



Providing Safe Clean Sparkling Blue Water

720 N. Parkway • Jefferson, WI 53549

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www.carricoaquatics.com

LACROSSE MEMORIAL SWIMMING POOL EVALUATION **September 2015**

SCOPE:

LaCrosse Memorial Swimming Pool was put in service circa late 1930's. The pool has approximately 330,00 gallons of water and is in service from Memorial Day to Labor Day with an averages of about 25-30 swimmers per day.

The directive of this study is to determine what investment is needed to bring the current facility up to code, increase usage by the neighborhood as well as reduce the labor and operational cost.

The following table shows the current status of the pool compared with the State of Wisconsin's swimming pool codes.

Data	Current	Wisconsin Code	
Surface Area	10,450 Sq. Ft	10,450 Sq. Ft	
Parameter	470 feet	470 Feet	
Gallons	330,000 gal	330,000 gal	
Gallons/Inch	6505 gal	6505 gal	
gallons add/day	30,000 gal	6505 gal	
gallons add/season (90 days)	2,470,000gal	617,975 gal	
Turn-Over	8 Hour	6 Hour	
Flow Rate	688 gpm	916 gpm	
Filter Type	Rapid Rate Sand	High Rate Sand	

Filter Area	688 Sq Ft	76 Sq. Ft	
Filter Rate	1 gpm/sq. ft	12 gpm/sq. ft	
Gutter Configuration	To Waste	Recovered in Surge tank	
Surge Tank Size	None	10,450 Gal	
Restroom Facilities			
Womens Toilets	3	12	
Womens Lavatories	3	4	
Womens Showers	3	6	
Diaper changing	0	2	
Men's Toilets	3	3	
Men's Urinals	2	3	
Men's Showers	2	6	
Men's Lavatories	2	3	
ADA Compliant	NO	YES	

OBSERVATIONS:

1. The current gutter system is a scum gutter meaning that the water that flows into the gutter flows to the sanitary system. The pool loses at least 4 inches of water per day due to these configuration resulting in the addition of 26,000 gallons of water per day or 2,470,000 for a 90 day pool season.
2. Current pool codes do not allow gutter water to go to waste. Gutter water must be recovered in a surge tank then treated and returned to the pool. The current gutters system will have to be replaced and a surge tank installed sized to hold 1 gallon of water per square foot of pool surface area
3. The current turn over time of the pool's recirculation system is 8 hours. The swimming pool code requires a minimum of turn over rate of 6 hours which will increase the flow rate from 688 gpm to 916 gpm. These increase in flow rate will have the following results:
 - a. the filter system will have to be replaced because the current rapid rate filters, filter at 1 gallon of water per square foot of filter area and with a new flow rate of 916 gpm these filters are too small
 - b. with an increased flow rate the current recirculation piping is under sized and all piping will have to be replaced with properly sized piping.

- c. In addition much of the piping under the deck is original and its integrity must be questioned
- d. The current pump is too small to pump the quantity of water required by code thus the pump will have to be replaced
- e. Due to increase flow rate the number of inlets in the pool must be increased
4. The Pool is currently out of compliance with Federal Department of Justice ADA laws
5. The bath house is not in current compliance with Wisconsin Code SPS 390.19 in regards to the number of required toilets, showers, lavatories and diaper changing stations. In addition certain emergency situations may prevent emergency personnel from treating a victim due to physical restraints of the building
6. Without a pool heater the water temperature prohibits certain activities from taking place, however with the addition of about 26,000 gallons of water per day the heating cost would be prohibitive.
7. This pool provides no programming , shade, green spaces, or interactive play features to draw swimmers .

ACTION PLAN:

1. To bring Memorial Pool into code but not including improvements to increase attendance the following should be enacted:
 - a. Replace gutter system. The cost is \$1,250.00 per foot or \$587,500.00. This system will also correct the need to increase the number of inlets.
 - b. Add surge tank to handle in pool surge should be budgeted at \$65,000
 - c. Replace filter system and pumps as well as chemical treatment system: \$110,000.00
 - d. Replace all piping from pool to surge tank budgets at \$1,200 per foot or about \$120,000
 - e. Add piping from surge tank to filter system budget \$50,000.00
 - f. Bring Bath house into code. This is not an area we have worked in so we do not have budget numbers. However the last pool we worked on with a similar project on a smaller scale the bathhouse renovation bid was \$650,000.00

The cost without the bath house renovation estimate is \$932,000.00



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CARRICO AQUATIC RESOURCES, INC.

CORPORATE RESUME

Overview

Carrico Aquatic Resources, Inc. is a corporation engaged in the commercial swimming pool business in Wisconsin, Illinois, Iowa, and Minnesota. We specialize in developing green technologies for water treatment systems for aquatic venues, educational programs for pool operations and management, as well as being the service center for aquatic industry leading manufactures. Our focus is providing aquatic owners with safe, clean, sparkling blue water. Including our new NECCS program which provides cutting edge energy reducing technology, and our industry leading Water Management Assistance Program. We also offer customizable training programs including AFO and CPO Certification.

History

Tom Carrico formed the educational consulting segments of the company in January of 1995.

The company has been doing educational training for Wisconsin, Missouri and Iowa Parks and Recreation Association, Central YMCA cluster of Wisconsin and Illinois, The Wisconsin, Minnesota and Iowa Environmental Health Associations, Marcus Corporations of Milwaukee, Wisconsin, Northwest Pools of Ohio, Aqua Logic in Minnesota, The Michigan Pool Operators, Orange County California Pool Operators, and the Dallas, Texas Commercial Pool Suppliers.

In 1991 Mr. Carrico became a Certified Pool Operator Instructor for the National Swimming Pool Foundation and in 1998 he began an AFO INSTRUCTOR.

In 1994, Mr. Carrico was appointed to the USFilter/Stranco Distributor Advisory Council and in 1995 he became a member of the Olin Commercial Pool Products Distributor Board.

In 2000, Carrico Aquatic Training became Carrico Aquatic Resources, Inc.

In 2005, Carrico Aquatic Resources, Inc. was named Commercial Member of the Year by Wisconsin Park and Recreation Association. Mr. Carrico was named the Outstanding Aquatic Professional of the Year.

In 2007, Carrico Aquatic Resources, Inc. received the Wisconsin Park and Recreation Diamond of Excellence Award.

In 2011, Mr. Carrico was awarded the President's Award for Outstanding Contributions by BECS Technology of St. Louis, MO.

In 2015, Carrico Aquatic Resources, Inc. was appointed to the Distributor Council for Maytronics International Robotic Cleaners

In 2016, Carrico Aquatic Resources, Inc. appointed to the Distributor Council for Lonza, Inc.

In 2016, Carrico Aquatic Resources, Inc. was reappointed to the Wisconsin Department of Commerce Swimming Pool Construction Review Committee

Services Provided (Partial List)

- Educational Classes (AFO and CPO)
- Water Management Programs
- New Pool Construction Operational Training and Management

Water Management Systems (Partial List)

- Marcus Resort and Hotels
- University of Wisconsin Hospitals and Clinics
- Whitewater Aquatic Center
- Timber Ridge Water Park
- City of Madison
- City of Green Bay
- Burlington Wellness Center

New Facility Start Ups (Partial List)

- City of Holmen
- City of La Crosse
- University of Nebraska Aquatic Center
- University of Northern Iowa Aquatic Center
- University of Wisconsin Hospitals and Clinics at The American Center
- Green Bay Packers Therapy Facility
- Wisconsin Department of Natural Resources at Blue Mound State Park



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THOMAS W. CARRICO JR.
720 North Parkway
Jefferson, Wisconsin 53549

OCCUPATION:

Chief Poolologist for Carrico Aquatic Training
Chief Operations Officer and CEO of Carrico Aquatics Resources, Inc.

EDUCATION:

B.S. Education from Illinois State University

WORK HISTORY IN AQUATIC INDUSTRY:

Presenter at World Aquatic Health Conference 2013
University of Wisconsin-LaCrosse, Instructor of Aquatic Operations 2006-2014
Owner of Swimming Pool Operations and Service Business -20 years
High School physical education teacher and Pool Manager -4 years
High school boys and girls swimming coach-4 years
Illinois Benedictine University, Aquatics Administrator and Instructor – 4 years
IBC Men's and Women's Swimming Coach – 4 years
YMCA and/or age group Swim Coach - 12 years
Aquatic Operations and Management Consultant – 25 years
President of Swimming Pool Construction and Service Company – 13 years
Aquatics Director for two municipalities -16 Years
AFO and CPO Instructor – 25 years

AQUATIC INDUSTRY CERTIFICATIONS:

Starfish Aqua Tech Instructor
BECS Authorized Technician Certification
AFO & CPO Instructor
Sta-Rite Filtration and Hydraulics Certification
Stranco Authorized Technician Certification
Stenner Authorized Technician Certification
Acu-trol Authorized Technician Certification
Water Safety Instructor Trainer (Expired)
Water Safety Instructor Trainer (Expired)
NADA Certified Diver
Lifetime member of Polar Bear Club

AFO/CPO Instructor for Facility Operators Courses for:

- *Wisconsin Parks and Recreation
- *United States Army
- * United State Department of Public Health Indian Health Services Inspector Training
- *Illinois Parks and Recreation
- *Michigan Parks and Recreation
- *Ohio Parks and Recreation
- *Missouri Parks and Recreation
- *Iowa Parks and Recreation
- *National Spa and Pool Institute of Canada
- *Texas Pool Operators Association
- *Orange County California Pool Operators Association
- *Wisconsin Parks and Recreation Conference and Trade Show -2010-2012
- *Wisconsin Aquatics Section Aquatics Seminar – 2005-2012
- *Wisconsin Association of School Business Officials Spring Conference
2005,2006,2009,2010,2013, 2014
- *Wisconsin County Health Inspectors Association training - 1997-2007
- *Iowa Department of Health inspector training on ORP & pH Control - 1999
- *Minnesota Department of Health inspector training on ORP & pH Control – 2000
- *Iowa Schools Buildings and Grounds Association Annual Meeting -1993

AQUATIC INDUSTRY AFFILIATIONS:

Service Support Distribution-An International Aquatic Group
 Wisconsin Park and Recreation Association -1999-2013
 Corporate Sponsor for Professional Pool Operators of America -2001-2011
 Charter member of International Recreation Water Professional Guild -2000
 Wisconsin Association of School Business Officials -2002-2013

AQUATIC INDUSTRY ADVISORY COMMITTEES:

Wisconsin Department of Commerce Com. 90 code revision committee
 Wisconsin Department of Family Services – Department of Health: 172 code revision committee
 Iowa Department of Health Ad Hoc Advisory council on pool and spa regulations –ongoing since 1988
 Wisconsin Parks and Recreation Aquatics Section Board Member

AQUATIC PUBLISH ARTICLES:

Iowa Department of Health's Recirculator Newsletter
 Cleaning and Maintenance Magazine
 AQUA TECH Operators Manual
 National YMCA Pool Operators Course Manual Reviewer

AWARDS:

BECS Presidents Outstanding Contributions for New Product Development
 Wisconsin Aquatics Professional of the Year 2005
 Wisconsin Parks and Recreation Association Commercial Member of the Year