

Facility Assessment for

LEISTIKOW PARK OUTDOOR SWIMMING POOL

Grafton, North Dakota | August 6, 2025



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INTRODUCTION TO THE PROJECT

This document reviews the current conditions the Leistikow Park Outdoor Swimming Pool in Grafton, ND. This is not intended to represent a design solution, but rather demonstrate the facts observed through our study. ICON Architectural Group (ICON) teamed up with Prairie Engineering to prepare the information included within this report. The facility assessment was commissioned to assist the park district with long range planning and an aging facility. This assessment includes input from the architects and engineers.

The scope of this report is to identify deficiencies within the current facilities including code compliance, American with Disabilities Act (ADA) compliance, and security.

On June 10th, 2025, ICON Architectural Group alongside Prairie Engineering visited Leistikow Park Outdoor Swimming Pool in Grafton, ND. The purpose of the visit was to assess the general condition of the building as a whole to provide a master plan in regards to the building, mechanical, electrical, and structural infrastructure.

STAFF INPUT

To further understand how the buildings function for the public and staff, ICON conducted a site walk with Parks & Recreation Department Director Bill Dahl to assess the current facility. Bill voiced concerns about the facility, and ICON and the consultant team noted aging mechanical and plumbing systems, lack of accessibility, and aging electrical systems. A main point of emphasis was the daily loss of 6,000 gallons of water, due to underground leaks of an indeterminate location.

ABOUT LEISTIKOW PARK OUTDOOR SWIMMING POOL

Leistikow Park Outdoor Simming Pool is located at 435 W 5th St, Grafton, ND. The original pool and building were constructed in 1954 with some updates over the years. The first update occurred in 1973, which brought the pool to its current configuration by removing the diving board and 12'-0" depth. The equipment room was updated in 1993. In 2009 the pool liner was replaced, and the corners of the deep end were observed to be crumbling. The crumbling was addressed with spray foam under the new liner. ADA updates, addressing floor issues, were completed in 2012. The building is mainly accessible from the main entrance on the east, accessible by a sidewalk which connects the parking lot to the south. After the construction of the dike the building is now in a 100-year floor plain.

APPLICABLE CODES

Below is a list of applicable codes and standards that were used to create this assessment.

- North Dakota State Building Code
- 2021 International Building Code (IBC)
- 2018 International Energy Conservation Code (IECC)
- 2018 National Fire Protection Association (NFPA)
- Local Codes
- Uniform Plumbing Code
- International Mechanical Code (IMC)
- International Fuel Gas Code (IFC)

SITE CONTENT

Leistikow Park Outdoor Swimming Pool
Grafton, ND



EXISTING BUILDING FLOOR PLAN INVENTORY

ARCHITECTURAL ASSESSMENT

SUMMARY

The analysis of the existing Leistikow Park Outdoor Swimming Pool has been evaluated in three categories, code compliance and ADA (Americans with Disabilities Act) compliance, structural integrity, maintenance feasibility vs new build feasibility. Some areas in the interior and exterior of the building show signs of wear and tear. Certain finishes, hardware, equipment, etc. in the building are outdated and have seen their end of life. Overall, for the age of the building and consistent flooding, it has been well maintained. Building deficiencies and compliance have been defined below:

SITE

The site has one paved parking lot, which is in acceptable condition. Parking capacity is adequate, however the sidewalk leading to the public entrance is too narrow and steep to meet ADA. The ramp also does not have a handrail, which is required by ADA at slopes greater than 1:20 and less than or equal to 1:12.

MASONRY

The walls of the building are constructed from CMU, appear very robust, and exhibit minimal cracking. The floors in the equipment room, however, exhibit signs of severe undermining from assumed groundwater washout. The floor is severely cracked and sinking into the ground below. The surrounding walls do not appear to be affected.

ADDITIONAL EXTERIOR MATERIALS

The concrete surrounding the pool and building are in reasonably good condition given the climate and seasonal flooding. They exhibit some cracking but no evidence of undermining.

ROOF

The roof appeared in good condition from below and there was no report of leaks from user groups.

OPENINGS

The openings in the concession area are in good shape. Doorways around the building exhibit minimal cracking.

CEILINGS

All ceilings appear to be in good shape considering the age of the structure.

FLOORING

The flooring is comprised of rubber flooring tiles over the existing concrete. The tiles themselves are in good shape. The slope of the floor in many areas of the locker rooms are not to code.

SECURITY

There are some security cameras throughout the building and exterior. A monitor in the concession room shows all camera views.

STRUCTURAL ASSESSMENT

CONSTRUCTION TYPE

The pool building is constructed from CMU block walls. The walls themselves are in good shape and exhibit some cracking above openings.

ROOF

There are no noticeable defects to the roof and no reported leak issues.

WALLS

As mentioned above, there is some cracking in the CMU walls above door opening. These cracks appear to be mostly superficial and are not a structural concern.



CONCRETE FLOORS

The exposed concrete floor in the lower portion of the pump room exhibits severe cracking and evidence of potential undermining. This is assumed to be associated with the years of flooding.



ELECTRICAL ANALYSIS

GRAFTON PARKS & RECREATION Grafton, ND

Report Date: July 17, 2025
Project No. #25047

On July 15, 2025, Prairie Engineering, P.C. visited the Grafton Parks & Recreation in Grafton, ND. The purpose of the visit was to assess the general condition of the electrical systems to provide Grafton Parks & Recreation with a master plan with regard to the electrical infrastructure. Recommendations are based on experience in the electrical industry, and locally adopted building codes.

EXECUTIVE SUMMARY

- The electrical distribution system is not in compliance with the National Electrical Code and must be relocated and rebuilt.
- Lighting is adequate but lighting controls should be upgraded.
- Public Address, Surveillance, and other tech type infrastructure is adequate.

ELECTRICAL SYSTEMS ASSESSMENTS

The electrical assessments give a general overview of each portion of the electrical systems, making note of areas that need attention in the immediate to near future.

POWER DISTRIBUTION

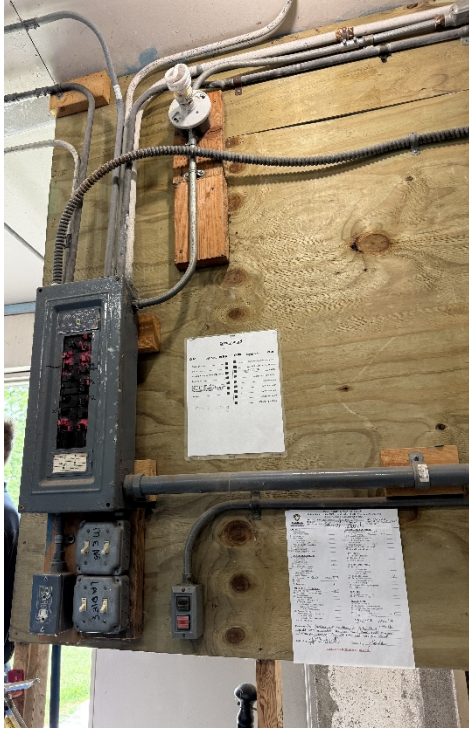
The 120/208 Volt electrical service disconnects and distribution equipment are located in the pool equipment room. There are multiple National Electric Code violations with this equipment.

- Dedicated working space violation.
- Not readily accessible.
- Operating apparatus mounted above maximum allowed height.
- Installed in a corrosive environment.

There is evidence that the branch circuit breaker panel in the pool equipment room has been submerged in flood water. It is unknown if the circuit breakers were replaced after they were underwater.

There are multiple other violations of current NEC codes specific to pools. These include GFCI protection, flexible cord length requirements, and corrosive environment wiring methods.





A new electrical distribution system needs to be installed in a location that provides proper access and working clearances. The pool water chlorination system cannot be in the same space as the electrical equipment. All existing wiring and devices in the pool equipment room that is not corrosion resistant compliant must be replaced.

GROUNDING AND BONDING

Due to the risk of falling into the open pool filter pit, the site investigator was unable to inspect the service disconnects for visual confirmation of proper service bonding/grounding. However, based on observations from a distance, it does not appear that a grounding electrode system has been established, and bonded to the service disconnects.

All conductive pool components (metal ladders, edging, etc.) are required to have an equipotential bond, along with concrete surfaces within 3' of the pool edge. It is unknown, if the equipotential bonding system was installed when the pool deck was replaced several years ago.

LIGHTING

Interior light fixtures are in good condition. They are a vapor tight type with T8 Fluorescent lamps. It should be noted that there are no emergency lights in the locker rooms, which would leave these public spaces completely dark during a power outage.

In order to comply with current energy codes, the lighting controls of the locker rooms should be updated from switches in the equipment room to occupancy sensors within the spaces.

Exterior lighting is a mix-match of LED, HID, and Incandescent. There are yellowing, broken, or missing lenses on some exterior fixtures. The exterior lighting should be upgraded with new LED fixtures that incorporate controls.



SYSTEMS

The building incorporates a surveillance system that provides coverage of the site perimeter and pool deck. The system is adequate for its intended use. The building also includes a public address system for paging/announcements. The building does not have a fire alarm system, nor is it required to have one by code.

MECHANICAL ANALYSIS

GRAFTON PARKS & RECREATION

Grafton, North Dakota

Report Date: July 24, 2025

Project No. #25047

On July 15, 2025, Prairie Engineering, P.C. visited the Grafton Parks & Recreation of Grafton, North Dakota. The purpose of the visit was to assess the general condition of the mechanical and plumbing systems to provide Grafton Parks & Recreation with a master plan with regard to the mechanical and plumbing infrastructure. Recommendations are based on experience in the HVAC and plumbing industry, and locally adopted building codes.

EXECUTIVE SUMMARY

The mechanical assessments give a general overview of each portion of the mechanical and plumbing systems, making note of areas that need attention in immediate to near future.

- The pool heater stand is at risk of falling over, leading to potential gas leak and subsequent explosion.
- Underground waste piping is at the end of its expected lifespan.
- Plumbing piping is exposed and uninsulated.
- No heating or air conditioning is provided for occupied spaces.
- No mechanical ventilation in toilet rooms.

FIRE SUPPRESSION

There is no automatic fire suppression system in the facility, nor is one required by code.

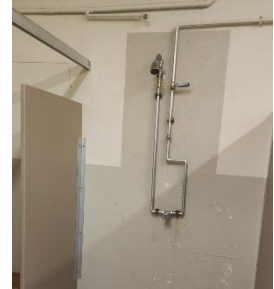
PLUMBING

The plumbing system has been renovated from the original layout. Plumbing fixtures are operational with normal signs of wear and tear. The plumbing piping has been modified to accommodate renovations and is exposed in numerous locations.

Underground waste piping appears to be cast iron. Over time, cast iron degrades and will cause clogging. The piping has reached the end of its expected lifespan and should be replaced.

The water piping is not insulated and does not meet code. The lavatories and showers have a single pipe to the fixture, providing a uniform temperature to the fixtures.

The showers are a valve with a single pipe to a shower head. The piping and valve are exposed and mounted to the face of the wall.



The water heater is gas-fired, 50-gallon tank type. It is showing signs of age and will likely need replacement in the next year or two.

HVAC

There is no heating or air conditioning in the toilet rooms and concessions area. Ventilation is achieved through natural ventilation via louvers.

Heating is provided in the pool room by a small electric unit heater. The heater is undersized for keeping the room above freezing during the winter.

CENTRAL PLANTS

The pool boiler is a natural gas-fired Teledyne Laars Boiler. The boiler was manufactured in 2000 and is operating beyond its expected lifespan. The boiler is mounted on a tubular steel stand and is at risk of tipping over due to sloping floors. A chain bolted to the wall protects the boiler from tipping over.

The boiler stand should be stabilized as soon as possible. If the boiler should fall, it would likely rupture gas piping, potentially leading to an explosion.

The boiler itself is should be replaced as it is operating beyond its expected lifespan.



EXISTING DEFICIENCIES

CODE COMPLIANCE / ADA ACCESSIBILTY DEFICIENCIES



Entryways inside of shower/rest rooms do not meet ADA turning radius requirements.



Door thresholds at shower/rest room entries do not meet ADA requirements.



The entry path to the facility does not meet slope or width requirements per ADA.

RECOMMENDATION

Upon review of the facility, it is our recommendation that a new facility would be in the best interest of Grafton Parks & Recreation and their constituents. This determination is due to the significant need for maintenance to bring the facility up to ADA standards, the current state of the pump room, and the inability to reliably find and fix underground leaks without essentially tearing the entire site apart and replumbing everything. We feel that a new pool and building would better meet the needs of the community as well as greatly reduce maintenance costs and safety concerns. The existing site is a viable candidate for a new building and pool should Grafton Parks & Recreation decide to move forward with a new outdoor pool facility.