



WHY DO YOU NEED TO BUILD THE BRIDGE SO BIG?

By Chuck Ballard, Road Design Engineer, Town of New Milford, CT

This is a question that we get all the time during public input and construction meetings. Our standard answer is that bridge designs are based on requirements established through permitting, typically standards set by the US Army Corps of Engineers. The Army Corps have set formulas and minimums for bridge width, length, and many other design details.

However, that answer does not really get to the "why" without explaining design factor terms like "freeboard" and "bank width". Freeboard is the distance from top of water level to bottom of bridge. Bank width is from edge of river to edge of river. Bridges must be built wide enough and high enough to handle the increased water levels and flow that come after severe storms. Both freeboard and bank width are explicitly regulated by the US Army Corps of Engineers, and for good reason.

Below are images of the Van Car Road Bridge in New Milford, CT during a significant recent storm event on August 3, 2026 (picture on the left) and the ordinary high water level on August 25, 2026 (picture on the right). As you can see, the bank width has expanded to the maximum design, which then forces water levels to increase in elevation and decrease remaining freeboard. It is estimated that the Van Car Road Bridge peaked at approximately 55% capacity during that localized rainfall event of ~4.5" on August 3, 2026.

