NATIONAL TERRAZZO &
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TECHNICAL BULLETIN #S-16 rev. 8/13

CRACK DETAILING & JOINT TREATMENTS FOR MONOLITHIC TERRAZZO SYSTEMS

MONOLITHIC TERRAZZO

Monolithic terrazzo has many years of successful history as cement terrazzo system. These systems are traditionally placed directly onto a prepared structural concrete slab.

CONCRETE JOINTING: SETTLEMENT & CRACK CONTROL

Concrete has been the standard flooring substrate in the commercial construction industry for many years. The concrete industry has developed many industry guidelines and recommendations to minimize cracking.

Cracks in concrete are a result of any number of issues, including volume change during the curing process, load deflection, settlement cracks and cracks induced from thermal stresses, which are typically due to non-climate-controlled environments during the construction process. While shrinkage cracks, which account for most concrete cracking, become static once the volume change from curing is complete, any crack has the potential to become a dynamic, moving crack under thermal and load movement stresses. To accommodate dynamic loading, slabs should be designed for maximum deflection of L/360.

DISCLAIMER

The details contained herein provide general information to use as a starting point for detailing site conditions that frequently occur on monolithic terrazzo projects.

They represent generally accepted practices of terrazzo contractors and suppliers across the United States under typical circumstances. These details do not replace the direction or advice of an architect or engineer regarding a specific project or for specific project conditions. The architect or engineer must specify movement joints and show location and details on drawings.

It is not the intent of this guide to make movement joint recommendations for a specific project. For your project(s), you should consider contacting an NTMA Contractor Member in your area to discuss details that may be most applicable for a given circumstance/location.

To mitigate cracking and curling in concrete at thin set cement terrazzo areas follow recommendations in ACI 360R-10.

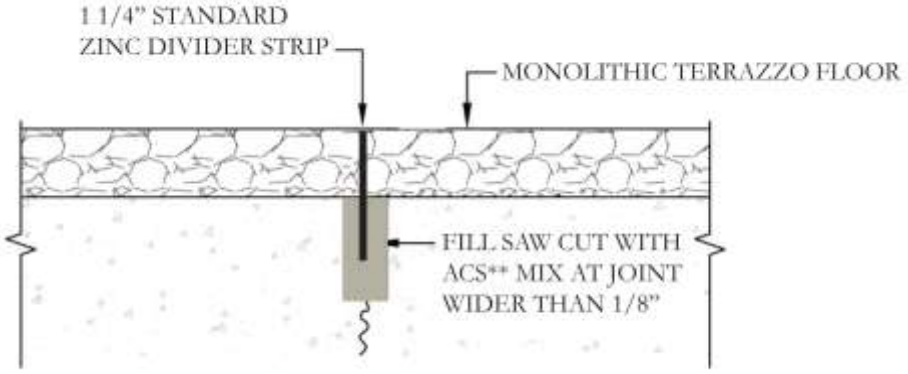
Terrazzo divider strips must precisely follow the concrete joint – even if crooked.

Terrazzo divider strips are not flattening or leveling devices. They must adhere tightly to the concrete.

Tooled edges on concrete joints are not to be used at areas to receive thin set cement terrazzo systems.

Detail 1. Contraction Joint (also called saw cuts)

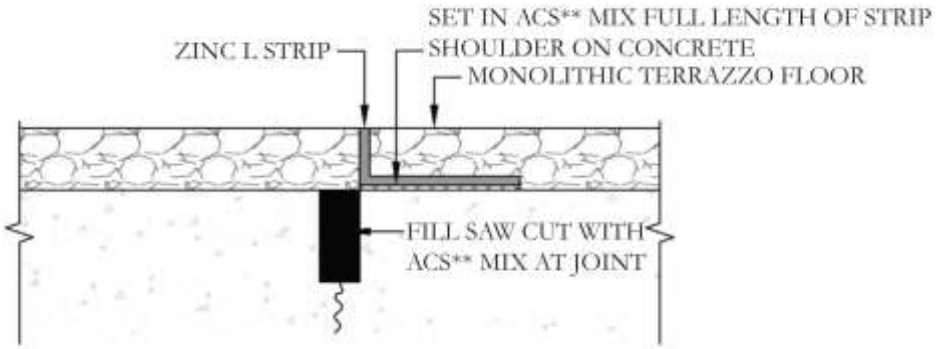
The term “Contraction Joint” is taken from ACI 302 document to maintain consistent nomenclature with the concrete and engineering industry.



*Care should be taken by concrete contractor to provide a straight joint, placed in coordination with design teams consideration of final grid pattern. Square edges encouraged, tooled edges discouraged.
**ACS stands for Acrylic Cement Sand

Detail 2. Optional Joint Detail for Contraction Joints (Wider than 1/8”)

This detail provides the designer the option of installing a low profile 16 gauge divider strip, in lieu of the filled back strip in detail 1. This detail provides limited movement compared to detail 1.



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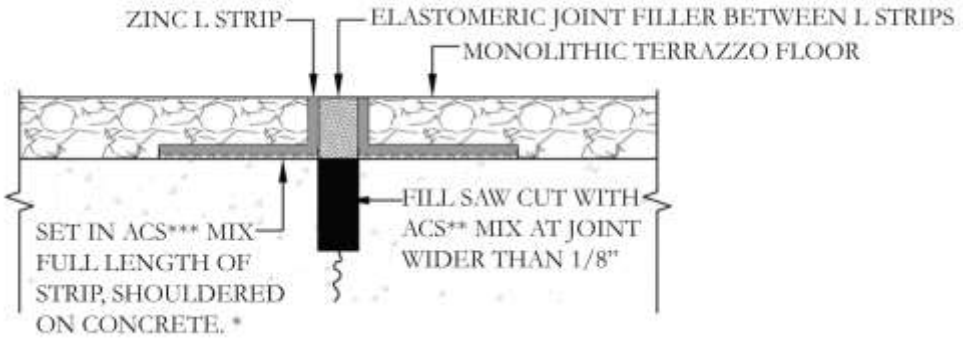
Detail 3. Optional Contraction Joint (also called saw cuts/control joints)
The term “Contraction Joint” is taken from ACI 302 document to maintain consistent nomenclature with the concrete and engineering industry.



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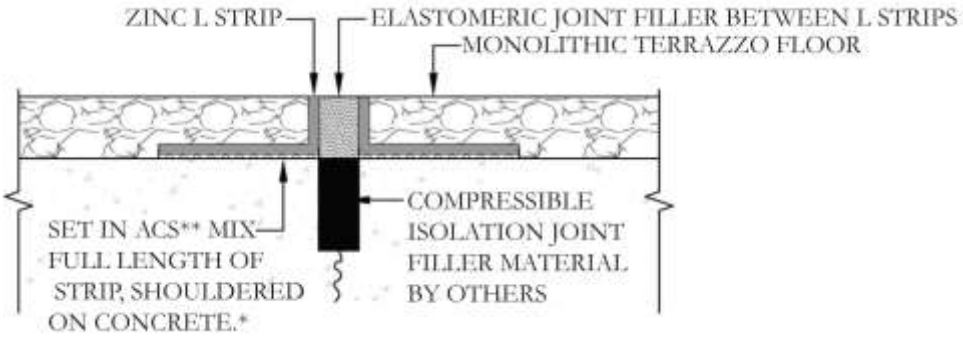
** This detail must be used for radiant heated floors
***ACS stands for Acrylic Cement Sand

Detail 4. Isolation Joint
Slabs to receive terrazzo flooring should accommodate Isolation Joints where the slab is separated from the load bearing columns or walls for this specific purpose.



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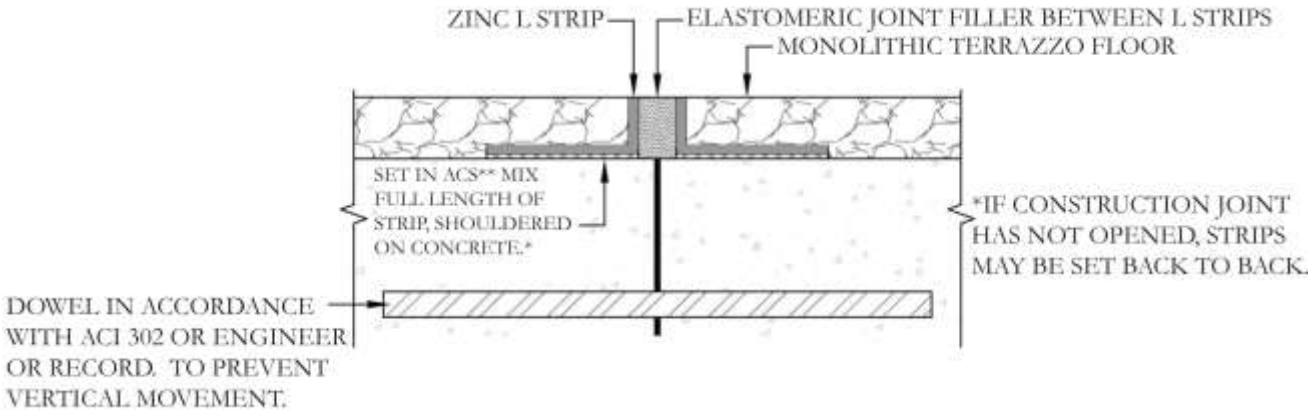
Detail 5. Construction Joint (Next Day Pour Where Joint Has Eased Shoulders or Has Opened.)



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