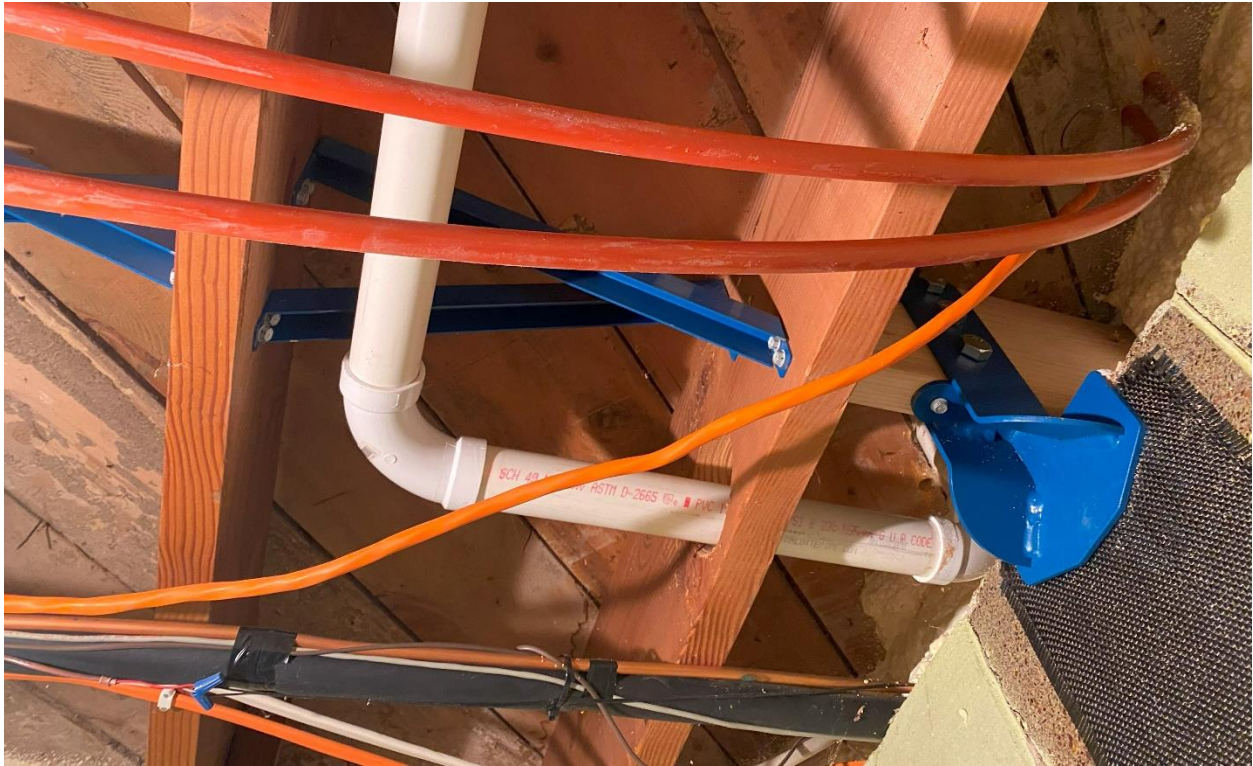




# CASE HISTORY

## Basement Wall Repair with Carbon Fiber Reinforced Polymer Eau Claire, WI

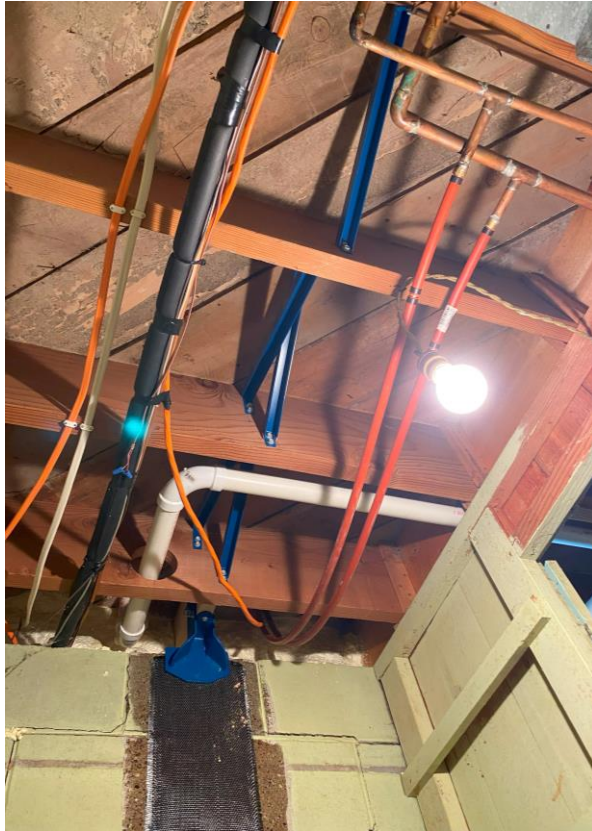


*January 2025*

SafeBasements of Minnesota was contacted with concerns regarding a cracking, bowing basement wall. SafeBasements Carbon Fiber Straps were used to reinforce the basement walls, preventing further displacement. The SafeBasements Carbon Fiber Straps are attached to the basement floor with a slab bracket and to the floor system above with different bracket options.

This project involved some obstructions that would prove to be difficult to work around with a single solution for the top connection. There were areas with mechanical, electrical and plumbing that would potentially have to be moved if a solution could not be found to work along with the existing conditions.





All areas that were being repaired had floor joists parallel to the wall where the top of wall restraint was to be installed. In some areas the traditional angle bracket was attached to lumber attached to the bottom of the joists with blocking or diagonal bracing installed in each joist bay. In other areas this would not be possible without moving pipes or other obstructions.

The single joist bracket was used in areas which would not be possible with the traditional system. All brackets were able to be installed while working around the existing conditions. The single joist bracket used was attached to solid lumber blocking installed between the rim joist and first floor joist. The following joist bays had diagonal bracing installed to distribute the force into the rest of the floor system. The brackets prevent the top of the wall from tipping in, while the carbon fiber strap prevents the wall from bowing further. The solution is guaranteed to prevent further displacement of the wall for the life of the home.

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