Community Planning & Economic Development
Planning Division
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City of Minneapolis
Department of Community Planning & Economic Development - CPED

MEMORANDUM

TO: Heritage Preservation Commission

FROM: Brian Schaffer, Senior City Planner, 612-673-2670

DATE: August 8, 2011

RE: Concept Review of alterations to the St. Anthony Falls Lab facility as part of Section 106 consultation.

The University of Minnesota with federal assistance from the National Science Foundation, is proposing to renovate the Saint Anthony Falls Laboratory comprised of the main laboratory building and the Outdoor Stream Laboratory located in the adjacent Wasteway #2 (See Site Map- Attachment A). The renovation of St. Anthony Falls Laboratory will make possible significant advances in key research areas of energy and the environment.

Background on Section 106 Process

In 2010, the University of Minnesota was awarded a grant from the Academic Research Infrastructure Program: Recovery and Reinvestment (ARI-R²) Program of the National Science Foundation ("NSF") to design and, potentially, construct a portion of the project. The funding from the NSF renders the project a federal undertaking pursuant to Section 106 of the National Historic Preservation Act ("Section 106"). The NSF, the University, the Minnesota State Historic Preservation Office ("SHPO"), the National Park Service ("NPS"), the City of Minneapolis CPED-Planning acting on behalf of the Minneapolis Heritage Preservation Commission, and the Mississippi Riverfront Corporation, have been engaged in consultations as consulting parties in accordance with Section 106 and 36 CFR 800.2(c).

In August 2010, a programmatic agreement to meet the Section 106 review requirements was agreed to by the parties noted above. The programmatic agreement provides for three comment points along the process to develop the plans for the project. These comment points are at 30%, 60% and 90% complete plans.

CPED-Planning, Preservation & Design staff is bringing this item forward the Minneapolis Heritage Preservation Commission (HPC) for input on the 30% complete plans. CPED will forward the HPC's comments on to the University of Minnesota and NSF project team. The HPC will not have an opportunity to comment on the 60% or 90% complete plans due to the time periods to comment on these future iterations of the plans. However, CPED staff will provide comment on those iterations to the University of Minnesota and the NSF project team on behalf of the HPC.

This HPC review and comment is so that CPED can carry forward the thoughts, concerns and inputs of the HPC to the University of Minnesota and the NSF. This review and comment is not an approval of the project nor is it an approval the Section 106 review.

Before any of the proposed work can be approved by the City of Minneapolis and construction permitted, a Certificate of Appropriateness (C of A) will need to be applied for by the University of Minnesota. This C of A will be reviewed by the HPC in the same process as any other proposed alteration in a historic district is reviewed.

History of St. Anthony Falls Hydraulic Lab

The St. Anthony Falls Hydraulic Lab is a contributing resource to the St. Anthony Falls Historic District. To accompany this Section 106 review Hess, Roise, and Company prepared a report on the individual history and significance of the St. Anthony Falls Hydraulic Lab. This thorough analysis is attached (Attachment B) and concludes that the laboratory is eligible for individual listing on the National Register of Historic Places under Criterion A in the area of education and engineering. It is the only hydraulic testing laboratory in the United States to provide direct access to river currents.

Operated by the University of Minnesota, the laboratory is a research facility specializing in modeling studies of hydraulic phenomena and structures. Equipped with wheel pits for testing turbines, the laboratory draws water from the east side millpond and returns the flow through a tailrace on Hennepin Island. Designed by the nationally prominent hydraulic engineer Lorenz G. Straub, the building was completed with WPA assistance in 1938.[1]

Located on the west side of Hennepin Island, the St. Anthony Falls Hydraulic Laboratory is linked to Main Street by means of a north-south access road. Of primarily reinforced- concrete construction, the flat-roofed building features an irregular plan with one-story and two-story sections. Window openings are rectangular with industrial steel sash. Portions of exterior walls have been sheathed in metal siding, which is compatible with the building's original nondescript industrial character.

History of Wasteway #2

A portion of the proposed project directly impacts another resource within the district. The Outdoor Stream Lab (OSL) is located *within* Wasteway #2. In 1894, Wasteway #1, otherwise known as a spillway or canal, was created through Hennepin Island to relieve the east side millpond dam from flooding. In 1897, Wasteway #2 was built for the same purposes as Wasteway #1. (See Site Map – Attachment A). The Wasteways were designed by William de la Barre, an engineer who was instrumental in increasing the power output of the falls through manipulation of its water flow. The Wasteways have limestone walls and are contributing resources to the St. Anthony Falls Historic District.

[1] National Register Update of St. Anthony Falls Historic District, Hess and Anfinson. 1991

Scope of Proposal for the St Anthony Falls Hydraulic Laboratory

A majority of the proposed work is located within the interior of the building and will not impact the building's exterior or the surrounding site. The alterations that will be visible from the exterior property are listed and described below. See Attachment A for location of proposed areas of work.

Gate House: The applicant proposes to replace the existing windows in this building with divided light glass to windows to match the 1930s instruction. They are proposing to replace the access door and install louvers over the door. They also intend to install a crane to install and remove Gate House water in-take stop logs along with proper maintenance of the exterior Gate House Equipment

- Applicant's Description: Page 21 of Schematic Design Report. (Attachment B)
- Schematic Drawings: A-203B and S-200 (Attachment C)
- Concept Renderings (Attachment D)

Volumetric Tanks: Refurbish railings, railings glass and door frames

- Applicant's Description: Page 21 of Schematic Design Report. (Attachment B)
- Schematic Drawings: A-201A and A-550 (Attachment C)

Ecofluids Lab: This portion of the building was constructed in 1980. The Applicant is proposing to replace the sliding doors with a curtain wall window system that replicates the divided light appearance of the doors. A new exterior double door will be added, a window sill will be raised to accommodate changes to the door. And the skylight will be replaced in-kind.

- Applicant's Description: Page 22 of Schematic Design Report. (Attachment B)
- Schematic Drawings: A-201A, A-202A, and A-203A (Attachment C)

Outdoor Stream Lab (OSL): The existing OSL is located within Wasteway #2. The Applicant is proposing to construct a traveling bridge and carrying system within Wasteway #2. The traveling bridge will be used in gathering research data and carrying personnel over the OSL.

- Applicant's Description: Page 22 of Schematic Design Report. (Attachment B)
- Concept Renderings (Attachment D)

Stair and Elevator Addition: The Applicant is proposing to locate a new elevator and staircase on the east of the building. The elevator takes advantage of on an existing tower on this side with a partial bump-out for the elevator and adjacent addition for the stairway.

- Applicant's Description: Page 23 of Schematic Design Report. (Attachment B)
- Schematic Drawings: A-201A, A-204A, and A-301 (Attachment C) (Note: the provided elevations are very difficult to read and determine the proposed from existing.)
- Concept Renderings (Attachment D)

Building Windows: Replace windows with double pane glass to match existing window profile.

- Applicant's Description: Page 25 of Schematic Design Report. (Attachment B)
- Schematic Drawings: A-550 and A-551 (Attachment C)
- Site Walls/Window Wells/Window Survey (Attachment E)

Stone Site Walls: Replacing mortar and stone that is too deteriorated to remain.

- Applicant's Description: Page 25 of Schematic Design Report. (Attachment B)
- Schematic Drawings: A-550 and A-551 (Attachment C)
- Site Walls/Window Wells/Window Survey (Attachment E)

Front Entrance Enclosure: The Applicant is proposing a new "more high profile exterior entrance along with establishing a programmatic need for improved interior building communication between Third Floor buildings by requesting a new front entry and enclosure"

- Applicant's Description: Page 25 of Schematic Design Report. (Attachment B)
- Schematic Drawings: A-253 (Attachment C)

Additional information on the project and the Section 106 review process as well as electronic copies of the documents cited in this memorandum (listed in attachments B-E) can be found online at the following website:
http://saflr3.umn.edu/

Attachments

Attachment A: Aerial Photo Site Key by CPED Staff
Attachment B: Schematic Design Report
Attachment C: Schematic Drawings
Attachment D: Concept Renderings
Attachment E: Site Walls/Window Wells/ Window Survey