# PabstCity Memorandum

To:

Milwaukee Common Council

From:

Jerry Franke, President, WISPARK LLC

Date:

June 20, 2005

Re:

Technical Memo on Certain PabstCity Historic Buildings

We are pleased to announce that after much discussion and many meetings with Alderman Robert Bauman we have altered our plans to seek permission to demolish the former German Methodist church currently located on the southeast corner of North 11<sup>th</sup> Street and West Juneau Avenue. We intend to renovate this property into retail space.

Attached for your review and use is a Project memo, dated April 18, 2005 from Tom Stacey, project architect for PabstCity. The memo shares expert information from the project's structural engineer that we hope lends some technical insight into why we are unable to renovate some of the buildings in the former Pabst Brewery.

This project represents one of most significant economic development initiatives ever undertaken in our region. The economic benefits that this development will create respond to many of the area's priorities. First, the redevelopment of these 6½ blocks will eliminate substantial blight, replacing it with a much-needed gateway to both the city's near west and near north neighborhoods, and to the downtown's Park East corridor...significant components of the historic brewery complex will be preserved.

Equally critical to the community is that the construction and retail components of the project create a unique platform for work force development and new job creation. In conjunction with the efforts of both public and community-based work force development agencies, this project will provide individuals with unique opportunities to realize their employment goals. These opportunities range from the construction trades to a wide variety of retail-oriented positions. We appreciate the opportunity to share this information with you. Please don't hesitate to contact me at 414-274-4600 if you have any questions regarding this information.



# PROJECT MEMO

Subject		mber of ges
From Tom Stacey	Project Name	Pabst City
Dan McCarthy Juneau Avenue Partners, LLC	Project Number	103158-22
То	Date	April 28, 2005

#### Comments

Dan,

Attached you will find a comprehensive review by our Structural Engineer – Richard Pierce, of the conditions that influenced our design approach and ultimately our conclusions regarding Building 24 & 25 (Malt House), Building 23 (Church) and Building 22 (Power House).

The purpose of this memo is to summarize our findings and remind everyone of the path we traveled to reach our present conclusions.

## Building 24 & 25 - Malt House

We spent several months analyzing the existing conditions of the Malt House and our approach to designing improvements that would allow us to save the building. Ultimately, we came to the conclusion that most, if not all of the existing internal structure would have to be removed and replaced with new steel floor framing. The specific reasons for this conclusion are contained within PE's letter. This approach (saving the façade and replacing structure) is essentially the same solution now being suggested by members of the HPC.

The solution proved to be both risky (the exterior walls might collapse during the process) and extraordinarily expensive. Also, compared to a new construction alternative, this effort would require an additional <u>8 months</u> to construct.

In short, we have already looked at this solution and it has proven to be infeasible given issues of time and expense – not to mention risk.



# PROJECT MEMO

## Building 23 - The Church

Our original plan was to develop this building as club or restaurant space. As detailed in PE's memo, the existing floor framing is inadequate to sustain commercial floor loading requirements. The roof is also suspect depending on what may happen nearby – in other words – drifting snow load from adjacent buildings.

Accessibility deserves mention as well. If the appearance of the existing street elevation is to be preserved, an addition to the south end of the building would be required to give persons with disabilities access to the two floors that are above and below the sidewalk grade. This is less than ideal in any circumstance, much less a commercial setting.

# Building 22 - The Power House

Due to steel framing that braced internal equipment and the smokestack, commercial use of the Power House building is extremely limited. Much of the internal steel is there to support the existing chimney, which does not extend to the ground.

Attempting to save the chimney, while demolishing the building around it – has proven infeasible and potentially dangerous.

For additional technical information, please refer to the attached memo dated 4/25/05 from our structural engineer and contact me directly with any questions or comments.

Sincerely,

Thomas S. Stacey, AIA Associate



241 North Broadway, Suite 500 Milwaukee, WI 53202 414.278.6060 414.278.6061 fax

April 25, 2005

Mr. Thomas S. Stacey, AIA Eppstein-Uhen Architects, Inc. 333 E. Chicago Street Milwaukee, WI 53202

Re:

Buildings 22-25
Pabst City

Milwaukee, Wisconsin

Dear Mr. Stacey:

The following paragraphs and points of information pertain primarily to Buildings 22, 23, 24 and 25 and present some of the challenges and difficulties in retaining exterior skins and facades of these buildings while developing them internally for residential, office and retail occupancies. Most of the schematic and design devolvement phase work was completed for Building 24/25, but is similarly applicable to Building 23 and others near the Juneau and 11th Street intersection. Building 22, the powerhouse, was evaluated thoroughly and modeled to show how all of the existing members relate to one another, and the difficulty with removing some of the internal bracing systems. The following paragraphs present discussion and key points for these buildings.

# **Buildings 24 and 25**

While different buildings, Buildings 24 and 25 are considered as one project since they virtually share the same exterior systems, are contiguous and were considered together when design development work progressed. Numerous interrelated issues combine to make an economically viable conversion of this building impractical in **PE**'s opinion in order to allow the building to be competitive with others in the market.

First of all, the existing window elevations are not compatible with the existing floor elevations. This means that on some floors the windows are too high to be serviceable in a residential occupancy, and on others they are too low. In addition, in their current vertical locations, the floor to floor heights do not provide sufficient clearance to permit the installation of HVAC ductwork and still provide adequate floor to ceiling clearances. In the structure's previous industrial use, it was likely not heated or cooled, thus the minimal floor to floor heights did not result in this problem.

Secondly, the existing fifth and sixth floors do not have sufficient load-carrying capacity to support the intended occupancies without significant reinforcement. Furthermore, we have concerns about the in-place condition of the structural steel at the lower levels. The framing is covered with a cementitous or gypsum plaster, presumably for fire-proofing. Consequently, the overwhelming majority of the steel surfaces are not currently visible. However, many of those that are visible exhibit significant corrosion and corresponding loss of section, bringing into question the capacity of the lower level floors as well.

PE has explored the possibility of removing and replacing the existing floors so that the window elevations would be more compatible with the floors, and simultaneously provide greater clear heights. Initially, this work was done with the intent to using the existing columns. Two factors combine to make this a difficult solution. First of all, the existing column layout or grid is not compatible with the proposed occupancies, meaning that the space planning would have to be compromised to work around the existing column layout. Secondly, the existing columns are cast iron pipe. Introducing floors at elevations differing from the current floor elevations would necessitate new connections to the existing columns. It is highly doubtful that satisfactory welds of the quantity and strength required can be made to cast iron of this vintage.

Mr. Thomas S. Stacey, AIA April 25, 2005 Page 2

PE also considered completely reframing the interior of the building while retaining the exterior walls. In construction of this type, the exterior masonry walls are laterally stabilized by the floors they support. The walls are not free-standing. Furthermore, as reported by others, time, weathering, and general neglect have led to the deterioration of the perimeter walls. It is not unusual to find fallen bricks on the sidewalk adjacent to the building. In order to re-frame the entire building, a sequence would have to be developed which is sensitive to wall stability. In other words, small segments of the framing adjacent to the perimeter wall would be removed, and then replaced with new framing, while the adjacent existing framing remains in place to maintain wall stability. This is an inefficient approach to both demolition and new construction, and is inherently risky even with a wall in good condition. The following key items, therefore, summarize difficulties with re-developing Buildings 24 and 25:

# Bidg. 24 (Silos):

Silos difficult to adapt for intended residential program due to:

difficulty locating windows

difficulty with elevator and stair towers, etc.

physical shape of silos (circular) relative to floor plans

new interstitial floor framing for residential floors into clay tile silo walls

- Top slab over silos limited dictated inefficient column locations for new roof, requiring multiple transfer systems and
- Slab overhang at edge of silo cantilevers 2'-4' leaving exposed slab (thermal inefficiency and durability issues)
- Slab system comprised of concrete covered clay tile and steel tees
- New roof system required to increase clear height due to existing roof pitch
- Ramps and stairs required between 24 and 25 due to differential floor elevations and heights
- Unusable space in new framing at north end of space along Juneau do to differential floor elevations

# Bldg. 25 (Malt House):

- Windows not compatible with floor elevations with existing floor systems
- Low floor-to-floor heights with existing floor systems
- Inadequate floor live load capacities for existing 5th and 6th floor (planned for residential) requiring significant reinforcement
- Marginal floor capacity for existing 2nd floor (planned for office)
- Suspect floor capacity of remaining upper floor framing and/or slab members
- Existing roof system inadequate for required snow drifting shadows, requiring significant reinforcement
- Severe corrosion of existing steel/cast iron framing members
- Existing column grid not compatible with intended program (residential and office)
- Welding to existing cast iron columns not feasible or viable due to reliability, capacities, excessive testing, etc.
- Existing slab system (arched clay tile with concrete topping) difficult to modify for new MEP, stair penetrations
- Concrete bins at west end of building required new minimum depth floor framing, openings and stairs
- Above points resulted in pursuit of new interior floor framing system within existing exterior walls, resulting in:

Logistical difficulties with demolition of floors and wall stability Numerous new openings in south and east walls, with new lintels, reducing overall integrity of those walls New framing interface with existing exterior walls limited framing efficiencies, requiring multiple transfer

systems Temporary shoring and bracing systems for outside walls to allow work to proceed Sequence of demolition and reconstruction dictated overall stability concerns, resulting in significant inefficiencies

#### **Building 23**

Building 23 is one of the original structures on the site and likely predates the brewery itself. It was purchased by the brewery, modified slightly and left in generally the same configuration and use for some time. It is not an industrial building, per se, and has no characteristics or structural systems that would support any use other than a church. It's floor framing systems are insufficient for

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anything but residential or possibly light office occupancies since original construction techniques and design requirements at the time were minimal. The following key items summarize challenges with Building 23:

Building 23 (Church):

- Floor framing on supported floor likely less than 60 psf, not adequate for retail/commercial or office.
- Roof framing likely inadequate for drifted snow loads from planned adjacent construction (Bldg. 24, etc.), limiting height of construction.

## **Building 22**

Building 22 was constructed for the specific purpose of burning coal in order to generate power and steam for the brewery. As a result, it has no full floor plates, only a myriad of catwalks, stairs and platforms which exist to provide access to equipment. Consequently, most commercial occupancies will require the construction of significant amounts of floor framing. This will be complicated by the fact that the current catwalks and platforms occur at elevations which are logical for accessing equipment. These are not necessarily elevations which are workable as starting points for full floors in commercial buildings. Furthermore, the existing building contains coal bins along the south wall. The heavy, custom steel trusses provided for the support of these bins create an obstacle for efficient framing of the new floors.

Finally, PE understands there is a desire to retain the existing chimney. The chimney in Building 22 does not extend to the ground. It is supported just below roof level by a complex system of horizontal wide-flange beams and vertical planes of diagonal bracing. In fact, in PE's opinion much of the bracing in this building exists for the sole purpose of stabilizing the chimney. In addition, PE has reason to believe that the upper portions of the chimney are in a state of deterioration and, therefore, believe it would be extraordinarily difficult to demolish the building, while simultaneously preserving the chimney, because the existing building integrally entwined with the chimney.

Please review the above information, Tom, and contact PE's office if further clarification is necessary or if additional information is warranted.

Sincerely

ieers, Inc.

Richard C. Pierce, PE, SE

Principal

Cc:

D McCarthy - Wispark T Hildebrandt - PE