



WIRE REINFORCEMENT INSTITUTE®

TECH FACTS

Excellence Set in Concrete®

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Synthetic and Steel Fibers Are Not Concrete Reinforcement

Codes & Guides Specifying Concrete Reinforcement

<u>Codes & Guides Specifying Concrete Reinforcement</u>	<u>WWR</u>	<u>Fibers</u>
ACI 318 Approves	YES	NO
ACI 301 Approves	YES	NO
ACI 302 Approves	YES	YES*
ACI 360 Approves	YES	YES*
ANSI/ASCE 3-91 Design of Composite Slabs Approves	YES	NO
ANSI/ASCE 9-91 Construction of Composite Slabs Approves . .	YES	NO

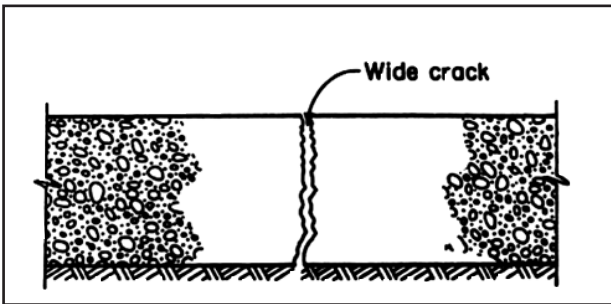
Call or write us about projects that prove performance and efficiency with WELDED WIRE REINFORCEMENT.

* Approves use but not replacement for conventional reinforcement

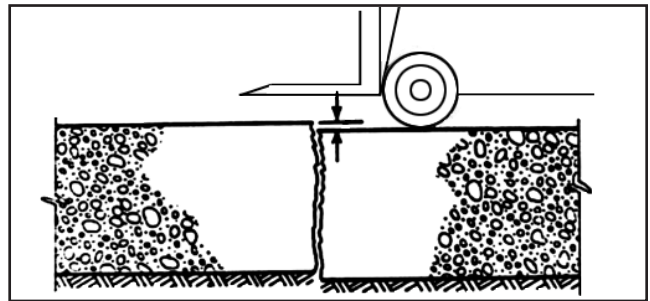
Delayed Ettringite Formations and Alkali-Silica Formations Will Focus More Attention on Steel Reinforced Concrete Designs

Welded Wire Reinforced concrete is most important today and should be given serious consideration for all concrete construction. Since WWR products have a history of reducing cracking, crack widths and displacement at cracks due to plastic shrinkage, drying shrinkage, thermal expansion and contraction — and now the more recent findings of delayed ettringite formations or DEF, which cause expansion and cracking around aggregates and the more typical alkali-silica reaction or gel formations causing cracking through aggregates, Welded Wire Reinforced concrete should be specified more than ever before.

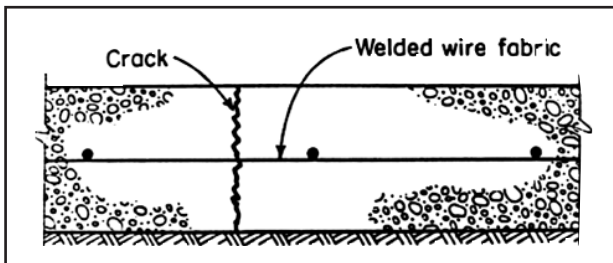
If you want to reduce maintenance costs due to excessive cracking, wide cracks and displacement at cracks, Welded Wire Reinforcing is the answer.



Without Welded Wire Reinforcement, cracks can be very wide and could cause excessive maintenance costs.



... and if settlement occurs in the sub base displacement can occur.

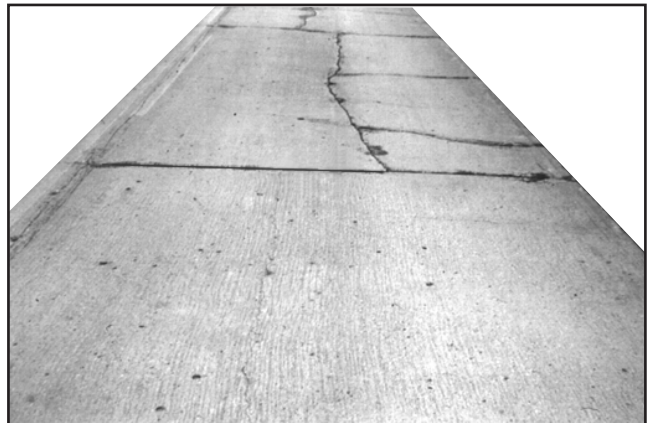


When Welded Wire Reinforcement is specified and used for concrete reinforcement, wide cracks and displacement are reduced and corner cracking due to curling is minimized. Remember, Welded Wire Reinforced concrete offers a contingency benefit— it adds reserve strength to assist in supporting loads placed on the concrete.

Unreinforced Paving vs. Reinforced Paving

Here is a highway paving research project done by the Iowa Department of Transportation. The 4½-inch secondary road was 37 years old when the last report was filed — notice the upper portion with visible cracking and displacement. That portion has no Welded Wire Reinforcement in it. ➤

The paving section in the bottom portion of the photograph has Welded Wire Reinforcement in it— for reference the WWR style is a single layer of 6 x 6 - W2.9 x W2.9. Notice there are a few hairline cracks but they are held tightly closed and no displacement is apparent. ➤



Remember, even quality mix designs with various admixtures or enhancers do not ensure crack control. There are too many variables which cause cracking; therefore be safe and build in more crack control and the added reserve strength by ordering Welded Wire Reinforcing on your next project.