



## *City Council Memorandum*

**To: Mayor Fasbender & City Councilmembers**  
**From: Chris Jenkins, Parks & Recreation Director**  
**Date: May 15, 2022**  
**Item: Hastings Civic Arena West Rink Roof and Refrigeration**

**Council Action Requested:**

Review potential scenarios, and provide support and authorization for staff to move forward with a preferred option.

**Background Information:**

1. The roof system on the west rink is now 25 years old, has served its useful life, is failing and we see an increase in water leaks inside the west rink year after year. With the assumption that the Hastings Civic Arena will remain where it is and serve the Hastings community and region for the next 30+ years, it is time to invest in a new roofing system.

Installation of a modified built up roofing system on the west rink is the preferred and most beneficial outcome. This type of system allows the roofing insulation to meet current building codes, allows for proper drainage to be achieved, collected and routed to the west side of the building and diverted away from the main entrance of the building. It also allows the potential to install a solar energy system on top of the roof to help reduce energy costs at the facility.

2. The current refrigeration system is an R-22 system. That refrigerant is no longer in production, is difficult to acquire, and is far less efficient than newer refrigerants like ammonia. Replacement of this refrigeration system has been a discussion topic for multiple years, and during that time frame the cost of updating has continued to increase significantly.

To replace this system in 2024 requires the City to make some decisions now. There are components that have 12-month lead times, and there are design and engineering tasks that also must be completed in advance to ensure the components are sized correctly and will operate within the overall system.

Ultimately Council needs to decide on a path to move forward with both of these projects. There is potential to have the west rink roof replaced yet in 2023, however that window of opportunity is closing fast.

Staff recommendation is:

- Plan for and commit to a 2024 comprehensive project as it was proposed to the State Bonding Committee to include the refrigeration system, west rinks roof, lobby roof, varsity locker room roof, LowE ceiling in the west rink, interior lighting upgrades to LED, and solar system installation at a cost estimated around \$5 million.
  - This would require an estimated \$441,217.00 immediate investment in both the Motor Control Center for the refrigeration system, and refrigeration design work to appropriately size the MCC's.
  - Staff to seek affordable, temporary roof repairs to minimize leaks.
  - A completed 2024 project would be funded through a combination of funding sources to include Arena fund balance. Other sources COULD include State Bonding, and would also require issuing debt.

Alternate, less desirable options include:

- Pull the trigger on the west rink roof in 2023 as a standalone project only at an estimated cost of \$960,667.00.
  - As mentioned, there is the potential to replace the west rink roof in 2023 utilizing the Design Build process, however a decision needs to be made now to have that option.
  - A 2023 project would be funded with both Arena and Parks fund balance. This scenario would reduce the ability to use Parks fund balance for other projects in 2024 and beyond.
  - This option still leaves the need to update the refrigeration system, and if that is to occur in 2024, the \$441,217.00 investment in the MCC and Design still needs to be made.
- Plan for and commit to a 2024 West Rink Roof replacement project only, with today's estimated cost of \$960,667.00.
  - Delaying this to 2024 will certainly increase the cost, to what degree is unknown.
  - A 2024 project would be funded with both Arena and Parks fund balance. This scenario would reduce the ability to use Parks fund balance for other projects in 2024 and beyond.
  - This option still leaves the need to update the refrigeration system, and if that is to occur in 2024, the \$441,217.00 investment in the MCC and Design still needs to be made.

These are large and important projects to protect the city's assets, improve energy efficiency, and ensure this facility is able to serve the community for

years to come. Staff are seeking Council support to move ahead with staff recommendation or guidance on which direction to move forward with.

**Financial Impact:**

With any scenario there will be significant financial investment, and a need to rely on multiple sources of funding. Staff, with Council support, will continue to seek State Bonding funds for this project.

On the positive side of the financial coin, there is potential to sell the recovered R-22 refrigerant currently used in our system. The revenue generated will depend upon the market rate at the time of recovery and any fees needing to be paid to recover that volume of refrigerant.

**Advisory Commission Discussion:**

N/A

**Council Committee Discussion:**

These projects have been discussed over the years at a variety of levels within council committee's and council workshops. Council provided support for staff to apply for State Bonding in 2022 and again in 2023. Most recently, these projects were discussed at the April 3, 2023 City Council workshop, along with other potential projects. It was understood that these projects are necessary to preserve the asset that is the Hastings Civic Arena.

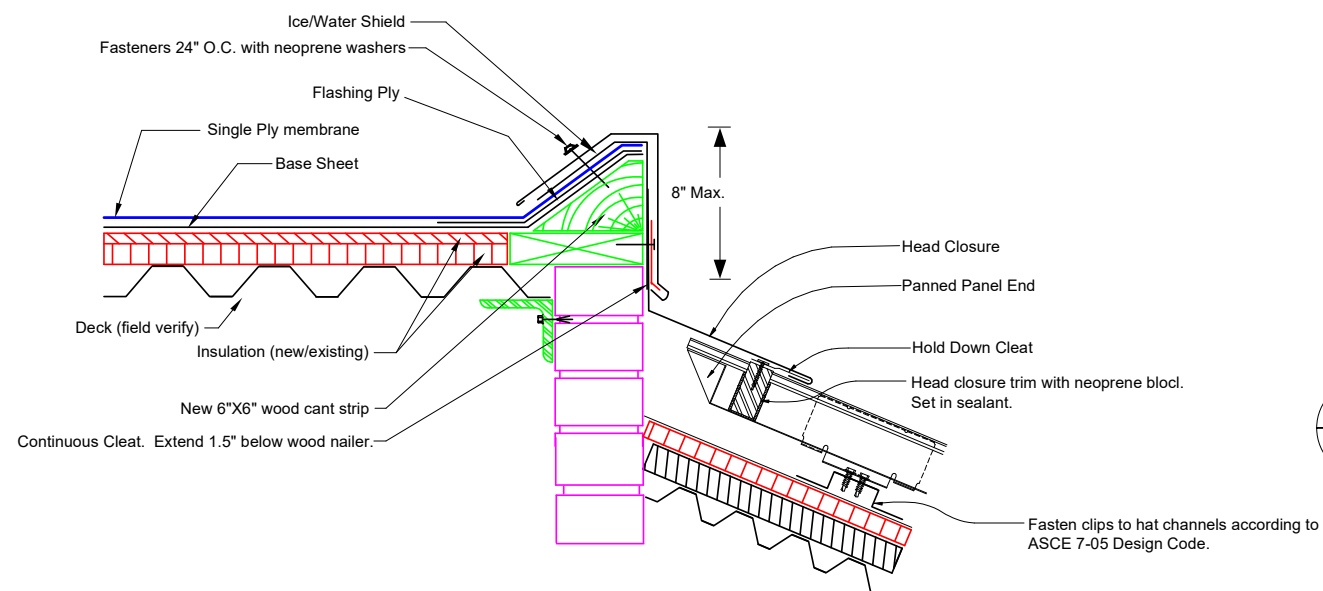
**Attachments:**

- West Rink roof plan and photos



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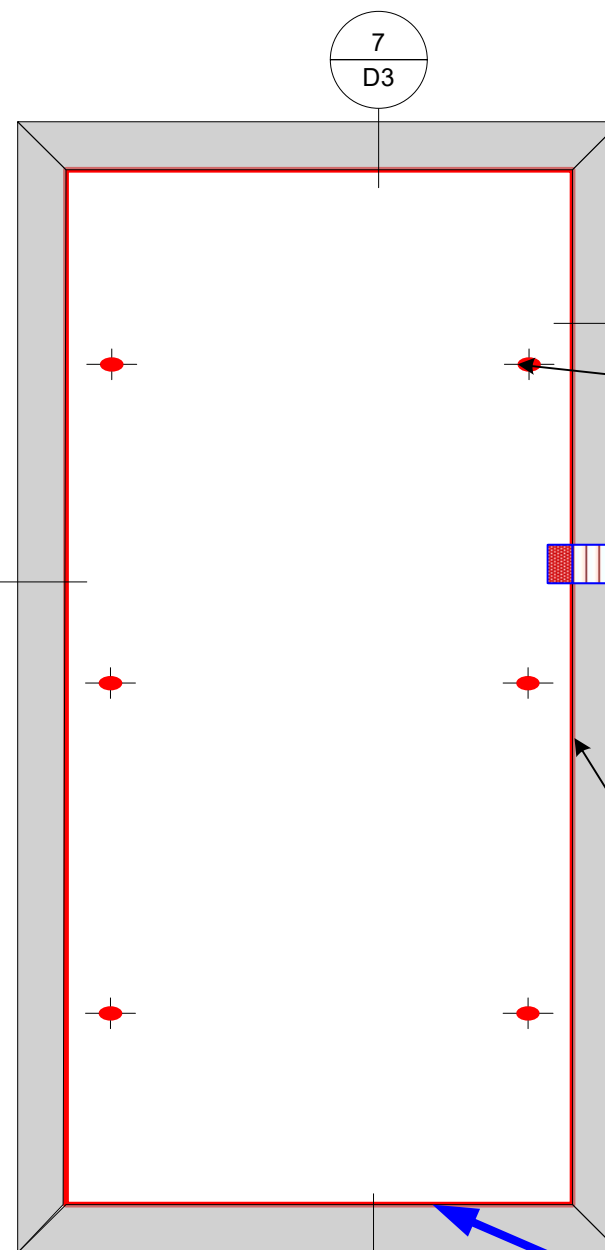
**City of Hastings  
Civic Center**



**7**  
**D3** Transition Detail – Flat roof to Standing Seam Roof

**PROJECT NOTES:**

1. NEW ROOF SYSTEM ON AREAS IDENTIFIED ABOVE SHALL BE AS FOLLOWS:
  - 1) Existing & new insulation fastened as required.
  - 2) 1/2" wood fiber recovery board.
  - 3) Base sheet and flashing ply .
  - 4) Single ply membrane.
2. All roof drains and primary scuppers shall receive 12' x 12' roof sump.
3. All roof penetrations shall have a min. of 8" flashing heights.
4. All penetrations and perimeters shall receive new prefinished perimeter sheet metal. **Owner to approve color.**



**New Roof Drains**  
Roofing contractor to supply and install six (6) new roof drains/strainers.

**LINE Item ADD:** Install new ladder and steps with rails sloped and attached to new curbs.

**Perimeter Edge Detail (6/D2)**  
Install new wood blocking to account for total insulation thickness. Install new 6'X6" wood cant strip. Install new head closure / closure metal onto the existing standing seam roof system.

**Perimeter detail**  
Install minimum 6 courses of 2X6 lumber and 6X6 wood cant to accommodate new insulation and drainage modifications.

*legend*

- Details
- Roof drain
- Roof Curb
- Plumbing stack
- Scupper
- Skylight



TITLE: Roof Replacement Project

COMPANY: City of Hastings

DATE:

SCALE:



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