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EVANS ENGINEERING, INC. CONSULTING ENGINEERS

Civil Engineering Land Development Hydrology Permitting Structural Engineering Building Structural Design Transportation Surveying

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May 16, 2016

Re-issued April 24, 2020

Brundy Pursley Piazza Stone, LLC 3817 Martinez Blvd Augusta, Georgia 30802

Re: Piazza Stone Series – Seismic Requirements

Upon your request, Evans Engineering, Inc. (EEI) is responding to the seismic concerns related to the Piazza Stone series product. EEI previously addressed the temperature and shrinkage characteristics of this product in our letter dated October 18, 2012. Fastening related the Temperature and shrinkage was previously defined in the aforementioned letter.

The current Seismic provisions of the ASCE-7 have evolved considerably. The southern states, particularly NC, SC and TN have a history of medium to high seismic concern related to building structures. Lighter more flexible components and cladding usually have the ability to sustain small seismic lateral movements while only showing signs of minimal damage and minor surface cracking. These issues can be repaired economically if they occur. This product inevitably is classified as an ornamental feature supported by a frame or backing. In order to avoid failure and delamination of the ornamental pieces undergoing seismic forces, they must be attached to a backing which in turn is supported from the primary building structure. In that manner, the ornamental precast element could move harmoniously with this backing or structural support as the primary building frame deflects during a seismic event. The fastening of this ornamental piece could then endure minimal seismic forces which occur at the outer face of the assembly. The secondary wall backing and its connections to the main building frame will take the bulk of the seismic forces and building drift. Connections for the secondary framing should have slotted hole features to relieve movement in the direction of the primary building drift.

In summary, the Piazza Stone product attachments, as indicated in the October 18, 2012 letter, could relieve and dispel minimal drift loads associated with building sway. The finished product already is resistant to temperature and shrinkage. In design specific areas, the face attachments will need to consider all forces imposed by Seismic, and Wind. EEI or other consultants should follow project specific code requirements that govern. The shape and characteristics of the precast piece should not be effected as long as the connections and secondary frames are designed properly.



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Evans Engineering, Inc. appreciates the opportunity of working with Piazza Stoneworks, LLC in this matter.

If you should have any questions or require further assistance, please contact us.

Respectfully,

EVANS ENGINEERING, INC.

Vanuel & Swort

Daniel S. Swartz Structural Project Engineer

Holly R. Evans, P.E



April 24, 2020