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PlazaCorp Realty Advisors
Attn: Matt Bastos Architect
211 East Water Street
Suite 201
Kalamazoo, MI 49007
Phone: 269-220-3069
Email: mbastos@plazacorp.net

Job Name: Gibson Building
Job Location: Kalamazoo, MI

HISTORIC WINDOW SITE REVIEW:

The following is the written Historic Window Site Review for the windows on the first, second, and third floors for The Gibson Building at 225 Parsons Street, as well as the windows in the adjacent Executive Suites Office building. This information is based on a physical site visit, and inspection of the existing windows. Our review considers the National Park Service guidelines for restoration and replication as provided in the NPS Steel Window Repair and Preservation Brief #13. Likewise, in providing our recommendations for the restoration or replacement, we are adhering to the guidelines that meet NPS and SHPO standards. Please note this review is our opinion based on over 30 years of historic window restoration and replication experience; however, you must have written approval from NPS, SHPO, and the local Historic District Commission to be assured of the projects' tax credit approval (if applicable) or historic district compliance.



I. Existing Conditions Gibson Building: (46) Industrial Steel Openings @ (5,500 Sq. ft.), (15) Double Hung Steel Openings @ (2,000 Sq. ft.).

The existing windows are original to the Gibson Building. There are two key window types on the factory building. One is an industrial steel window that is interior glazed with a typical glass size of 12" x 18", 1/4" clear float glass.

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The other is a narrow line extruded steel double hung window that is a one over one configuration with $\frac{1}{4}$ " clear float glass. Both window types are in poor condition with many openings that have been altered with penetrations for pipes, vents, and other building alterations performed over the years. Many of the vents on both window types have been stripped of hardware components and stopped in place with insulating foam, caulk, and screws. Many mullions have failed with separation of the window units leaving gaps that have been foam filled. As happens with so many steel windows; hardware, and sash components rust and corrode over time and become fixed in place. Sill rails on the frames are in very poor shape and have many failures where water has penetrated between the frame and masonry, frozen and thawed repeatedly and degraded the steel. The steel lintels appear structurally sound where the windows are spot welded but failing masonry may still be cause for repair or replacement upon your inspection. I would note that ACM is likely present on all existing windows including the exterior perimeter caulking as well as sash glazing compound. They should be tested and confirmed prior to bidding window replacement so the contractor is certified and includes abatement cost in the removal.

The following are typical site line dimensions for the Industrial Steel factory style windows include a $1\frac{3}{4}$ " bottom frame and rail, $1\frac{3}{4}$ " jamb and stile rail, $2\frac{7}{8}$ " top head and sash rail, $\frac{7}{8}$ " muntin, site line, and 6" vertical mullion (glass to glass). Many of the frame rail dimensions vary depending on the location and how they were originally installed. Some were buried in the surrounding masonry at different depths. The overall frame depth or thickness is $1\frac{3}{4}$ ". All the existing glass is $\frac{1}{4}$ " float, many areas the glass has been replaced over the years or is broken. The perimeter caulking and putty glazing is most likely containing asbestos as was previously mentioned. A hazardous materials inspection and report needs to identify what if any concerns exist. The overall condition of these windows is poor and have failed.

The following are typical site line dimensions for the steel hung windows which include a 3" bottom rail, 2" side jamb, $2\frac{7}{8}$ " head on the exterior side, and $1\frac{3}{4}$ " meeting rail, and $4\frac{1}{2}$ " vertical mullion. All the existing glass is $\frac{1}{4}$ " float. The same condition exists regarding the ACM. The overall condition of these windows is poor and have failed. Details have been attached showing existing profiles and dimensions.

Recommendation: Complete Removal and Replication of all existing windows.

BlackBerry recommends the full replacement of the existing steel windows based on the overall poor condition of the components and the fact that approximately 85% of the windows currently do not operate and/or have key components such as sills and sash components that are in varied states of failure. There are currently replica

window products that are available using a thermally broken aluminum window that should be acceptable for SHPO and NPS approval. These products are narrow site lined and include high performance insulating glass, operating vents if required, AAMA rated, with AAMA 2605 painted finishes. The hung windows are unique and pose a challenge because they have such narrow site lines compared to typical steel or wood hung windows. We will have to investigate options but most likely will be best replicated and approved with a thermally broken aluminum product. Budget pricing does not include any interior casework including stools, aprons, casing, or jamb extensions, these would be typically included in the interior trim package.

Replica Single Hung Budget Pricing: \$230,000.00

Replica Fixed/Vent Pricing Budget Pricing: \$632,500.00

II. Existing Condition Executive Suites Building: (5) Openings @ (420 Sq. Ft.) Steel Fixed and Projected Windows; and (16) Openings @ (660 Sq. Ft.) Steel Panel and Aluminum Fixed Windows.

The steel fixed and projected windows are original to the building that appears to have been constructed in the 1950's, The fixed and panel openings had the original steel glazing portions replaced with an aluminum frame and insulated glass probably in the 1980's by the look of the material used. The steel fixed and projected windows are outside putty glazed with a glazing compound and perimeter caulking that most likely has ACM. The glazing is 1/4" clear annealed in fair to good condition, the windows are painted both inside and out, and show minor surface rust coming through. The windows could be restored, but since they are steel and have no thermal break, I would assume the Owners preference is to replace them with an energy efficient thermally broken aluminum replica product.

The Fixed Glass and Panel product is in similar condition, however, there is greater evidence of rust on the original fixed panel frames that have been caulked and painted multiple times to cover the corrosion. The openings are in poor to fair condition. Our recommendation would be to replace these units. Details have been attached showing existing profiles and dimensions.

Recommendation: Removal and Replication of all existing windows.

Products exist that can replicate both these window types to meet the NPS/SHPO guidelines. We will move forward to review manufactures and product options to propose with details and dimensions. These products would be thermally broken aluminum windows.

Replica Fixed/Projecting Budget Pricing: \$49,500.00

Replica Fixed/Panel Budget Pricing: \$79,250.00

GIBSON BUILDING



EXTERIOR VIEW



STEEL FIXED PROJECTED WINDOW



STEEL DOUBLE HUNG EXTERIOR



STEEL DOUBLE HUNG WINDOW INTERIOR



STEEL FIXED PROJECTED WINDOW INTERIOR



SILL MULLION FOR DOUBLE HUNG WINDOW

EXECUTIVE SUITES BUILDING



Fixed Projected Window



Fixed Panel Window

