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Kraemer Design Group Attn: Lillian Candela AIA 1420 Broadway

Detroit, MI. 48226 PH: 313-965-3399 Job Name: 1567 Church St. Job Location: Detroit, MI

## **Historic Window Site Review:**

BlackBerry is providing information for the project at 1567 Church Street, Detroit, MI. This two-story brick structure is in the Detroit Historic District and requires review by the HDC prior to construction. We have been instructed that the intention of the project is to secure Federal Historic Tax Credits which will require SHPO and NPS review and approval. This Historic Window Site Review will address the existing wood windows in the structure on the first and second floor exterior openings as well as the roof level monitor windows. We are providing this information based on our site visits and inspection of all windows as well as a site visit and walk thru with both Brian Rebain and Lillian Candela, architects at KDG. We provide our review and recommendations based on guidelines from the National Park Service for wood window restoration and replication. Likewise, our over 30 years of experience in window restoration and replication provides the experience needed to comprehensively determine the condition and best solution for a long-lasting, durable approach to maintaining the building and the windows original character.

<u>Existing Condition of Wood Double Hung and Fixed Windows:</u> For (145) windows, approximately 3,250 Sq. Ft of window area.

The existing wood windows are double hung windows with rope and pulley balance systems, and the fixed windows are a picture windows stopped in place. The fixed windows are all located at the roof level. All windows appear to be a second growth white pine. About 40% of the double hung windows have exterior board up and are not visible for exterior inspection. 90% of the fixed windows have exterior board up and are not visible for exterior inspection. The remaining windows have been viewed from both the interior and exterior sides, those with board up only from the interior.

The overall condition of the windows are in "Very Poor" and "Poor " condition. The windows have not been maintained for decades in terms of painting, re-glazing, and

perimeter caulking. The exterior sills have all been compromised by weather, and as a result are heavily fissured with deep open grain exposed, dry rot, material decayed and disintegrated, as well as open corner joinery at the intersection of the sill and the weight box and brick mould. This has allowed water penetration that is going directly into the building damaging masonry and limestone sills. The sashes are likewise in very poor condition or have failed. The corner joinery is rotted and decaying at the bottom rail of the lower sash and the meeting rail of the upper sash. Sashes have been banded on the edge sashes at the corners to hold the sashes together, and in many locations a steel "L" bracket has been faced screwed to hold the rails and stiles together. The muntins are splitting and coming loose since the glazing compound has not been repaired, replaced, and painted for decades. Exterior brickmould is missing or damaged and patched with heavy application of caulk.

The following are the dimensions of the components for the of the double hung windows. Exterior Brickmould –  $1 \frac{3}{4}$ " x  $1 \frac{1}{4}$ ", Sash Pocket –  $1 \frac{3}{4}$ ", Exposed Sash Stile  $1 \frac{3}{4}$ ", Exposed Top Rail –  $1 \frac{3}{4}$ ", Meeting Rail –  $1 \frac{3}{4}$ ", Bottom Rail – 3", Sill Edge  $1 \frac{1}{2}$ " Muntins – 1".

## Recommendation.

Based on the above stated existing conditions we do not believe these windows are restorable. Components are beyond reasonable repair or restoration because of material decay and breakdown. The roof level windows wall framing, and structural support is bowing and sagging; this needs to be reviewed by engineers to determine how to address the remediation, and in turn the window spacing, and details may have to be altered from the original detailing to accommodate the required changes if needed. We recommend that the windows are replaced with a aluminum thermally broken single hung and fixed window systems using an exterior custom panning/sill assembly and interior snap trim. This should include a custom mullion detail between window units, as well as 3 - part simulated divided lite muntin. All windows should included low-e/argon insulated glass, standard hardware, and an AAMA 2604 or 2605 painted finish. See the attached drawings showing existing and proposed details. These proposed details are based on the Quaker H650 Historic Single Hung Series window.

Preliminary Budget Pricing \$385,000.00

Budget pricing allows for all material, tax on material, labor (non-union, non-prevailing), employment cost, insurance, staging, shop drawings and supervision.

Note 1: This budget allows for removal, abatement, disposal, wood blocking, jamb insulation, exterior caulking, cleaning, and punch list.

Note 2: Material pricing has been increasing on a regular basis, please be aware this has been averaging @ 6% per quarter.

Sincerely,

**Michael Shields** 

President

BlackBerry Systems, Inc.

MK Shields