professional?

**Answer:**

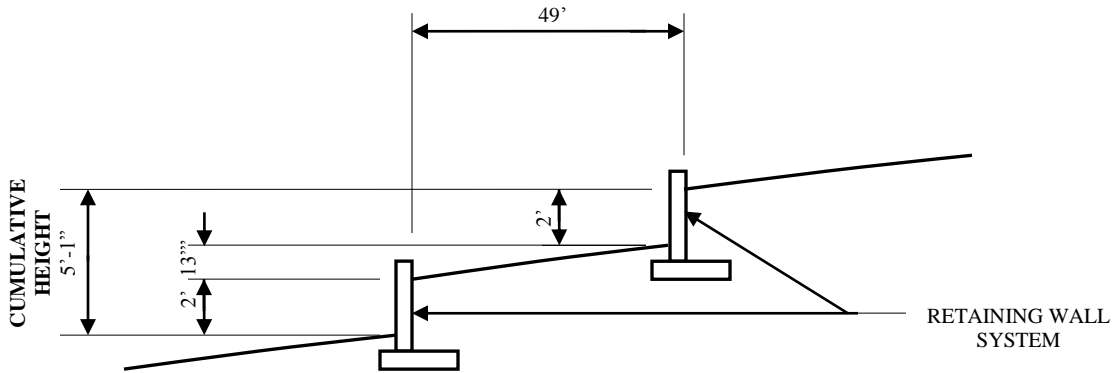
Yes. The following section details will help explain when a design professional is required. Of course, any single retaining wall that retains more than 5' of unbalanced fill is required to be designed by a NC registered design professional. Note that for this code section the vertical height (relief) is the difference in elevation from grade level on the open side of the wall to the grade level on the fill side of the wall.



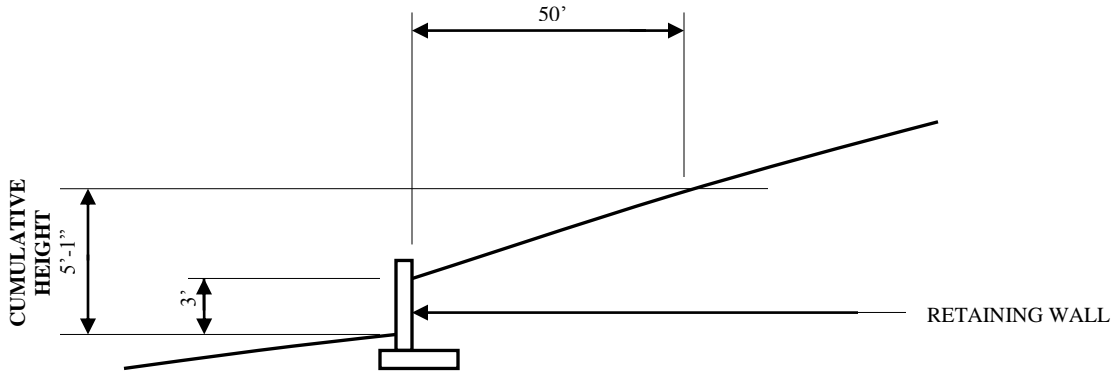
**EXAMPLE - A**  
**DESIGN PROFESSIONAL REQUIRED**



**EXAMPLE - B**  
**DESIGN PROFESSIONAL NOT REQUIRED**



**EXAMPLE - C**  
**DESIGN PROFESSIONAL REQUIRED**



**EXAMPLE - D**  
**DESIGN PROFESSIONAL REQUIRED**

**Keywords:**  
grading, slope