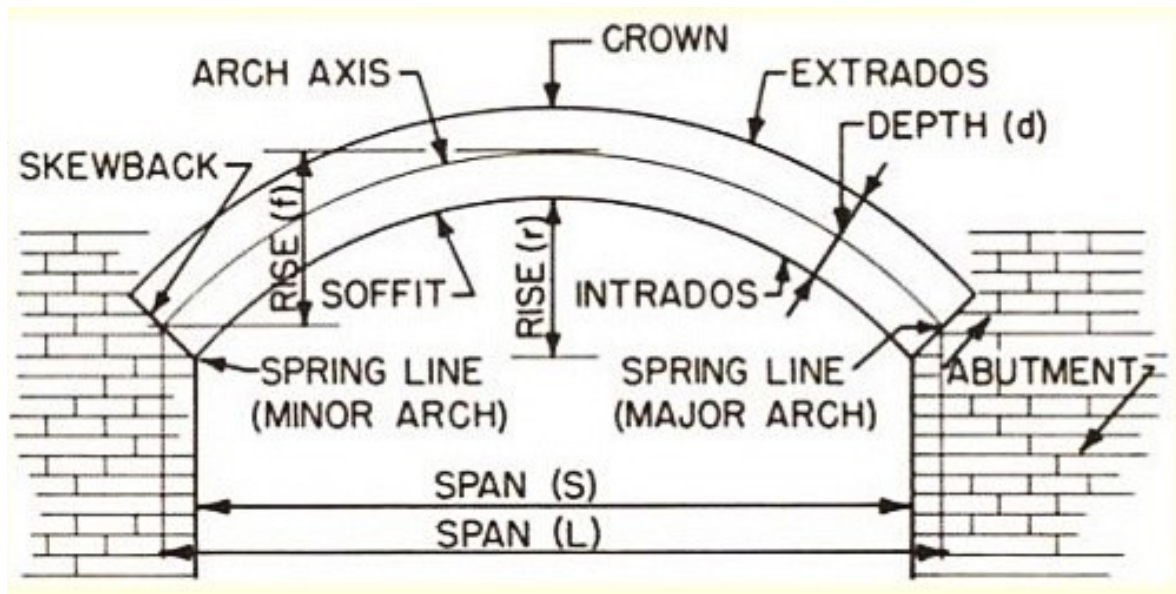




Gary Porter, Executive Director of the Masonry Advisory Council is called upon with questions about construction concerns and for masonry advice from a variety of Architects, Engineers, Contractors, Developers and Distributor sources. He is dedicated to ongoing education of masonry and shares helpful tips from his professional experience that may be beneficial to you.

### Masonry Arches Terminology

Following last month's article regarding masonry arches, we provide more technical information on arch terminology. When discussing masonry arches there is terminology needed to identify the pieces in the arch.



**Camber:** The relatively small rise of a jack arch.

**Centering:** Temporary shoring used to support an arch until the arch becomes self-supporting.

**Crown:** The apex of the arch's extrados. In symmetrical arches, the crown is at the midspan.

**Depth:** The dimension of the arch at the skewback which is perpendicular to the arch axis, except that the depth of a jack arch is taken to be the vertical dimension of the arch at the springing.

**Extrados:** The curve which bounds the upper edge of the arch.

**Intrados:** The curve which bounds the lower edge of the arch. The distinction between soffit and intrados is that the intrados is a line, while the soffit is a surface.

**Keystone:** The voussoir located at the crown of the arch. Also called the key.

**Label Course:** A ring of projecting brickwork that forms the extrados of the arch.

**Rise:** The maximum height of the arch soffit above the level of its spring line.

**Skewback:** The surface on which the arch joins the supporting abutment.

**Skewback Angle:** The angle made by the skewback from horizontal.

**Soffit:** The surface of an arch or vault at the intrados.

**Span:** The horizontal clear dimension between abutments.

**Spandrel:** The masonry contained between a horizontal line drawn through the crown and a vertical line drawn through the upper most point of the skewback.

**Springing:** The point where the skewback intersects the intrados.

**Springer:** The first voussoir from a skewback.

**Spring Line:** A horizontal line which intersects the springing.

**Voussoir:** One masonry unit of an arch.

Now that you know the terminology of items relating to the masonry arch, onto the next topic:

### How to Flash an Arch

It is easy to do if the arch has a steel angle supporting the voussoir's above it. The mason can place flashing on the steel as if it were an opening without an arch. One challenge is can a stainless steel drip edge be utilized to protect the flashing and provide a place for moisture to drip off? Depending on the rise and the span of the arch, stainless steel drip edge may not be the right material used here as it may not be possible to bend this material enough. In some instances the stainless steel drip edge will just not work, however we should still provide through wall flashing that extends at least 4" past the opening or to cover the bearing of the steel angle, with flashing turned up to form an end dam or utilize premade end dams. Weep holes should be 24" on center.

If no steel angle is used to support the arch, we need to go to the first full course above the extrados (*curve which bounds the upper edge of the arch*) and install flashing that extends at least 4" beyond the furthest point of the arch below with an end dam and weep holes at 24" on center. If the arch span is rather large, it is advisable to provide step flashing as shown in the attached photo.

