| **Building Element** | **Issue** | **Comments / Costs / JP2G Priority / Options** | **Recommendation** | **Year** | | | | **Annual Maintenance** |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **1-2** | **3-4** | **5** | **Future Year Plans** |
| **SITEWORK** | ***2.3 Site Drainage***  Drainage from the building is problematic on all sides with exception of recently completed north wall. The road along the east side is considerably higher than the arena floor and all ground surface drainage from the road ROW goes to a shallow ditch beside the arena which has a minimum slope. Consideration should be given to providing a more pronounced ditch grade with an in ground drainage system complete with yard drains. The drainage system would outlet to the adjacent drainage creek. **($8,000)**  The west side of the building is a flat grassed landscaped area with minimal slope from building perimeter. This area should be re-graded by the addition of fill material to provide positive drainage away from the building. **($2,000)** | This work needs to be done. The township should be approached and asked to do this work.  $10,000  D – Building Functionality  JP2G – Y1 | Township should be asked to include as part of their operating budget.  **Should be no cost to WDRA!** | **X** |  |  |  |  |
| **STRUCTURE** | ***3.1 Foundation Walls***  The top 8-12” of the exterior foundation walls are  exposed and therefore were the only portion visually  inspected. The west exterior portion of the foundation  has areas of moderate to severe spalling and  disintegration underneath the sill of the steel  superstructure. The concrete sills under the south-west  and south-east man doors also showed the same types  of deterioration. The east, north, and south foundation  walls are in fair condition. Visually the foundation walls are in “fair” condition. Recommended repair involves properly cleaning the damaged areas of walls from loose debris and dirt, then application of an epoxy mortar compound over the damaged areas until flush with original thickness of wall.  Effective age: 28 years  Remaining Life: 5 years | Quantity Estimate: 45m2  Unit Cost Estimate: $200/m2  Life Span Analysis: Expected Life: 50 years  Cost Estimate: $10,000  Priority B – Structural Integrity  JP2G – Yr5 | We could probably do this ourselves. Labour costs could be 0 dollars and material **costs of approximately $1000.** | **X** |  |  |  |  |
| **STRUCTURE** | ***3.3 Roof Structure***  The roof structure is a Behlen corr-span. This is a heavy  gauge corrugated steel roof supported by a steel truss  system. The steel truss system had no signs of cracking  twisting, or deflection. The galvanized coating on the  truss members is in excellent condition. The corrugated  steel roof has surface rust forming on the exterior  surface however the rust is not currently detrimental to  the strength of the structural. There are several areas at  the seams of the metal roofing where leakage may be  occurring due to gaps in the connection points.  Visually the roof structure is in “Good” condition.  Recommended repair involves the application of a  bituminous membrane to ensure seams and connection  points do not leak onto the interior components of the  structure. | Life span analysis: Expected Life: 50 years  Effective age: 28 years  Remaining Life: 15 years  Cost Estimate: $60,000  Priority: not rated. Likely: B, D.  JP2G – Y15  Roof is leaking now. Should be addressed prior to Y15. | This should be done over the Hall sooner than later if it could be done separately.  Hall  Rink  We should explore with contractor if this could be done in stages**. HALL in the range of $15,000-20,000. and RINK in year 5 (45K)** | **X** |  | **X** |  |  |
| **STRUCTURE** | ***3.4 East Side Ramp and Stair Entrance***  The structure on the east side of the building is  constructed of steel framing and a concrete deck  for a ramp. The entire underside of the frame for  the ramp is covered with moderate to severe  corrosion. The steelwork under the stairs appears  to have been patched on multiple occasions. The  galvanized grating is in good condition and may  be salvaged if possible. The steel frame for the stairs and ramp are in “poor” condition. Recommended repair involves  a complete replacement of the entrance structure  with either a galvanized steel or concrete  structure. | Cost Estimate: $40,000  Life Span Analysis: Expected Life: 30 years  Effective age: 28 years  Remaining Life: 2 years  Priority: not rated, but likely A,B,C  JP2G - Y2 | This should be done as soon as funding can be arranged. | **X** |  |  |  |  |
| **STRUCTURE** | ***3.5 Interior Floor Systems***  The interior second floor systems are wood joist and plywood construction. No visible signs of deformation or degradation were noted during our visual assessment. Visually the floor structure is in “Good” condition. No recommendation for repair to the  2nd floor system was observed. To meet the original design of the 1Hr. fire rated floor assembly, all exposed wood and steel structural members supporting the second floor ie: beams, columns etc. should be clad with 5/8” fire rated gypsum. Areas with lay-in ceiling tile should be checked to ensure that it is all a fire rated system and tie down clips installed. | Cost Estimate : $4,000.00  Priority B – Structural Integrity  JP2G – Yr 1 | Should be done but it could wait for a couple years unless we are advised otherwise.  This might not need to be done to the extent stated. We will assess further 2012. Could be less perhaps more like in the **$1000 range**. |  | **X** |  |  |  |
| **STRUCTURE** | ***3.6 Rink Slab***  The concrete rink slab showed no signs of major movement or any irregular cracking. Recent repairs along the outside edge of the slab where the boards are located were detected.  Visually the rink slab is in “Good” condition. No recommendations for repair.  Life Span Analysis: Expected Life: 50 years  Effective age: 28 years  Remaining Life: 22 years | The rink was established in 1976 so it is >35yrs.  JP2G did not assess replacement costs.  AC Mechanical has estimated $4-500,000 to replace slab and boards. | The slab is good enough for the foreseeable future unless a brine pipe breaks. We can put in some cement as require as part of annual maintenance.  **Beyond the scope of this plan.** |  |  |  | **X** |  |
| **STRUCTURE** | ***3.7 Ice Plant Structure***  The concrete block structure which houses the  Zamboni and ice plant is in good condition.  Repairs are required to localized cracks as well as  sealing between the concrete block structure and  the arena metal siding. The roofing membrane consists of insulation overlaid with a built-up tar and gravel and  modified bituminous flashing capped with metal.  No test cuts were done to inspect the insulation  and vapour barrier, however, overall condition  appears good and should last the duration of the  study. | $2,000.  Priority: not rated. But could be B, D  JP2G – Y1 | This work could be put off until it gets worse or other issues arise  The roof was recently replaced by a professional roofing company and should be good for 20+ years.  **$1000 estimated.** |  | **X** |  |  |  |
| **BUILDING EXTERIOR** | ***4.1 Eaves Troughs and Downspouts***  The building does not have eaves troughs and downspouts except that there is approximately a 16’-0” length at the second floor entrance on the east side of the building. This section of eave trough has caused problems over the years with ice damming and runoff discharge. Consideration should be given to modifying the roof slope to provide drainage to both sides of the entrance stairs/ramp allowing for a safer entrance. | Priority: not rated. But could be B, D  No money assigned | ***Should be considered with 3.4 East Ramp Entrance.*** | **X** |  |  |  |  |
| **BUILDING EXTERIOR** | ***4.2 Soffit and Fascia and Gable Vents***  Due to the type of building construction, no soffit and  fascia was installed. Ventilation of the attic area is  provided by gable vents at the north and south end.  The present condition of the gable vents and motorized  fan is poor. Recommended repair involves replacement  of the existing vents with a weatherproof type complete  with thermostatic control dampers and sealing existing  slotted siding. | Unit Cost Estimate: $2,000  Cost Estimate: $6,000  Life Span Analysis: Expected Life Span: 30 years.  Effective Age: 28 years  Remaining Life: 2 years  Priority: not rated. But could be B, D.  JP2G – Y2 | Suggest putting a hood/roof /cover over them to keep the rain out. Costs should be lower but would have to be confirmed with a contractor.  Water is coming into the Hall attic and causing damage.  **$1000** | **X** |  |  |  |  |
| **BUILDING EXTERIOR** | ***4.4 Windows***  There are very few windows in this building. The  offices and recreation hall at the north side of the  building have double pane, non-thermal windows  which were installed in 1985. The existing windows  are close to the end of their service life and therefore  consideration should be given to replacing them with  thermal units. **Life Span Analysis:** **Expected Life Span**: 30 years  **Effective Age:** 26 years  **Remaining Life:** 4 years | Unit Cost Estimate: $1,000  Cost Estimate: $7,000  Priority: D  JP2G – Y4 | Put this out to beyond 5 years.  Not leaking. They are not energy efficient but are good enough for the time being.  **Beyond the scope of this plan.** |  |  |  | **X** |  |
| **ELECTRICAL SYSTEM** | ***5.1 Distribution Systems Service Entrance***  The building service entrance consists of a main disconnect, meter cabinet and splitter with the splitter feeding sub-panels and equipment disconnects (see photograph). The equipment appears to be original to the building and remains serviceable. Due to its’ age, and potential degradation of plastic components such as insulators and loosening of connections, annual thermographic inspection of the system is recommended. Visually, the equipment is in “average” physical condition. Although the equipment should last the life of the building, as it ages, 5% of the total cost should be budgeted for upgrades and repairs every 5 years. / Life Span Analysis: Expected Life: 35 years  Effective Age: 28 years  Remaining Life: 5, 10, 15, 20 Years | Quantity Estimate: 1 system  Unit Cost Estimate: $5,000  Cost Estimate: $20,000  Priority D – Building Functionality  JP2G – Y5 | Tighten and Torque (T&T) annually to ensure there is no loose wiring. Can be done inexpensively as part of annual maintenance.  Should be less than projected.  Still has time to go.  **$1000 once every 5 years** |  |  |  | **X** | **X** |
| **ELECTRICAL SYSTEM** | ***5.2 Distribution Systems Sub-Panels***  The distribution system consists of several breaker  panels, motor starters and disconnects located at the  main service entrance and throughout the facility.  Visually, the equipment is poor to average condition  with plates bolted over opening left when removing  breakers, and marking on covers to indicate circuit  use. The equipment is a mix of original and newer  equipment with differing life expectancies. Breakers  will need to be replaced as they age or wear out and as  replacement parts become difficult to obtain, may  require replacement of complete panels. The cost of  these replacement breakers and panels is included in  Section 5.1 Distribution Systems Service Entrance. | Refer to 5.1 above | Hydro Inspector has been through with Peter Ethier and found a few deficiencies that were repaired to his satisfaction.  **To be addressed as part of 5.1** |  |  |  | **X** | **X** |
| **ELECTRICAL SYSTEM** | ***5.3 Lighting***  Generally the lighting throughout the hall,  washrooms, change rooms etc. are T12 or T8 type  fluorescent fixtures. Most fixtures are older, with  some of the lenses beginning to crack or deform or  missing. As noted in the Energy Audit Report  (2008), the T12 fixtures should be replaced with T8  or T5 fixtures.  The rink lighting is with metal halide fixtures and  should be replaced with T5HO fixtures as  recommended in the Energy Audit Report (2008).  The T5HO bulbs can last over ten years before  needing to be replaced due to loss of brightness or  color shift. T5HO can only be used if the rink is  heated to minus 17 Celsius. | Unit Cost Estimate: $75 (2 lamp, surface mount)  Cost Estimate: $3,000  Priority: D  JP2G - Y2  Cost Estimate: $27,000  Priority: E (Cost Effective)  JP2G – Y2 | Replace as they break down. Include in annual operating costs.  An investigation into ballasts blitz for energy savings would be a good idea. The rink is seldom warm enough for these lights. **Recommend that unless there is a grant available we not do this.** |  |  |  | **X** | **X** |
| **ELECTRICAL SYSTEM** | ***5.4 Electric Heating***  The draft barriers and auxiliary heat is  accomplished by electric base board and unit  heaters. The life expectancy of these heaters is  approximately 40 years. Even though the heaters  are functional, one or two heaters can expect to fail  every year or so due to age.  Life Span Analysis: Expected Life: 40 years  Effective Age: 28 years  Remaining Life: 12 years | Unit Cost Estimate: $500  Cost Estimate: $5,000  JP2G – Y12  Priority D – Building Functionality | Replace as they fail. Monitor as part of annual maintenance.  **$2.5K over the next 5 years**  **$1000 Yr 1-2**  **$1000 Yr 3-4**  **$500 Yr 5** |  |  |  | **X** | **X** |
| **ELECTRICAL SYSTEM** | ***5.5 Non-Compliant Outlet/Switch Installations***  In several washrooms, standard electrical outlets were located within 1.5 m of the sink. By Electrical Safety Code requirements, these should be replaced with GFI Class A type outlets.  ***Unsafe Outlet/Switch Installation***  The switch controlling the stove exhaust fan is mounted on the face of the hood and could be subjected to high vapour (steam) when the stove is in use. The wiring technique does not comply with code and re-location of the switch to the back wall adjacent to the stove is recommended. | Cost of GFI outlets: $500  Required immediately  Cost of Relocation: $500  Required immediately  JP2G – Y1  Priority A – Life Safety | This work must be done as soon as possible for safety reasons. Will be put on list to be completed this year.  **Maintenance.**  **$200.** |  |  |  |  | **X**  **X** |
| **ELECTRICAL SYSTEM** | ***5.6 Emergency Lighting***  Emergency lighting is provided by low voltage battery pack systems spread through the facility. These units appear to be reasonably new, and in good condition. It is recommended that an allowance be carried for replacement of the battery packs on approximately a 10-year cycle. Individual lamp replacements would be expected to come from the regular maintenance budget. Units should be inspected, tested and maintained in conformance with CAN/CSA-C282, “Emergency Electrical Power Supply for Buildings.” | Unit Cost Estimate: $200  Cost Estimate: $200  Life Span Analysis: Expected Life Span: 10 years  Effective Age: 5 years  Remaining Life: 5, 15 years  JP2G – Y5 and Y14  Priority D | These are checked annually as part of regular maintenance.  There are about 8 batteries and we would replace 2 per year.  **$200 annually**  **$400 yr 1-2**  **$400 yr 3-4**  **$200 yr 5** |  |  |  |  | **X** |
| **ELECTRICAL SYSTEM** | ***5.7 Fire Alarm***  The fire alarm system is an Edwards EST 6616 series, with current verification. The main panel is located at the lower entrance at front entrance lobby of the building. This system appears to be in good physical condition and is regularly tested as required by a specialist contractor for this type of equipment. These systems are generally very reliable; however, as they age, the detectors do fail occasionally and replacement of one detector every year or so can be expected. A number of the pull stations are not at handicapped accessible height (1.2 m aff). The affected pull stations should be re-located as required by current regulations. Life Span Analysis: Expected Life Span: 20 years (to be verified) Effective Age: 5 years (to be verified) Remaining Life: 15 years (to be verified) | To reduce costs, relocation could be performed as part  of the annual re-verification contract.  Cost Estimate: $15,000  Priority C – Legislative Requirement  JP2G – Y15 | These should be Ok unless we are advised to do otherwise.  No money required at this time. Address through annual maintenance.  **Beyond the scope of this plan.** |  |  |  | **X** |  |
| **MECHANICAL – HVAC SYSTEMS** | ***6.1.1 Water Furnace Heat Pumps in Community Hall and Kitchen***  The community hall, washroom area and kitchen are heated and cooled by 4 “Water Furnace” open ground loop coupled heat pumps. Wall mounted thermostats control operation. Return air filtration is with one inch thick re-usable (washable) filters. Life expectancy of the units is approximately 25 years before replacement is required. Establishment of a reserve fund of approximately $10,000 to cover unexpected failure of major components (i.e. compressor, or heat exchanger) should be considered. Open loop units can develop problems with scaling in the heat exchanger after approximately 15 years depending on water quality. The units should be inspected and cleaned as needed. Estimated costs will range from $1500 to $5000 per unit. The filters originally installed on the units are 1 inch thick and subsequently were replaced with re-usable, washable filters. These filters do not catch very fine fibers and dust, leading to clogging of the heating/cooling coil. For long change-out intervals, the filter carrier should be replaced with a holder for 4 inch thick filters, and MERV4 pleated throw away filters used. The coil should be inspected and cleaned as needed. Approximate cost per unit $3000. Until the 4 inch filters can be installed, the one inch replaceable filters should be minimum MEVR4 and inspected weekly and replaced as needed. Access to the Water Furnace through the “Bar” is very limited. As a minimum, the door swing into the mechanical room should be changed to permit a service technician a means of escape in case of accident. Consideration should be given to providing access from the men’s washroom, to avoid passing through the “Bar”. | Life Span Analysis: Expected Life Span: 25 years  Effective Age: 10 years  Remaining Life: 15 years  Unit Cost Estimate: $25,000  Cost Estimate: $100,000  JP2G - $10K Y5  $100K Y15  Priority D – Building Functionality | **This is outside of our planning period.**  Should not have to deal with this for another 10-15 years. |  |  |  | **X** | **X** |
| **HVAC SYSTEMS** | ***6.1.2 Heat Recovery Units in Community Hall***  The outdoor air for the community hall is provided by two  LifeBreath HRV units. Top-up heat for the supply air to the hall is provided by electric heaters. Life expectancy for these units is 20 to 25 years. Regular changing of filters to avoid clogging of heat exchanger is recommended. Typical Heat Recovery Unit. The condensate from the heat pump and HRV located beside the stairs is removed by a small condensate pump. To avoid flooding damage, an alarm connected to the building security system is recommended. | Unit Cost Estimate: $2,000  Cost Estimate: $4,000  Life Span Analysis: Expected Life Span: 25 years  Effective Age: 10 years  Remaining Life: 15 years  JP2G – Y15 | There is remaining life and should not be needed for 10-15 years.  **Beyond this planning period.** |  |  |  | **X** |  |
| **HVAC SYSTEMS** | ***6.1.3 Kitchen and Canteen Exhaust Hoods***  The commercial range has a commercial exhaust hood above the range, with a switch to control the fan mounted on the unit face. A hood of this type should have an exhaust flow rate of approximately 150 to 250 cfm per linear foot of length, or in the range of 1000 to 1500 cfm. With the fan running, very little air could be felt moving through the baffles, or it is unlikely that  the hood is extracting cooking fumes as required. For the hood to function properly, a source of make-up air is required. Cost of such an installation for Type II system (no deep frying) will be approximately $20,000 or for a Type I system (deep fryers with fire suppression system, etc.) approximately $50,000. Either system will require approximately $5,000 to $6,000 in Engineering fees for design of system. | Cost Estimate: $60,000 for kitchen exhaust hood  (Type II)  $25,000 for canteen exhaust hood  (Type I)  PLUS ENGINEERING COSTS  JP2G – Y1  Priority C – Legislative Requirement | **Kitchen** - delay this work until we are told to consider it for safety or legislative reasons. No frying should be done and air quality complaints should be monitored.  **Canteen** – not required because there is little cooking being done and no frying. Put this off until we are told to consider it for safety or legislative reasons.  **Beyond the scope of this planning period.** |  |  |  | **X** |  |
| **HVAC SYSTEMS** | ***6.1.5 Change Rooms***  The change rooms and common area are not ventilated, and should be to reduce odour and  potential for mould due to humidity and provide outdoor air for occupants as required by current  ventilation codes (ASHRAE 62). One or more HRVs should be provided for each group of  rooms. | Cost Estimate: $50,000  Priority D – Building Functionality | Put over to the end of the planning period. Monitor air quality complaints.  **Beyond the scope of this planning period.** |  |  |  | **X** |  |
| **HVAC SYSTEMS** | ***6.1.6 Ventilation and Gas Detection in Rink***  There is no heat or forced ventilation in the rink zone. The ice is maintained by a propane powered “Zamboni.” For purposes of health and safety reasons, CO and combustible gas detectors must be installed to sense air over ice surface (i.e. through boards), near entrances to rink area and in ice cleaner storage room. On detection of excessive exhaust gas levels, an  alarm would signal and powered ventilation fans would start.  The rink does not have a de-humidifier, which leads to “fog” over the ice when the air above the ice is warmer than the ice. If there is “fog” over the ice, condensation will form on all chilled surfaces, leading to corrosion and possibly a build-up of mold, therefore, a dehumidifier is recommended. | Cost Estimate for detectors and forced ventilation system: $20,000  Priority C – Legislative Requirement  Cost Estimate for a new dehumidifier: $40,000.  Priority D – Building Functionality | The exhaust fan is working well at this time and it is turned on whenever the Zamboni is on the ice. Explore the installation of a CO and combustible gas detector.  **$1000**  Explore the costs of installing the reconditioned dehumidifier and install when funds are available. This could be moved out further in the plan if funds are not available.  ***Installation costs: $15-20K (est).*** | **X**  **X** |  |  |  |  |
| **PLUMBING** | ***6.2 Plumbing***  The plumbing system appears to be original to the building and for the large part, is still serviceable. The showers are required to be protected by a pressure or thermostatic balancing valve which limits the maximum water temperature at the shower head to 49o C. This valve can be located at the shower, group of showers or at the hot water heaters. Similarly, good practice indicates that the sinks accessible by the public should be similarly protected. Therefore, a balancing valve should be installed at the hot water heaters. (Note: A separate supply to the kitchen may be required for dishwashing). The hot water heaters have an installed date of 2004 and have a 15 year life expectancy. Approximate cost for a balancing valve at the hot water heaters supply is $2,000 and replacement cost for hot water heater is approximately $1,000. | Life Span Analysis: Expected Life Span: 15 years  Effective Age: 7 years  Remaining Life: 8 years  Cost Estimate – Balancing Valve: $2,000  Cost Estimate - Hot Water Heater: $1,000  Priority C – Legislative Requirement | Balancing Valve should be installed.  **$2000.** | **X** |  |  |  |  |
| **PLUMBING** | ***TOILETS***  The 13 L per flush round bowl style water closets (toilets) are  no longer permitted by code for public use; however, the  porcelain is durable, in good condition and the water closest are  still functional. Only one water closet was found leaking water  through the flap valve, hence whole scale replacement is not  recommended. Should a water closet break or crack, a current  elongated bowl water closet with open front seat as required by  code is recommended. Minimum flush capacity of 500 gms  using 6 L of water as per the Veritec or Toronto test program is  recommended. Approximately half of the water closets required holding the handle down to complete the flushing action and should be repaired to ensure a complete flush even if user leaves the stall. The cost of repairing or replacing the a flap valve or adjusting a chain is mostly labour and about half an hour per water closet and as a result, no cost has been provided. | Life Span Analysis: Effective Life Span: 20 years  Effective Age: 20 years  Remaining Life: 4, 8, 12, 16  Estimated costs for replacement are:  Unit Cost Estimate: $1,000  Cost Estimate: $12,000  JP2G – Y4, 8, 12 16 | **Replace as they break.**  **Annual maintenance.**  **$2000 in yr 1-4** |  |  |  |  | **X** |
| **PLUMBING** | ***6.3 Wells***  Current regulation requires that well head be a minimum of 18  inches above the surrounding ground and be graded to drain away from the well head. None of the wells meet this requirement and need re-grading. As noted under Site Works, lot grading needs work to solve the drainage issues. The facility falls under the local board of health for ensuring water quality and has not been required to provide disinfection equipment. Should a poor water test result occur or be repeated, the health unit may require installation of a disinfection system. This could cost as little as $2500 if a UV unit alone is required and up to $100,000 if a full filtration system is required and will depend on well pump capacity, and water quality condition. | Poor water quality tests may require action to be taken.  Costs could range from $2500 to $100,000 | We test our water and take action as required.  The only drinking water well is at the right height.  No cost.  **Beyond the scope of this planning period.** |  |  |  | **X** |  |
| **RINK** | ***Rink Spectator Heating System***  Currently there is no heating system for the seating area within the rink. Since the building is not insulated, the temperature within the rink is very low during the winter months. A pair of propane fired infrared radiant heaters should be installed above the seating area in the rink. | Cost Estimate: $7500  Priority D – Building Functionality | This will not supply enough heat for the T5 lights.  **Not part of this planning period.** |  |  |  | **X** |  |
| **RINK** | ***Insulating of Existing Building***  The current building is not insulated. To reduce the effect of weather changes and the effect of solar heat gain on the metal room, insulation should be placed within the attic cavity of the existing steel building. This would reduce the temperature swings within the building. Insulating of the exterior walls would prove to be difficult. The walls should be sprayed with urethane insulation and a fire proofing layer, but would not be very abuse resistant. An interior wall should be built to a height of 8 feet to provide abuse resistance for the insulation. | Cost Estimate: $75000  Priority D – Building Functionality | **We do not recommend doing this during this planning period.** |  |  |  | **X** |  |
| **RINK** | ***Heat Reclaim***  Currently, all the waste heat generated by the Ice Plantis rejected to the cooling tower. A double wall heating coil & insulated water storage tank should be installed in the *Resurfacer room*. This would allow some of the rejected heat to be captured for the preheat of the water required for the heating of the *Resurfacer* room & used in the flooding of the rink. Actual reclaim heat available capacity varies based upon the ice plant’s compressor load. Even so, it is expected that this option would supply all the hot water requirements for both the ice resurfacer as well as the heating of the *Resurfacer room*. This would allow for the complete removal of the fuel oil system, with the electric hot water heaters used strictly as back-up when the refrigeration plant should require servicing. | Estimated cost: $25000  This is an option to be considered in lieu of an on demand HW system.  The current electric HW system cannot handle the demand. | This is a good idea but we do not recommend considering it at this time.  **Beyond this planning period.** |  |  |  | **X** |  |
| **RINK** | ***Replace Evaporator Condenser***  Option1:  Replace condenser.  Option 2:  Opt#1 plus pony package of a two motor setup. Smaller motor when you need less capacity (cold weather) and a larger motor when you need full capacity (warm weather).  Option 3:  Opt#1 & 2 plus a second coil for cooling glycol fluid to cool compressor. Currently we use well water to cool the compressors and that water eventually goes to the overflow drain. With the coil the glycol is pumped through compressors and up to the condenser where it runs through the coil is cooled down and then returned to cool the compressors. Reduces the use of water and the labour costs of cleaning rust and scale from the compressor cooling jacket system. | Priority: B, D.  Should replace prior to 2012-13 season.  Option 1: $46,000.  Option 2: $49,000  Option 3: $58,000  Plus: $3-4,000 to repair the roof as a result of the removal of the old condenser. | Explore used option prior to the 2012-2013 arena season.  **Recommend Option 1 only at this time.**  A further option: we may have an opportunity to get a used condenser. Transport and installation cost would be incurred. **Approx. $20K** | **X** |  |  |  |  |
| **RINK** | ***Replace Motor Control Center (MCC) Panel***  This panel controls are the motors and alarms in the Compressor Room. New panel comes with soft starts for all motors, all new ammonia controls and temperature controls. New ammonia tubing and fittings from compressors to new panel. Current panel is beyond capacity and life cycle. In the interim, modifications must be made to the current panel to accommodate TSSA required alarms. | Cost estimate: $40,000  Priority B, D. | The panel is currently working. It would be efficient to install a new panel however we do not recommend it during this planning period.  **Est. $40,000** |  | **X** |  |  |  |
| **RINK** | ***New / Used Ice Resurfacer***  The current resurfacer is near the end of its functionality. A replacement resurfacer should be considered. | New - Propane powered: $85K. Electric power: $155K  Used: U/K | **We do not recommend it during this planning period.**  However, we would suggest that Beachburg and Cobden be spoken to about a back-up option. |  |  |  | **X** |  |