



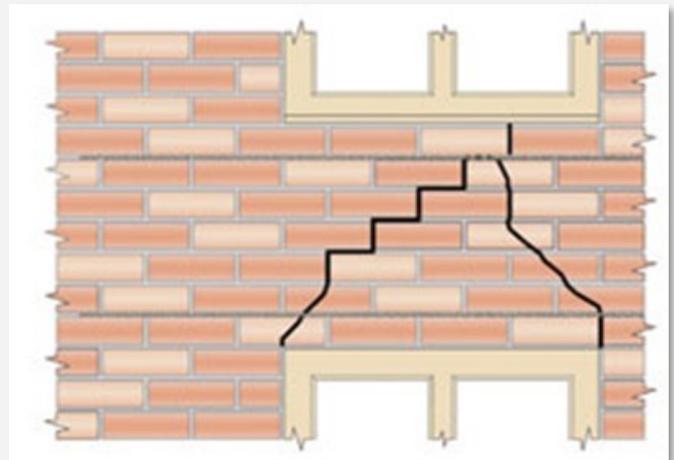
Gary Porter, Engineering & Technical Services for the Masonry Advisory Council is called upon with questions about construction concerns and for masonry advice from a variety of Architects, Engineers, Contractors, Developers and Distributor sources. He is dedicated to ongoing education of masonry and shares helpful tips from his professional experience that may be beneficial to you.

November 2019

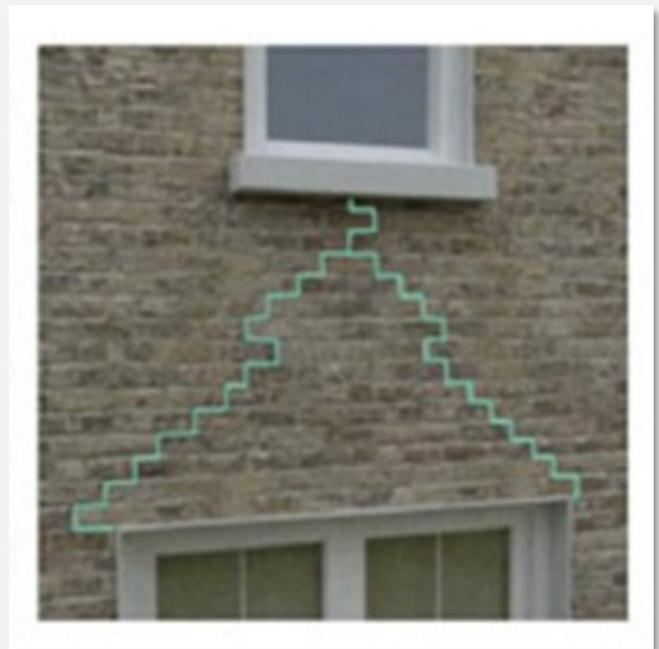
## Masonry Repair Solutions

Have you seen a building with the brick falling off?  
How about many cracks on the veneer at the exterior?

One item in the masonry tool bag that seems to be getting more popular as our buildings age, are helical wall tie anchors. These ties are unique and can be used in many masonry repair solutions. The anchors have the ability to stabilize a masonry façade that is failing and they can be used to eliminate vertical cracking in a masonry wall. Anchors are manufactured under several different names such as Helifix, Heli-tie, Spira-Loc and Stich-Ties.



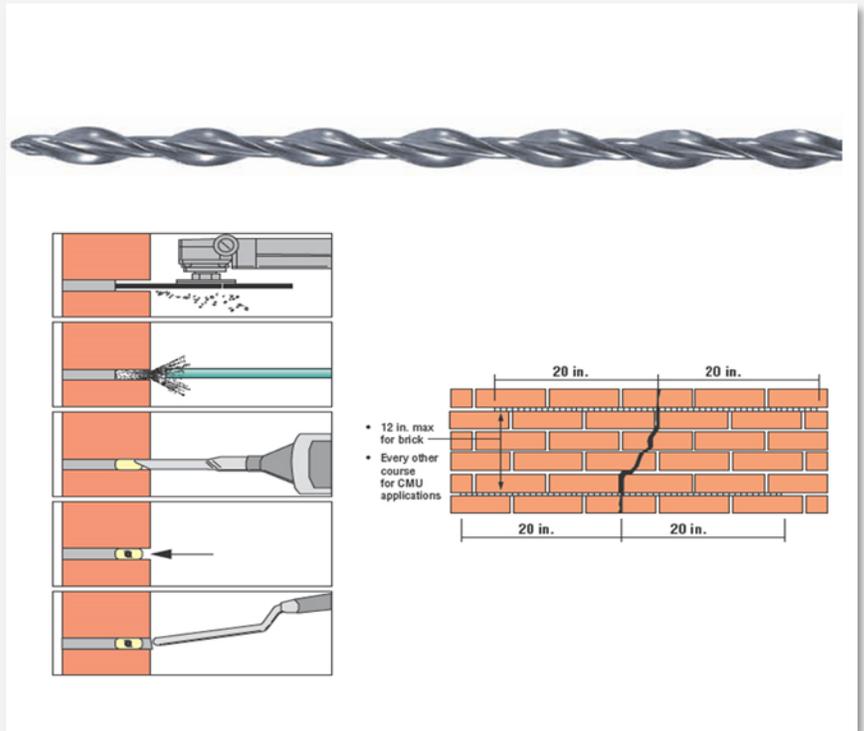
The process utilizes a stainless steel spiral tie that gets drilled into a predrilled hole (in masonry). The tie is embedded about 3/8" into the wall so it grabs onto a block or brick or whatever the substrate is. The hole is made at a mortar joint so that a little mortar placed into that hole after the tie is embedded makes it unnoticeable. This tie can be placed at horizontal and vertical dimensions per structural engineer and the face will be stabilized. One company has its representative visit the site, test veneer and backup materials and recommends size of tie, length of tie and spacing of tie for a successful wall stabilization.



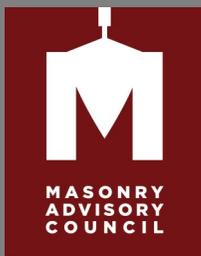
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Another use for the helical tie is to fix vertical cracking. This is referred to as crack stitching. This process starts with grinding out a horizontal mortar joint at least 20" either side of the vertical crack. Clean the joint out good, flush with water. Insert a bead of grout mix supplied by the manufacturer for this purpose. Insert a helical tie for the full length of the mortar joint, make sure it is embedded in the grout mixture. Fill the joint with regular mortar and tool.

This process will stop any further cracks from happening by stabilizing the horizontal joint.



A great use of helical ties is in stabilizing masonry structures in earthquake prone areas. Other uses are in stabilizing parapets, anchoring stone, terracotta, stucco and replacing wall ties when masons use wall ties in areas that are not just wood stud backup.



The Masonry Advisory Council is a non-profit organization that markets and promotes the benefits of building with masonry. Our vast network of industry professionals are available through MAC as a source of education, technical support, promotion, and market outreach.

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