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May 22, 2025

Sam Rampulla, Executive Director
The Brewery Neighborhood Improvement District No. 1
1125 N. 9th Street, Suite J
Milwaukee, WI 53233

Re: Pabst Sign Support Bridge Structure Review
Milwaukee, WI

Dear Mr. Rampulla:

Pierce Engineers, Inc., (**PE**) performed a site visit of the **Pabst Sign** support bridge over West Juneau Avenue at North 10th Street in Milwaukee, Wisconsin on May 19, 2025. The purpose of the site visit was to review visually the sign supporting steel truss bridge, decking, connections, and supports to provide our opinion regarding the condition of the structure and determine necessary repair work to preserve the structural integrity of the structure.

The steel bridge that supports Pabst Sign connects Buildings 21 and 25 in the historic Pabst Brewing Campus. See attached a map of the historic old Pabst Brewing Campus in Figure 1. Based on the construction years for Building 25 (1882) and Building 21 (1891), the sign bridge must have been constructed in 1891 or later.

The existing bridge framing consists of 2 longitudinal steel trusses in the north-south direction connected by short transverse open-web steel joists in the east-west direction. These transverse open web steel joists support longitudinal steel beams that support wood beams and decking. Horizontal bracing in the form of rods with turnbuckles (below decking) and angle members (at the bridge bottom level) are provided for the lateral stability of the bridge. The schematics of the longitudinal trusses are provided in Figure 2.

Observations

The different views (sides, bottom, and top) of bridge are provided in photographs P1 through P5. Note that the south ends of the bridge trusses are embedded into the exterior wall of building 25 and the north ends are resting on the parapet of building 21 as shown in Figure 2. Attached photographs P6 and P7 further illustrate these conditions.

Bridge Decking

Existing wood decking spans in the north-south directions and is supported by the wood joists resting on steel beams. See attached photograph P4 showing the bridge framing construction. The wood decking previously noted with decay appeared to have been removed and replaced. The wood decking was noted with new paint and topped

with new plywood. Attached photographs P3, P4, and P5 illustrate these observations. Deck supporting wood joists have end decays at random locations. This observation is exhibited in the attached photographs P8 and P9. The cause of wood decay could be attributed to dry and wet states (related to moisture) due to their exposed condition. Some of the wood joists were noted with reinforcement in the form of wood side plates. These side plates are noted warping and detaching from the main joists. All joists are painted. This observation is shown in photograph P10. Overall, the wood decking and wood joists are in satisfactory condition. The locations of the above observations with corresponding photograph numbers are provided in the truss schematics in Figure 2.

Steel Transverse Open Web Joists

The top and bottom chords of the existing transverse open web steel joists spanning in the east-west direction were constructed using double angles (back-to-back). Steel bars were used as web members in these trusses (see photograph P4). These joists were noted with new paint. In general, these existing steel transverse joists are in satisfactory condition.

Steel Longitudinal Trusses

Back-to-back double angles were used for both chord and web members in the construction of steel longitudinal trusses. In general, existing steel longitudinal trusses are in satisfactory condition with some minor issues, e.g., minor paint loss and member imperfections (bent angle legs) at random locations. These issues are shown in photographs P11 and P12. The Pabst Sign is supported on the east truss. A continuous pipe from Building 21 to Building 25 is supported along the west truss. The locations of the above observations with corresponding photograph numbers are provided in the truss schematics in Figure 2.

Truss Supports

The south ends of the bridge trusses are embedded into existing exterior brick masonry. Mortar loss, minor cracks, and minor corrosion in steel bearing plate were noted in this wall and is shown in attached photographs P6 and P13. The north ends of the trusses are resting on steel bearing plates installed over the parapet stone coping (see photograph P7). Failing sealant was noted over the cracked joints. See attached photograph P11. The existing metal stair at the south end of the bridge rests on the bridge decking. This stair has missing and failing treads. Also noted was the corrosion in these remaining treads. This observation is illustrated in photograph P14.

Repair Recommendations

Based on our observations of the decking, steel joists, steel trusses and their supports, following repair recommendations (in the same order as in the observation section) are made. All repair recommendations shall be performed before the next review in 2030.

Bridge Decking

In general, the wood decking and joists are in satisfactory condition. Only monitoring for the decay growth is recommended for the joists with end decays.

Steel Trusses

All the main steel trusses and transverse open web joists including welded joints appeared to have been painted. A touch-up painting is only recommended where paint is lost or missed. Also, recommendation is made to clean the

loose rust deposits as shown in the photographs P11 and P12. If the existing south stair is still in use, this stair needs to be repaired. The repair will consist of removing and replacing failing treads, proper stringer connections to the deck, and reviewing existing landing framing for condition and adequacy. Cleaning and painting are also recommended.

Truss Supports

Tuck pointing is recommended for the south wall area identified in photographs P6 and P13 supporting the south ends of the trusses. Prior to tuck pointing, remove all existing deteriorated and loose mortar up to one" in depth in the brick joints and clean. The tuck pointing detail is provided at the end of this report. At the north truss supporting ends, remove failing sealant, clean, and install new sealant at existing skyward stone cracks and mortar cracks. This repair will prevent moisture infiltration into the building wall.

Thank you for the opportunity to be of assistance to you and your staff. Please review the above information and contact me if further clarification is required or if additional questions develop.

Sincerely,

Pierce Engineers, Inc.

Shilak Shakya, PhD, SE, PE,
Senior Structural Engineer

Attachments:

Figures 1 and 2
Photographs P1 – P14

DISCLAIMER

The observations discussed and documented in this report are based strictly upon the observable exterior conditions. Concealed wall and column distresses may be present, and this report does not address unsafe or hazardous conditions that are created by internal distress that are not visible from the exterior. In addition, the scope of this report does not include numerical analysis of the structure, nor does it include a code-compliance review as an egress route.

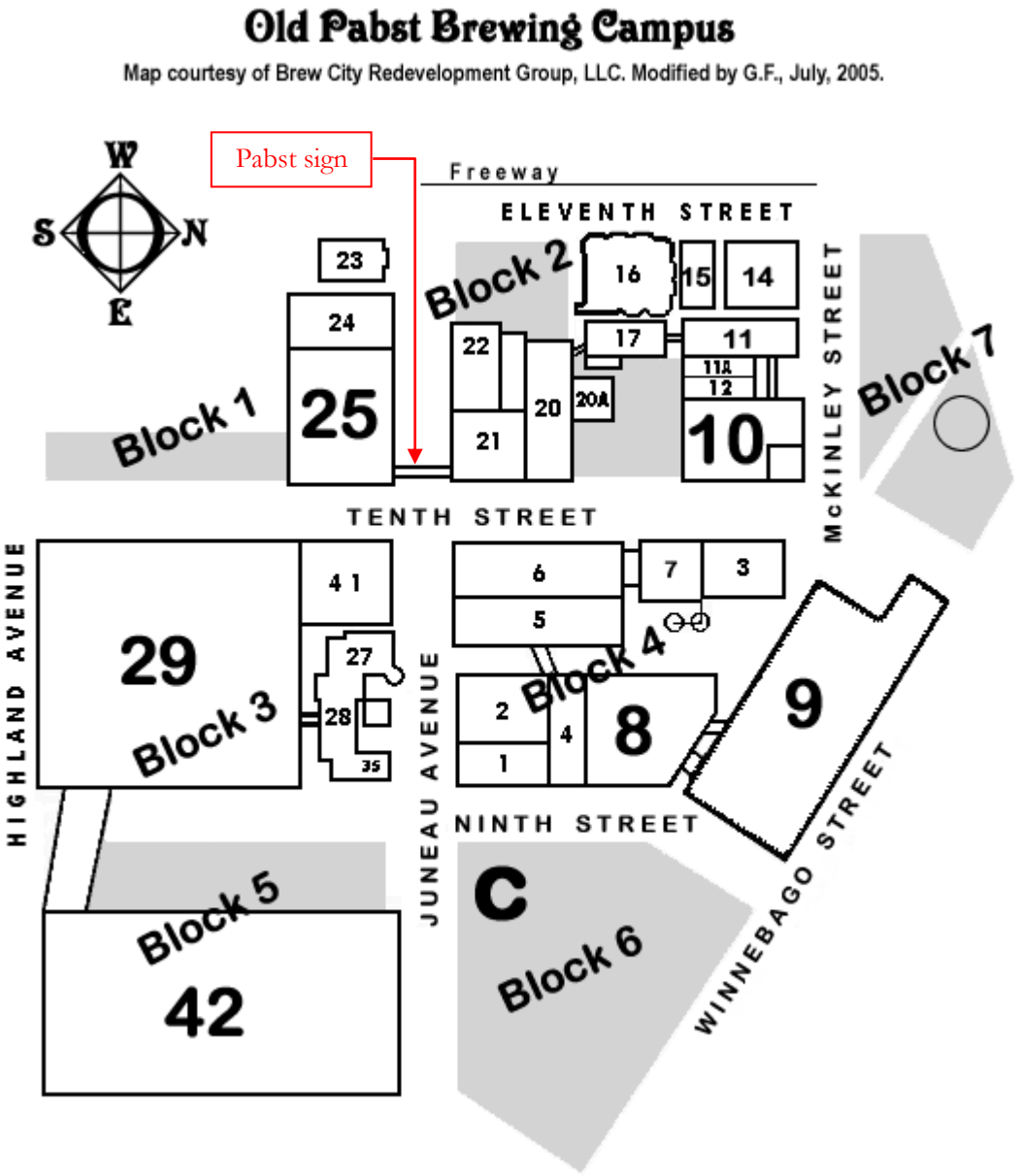
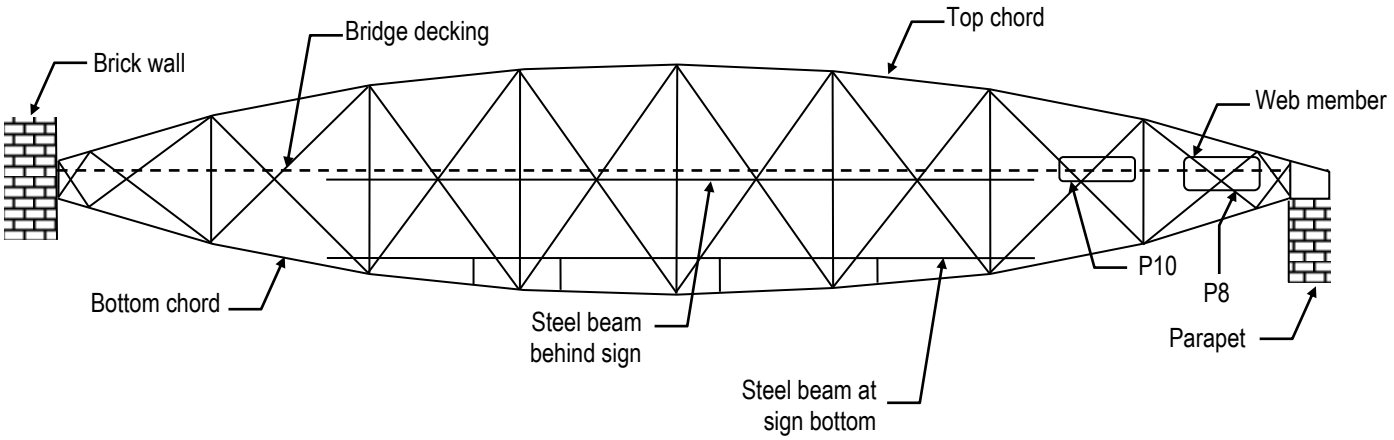
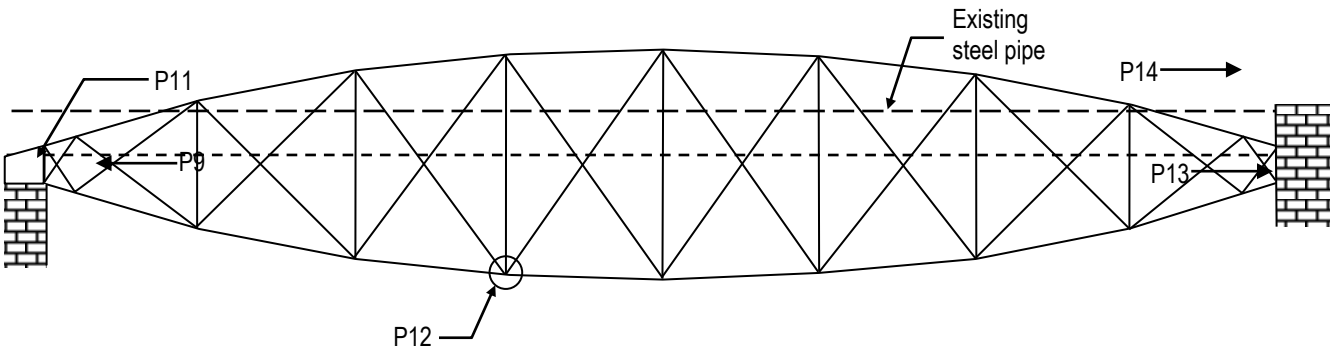


Figure1: Old Pabst brewing campus map



a) East truss (looking west)



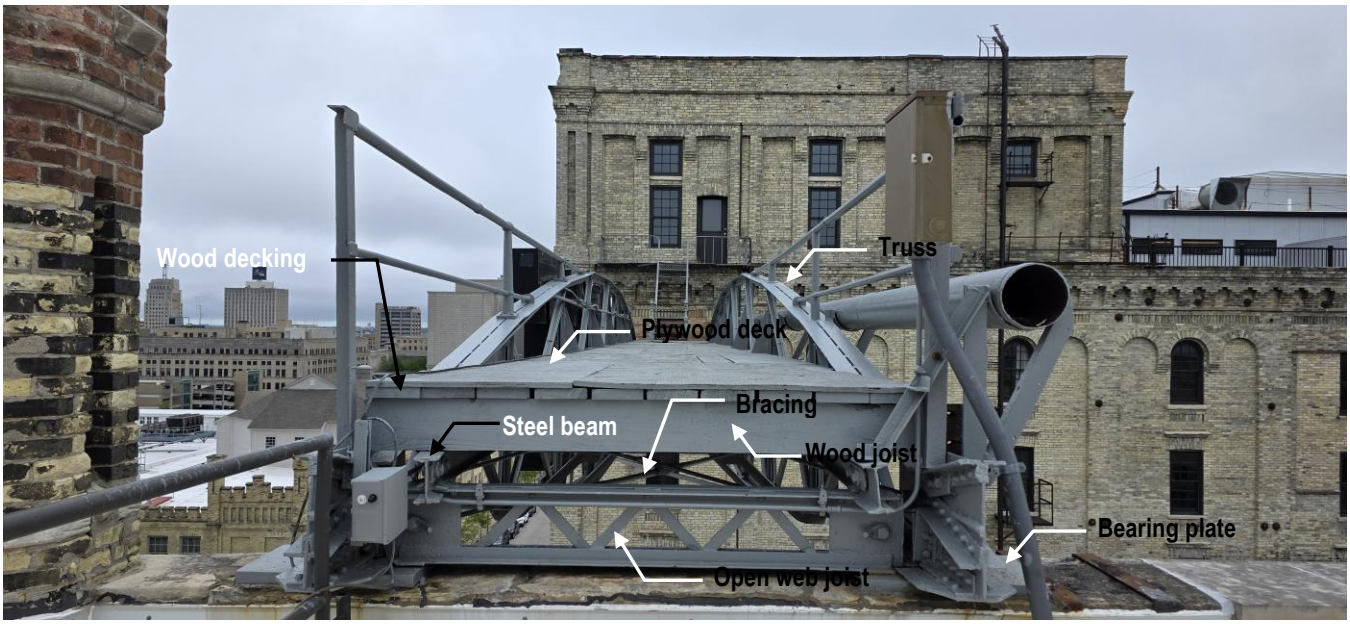
b) West truss (looking east)

Figure 2: Pabst sign supporting longitudinal trusses

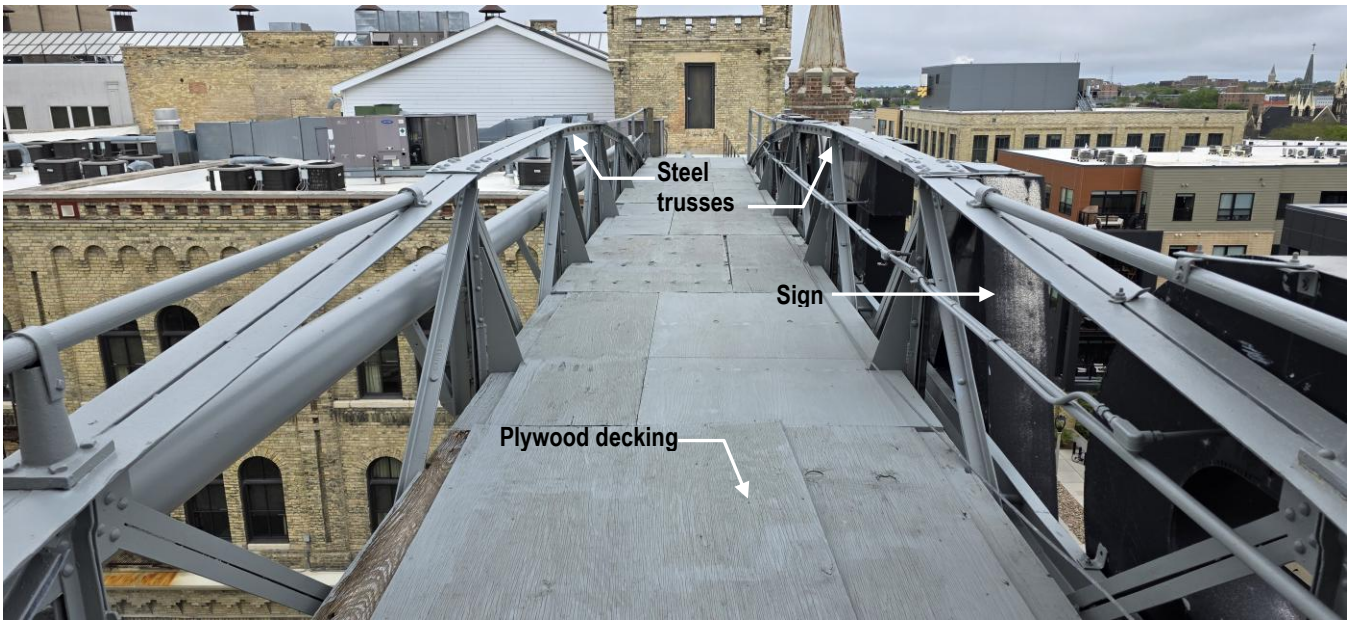
P1 Pabst sign bridge (looking west)

P2 Pabst sign bridge (looking east)

P3 Pabst sign bridge (bottom view).



P4 Pabst sign bridge decking (looking south).



P5 Pabst sign bridge decking (looking north).

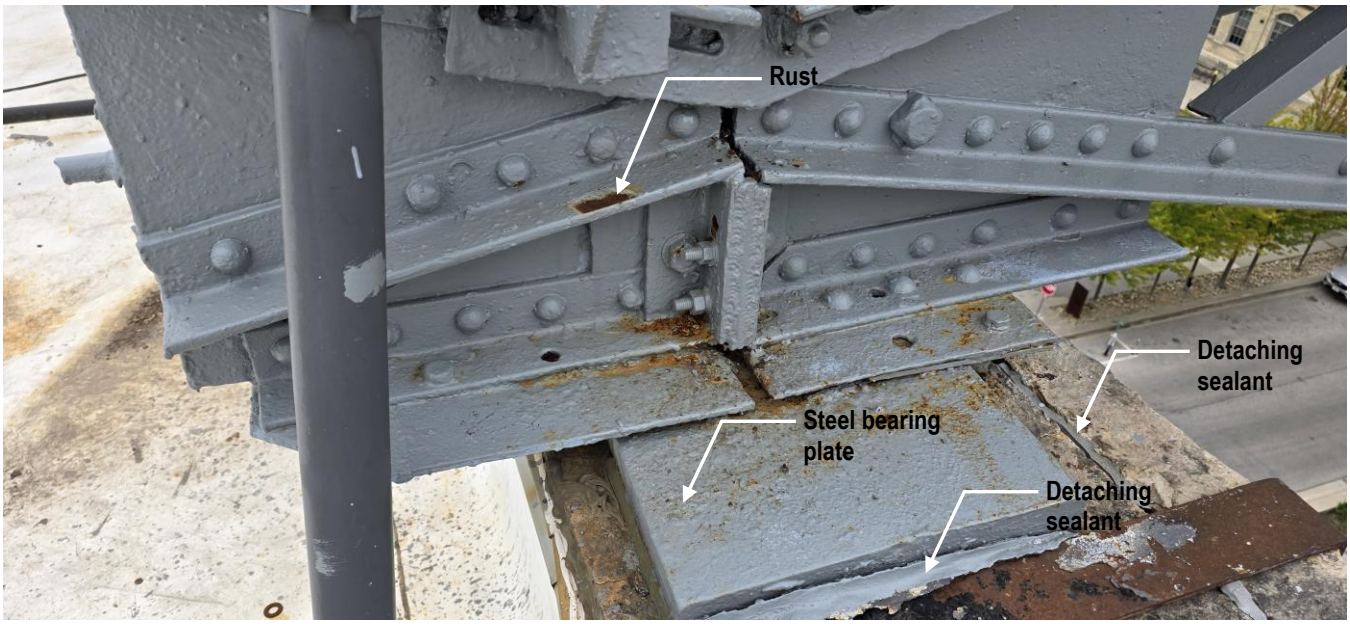
P6 Pabst sign bridge south support end

P7 Pabst sign bridge north support end.

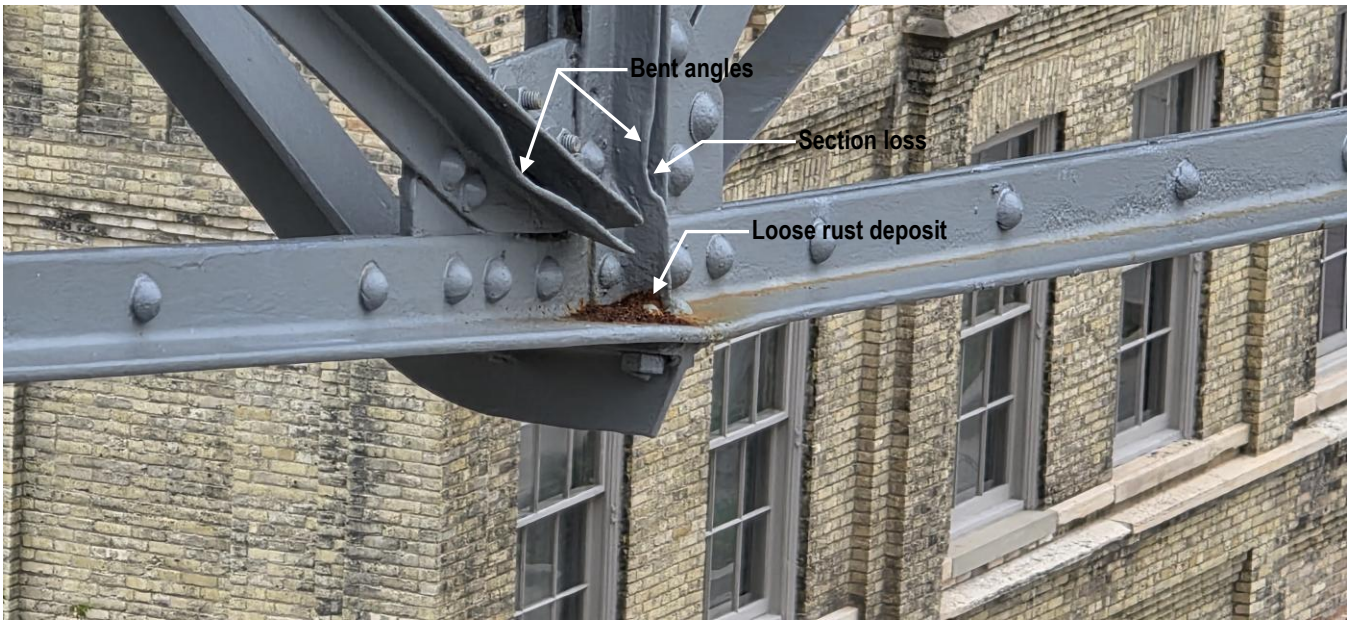
P8 Pabst sign bridge with end rotted wood joist (east elevation).

P9 Pabst sign bridge with end rotted wood joist (west elevation).

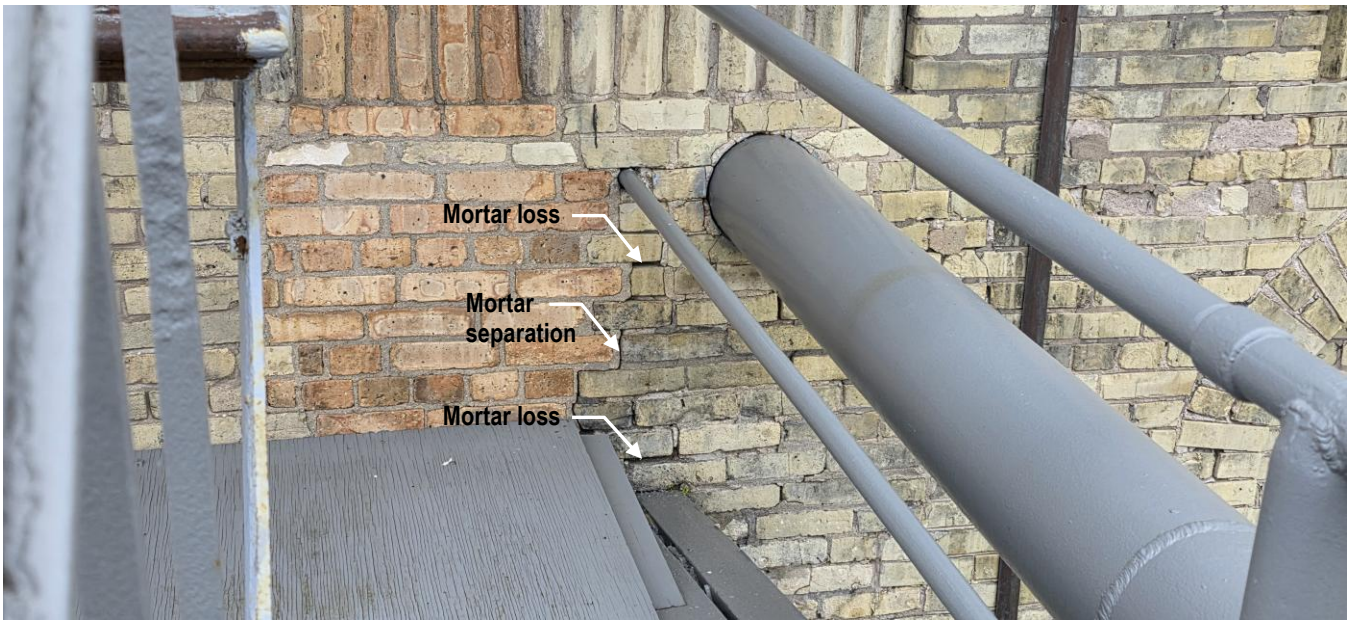
P10 Pabst sign bridge with detaching wood plates in wood joists.



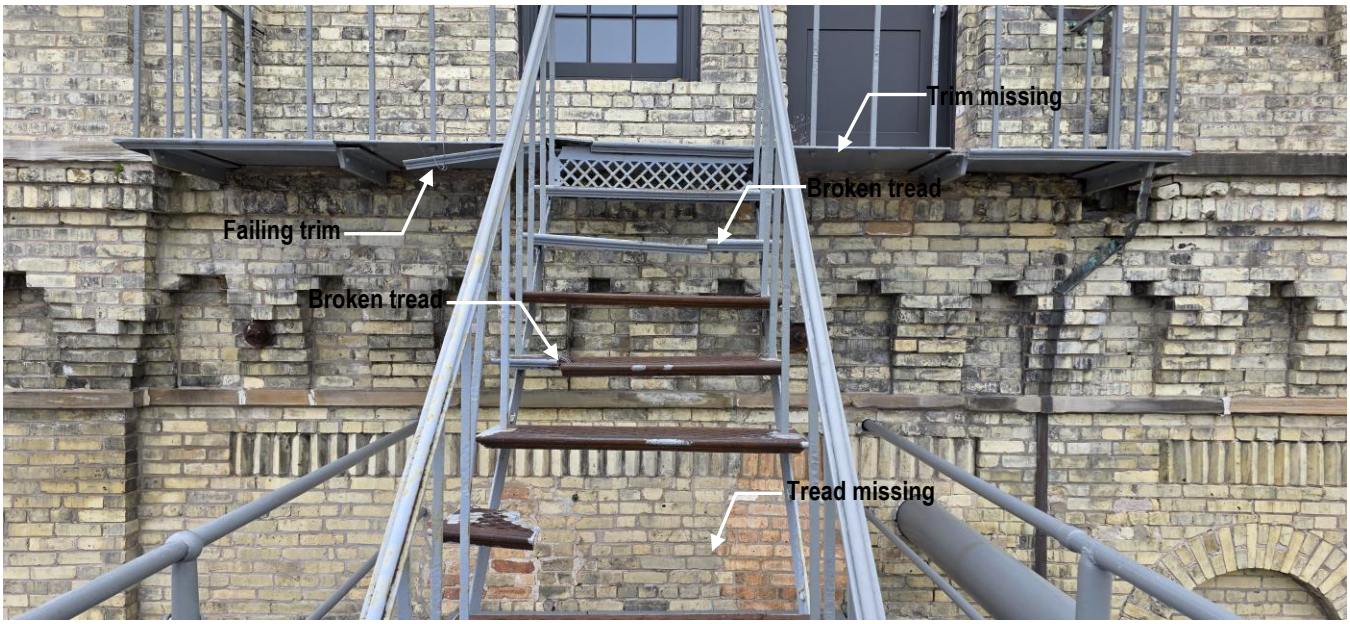
P11 Pabst sign bridge end support with a minor paint loss (north end).



P12 Pabst sign bridge truss joint with bent angles, section loss, and loose rust.



P13 Pabst sign bridge support with cracked and detached mortar joints (south end).



P14 Stair with missing and failing treads (south end).