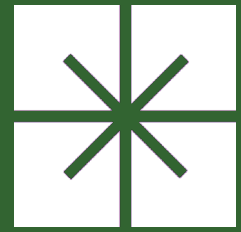


Technical Bulletin

“T” Junction Sawcuts



The Concrete Floor Contractors Association of Ontario was founded in 1971 to represent the concrete finishing industry.

Technical Bulletins are designed to provide state of the art information to owners, specifiers and contractors to both improve quality and reduce problems.

We hope that this information will assist you in this goal.

If you have any questions, or comments, please feel free to contact us at 905-582-9825 or by e-mail at info@concretefloors.ca

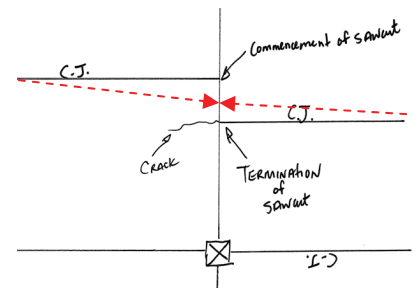
***The Best Floors Start
With Our Finish !***

Sawcut Contraction Joint Configuration

Sawcut contraction joints are installed into freshly placed concrete floors in an effort to minimize the drying shrinkage cracking in a floor. The layout of sawcut contraction joints can sometimes be very challenging due to changes in bay sizes, slab thickness and around pits. The joint layout for each project should be discussed and finalized at the pre-construction meeting.

Concern:

Sawcut contraction joints which are configured to terminate at a transverse joint in a “T” configuration often results in the shrinkage stress continuing through the terminal point into the adjacent concrete panel as a crack.



Recommendation:

- Sawcut contraction joints may be angled from one panel to the next such that terminal points are avoided (red lines).
- Sawcut contraction joint spacing must be maintained at no more than 4.5m on centre.

If a “T” intersection cannot be avoided:

- Cracking should be anticipated.
- A full depth transverse sawcut may be installed at the terminal point of a sawcut to aid in resisting the transfer of stress into the adjacent concrete panel (note: this also decreases the load transfer capacity across the joint at this location).
- Deformed rebar(s) may be inserted in the concrete above the “T” junction to restrain the crack width into the adjacent panel.

Further References:

- CSA A23.1 Concrete Materials and Methods of Concrete Construction.
- ACI 302 Guide for Concrete Floor and Slab Construction



www.concretefloors.ca

September 9, 2008