



**MASONRY  
WORKS**

**BRICK  
BLOCK  
STONE**


SEP 2020

ISSUE  
50

# TRADITIONAL MASONRY

Is There Really A Substitute?






Masonry in Ontario has a rich history. For generations, many of the iconic neighbourhoods and main streets in the province have been built with local masonry products. This built form is something Ontarians have come to expect in their communities across the province. Municipalities and their citizens place a high degree of importance on preserving neighbourhood character and heritage and therefore, place a high degree of importance on the future built form of their communities. Modern masonry materials provide the aesthetic and proven performance metrics which make it suitable for addressing modern design challenges all the while appropriately addressing heritage conservation and blending concerns. Recently, there have been a number of materials which have tried to replicate traditional masonry products and have claimed to be the same. Although these materials may look the same from afar, they are far from similar to traditional masonry materials for many reasons. Masonry materials have a proven track record of maintaining superior aesthetic qualities over long periods of time, in some cases over 100-years. This means that masonry materials boast attributes of sustainability which compare favourably to other competing materials. Further, as better building performance informs both national and provincial building codes, masonry materials contribute by providing impressive thermal properties.

“Modern masonry materials provide the aesthetic and proven performance metrics which make it suitable for addressing modern design challenges all the while appropriately addressing heritage conservation and blending concerns.”





**T**raditional materials are defined as brick, block and stone units held together by mortar and laid by a Mason. Many of Canada's iconic landmarks and neighbourhoods are constructed with predominately masonry materials.

## Authentic Masonry

Masonry materials have crafted some of the most iconic landmarks in Canada. In fact, the Chateau Frontenac in Quebec City is the most photographed hotel in the world. Here in Ontario, many of the iconic downtown main streets are lined with classic red bricks. For example, Toronto's Distillery District is iconic because of the red brick built form which lends itself to contributing to a warm sense of community making it a great event space. These landmarks have transcended generations with minimal variations needed and while other materials may try to copy this iconic look, only authentic masonry materials; brick, block and stone have the proven record of maintaining this aesthetic over time. While stamped and painted concrete products may look similar at first, there is no way of knowing how long that aesthetic can be kept up without maintenance whereas in most cases, masonry walls last in excess of eighty years before any maintenance is needed. This means that masonry materials consistently portray a high degree of architectural detail over long periods of time and because of the prolonged life cycle of masonry materials, masonry wall systems meet a number of sustainability considerations.

A majority of the masonry materials used in the Ontario market are produced in the province. In fact, 95% of all bricks used in Canada is produced in the GTA. Masonry materials are truly local and therefore not only support the local economy, but are also sustainable. Masonry's sustainability can be proven by subjecting masonry wall systems to a Life Cycle Analysis. Preliminary findings completed at the University of Windsor's, School of Engineering suggest that concrete block interior walls preform much better than competing wall systems. Concrete block was shown to have 49% less environmental impact than steel stud wall assemblies and 29% less environmental impact than wood stud wall assemblies. On the exterior, masonry boasts ideal thermal properties which helps to regulate temperature. A study completed by Masonry Works in 2016 found that HVAC capacity can be reduced up to 50% in a building through increasing the amount of masonry on the exterior. A number of cities both here in Canada and throughout the world have recognized that in order to increase building efficiency the ongoing usage of glass curtain walls must stop. And while the industry begins to adapt to building codes which call for more efficient buildings, traditional masonry is clear choice to address these challenges.

*“A majority of the masonry materials used in the Ontario market are produced in the province. In fact, 95% of all brick used in Canada is produced in the GTA. Masonry materials are truly local and therefore not only support the local economy, but this also means that these materials are sustainable.”*

