Community Activity Center (CAC) Recreation Programs & City-Wide Events

- Open Skate
- Tap and Ballet
- Senior Craft Club
- Fitness Class
- Youth Sports
Hockey Tournaments

- Schwan Cup
- District Playoffs

Pirate Classic
- Squirt A
- Squirt B
- Pee Wee C
- Squirt C
- Bantam C
Who’s The Arena’s Biggest User?

- **4787** hours of ice were used in 2012
- **3811** of those hours were sold
  - North Metro Youth Hockey Assn. 1012 hours
  - Brooklyn Park Figure Skating Club 1301 hours
  - Private rentals 468 hours
  - ISD #279 and Totino Grace 282 hours
  - Fire sale ice 184 hours
  - Showcase Enterprises 201 hours
  - Champlin Park Youth Hockey 363 hours
- **976** hours of ice used for recreation programs
  - Adult hockey league 249 hours
  - Open skate sessions 345 hours
  - Learn to skate lessons 193 hours
  - Adult & youth open hockey sessions 189 hours
Our Great Partners

- National Guard Armory
- North Metro Hockey Association
- Brooklyn Park Athletic Association
- Lions Club
- Ind. School District #279
- Three Rivers Figure Skating Club
- Courage Center
- North Hennepin Community College
- Champlin Park Youth Hockey
- Showcase Hockey
- Minnesota State High School League
- Brooklyn Park Senior Club
- Jazzercise
Challenges

- Aging Holmstein System
- R-22 Phase-Out
  - R-22 becoming very expensive
Challenges

Aging Rink Condensers
Challenges

- R-22 Floor Leak Patch on Rink Floor
- Aging Dasher Boards

Expensive Repairs & Replacements Needed
Challenges

Aging Ammonia System
Challenges

Aging Controls
Challenges

Inefficient & Aging HVAC Equipment
Opportunities/Choices

- Run system to failure and abandon
  - Not acceptable to City
- Replace as normal project
  - Taxpayer impact with design-bid-build delivery constraints
- Municipal Energy Savings Performance Contract (ESPC) delivery (City-wide)
City Choice of ESPC

- Creative interactive team process leads to better design and execution
- Pick equipment and team
- Faster delivery
  - Start design November 2009
  - Ice online October 1, 2010 (both sheets)
- Lower operating cost — energy savings/carbon reduction
- Leverage City-wide savings
  - No tax impact to taxpayers
Executive Leadership Support

City of Brooklyn Park Energy Mission Statement:

“Brooklyn Park, as a civic leader, affirms our commitment to sustainable and energy efficient operations for all of our city facilities. We seek to engage, educate, and empower not only our building occupants, but all of our residents in creating and sustaining a community of environmental stewards.”

- Executive Leadership Team signed letter of support
- Standard electrical equipment policy
- FAQs for the plug, phantom, and vampire loads
- Newly titled “Energy and Recycling Policy”
Solution: Geothermal Rink Project

- Complete redesign of both CAC ice rinks led by McKinstry
- Using geothermal heat from the city water system to cool rinks and heat building
- Six-month construction timeframe
- 40% more efficient than conventional indoor refrigerated rinks
- Anticipated annual savings of $45,000 just for CAC rinks
- Funding through Federal stimulus money, Heritage Infrastructure Funds, sale of bonds, and utility rebates
- Project pays for itself in 12 years
- McKinstry guaranteeing energy savings
Steps to Completion

Water Main Tie-In

Building Expansion

Construction
Steps to Completion

Pipes Connect Rink 1 to Central Plant
Steps to Completion

Rink 1 Floor Demolition

Rink 1 Sub-Floor

Rink 1 Floor Work
Steps to Completion

Rink 1 Refrigeration Pipes and Concrete Pour
Steps to Completion

28-Day Concrete Cure
Steps to Completion

New Dasher Boards & Higher Glass Installed
Steps to Completion

Dehumidification Units
Compressors
New Rink Systems

New Heat Exchangers
New Rink Systems

New Heating/Cooling System
New Rink Systems

New Electrical Panels
Community Open House

- Community open house held on October 23, 2010
- Senator Amy Klobuchar and other regional leaders participated in a ribbon-cutting ceremony
Results

- 40% more efficient than conventional indoor refrigerated rinks
- Anticipated annual savings of $45,000 just for CAC rinks
- Compressors run at temperatures lower than the Vilter data goes
- Controls maximize energy balance
- CAC cooling capacity — Getting 170 tons out of a 150-ton chiller
- Industrial-grade equipment vs. commercial in typical geothermal—Make ice quickly with lower maintenance costs
- All new refrigeration equipment and new Rink 1 floor — 25+ years added to life
- Electric resurfacing/edging equipment
- Improved indoor air quality