



## 16.0 EXPANSION JOINTS / ROOF AREA DIVIDERS / CONTROL JOINTS

**Expansion Joints** are designed into buildings to prevent the buildup of destructive stresses caused by expansion and contraction of the structural elements. The responsibility for determining the exact location and the number of roof expansion joints remains with the architect and/or engineer.

Expansion joints should be provided when the following conditions occur:

1. Whenever roof structures change direction, such as in L-shaped and U-shaped buildings or rectangles with interior courts.
2. Whenever the direction of the steel framing changes.
3. Whenever the deck material changes, as from steel to concrete.
4. Whenever additions are made to an existing building.
5. Whenever there is a difference in elevation of two adjoining decks.
6. Whenever a building's length exceeds 200 ft.
7. Wherever expansion or contraction joints are provided in the structural system.

This guide does not exhaust all possible conditions requiring expansion joints and is, therefore, not all-inclusive.

An effective waterproof seal must be provided to bridge the gap between areas of roofing separated by the joints. Expansion joint covers must provide continuity for the waterproofing membrane, and also accommodate the movement that occurs due to expansion and contraction (see Section 31.0 for construction details.)

**Roof Area Dividers/Control Joints** are designed to help relieve stress in areas of the roof system that do not feature the necessary expansion joints in the original building design. Roof Area Dividers/Control Joints are not the same as an expansion joint and should not be considered as such. If a Roof Area Divider/Control Joint is to be used, it should be raised and not interfere with proper drainage away from the joint. Contact the TAMKO Technical Services Department at 1-800-641-4691 for more information regarding this type of construction.

## 17.0 ROOF WALKWAYS

On commercial roofs subjected to rooftop traffic (such as servicing of air conditioning units, and cleaning the roof drains), TAMKO recommends the use of AWAPLAN PREMIUM, AWAPLAN PREMIUM FR, or AWAPLAN HEAT WELDING for walkway material to protect the commercial roofing membranes.

AWAPLAN walkways should be installed prior to the final surfacing on gravel-surfaced and smooth-coated built-up roofs, and final surfacing held back from the AWAPLAN walkway.

Walkway material on TAMKO limited-warranty jobs must be AWAPLAN PREMIUM, AWAPLAN PREMIUM FR, or AWAPLAN HEAT WELDING.

Elevated walkways (with sleepers) should have a pad of AWAPLAN PREMIUM, AWAPLAN PREMIUM FR, or AWAPLAN HEAT WELDING underneath each sleeper to protect the roof membrane from damage due to movement.

## 18.0 TEST CUTS

Should cuts for testing purposes be required, such cuts should be taken before the final surfacing is installed so that proper and adequate repairs can be accomplished (**see ASTM procedures ASTM D 2829, ASTM D 3617**). TAMKO will not comment on any test cuts that cannot be shown to be statistically significant and representative of the roofing membrane construction.