

TRICK OF THE TRADE CORNER: Tying to Prevent Footing Spread

This issue's Trick of the Trade response to the president's challenge is shared by Jason Ells of Custom Concrete in Westfield, Indiana. Jason has worked with his company's residential foreman to identify and understand this simple solution they offer to the industry. Jason's tip has rewarded his company's member account with 50 points redeemable in an upcoming registration, event or purchase. Member or not, your tip can earn you recognition and reward here with your peers. Non-members receive a discount to a full membership.



The Problem:

Often when pouring footings, our footing forms would spread—causing us to use more concrete than needed. Also, the edges of the footing would look wavy and crooked. This was especially a problem when the footing was wider or taller than normal or when the soil was soft or sandy.

Possible solutions we identified and attempted include:

1. Compensate by forming the footing a little narrower with the anticipation of spread. It was a good first thought; however, two new problems were created: the footing might not spread as much as we would need to meet our desired width, and the inspector would occasionally measure the footing and require adjusting before the pour.

2. Place more footing stakes to create more forming resistance. This definite physical solution immediately increased work in other areas of the project, including more stakes to purchase, more stakes to deliver to and scatter at the job, and more stakes to drive and pull.

3. Install a wood brace across the top of the forms. Another legitimate physical solution, but the added problems included: it is difficult to finish around and under the braces; more cutting and nailing labor was required; there was an increased number of form pieces (labor) to strip; and more lumber was required for purchase on each project.



The wire form tie prevents boards from spreading.

The Solution:

After trying several of these methods and several others not mentioned, we came up with a solution that works quite well, with some added benefits.

We started installing two wires underneath our form boards at

each stake. We wrap the wire around the stakes at least twice to ensure that the wire does not slip while pouring concrete. Also, we ensure that we have enough wire on both sides of the footing boards so that once stripped, we can use the wire to tie up the tile next to the footing.

Reasonable Benefits:

- Reduces/eliminates footing spread
- Speeds up install of tile
- Ensures gravel is placed under the tile (tile is not sitting on the ground/mud)
- Prevents the tile from “walking away” from the footing while placing aggregate
- Creates a very clean look



Placed at corners, the wire form tie permanently holds drainage tile from moving.



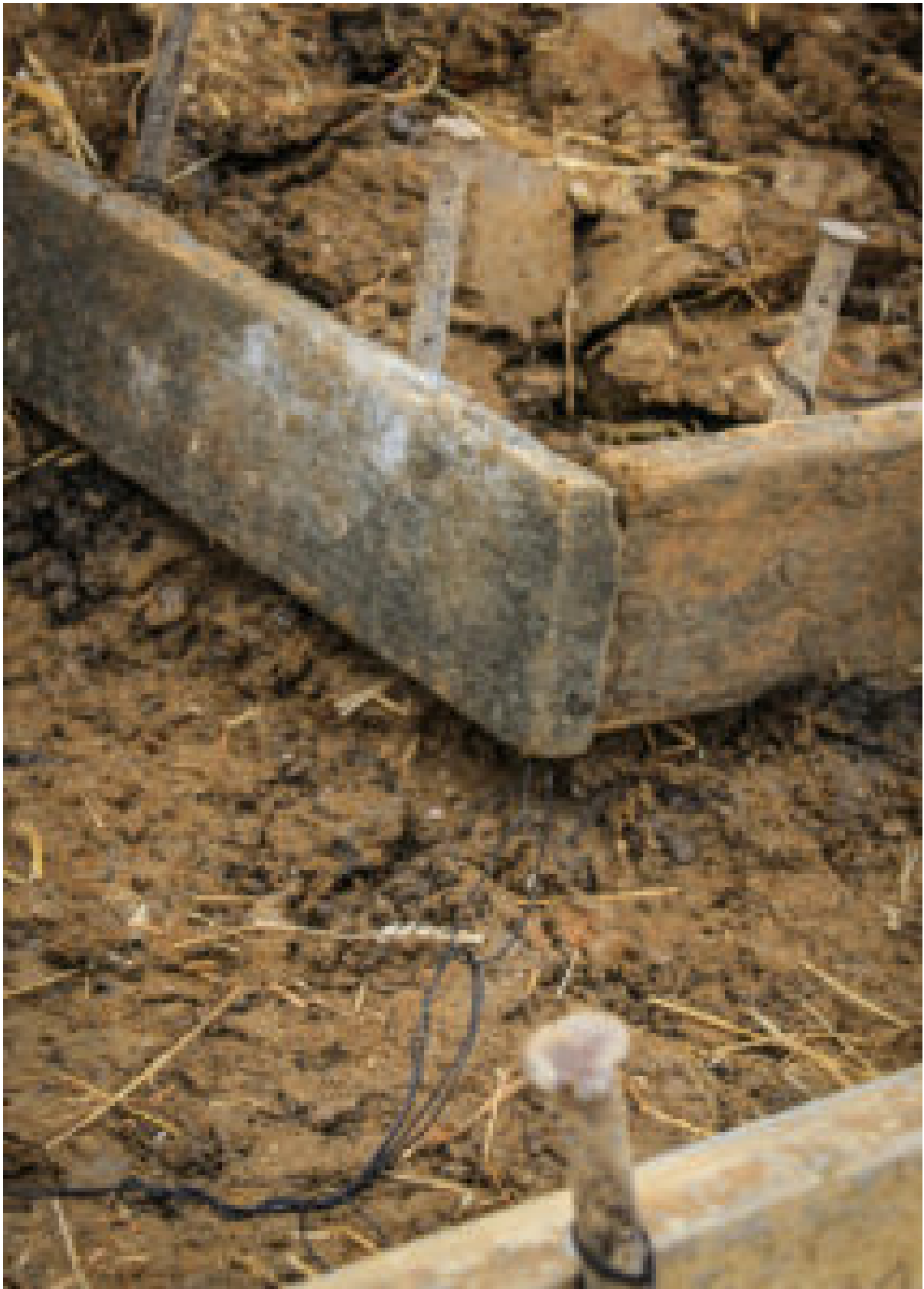
The planned result is consistent footing widths with clean intersections and straight runs using fewer stakes and less time.



An afterthought benefit, the end result is a completed drainage solution secured to concrete footings.













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