

Besser Museum for Northeast Michigan
Executive Director Report for Board of Trustees Meeting
August 2022

NEW HISTORY EXHIBIT:

1. I was able to set up a special TEAM in our Microsoft TEAMS software so that the DNMH Exhibit Committee can collaborate on the content development for the new exhibit.
 - a. Our first meeting was held August 2nd.
 - b. Our next meeting will be August 23rd.
2. Research and development are ongoing.
3. We are waiting to hear word back on the grant applications.
4. The brochure for our fundraising campaign has been developed and ready to print and mail. No date has been set to mail the brochures out at this time.
5. I spoke with a representative from MEDC about the Patronicity crowd funding grant match. That program/application is for funding the gap, or last (up to \$50,000) shortfall for your program. We will have to wait until the end of our fundraising efforts before we can apply.

BUILDING PROJECTS:

MUSEUM EXTERIOR:

The Capital Improvement projects funded by the Besser Foundation approved \$194,000 Capital Improvement grant are underway.

1. Moran Iron Works: **\$45,000** project.
 - a. This railings and sculptures have been installed and this project is completed.
2. Meridian Construction: **\$167,000** project
Meridian Construction has started the exterior projects. Please see photos of progress on the Board webpage.
 - a. All lower-level windows have been removed and blocked it. The next step is to waterproof the exterior block, then fill in the window well pits.
 - i. Once the window project is complete, the collection storage rooms can start to be set up as planned.
 - b. We are discussing if we need to close the museum when the front sidewalk is torn up and reinstalled.
 - c. The work to repair the columns and eaves are yet to be started.

HVAC/Chiller Project:

In May of 2021 we signed a contract with Johnsons & Woods to install the new chiller for the HVAC system. In May of 2022 the chiller was turned on. Since the May startup the HVAC has been having issues. It continually shuts off numerous times throughout the day and night and needs to be manually restarted. I reached out to all parties involved with the installation and operation of the HVAC system requesting a meeting at the museum to not only discuss the issues but design a plan of action to resolve them.

On Thursday, August 11 we had a 2.5-hour meeting with representatives from R.S. Scott (Susan Edwards and mechanical engineer John Richards from Apollo Engineering), Johnson & Woods (Ed

Hechlic), and Control Solutions (Kevin Skiba, and Dan the technician). It was determined that an outside balance valve was causing a pressure flow issues. This balance valve was not taken into consideration when designing the installation of the new chiller because it did not appear on the original blueprint drawings from when the 2000 HVAC system was installed.

The water pressure was assumed to be flowing at 225 psi. However, this unknown value, when discovered and tested was flowing at 140 psi. The difference in the pressure between the two valves is believed to be creating the issue in the closed loop system. The other issued flagged was pump 1 and pump 2. In the original design, they were set to be off until the unit called for water. Their conclusion was, having the water flow off in these two pumps is creating more of an open loop system where the pressure is always not consistent throughout the system. This imbalance would trip the system causing it to shut down.

The following is the plan of action that will be taken.

1. Remove the outside balance valve. This will eliminate one variable in what is believed to be is causing the HVAC shut down.
2. Set pumps 1 & 2 to operate at a minimum of 50% capacity. This will keep the water moving so that there is no lag in the flow when the chiller unit kicks on and needs water on demand.
3. Control Solutions cannot set the parameters for the HVAC to operate until the flow issue is corrected. Once corrected, Control Solutions will set the sequence of operations for the HVAC system.
4. Install an expansion tank to establish a consistent level of air pressure within the system. This expansion tank creates a balance in the air pressure in the closed system ensuring no distribution to the operations of the HVAC. The expansion tank was highly recommended, but not an immediate need from what the contractors/engineers were saying. It will create a better system and ensure less wear and tear on the unit resulting in the equipment lasting longer.

R.S. Scott is writing up a change order to submit to Johnson and Woods for the removal of the balance valve. Johnson and Woods will submit a proposal to remove the balance value. The timeline for this project is ASAP.

Unfortunately, the burden of cost for the removal of the balance value in step 1 will fall on the Besser Museum because that value was not indicated anywhere in the old blueprints from when the new HVAC was installed in 2000. Everyone on the project did not take the unmarked balance value I not consideration when designing the installation of the new chiller. Removing the balance valve should not be a big expense. However, the expansion tank could possibly be \$10,000+ project.

GREAT LAKES FISHERIES HERITAGE EXHIBIT:

1. **Chinook:** We were awarded **\$386,500** from the DNR Invasive Species Grant to build the Greats Lakes Fisheries Heritage Exhibit.

- a. **Phase 1:**

Huron Engineering has been hired to prepare the site and construction bids:

Task Lump Sum Fee

Topographic Survey \$1,700

Site Design Services \$3,900

*Geotechnical Services \$6,275**

Foundation Design \$4,900

*Bidding Services \$1,500**

Total Lump Sum Fee \$18,275*

2. Huron Engineering expects to have the bids ready by October. They will handle putting out the bids and vetting the proposals.
3. The construction to put up the pole building over the Chinook is undetermined at this time.
4. Lauren from Hammond Bay Biological Station will work with the Besser Museum to create signage for the Sea Lamprey story.
5. Besser Museum applied with the Huron Pines for an AmeriCorp worker in 2023 to work on the Great Lakes Fisheries Exhibit project. This cost will be covered by grant.
6. Jim is working on creating an outline for the exhibit narrative.

Planetarium:

1. Projector Issues:

- a. A few weeks ago, Johnathan reported that one of the planetarium projects was having issues and quit working.
 - b. He contacted Spitz and was told that we can send in our projector, and they will sell us one of only 4 projectors they have left for \$12,000 with a 90-day warranty.
 - c. I contacted a local technician that has worked on electronics for the past 30 years. He did research into trying to trouble shot the problem and find parts for the projector. He was told by the factory that there are no parts available and that they are no longer making parts for this projector.
 - d. Currently, we have been operating the planetarium with one projector on half the dome. While the project has been down, we have been selling all tickets for \$3 each.
 - e. We will be researching alternatives to fix issue. It is not a good investment for the museum to spend \$12,000 on a projector that you will not be able to get parts for.
 - f. We were also told last year that our Spitz system, which we purchased in 2016, is no longer supported and being phased out.
 - g. Spitz is phasing out of selling equipment. Their parent company has decided they are going to stop selling the software systems and equipment, and they will focus on fabricating the domes. They are now phasing over to Digi-Star software and technologies.
 - h. For now, we are going to continue operating at half-dome. Most patrons don't even notice or complain.
2. **APS Summer Enrichment Program:** Johnathan hosted four summer enrichment programs for APS. The programs were very successful averaging between 18 to 21 students per session.
 3. **Astro and Ales** events have been gaining popularity. Some have had to be canceled due to cloud coverage.
 4. **Meteors and S'mores** Friday, August 12th at Rockport State Park. Johnathan will do star gazing at this event.

Misc.

- Fall Harvest Fossil Fest is scheduled for Saturday, October 1st. The program is still be developed.
- Season of Light: The designers meet the first week of August to discuss this year's theme. Decorating will begin October 31st.