

AGENDA # 2

City of Madison, Wisconsin

REPORT OF: LANDMARKS COMMISSION **PRESENTED:** February 3, 2014

TITLE: Marston Avenue and Sherman Avenue **REFERRED:**
 Pedestrian Bridge Restoration at **REREFERRED:**
 Tenney Park – Designated Madison **REPORTED BACK:**
 Landmark, Ald. District 2. Contact:
 Keith Behrend, Strand Associates Inc.
 (32606)

AUTHOR: Amy Scanlon, Secretary **ADOPTED:** **POF:**

DATED: February 3, 2014 **ID NUMBER:**

Members present were: Stu Levitan, Chair; Erica Fox Gehrig, Vice Chair; Christina Slattery, Jason Fowler, David McLean, Marsha Rummel, and Michael Rosenblum.

SUMMARY:

Kay Rutledge, Parks Division, provided a brief introduction. Rutledge explained that the Marston Bridge is a treasure in Tenney Park and that the bridge restoration project team has been working closely with City staff, Historical Society staff and the neighborhood.

Keith Behrend, representing Strand Associates, Inc., registering in support, wishing to speak, and available to answer questions. Behrend explained the scope of work proposed for each bridge. Behrend explained the Marston Bridge is a cast-in-place concrete arch bridge with earthen fill and two retaining abutments. There are delaminated concrete areas with corroded rebar on the underside of the bridge that is likely occurring because of the moisture and salts from the path above penetrating through the asphalt surface to the back side of the arch.

The recommendation is to remove the deteriorated areas of concrete and apply a rust inhibitor to the exposed rebar and repair the concrete surface. The upper concrete surfaces of the bridge have an exposed aggregate appearance due to the weathering process, but the underside of the bridge where weathering did not occur is a smoother concrete surface.

They plan to use a Thoroseal breathable product on the underside repairs.

On the tops of the parapets, the east side is in worse condition than the west side. A concrete core sampling test was conducted on each side to analyze the existing concrete mix. Petrographic analysis concluded more air spaces were present in concrete used on east side parapets which provided a more porous surface and accelerated the deterioration. They plan to replace both caps at this time due to aesthetics.

Behrend explained that with the original construction, the arch was constructed first, followed by the parapets and finally the earth infill and the path. The arch has a ledge that catches and holds water. They plan to remove the unsound material and reform new concrete to match existing appearance. Some areas along parapet walls will need surface repairs. The finishing techniques will blend into the adjacent texture.

A siloxane sealer will be applied to help with weatherization. Sealers will be tested before use to make sure appearance does not change.

The asphalt path will be replaced. In doing this work, the earth infill will be removed and a rubberized membrane installed on the arch to keep water off of back side.

Rummel asked if the ledge would be removed. Behrend explained that the ledge will be recreated with a slight top slope to drain water, but will not alter the appearance.

Slattery explained that in her experience, coatings typically change the appearance of the surface and that Preservation Brief #15 should be followed.

Behrend explained that the Historical Society had similar concerns, but the slight change in appearance was worth the benefit the sealers provide.

Slattery suggested that the Preservation Brief be noted in the special considerations of the specifications.

Rosenblum asked what the sealer might do to the surface appearance.

Behrend explained the surface may be slightly darker. Slattery explained that it may have a non-appropriate luster or finish.

Behrend explained that the entire bridge surface will be cleaned so that the new material is matched to a clean surface. This also allows the sealer to be applied to a clean surface so that all surfaces weather together.

McLean agreed with Slattery's concerns and asked about maintenance of sealer products. Behrend explained the sealer is applied once. The siloxane product will fill the pores and provide a barrier to water infiltration. McLean asked if the sealer would allow water vapor to pass through. Behrend explained that he was not certain and would look into it.

Behrend explained that the Sherman Avenue Bridge is a concrete arch bridge with limestone veneer that is in good condition. There are some areas of spalling on the underside of the arch and similar repairs and products would be used on this bridge as described for the Marston Bridge. The existing stone is in good condition, but where some are cracked, they plan to inject an epoxy adhesive with a dust additive to conceal the joint. Deteriorated mortar joints to be repointed and previously applied non-appropriate mortar will be removed and repointed with appropriate mortar. Existing original mortar was tested so that the new mortar matches color, texture and mechanical properties. The asphalt path will be replaced, but the rubberized membrane will not be installed, because this bridge has a higher arch which allows the water to drain away faster and not penetrate the concrete.

McLean explained that the use of a sealer product on this bridge is more concerning than on Marston because this bridge is stone and in good condition. Its condition proves that the materials are able to function as intended and that adding a sealer may change the properties of the surface and may harm the way the materials repel and release water.

Behrend agreed and explained that he would consider not applying the sealer on the Sherman Bridge.

Slattery suggested that the Secretary of the Interior Rehabilitation Guidelines be referenced in special provisions section.

ACTION:

A motion was made by Slattery, seconded by McLean, to approve the Certificate of Appropriateness with consideration to reference the Secretary of the Interior Standards and Preservation Brief #15, Preservation of Historic Concrete; consider not using sealers on both bridges, but in particular on the stone bridge; and to have staff provide final review and approval. The motion passed by voice vote/other.