

November 19, 2017

Brian Kraus – building Inspector  
City of Milwaukee – Dept. of Neighborhood Services – Building Inspection Department  
841 N. Broadway  
Milwaukee, 53202

Janet Matthews – “Owner”  
Mike Bolson – Paul Davis Restoration  
Tim Askin – Milwaukee Historic Preservation Commission  
“Owner’s” Insurance Provider

Subject: Fire Damage Assessment to Garage Building of Janet Matthews inspected on  
November 1, 2017 and located at 3033 W. Kilbourn Avenue, Milwaukee, WI  
53208

Dear Sir, Ms. and et.al:

Per the request of Mike Bolson of Paul Davis Restoration, I met the “Owner” Janet Matthews at the Site and did a comprehensive Visual Inspection and Photographed the various items Damaged by the Fire in the Adjacent Garage to the West of said Building. Due to the fact that the Property is part of a Historic District and affected by the Historic Commission’s Submittal Deadline of November 13, 2017 governing the Adjacent “Owner’s” request for the “Demolition” of his Fire Damaged Garage Building, I also prepared a Submittal Package and generated a Cover Letter that generalized the Damages and Repairs to Ms. Matthews affected Garage. As part of the agreement with the Historic Commission and the City of Milwaukee, I am submitting this detailed Inspection and Repair Report for providing All Parties the necessary Construction Information along with the Structural Calculations that will correct the deficiencies in the Existing Design parameters.

After examining the Fire Damages, it was evident that there was a good chance that the Roof Structural Design may not have met any Accepted practices at the time of the “Original” Construction. That was confirmed by the Software analysis of the Existing “FULL” 2 x 6 Rafter Sizes. Before any Repairs can take place the Existing Rafters will need to be “Reinforced” with “Sistered” present-day **2x6 - #1 Douglas –Fir** Members the full length of the Existing Rafter. Two **(2)** Rows of **10d** “pneumatically-driven Nails spaced at a **max. 12” O.C., 1”** from both the top and bottom member edges and staggered from top to bottom **(6” O.C. overall)** shall be used to tie the New 2x6 to the Existing Member. Before any nails are driven, adjustable clamps shall be used to clamp the new rafter to the existing rafter thereby insuring proper “Sistering” with full member contact. Space the clamps at a max. of 36” O.C.

Please be aware that the Existing Roof members cannot be straightened and most probably will always remain deflected. The 2 to 4 New Fire Damaged Roof Rafters that will need to be removed and replaced will have to be a new **2x6** and a **1 ¾” x 5 ½” 1.9E LVL “Microllam”** “sistered” similar to the previous reinforcing to meet current Design Loads.

The West Wall and any adjacent Wall will need to have any Fire Damaged Structural Stud or Bracing removed and replaced. All Damaged Sill Plates will need to be replaced with “Decay Resistant Treated” Lumber and “Corrosion Resistant” Stainless Steel” Fasteners.

Roof and Wall Bracing shall be located @ a max. 8’-0” O.C. and since the Interior Finishes are either non-existent or combustible, Fire Blocking will be of no value.

The “Dutch Lap” Siding shall be carefully measured (approx. 3 7/8” vert exposure and a 1 ¼” top width of a curved profile) and recreated by a reputable millwork supplier using “Redwood” Specifically chosen for Siding and its ability to discourage “woodpecker” damage. Any Trim shall be sized to match the Existing and shall be either a “composite Material or again “Redwood”. Fasteners shall be “Corrosion Resistant” and properly sized for the material that they will fasten. Although the “Uniform Building Code” does not require a Fire Rating for a Garage, it may be “prudent” to apply a layer of 5/8” Exterior Grade Fire-Resistant Gypsum Drywall directly behind the New Siding and on the West side of the min. ½” “OSB” Sheathing. If a Fire-Treated “OSB” is used for sheathing, it shall be ¾” thick (to match any 1x Existing boards that were used in the past and the Type “X” Gypsum Drywall can be deleted.

The Existing Hay and Feed Access Door can be duplicated from what Exists on the East side of the Garage. To prevent further “Moisture Infiltration” through the Hay Access Door it can either become a “Faux” example of what existed or be “Properly” Framed, Flashed, Weather-stripped and Trimmed-out to meet today’s standards.

Proper Caulking Selections, their Installation, Current Flashing Technology, Painting and Finish Coating will complete the Fire Damage Repairs other than the Roof Membrane System that will be selected by the relevant Parties and Installed per the Latest National Roof Contractors Association (NRCA) Specifications and Guidelines.

If there are any further questions, please feel free to contact me at either my Office (262) 966-1840 and on my cell phone (414) 861-7317.

Respectfully yours,  
LUDWIG W. RIDDER DESIGN, INC.