

March 22, 2021

PROPOSAL

Design & Construction of a New 24 Acre Park with Athletic Fields, Splash Pad Aquatic Center, & Demolition & Removal of an Aquatic Center













275 West Wisconsin Avenue, Suite 300 Milwaukee, WI 53203



collaborate / formulate / innovate

March 22, 2021

Jason Sergeant, Community Development Director City of Evansville 31 S Madison Street PO Box 529 Evansville, WI 53536

Dear Mr. Sergeant:

Aquatic Facilities and Parks are important facilities in communities from both a quality of life and a point of community pride. They bring families and friends together and can be a center of activity that draws people into the community. The City of Evansville is no exception as you start on this exciting journey to transform an aging, aquatic facilities at Leonard-Leota Park and replace it with a new splash pad and adding a new, state of the art outdoor aquatics facility at Westside Park along with new athletic fields and park amenities throughout the 24 acres to create a new destination for activities your community can be proud of..

The **GRAEF/Water Tech team** is the right team to continue with you on this journey. Ajourney that will be seamless, challenging and fun, creative and new, thorough and detailed. As your partners, we can continue the process by working with you to develop consensus on final conceptual design and program, project budget, final design and construction documents and finally, actual construction of the facilities.

The **GRAEF/Water Tech team** offers a group of experts that have worked together on a significant number of aquatics and park / recreational project types. The benefit of this familiarity cannot be overstated and is a major factor in a seamless design process and quality documents. **We are two firms working as one**, not just a conglomeration of unknown pieces that are common on some design teams. Our team's focus is on **high quality** for fair compensation. While lower cost firms are out there, our team's attention to detail, responsiveness, and emphasis on **being your trusted partner**, ultimately makes the process easier on you. An additional benefit to the City, if our team is selected, is a **deep and long-standing level of experience** in all phases from concept design through construction. This longevity will allow our experts to use "**lessons learned**" on prior projects to fine tune the design to meet the projects goals in an efficient and cost-effective manner.

Last but not least, we also have in-house expertise in grant fund writing and have been very successful in obtaining grant funding for projects such as yours including a WDNR Land and Water Conservation Fund grant applied for and awarded to the Village of Howard, WI. We also have had success with many other grants for state and federal projects for recreational trails, green infrastructure improvements, nature centers, schools, conservation and environmental education projects, etc.

Our destination together is on the horizon and we cannot wait to get started with you. We are confident that we have the expertise, experience and capability to meet your needs and make this an extremely successful project. When that opening day arrives and the first swimmer takes that all important plunge, or when the soccer team runs onto the new field, we can all say, "We did it!".

Sincerely,

Joseph F. Pepitone Jr. PLA, LEED AP

Project Manager

Patrick J. Skalecki, PE, LEED AP

atuch O Shalah

Principal-in-Charge

Table of Contents

Section 1	Team Qualifications	4	
Section 2	Project Experience	15	
Section 3	Project Team	38	
Section 4	Project Understanding & Approach	52	
Section 5	Project Costs	5.0	





Section 1 **Team Qualifications**

Introduction to GRAEF

OUR CORE PURPOSE

To improve the physical environment for the benefit of society in a sustainable manner.

Milwaukee Office (Headquarters)

275 West Wisconsin Avenue Suite 300 Milwaukee, WI 53203 tel 414 / 259 1500 fax 414 / 259 0037 FEIN: 39-1083592

Main Contact

Joe Pepitone Jr. PLA, LEED® AP

Project Manager 275 West Wisconsin Avenue Suite 300

> Milwaukee, WI 53203 414 / 266 9039

joseph.pepitone@graef-usa.com

Other Offices

Chicago, IL – Loop Chicago, IL – O'Hare Green Bay, WI Madison, WI Miami, FL Minneapolis, MN

Orlando, FL

Graef-USA, Inc. is a multi-discipline, planning, design, and engineering firm dedicated to serving public and private clients throughout the United States. For 60 years, our ability to excel has been driven by integrity, quality, and our commitment to customer service. GRAEF began as an individual partnership structural engineering firm in 1961. Today, with 270 employees in eight offices in the Midwest and Florida, GRAEF offers our clients a full range of consulting services.

GRAEF is ranked #374 in Engineering News-Record (ENR) Top 500 Largest Design Firms and is ranked #28 in Building Design + Construction's (BD+C) list of the nation's Top Engineering-Architecture firms.

GRAEF provides quality consulting services in:

- Structural Engineering
- Parking Consulting
- · Site/Civil Engineering
- Landscape Architecture
- fax 414 / 259 0037 Urban Design
 - Traffic/Transportation Engineering
 - Environmental Engineering
 - Surveying and Field Services
 - Planning
 - Sustainable Design
 - Mechanical Engineering
 - Electrical Engineering
 - Plumbing and Fire Protection Engineering
 - Commissioning

www.graef-usa.com



Technical Expertise

Civil

- GIS and Computer Modeling
- Potable Water Systems
- Water Resource Management
- Site Development
- Storm Water Systems
- Subdivisions
- Utility System Expansions
- Wastewater Systems

Environmental

- Air and Noise Analysis
- Asbestos/Lead Management
- Brownfields
- Natural Resource Assessments
- Permitting
- Program Management/Planning
- Real Estate Due Diligence
- Soil/Groundwater Remediation
- Watershed Management
- Wetland Services

Field Services

- ALTA Surveys
- GPS Surveying
- Construction Management, Inspection, Staking
- Land Surveys and Mapping
- Right-of-Way Plats
- Subdivision Platting
- Topographic and Site Surveys

Industrial Architecture

- Additions
- Buildings
- Building Facades
- Parking Structures
- Renderings
- Renovations
- Roof Systems

Landscape Architecture

- Site Planning/Design
- Community Planning
- Urban Design
- Streetscapes
- Parks and Recreational Facilities
- Golf Course Development
- Sustainable Design
- Quarry Architecture

Mechanical, Electrical, Plumbing, and Commissioning

- Communication and Alarm Systems
- Fire Protection Systems
- HVAC Systems
- Interior and Exterior Lighting
- Plumbing Systems
- Power Distribution
- Process Piping and Gas Systems
- Ventilation and Exhaust Systems
- Total Building Commissioning
- LEED Accredited Services
- Energy Modeling and Audits
- Smoke Control System Inspections
- Construction Management
- Structured Cabling

Operations Consulting

- Lean Manufacturing Design
- Plant Layout
- Process and Product Flow Analysis
- Process Utility Design
- Quality Control
- Set-up Reduction
- Staging and Material Logistics
- Work Cell Design

Planning

- Comprehensive Planning
- Urban Design
- Master Planning
- Main Street Redevelopment
- Corridor Redevelopment
- Property Development
- Plan Reviews
- Strategies for Sustainability
- Economic Development
- Incorporation Procedures
- Expert Testimony

Structural

- BIM (Building Information Modeling)
- Bridges
- Buildings
- Building Exteriors
- Foundations
- · Forensic Analyses/Investigations
- Parking Structures
- Process
- Structural Systems

Transportation

- Curb and Gutter/Sidewalks
- Harbors and Marinas
- Pavement Design
- Railroad Spurs
- Relocation and Reconstruction
- Right-of-Way Services
- Roundabout Design
- Streets/Highways/Freeways
- Street Lighting
- Traffic Studies, Signalization and Signing



Park and Recreation Planning



GRAEF landscape architects, planners, designers, and engineers have created park plans ranging from small rural areas to large urban active recreational facilities. In each case, successful comprehensive plans depend upon customizing the goals, evaluation, findings, and recommendations to the unique aspects of each community.

Public Involvement

GRAEF works with local staff and citizens to provide a thorough evaluation of existing facilities. Public involvement includes community surveys, demographic analysis, workshops, interviews, open houses, web-based information, and a variety of presentation media.

Evaluation of Existing Conditions

GRAEF analyzes existing conditions in relationship to national, regional, and local standards, best practices, and community concerns. This evaluation includes an analysis of the complex physical conditions of the natural environment and physical facilities that comprise a local system of outdoor recreation and park activities. Buildings are evaluated in terms of structural and mechanical systems, enclosure, energy consumption, and use.



Capital and Operating Costs

For many parks departments, the key issue is the allocation of limited funds across an ever-expanding set of needs for activities, services, physical improvements, and maintenance. GRAEF assists local officials in estimating capital and operating costs and in recommending phasing, priorities, and the distribution of resources. For many organizations, the key factor is defining standards for an appropriate level of maintenance and, where possible, defining low-maintenance options for long-term sustainability of the quality of environmental systems.



Preservation and enhancement of the natural environment should underlie any effective plan for parks and outdoor recreation. GRAEF's scientists, engineers, and landscape architects (many of whom are LEED® AP accredited professionals in sustainability) provide a strong base of expertise to ensure effective environmental conservation and management. This work often involves stormwater planning, mitigation options and remediation plans.



Public Use and Social Activity

Parks and open space derive their value from public use. Uses range from organized recreational activities to informal day-to-day activities in parks and public areas. Many successful parks and public places are those in which social activities occur naturally – walking, jogging, strolling, sitting, listening to music, watching other people, bike riding, playing with friends, picnicking, celebrating a family event, gatherings for social groups, and so forth. Uses also include cultural activities, public art, education, historical markers, and commemorative events.





Circulation and Connectivity

Parks and open spaces become useless if the general public cannot access places quickly, enjoyably, and safely. GRAEF considers a wide range of circulation and movement issues in park planning. It is especially important to evaluate the linkages between neighborhoods, user groups and park/recreation facilities. Linkages include trail systems (bicycles, pedestrians), parking and vehicular patterns, service vehicles, connectivity to surrounding movement systems, wayfinding, and signage.

Grants, Sponsorships, Fees, and Fundraising

Outdoor recreation and park spaces are not only functional entities – they become civic symbols that represent the aspirations, pride, and attitude of the community. From this perspective there are numerous opportunities to raise funds for parks and open space, ranging from "buy-a-brick" campaigns to "adoption" of parks by local businesses and/ or neighborhoods. Depending on the nature of the facility, sponsorships and user fees are also key sources of revenue. GRAEF often assists in these efforts based on prior experience in other communities.



Integrated Systems of Parks and Places

While most comprehensive park plans focus on the facilities operated by a single public entity, the larger community-wide population actually uses a diversity of facilities such as parks and recreation areas managed by other agencies (state, federal, schools), local home owners associations, private sector entities (e.g., golf courses, resorts), and conservancy foundations. GRAEF assists local municipalities in viewing the full range of parks and open space in order to dovetail facilities offered by local government into the larger community system.





Landscape Architecture

Areas of Expertise

Adaptive Reuse American Disabilities Act Aquatic Facility Design & Planning **Budgeting & Programming** Construction Detailing Construction Management Corporate Identity & Image Fountains & Water Features Hardscaping Interiorscape Park Master Planning **Predictive Planning** Rooftop Green Spaces Schematic Utility Systems Site & Urban Planning Site Illumination Site Irrigation Specifications

A successful landscape design must incorporate a full understanding of context, desired program elements, attainable design opportunities, potential constraints, attention to site composition and functional requirements in order to truly develop something special and unique. At GRAEF, we strive to create landscapes that blend aesthetics, functional process, accessibility and creativity in a way that best responds to the needs of our clients.

GRAEF provides a broad range of landscape architecture and planning services. Our staff of landscape architects has extensive experience with projects of all scales and varied program elements. Serving municipal, private sector, conservation and governmental client bases, we specialize in providing design services for project visioning, master planning, trail development on conservation lands, streetscapes, urban plazas, sustainable site design, LEED services, land restoration, community identity, waterfronts, parks and open space, project signage and branding, educational campuses, passive and active water theme parks, retail developments, industrial parks, civic facilities as well as providing full construction administration.

Our cumulative understanding of key sustainable site design techniques for storm water management, improved water quality, green building materials and self-sustaining natural systems is a valuable asset to our clients and the projects we cultivate for them.

An additional aspect we strive to incorporate into our designs is project identity. Through collaboration with our in-house design experts, we are able to offer a fully integrated, inter-disciplinary approach to design in order to provide cost-effective, efficient solutions that are creative, fully functional and attractive.







Sports & Recreation Services

Areas of Expertise

Feasibility Studies **Existing Facility Assessments** Site Selection/Assessment Due Diligence Natural Resource Investigation Sustainable Design Master Planning Programming **Facility Layout** Municipal Entitlement Transportation Planning Parking Studies **Utility Systems** Irrigation Storm Water Management Lighting Design Structural Design **Construction Documents** Permitting **Cost Estimates** Construction Layout

Certification Surveys

Sports and recreational venues can foster school pride, revitalize an urban area or provide an outlet for family recreation. In any case, these venues should be unique and generate excitement.

GRAEF engineers understand the complex nature of sports and recreational venues. Our multidisciplinary team works closely with facility owners to create an environment best suited to our client's desired sports and recreational expectations. GRAEF engineers strive to create an environmentally safe and aesthetically appealing facility that maximizes our client's available resources.







Site/Civil Engineering

Areas of Expertise

Site Development
Utility Design
Infrastructure Master Planning
Planning & Relocation Studies
Surveying & Mapping
Storm Water Management
Roadway Design
Parking Lot & Sidewalk Design
Permit Coordination
Construction Inspection
Water and Wastewater System
Design
GIS & Computer Modeling

Zoning/Annexation Support

Our site/civil engineering team has the expertise and experience needed to provide the innovative and cost-effective solutions demanded in today's marketplace. GRAEF's civil engineers can handle the full array of infrastructure projects from private site developments to large public works projects. Our specialized project managers are supported by technical experts in water, wastewater, storm water management, urban planning, grading and paving, and environmental permitting. Our full service capability also includes survey, construction inspection, traffic analysis, GIS mapping and data management, parking planning, and natural resource assessment using state-of-the-art technology.

Services on the public side include water main, sanitary sewer, and storm water design, public road design, municipal engineering services, pump stations, wastewater treatment, and other areas of public works engineering. We have substantial experience working with city engineers, public works directors, and other governmental officials to help them meet needs of their constituents.

GRAEF's site/civil engineering team is also committed to sustainable design principles. We specialize in the design of green infrastructure, including storm water management, roadway design, street lighting, infrastructure master planning, and reuse/recycling. We have 24 LEED® Accredited professionals ready to help you achieve your project goals.







Structural Engineering

Areas of Expertise

New Building Design Renovation & Restoration Parking Structure Design Feasibility Studies Structural System Alternative Analysis

Construction Inspection
Evaluation of Existing Facilities
Vibration Analysis/Mitigation
Building Envelope Evaluation
3-D Computer Modeling

Quality and creativity are integral parts of our designs for buildings and parking structures. Our structural engineers provide a wide range of design and investigative services for all types of projects, with quality being the foundation of every project. Our commitment to creating high caliber, efficient designs is achieved through skilled personnel and personal attention during every phase of the project.

Our experience in structural design for buildings extends from small additions to multimillion dollar structures and, as a result of the variety of projects, we have an extensive background in the economical use of concrete, masonry, steel, and wood structural systems.

Foundation system selection is determined on a cost-effective basis after analyzing soil investigation results to make maximum use of available soils.

In addition to our new design expertise, we also have a comprehensive background in the evaluation and restoration of existing facilities. We work with a variety of materials and are up-to-date on the latest repair techniques and products to apply them to a constructible and cost-effective project.

In the area of bridge design, GRAEF has prepared designs for reinforcing and repairing existing structures, as well as designs for new bridges. Attention to aesthetics has been a key factor in reducing environmental objections, thereby encouraging public approval.







Mechanical, Electrical & Plumbing Engineering

Areas of Expertise Mechanical

Chilled Water Plant System
Analysis/Design
Steam and Hot Water Boiler
System Analysis/Design
High Pressure Steam Sterilizer
Systems

Built-up and Packaged Air Handling Units

Exhaust Air Heat Recovery
Fume Hood and HEPA Filtration
Systems
Energy Modeling
Process Piping

The GRAEF team of mechanical, electrical, and plumbing (MEP) engineers provide full service beginning in the initial concept and planning phases and extending through final system start-up. Our MEP staff is experienced in determining system type, system budget and engineering budgets.

GRAEF's MEP experts offer a full array of analysis, design and commissioning services for new and existing facilities. Our varied and diverse experience, coupled with our involvement in the analysis of the project requirements, provides a resource to successfully complete your MEP projects.

Electrical

Primary and Secondary Electrical
Services

Normal Power Distribution Systems
Emergency Power Distribution
Systems and Generators
Lightning Protection
Indoor and Outdoor Lighting Design
Communication and Alarm Systems

Plumbing & Fire Protection

Water Distribution Systems
Domestic Hot Water System
Wet Pipe Fire Protection System
Dry Pipe Fire Protection System
Fire Pumps
Medical Gas Systems and
Equipment
Bulk Oxygen Equipment









WATER TECHNOLOGY, INC

WORLD LEADERS IN AQUATIC PLANNING, DESIGN AND ENGINEERING

Firm Overview

The WTI team is a highly qualified group of individuals comprised of creative architects, landscape architects, engineers, designers, business developers and administrators, all with a passion for aquatics. Together, we combine our talents to develop original, aquatic facilities from concept to reality. In addition, WTI maintains solid relationships with other consultants and contractors and continues to set the standards in the aquatic industry across the United States and around the world.

PHILOSOPHY

Water Technology, Inc.'s (WTI) creative energy and passion embraces the philosophy that aquatic recreation completes communities and makes them a better place to live.

COMPANY DETAILS

- Established in 1983
- · Largest Aquatic Design Firm in North America, Staff of 60+
- Quality Control Implementation
- Collaborative Team Process
- International Portfolio
- Specialized Aquatic Professionals on Staff:
 - Executive Team (5)
 - Project Development (4)
 - Architects (4)
 - Landscape Architects (2)
 - Engineers (6)
 - Civil (2), Mechanical (3), Structural (1)
 - Artistic / Creative Design (3)
 - Site Planners / Designers (3)
 - Technical Designers (7)
 - Mechanical Designers (6)
 - Project Managers (8)
 - Administrative (7)

WTI ADVANTAGES

- · Solution driven planning and philosophy
- Two-way sharing process between WTI and client
- Forward-looking designs that support dynamic community programs
- 150+ AQUATIC Projects Per Year
- · Historical database of cost estimates and realistic timelines

EXTENSIVE PORTFOLIO OF PROJECTS OF VARYING VENUES

- Waterparks
- · Resort and Hotel Pools
- Competition Pools
- Faith Based Community Centers
- Water Playgrounds
- Public Facilities
- Therapy and Wellness Pools
- Schools and Universities



HEADQUARTERS

100 Park Avenue Beaver Dam, WI 53916 T. 920.887.7375

TEXAS

6636 N Riverside Dr., Ste 500B Fort Worth, TX 76137 T. 682.708.7007

WWW.WTIWORLD.COM



MERRILL, WISCONSI





Section 2 **Project Experience**

De Pere Aquatic Center at VFW Park Master Plan & Final Design

Client: City of De Pere | Location: De Pere, WI







Services

Project Management
Master Planning
Landscape Architecture
Civil Engineering
Structural Engineering
Aquatics (Water Tech)

Client Reference

Marty Kosobucki Director of Parks, Recreation, and Forestry City of De Pere 925 S. Sixth Street De Pere, Wisconsin 54115 (920) 339-4065 **GRAEF**, along with our partner **Water Technology**, **Inc.** (WTI), completed the Master Planning, Programming, Conceptual Design in 2019 and are now in the midst of full detailed design, bidding and soon to be construction of this amazing facility.

The first phase of work included review and analysis of the existing aquatic facility and VFW Park features, along with development of a conceptual design plan and a budget estimate, for a new and unique replacement aquatic center. The **GRAEF/Water Tech team** collected and reviewed existing data and information, and conducted public meetings and interviews with key stakeholders. Multiple design option renderings and budgets were prepared and presented. Then with the direction from the City Park Board, a single rendered option was finalized and budget updated. The preferred conceptual master plan and itemized budget estimates, with operational cost projections, were completed and presented to the Board of Park Commissioners for final approval.

In late 2019, **GRAEF/Water Tech team** was selected to continue with the project into the full detailed design, bidding, and constructions phases. The project includes an entirely new facility with bathhouse containing bathrooms/changing rooms, office and guard spaces, first aid, entry lobby, meeting rooms, family changing rooms, and a concessions wing. A separate mechanical building will house the pumps and chemical rooms and provide storage space. The aquatic features include a lap pool with dive well, activity zone, water walk, dual body slides, drop slide, separate tot pool with zero depth entry, and tot play features. Currently the project is under construction. Completion will be in May 2021 in advance of the normal swimming pool season for the City.



Tosa Pool at Hoyt Park



Client: Friends of Hoyt Park/Milwaukee County | Location: Wauwatosa, WI







ServicesCivil Engineering

Structural Engineering
Survey

Aquatics (Water Tech)

The Friends of Hoyt Park, a non-profit community organization, teamed with Milwaukee County to rebuild the Hoyt Park Pool, which had been closed for close to 10 years. The \$9 million pool and park opened in 2011, and the complex includes a new lap pool, diving board, slide, and zero-entry design including a redesigned changing complex. The **GRAEF/Water Tech team** was chosen to design the new pool.

GRAEF provided civil engineering services to Milwaukee County to improve all the support infrastructure in the park including a new parking lot, decorative fencing, recreational path, and utility work. The proximity of the pool to the Menomonee River led to innovative storm water design solutions and challenges with utility service, requiring a 1,200-foot directional drill under the river to provide water service to the pool. GRAEF also provided civil engineering services to the design-build team to construct the pool, deck, and building renovations.

The tight budget for the community project challenged GRAEF to analyze the infrastructure thoroughly to determine what existing site could remain to maximize both environmental and cost efficiency.

The pool opened with great fanfare from the local community with local recognition including Wauwatosa Chamber of Commerce Civic Appreciation Award and Milwaukee Magazine's "Best Things in Milwaukee."



Schultz Aquatic Center at Lincoln Park











Services

Project Management
Master Planning
Site/Civil Engineering
Structural Engineering
Landscape Architecture
Aquatics (Water Tech)

Milwaukee County opened a new family aquatic center at Lincoln Park on Milwaukee's north side in 2009. The family aquatic park features the only outdoor "lazy river" in the region as well as the tallest water slides in the County Parks system. The park includes a body slide, tube slide, zero-depth entry interactive children's play area, lap lanes, diving boards and a new 6,200 square-foot locker room building. The pool water is heated to a constant 82 degrees. The project also included the remodeling of the existing Blatz Pavilion to include concessions, lifeguard locker rooms, a first aid room, and staff offices.

GRAEF engineers led The **GRAEF/Water Tech team** with overall project management, master planning, site/civil engineering, structural engineering and landscape architecture for this \$8.6 million dollar aquatic center. GRAEF staff provided multiple site and size preliminary design options, final design services, construction drawings, construction specifications, and construction administration services.

The new facility provides a strong connection to the Lincoln Park, the Milwaukee River, and the Oak Leaf Trail system. The project won an award for Outstanding Aquatic Facility Design from the Wisconsin Park and Recreation Association.





Cool Waters Greenfield Park Aquatic Center

Client: Milwaukee County | Location: West Allis, WI







Services
Site/Civil Engineering
Landscape Architecture

Cool Waters Greenfield Park Aquatic Center consists of a new zero-low depth pool, two water slides, water play features, bath house, snack bar, filter building, lawn areas, sand play areas, sand volleyball, and two picnic shelters. The project area encompasses over four acres including a half-acre previously occupied by a public swimming pool.

4 acres \$4.2 million project cost

Data GRAEF landscape architects and site/civil engineers planned the demolition and 4 acres complete regrading of the project area, coordinated the pool deck user areas, and developed the plantscape. GRAEF designers incorporated pedestrian controls, new benches, raised planters, and flagpoles at the entry area. The project also included a new entryway including new roads and walkways, utility service redirection and an irrigation system.



Erb Park & Pool Facility Evaluation & Concept Plan Development

Client: City of Appleton | Location: Appleton, WI







Due to the popularity of this neighborhood park and pool, the City of Appleton is proactively addressing the aging facilities and seeking opportunities for improvements and/or renovations to the facilities. They retained GRAEF, teamed with Water Tech, to complete an investigation and review of the existing facilities and park and to collaborate to develop concept plans for pool improvements and/or renovations.

Services

Project Management
Master Planning
Landscape Architecture
Civil Engineering
Structural Engineering
Aquatics (Water Tech)

Efforts included review of design drawings; field inspections of the park, tennis courts, parking lots and driveway, pathways; structural and architectural inspection of the pavilion, bathhouse, maintenance building, and pool shells; review of the mechanical and plumbing systems; and review of the pool components.

The **GRAEF/Water Tech team** listened to user groups and the public through interviews and public involvement workshops. Using the information gathered, GRAEF developed a program of activities and aquatics for the park and pool in concert with City of Appleton staff. With the program outline, we worked together to come up with several concept master plan options and associated budgets. Many discussions and comparisons ensued, resulting in a single concept master plan that was released to the public for comments over the course of the 2015 swim season. At the conclusion of the swim season, the comments were evaluated and the concept master plan was expanded to four different options, along with budgets, to be considered for inclusion in the 2015 city budget.

Ultimately, the City Council approved a \$10.5 million budget item for the new park and pool improvements to be designed in 2016.



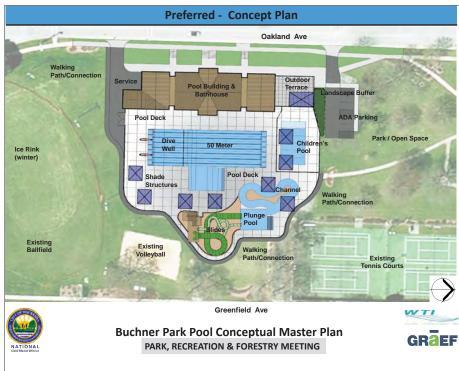
Buchner Park Pool Master Plan

Client: City of Waukesha | Location: Waukesha, WI



Services

Project Management Master Planning Landscape Architecture Civil Engineering Structural Engineering Aquatics (Water Tech)



The project included an analysis and evaluation of the Buchner Park Pool Facility and development of an overall Master Plan which includes future renovations and improvements for the swimming pool and related facilities to meet the current and future needs of the community.

Efforts included review of design drawings; field inspections; structural and architectural inspection of the pool; review of the mechanical and plumbing systems; and review of the pool components.

The **GRAEF/Water Tech team** coordinated and hosted two public information gathering/listening sessions to solicit feedback in a program/activity station format. These sessions included asking questions and listening to key project stakeholders including elected officials, the Waukesha Parks, Recreation and Forestry Department (WPRF), the WPRF Board, other City staff, park/pool operations staff, park/pool maintenance staff, major user groups, and the citizens of the City of Waukesha.

The team worked with the Waukesha Parks, Recreation and Forestry Department and the City to finalize two distinct project programs which formed the basis of the conceptual master plans. After presentation to the WPRF Board and the subsequent public open house and comment period, the information was summarized and the preferred master plan alternative was reviewed and selected.

The preferred conceptual master plan and opinion of probably construction costs will be finalized and presented to the Waukesha Parks, Recreation and Forestry Board for final approval.



Hart Park Interpretive Playground and Splashpad

Client: City of Wauwatosa | Wauwatosa, WI





Saw the fire-fly,

Flitting through the dusk of evening.

With the twinkle of its candle

Lighting up the brakes and bushes.

And he sang the song of children.



Services
Site/Civil Engineering
Landscape Architecture

Data

Project Cost: \$750,000

Families of Wauwatosa and the surrounding Milwaukee suburbs are enjoying a new playground, splashpad and bandshell at Hart Park. The theme of the playground and landscape elements at North 70th and West State streets is pre-settlement Wauwatosa with tributes to the Menonomee River, Native Americans, and the Schoonmaker Reef. The ADA accessible playground is centered around naturalistic trees, logs and rock formations. Children can climb a rock wall, walk logs that serve as balance beams, look out a large eagle's nest, and play in a large carved canoe. The site also features an emblematic sculpture which represents Wauwatosa's history.

Hart Park Athletic Complex



Client: City of Wauwatosa | Location: Wauwatosa, WI







Services

Site/Civil Engineering Landscape Architecture Electrical Engineering Construction Services

Data

\$4.4 Million Project Cost

Awards

American Sports Builders Association Single Field Award, 2010

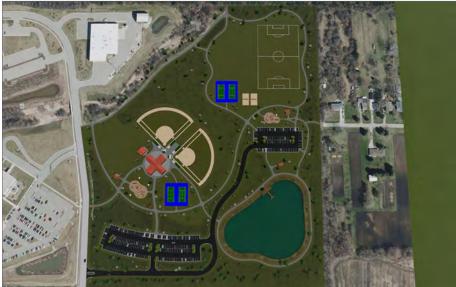
Project Reference

Bill Wehrley, City Engineer City of Wauwatosa 7725 W. North Avenue Wauwatosa, WI 53213 414 / 479-8929 The City of Wauwatosa contracted GRAEF to help restore this community asset back to the regional athletic venue it once was. Previously the home field for five football teams, Hart Park's usage had steadily declined due to age and declining quality of the grass football field, running track and stadium. GRAEF prepared a detailed report of different alternatives for renovations including a comparison of similar, local athletic facilities, preliminary design of five alternatives, a preliminary estimate of design and construction costs, and a financial analysis for possible revenue generation of the improved venue. The City used the report to move forward with a full reconstruction of the athletic field complex.

GRAEF designed the complete renovation of the athletic complex. Improvements include the replacement of eight tennis courts, reconstruction of the existing six lane track with an eight lane track and associated field event areas, the replacement of the natural grass football field with a synthetic turf multi-sport field, bleachers for 5,000 spectators with a new press box, new sports lighting, and water main and storm sewer infrastructure improvements. The design team successfully met a condensed schedule with the study, design, and construction completed in less than 12 months for the start of fall football.









Services
Civil Engineering
Landscape Architecture

GRAEF was retained by the Village of Mount Pleasant to prepare master plan alternatives for its park and open space plan, and design recreational facilities for a 40-acre parcel within their newly developed Civic Campus complex.

GRAEF worked closely with the Village Planning Director and staff to develop three plan alternatives that would address desired park amenities and recreational fields for the site. The Village was also in the process of developing a new YMCA adjacent to the park site, so programmatic synergies were folded into the planning process. GRAEF was asked to collaborate with the YMCA to determine potential shared uses for both residents and YMCA members.

The Village had carried the process forward by developing additional funding sources in order to proceed with the construction of the park site. GRAEF completed final design and construction documents for Phase I of the Park improvements and the construction was completed in 2017.



Client: Town of Salem | Location: Salem, WI







Site/Civil Engineering Landscape Architecture Storm Water Management Site Illumination

Parking Services

Services

GRAEF designed an active community park located on 10 acres in the Town of Salem. The project boasts two full size baseball diamonds, one combination soccer/football field, adequate parking, a pavilion/bathroom facility, a playground, and areas for open spaces and picnic tables. The combination soccer/football field includes space for movable bleachers on both sides of the field. The active use area was designed and constructed without impacting existing wetlands and a primary environmental corridor.

GRAEF provided complete grading and drainage plans for all storm water sewers, drainage swales, retention basins, and water quality improvements, meeting town, county, and state requirements. GRAEF provided a pavement design, grading plan, and typical section for all access roads, driveways, shared use trails, and a parking lot. GRAEF also prepared plans, specifications, and construction details for all site improvements including the athletic field base and turf materials, perimeter fencing, related equipment, site lighting, and water requirements for the pavilion/bathroom and irrigation of the sports fields.









Services

Site/Civil Engineering Landscape Architecture

Reference

Mike Pedersen
Manager of Generation and
Operations
Kaukauna Utlities
920 / 462 0220
mpedersen@ku-wi.org

For 10 years, Kaukauna Utilities worked with the Federal Energy Regulatory Commission (FERC) for a new license on their upgrade to the Badger Hydro Plant with a new Powerhouse and power canal modifications in downtown Kaukauna. The hydro plant is contained in the Badger Hydro-Electric Historic District that was placed on the National Register in 1991. As part of the licensing requirements, KU was required to redevelop the old Badger facility and decommissioned area of the power canal. Part of the redevelopment was construction of community park.

This park incorporates historic elements outlined in the Historic Resources Management Plan to commemorate and educate on the historical significance of hydroelectric power in the area's settlement. For the initial phases of the project, GRAEF staff worked with KU, City, and general public representatives to develop a schematic master plan for the park. The effort included several stakeholder workshops to obtain public input for the park.

A portion of the power canal was filled and a new retaining wall constructed. Portions of the existing canal limestone wall were left in place and exposed as a nod to the historical use of the space. The design incorporated an area with views of the new powerhouse and remaining canal and a large turbine impeller that was already in the area. Also, historic educational nodes were integrated into the site design, as were an outdoor performance area, gathering spaces, and trail connections.



Naga-Waukee, Minooka, and Mukwonago Park Shelters

Client: Waukesha County Parks & Land Use | Location: Waukesha County, WI









Services
Landscape Architecture
Site/Civil Engineering
Mechanical Engineering
Electrical Engineering
Plumbing Engineering
Structural Engineering

Waukesha County constructed new restroom facilities at three of its county parks – Naga-Waukee, Minooka and Mukwonago. GRAEF provided engineering design, construction documents, bidding and construction administration for the four new restroom buildings. Full-service design included site/civil, electrical, mechanical, plumbing and structural engineering services as well as landscape architecture. The project was completed in three phases.



FC Milwaukee Nationals Soccer Complex

Client: FC Milwaukee Nationals, Inc. | Location: Germantown, WI







Services

Site/Civil Engineering
Landscape Architecture
Environmental Engineering
Transportation Engineering
Parking Services

Surveying

Data

60 Acres

Phase 1 - \$1.2 Million Project Cost

GRAEF was retained to design a soccer complex located on a 60-acre site in Germantown, WI. The new FC Milwaukee Nationals' Soccer Complex incorporates nine soccer fields with parking and site amenities interspersed between wetlands, woodlands, navigable waterways and challenging topography. GRAEF provided site analysis, master planning, site planning, civil engineering, natural resource assessment, landscape design, and transportation design services.

The project included design for two synthetic turf soccer fields along with seven grass fields, parking for more than 400 vehicles, storm water management basins and bio-infiltration swales, roadway and intersection improvements, lighting, wetland buffer mitigation and native landscaping design. This project was extremely challenging due a demanding project schedule, design challenges and the multiple permit processes required for approvals.



University of Wisconsin-Madison Recreational Master Plan

Client: Wisconsin Division of Facilities Development, University of Wisconsin | Location: Madison, WI







Services Civil Engineering Athletic Field Design Structural Engineering

University of Wisconsin Rec Sports identified deficiencies in the current UW recreational facilities and fields available and sought a master plan to renovate/reconstruct most of the indoor and outdoor recreational facilities.

DataMaster Plan Multiple Options Developed

The master plan reviewed multiple options for University Bay/Far West Fields, Near West Fields, and Near East Fields. Versions with varying amounts of synthetic turf, to expand playability throughout the year, were explored at each site. Lighting the fields was determined necessary to allow for use later into the day and dramatically increase the amount of students who can participate.

GRAEF was part of a collaborative team selected to complete the master plan and was responsible for civil engineering, athletic field design and structural engineering. Color plans identify all of the outdoor field improvements for each site. University Bay Fields, the Near East and Near West sites each have their own unique site and field program requirements.

Cost estimates for the improvements helped develop the referendum. The referendum was highly successful with the student body and funding is included in the fiscal budget for implementation over the next several years.



REINDAHL PARK SPLASH PAD

Madison, Wisconsin





OWNER

City of Madison 210 Martin Luther King Jr. Blvd Madison, WI 53703

COMPLETED 2014

AWARDS / FEATURES

2015 - Aquatic Design Portfolio - Athletic Business

WEBSITE

www.cityofmadison.com/parks/



Dozens of children, of all ages, gathered under the interactive features for the inaugural activation of the water sprays at Reindahl Park. The spray ground is free and open to the public throughout summer months.

WTI was hired in 2013 by the City of Madison for the design and engineering of the Reindahl Park Splash Pad, support/concessions building, and Shade Shelters. Through a series of public and staff meetings, WTI developed the design for the new splash park. The 2200 Square foot Splash pad is designed into three connecting spray zones, each appealing to a slightly different age group. Adjacent to the splash pad are shade shelters, designed by WTI, which house 2-4 picnic tables and a mechanical support/concessions building. Uniquely, a remote monitoring system connects to the splash pad for the convenience of the Madison Park Maintenance department to keep an eye on the mechanical systems.

Other improvements expected to take place at the park over the course of five years include athletic facility enhancements and new shelter landscaping. The park is also home to a major soccer complex, reservable shelter, playground, basketball court, community gardens, and tennis courts.

AMENITIES

2200 SF Splash Pad Vortex

- (1) Aqualien PowerSpinner
- (2) Loop No1
- (1) Bamboo No10
- (1) Team Spray No2
- (1) Team Spray No1
- (3) Directional Water Jet
- (1) Ombrello Twirl No1
- (1) Ombrello Twirl No2
- (1) Ombrello No1
- (2) Ombrello No2
- (5) Jet Stream
- (3) Aqualien Flower No1

- (1) Fountain Spray
- (2) Groud Geyser
- (1) Aqua Dome No1
- (2) Spray Loop
- (1) Watergarden Activator No1
- (2) Foot Activator





MILWAUKEE COUNTY PARK PROJECTS Milwaukee, Wisconsin









Milwaukee County Parks 9480 Watertown Plank Road Wauwatosa, WI 53226

COMPLETED

1995, 1999, 2009

AWARDS

Lincoln Park: MANDI (Milwaukee Awards for Neighborhood Development Innovation, LISC, 2010

Recognized for Outstanding Aquatic Facility Design by Wisconsin Park and Recreation Association,
November 2009

WWW.COUNTY.MILWAUKEE.GOV



The Center for Urban Initiatives and Research at the University of Wisconsin – Milwaukee (CUIR) was commissioned by Milwaukee County Parks in 1995 to provide a study of targeted aquatic facilities as well as a recreational survey of area residents. This survey resulted in the evaluation and renovation of some facilities such as Cool Waters in Greenfield Park, and the water playground in Carver Park.

In order to complete the Aquatics Vision, Water Technology, Inc. (WTI) was commissioned in 1999 by Milwaukee County Parks to develop an Aquatics Masterplan for the entire county. The process included the evaluation and inventory of fifteen (15) outdoor and three (3) indoor community aquatic facilities and the integration of these facilities into a comprehensive system for the future.

Most recently, the construction at Lincoln Park began in June 2008 and held its grand opening in June 2009. The center is named after former County Executive and Milwaukee County parks director who championed the waterpark concept in the 1980s, David F. Schulz. The team, comprised of Water Technology, Inc. and GRAEF worked closely with the County staff, residents and regulatory agencies, providing the leadership and participatory framework through the design process.

PROJECTS

David F. Schulz Aquatic Center at Lincoln Park Carver Park Family Aquatic Center Cool Waters Aquatic Center at Greenfield Park





GRANDVIEW HEIGHTS MUNICIPAL POOL

Grandview Heights, Ohio



OWNER

City of Grandview Heights 1016 Grandview Avenue Grandview Heights, OH 43212

COMPLETED 2017

AWARDS

Aquatic Design Portfolio Feature Athletic Business, 2019

WEBSITE

www.grandviewheights.org

After 40 years the beloved aquatics facility at First Avenue Park in Grandview Heights had fallen into disrepair, leaking 5,000 gallons of water per day. Understanding that the nature of the mechanical damage meant repairs were not financially viable, the city and community agreed to a lodging tax that would provide the \$6 Million needed to replace the existing aquatics facility with something comparable. Water Technology, Inc. partnered with a local architecture team to provide design and engineering services to replace the existing aquatics while maintaining the familiar amenities that appeal to families and swimmers alike.

First Avenue Park's bifurcated design separates swimmers and families into two distinct spaces for convenience and safety. Families will appreciate the zero-depth entry wading pool for infants and toddlers with interactive features like geysers, and wall sprays. Adjacent to the zero-depth entry pool is a two-story waterslide with dual slide flumes for side-by-side racing. Both features connect to a large 6,500 SF leisure pool, ideal for cooling off on a hot summer day. Swimmers will notice the larger 5,900 SF 8-lane lap pool an improvement over the prior smaller lap pool. Adjoining the lap pool is a dedicated diving well with two 1-meter diving boards, and one 3-meter diving board.

Both the Grandview Heights community and critics agree that First Avenue Park is a success being featured in Athletic Business as the 2019 Aquatic Design Portfolio Feature.

AMENITIES

5,900 SF 25-Yard, 8-Lane Lap Pool, Separate Diving Well 2 1-Meter Diving Boards 1 3-Meter Diving Board 6,523 SF Leisure Pool 5 Geysers & Wall Sprays 2 Slide Fumes Zero-Depth Entry Separate Wading Pool for Toddlers



WORLD LEADERS IN AQUATIC PLANNING, DESIGN AND ENGINEERING



FAIRFAX POOL RENOVATION

Eau Claire, Wisconsin





OWNER
City of Eau Claire
2013 S. Farwell Street
Eau Claire, WI 54701

COMPLETED 2013

WEBSITE

http://www.ci.eau-claire.wi.us/



After originally opening it's doors in 1991 to the citizens of Eau Claire and surrounding areas, the Fairfax Pool was widely viewed as successful and busy. "We average 60,000 people a summer. That includes our open swimmers, our lap swimmers, kids there for lessons, kids on the YMCA swim team, everybody," explains Chad Duerkop, Parks & Recreation Facility and Program Supervisor. "We are one of the most attended municipal pools in the state, in the top three or four."

After so many years of heavy use, Eau Claire was in need of some renovations and "back of house" upgrades to continue to provide the same level of service to it's patrons. Water Technology, Inc. (WTI) worked directly with Eau Claire to renovate the bathhouse, add family change rooms, provided ADA compliance updates, add a new pool equipment building and all new pool mechanical equipment, replace the main drain for VGBA compliance and replace the diving stand and diving board.

Though most of these replacements and renovations aren't visible to the public, they are key to operating a safe and efficient pool. The Fairfax Pool continues to fill with excited swimmers each summer and WTI was proud to contribute to the operational success of this facility.





FIRST COLONY AQUATIC CENTER

Sugar Land, TX





OWNER

First Colony Community Association 4350 Austin Parkway Sugar Land, TX 77479

COMPLETED

2012

AWARDS / FEATURES

Aquatic Design Portfolio Feature Athletic Business, Jan/Feb 2015

WEBSITE

www.firstcolony.org



First Colony Community Association celebrated the grand opening of the new First Colony Aquatic Center leisure pool May 4, 2012. The new leisure pool is designed to accommodate all community members with its multi-generational design. The new aquatic center is part of a greater park initiative which includes new volleyball courts, bocce ball courts, horseshoe pits, expanded lakeside trail, two boardwalk areas, a lake overlook and expanded parking lot. Water Technology, Inc. (WTI) served as the aquatic consultant to Clark Condon Associates.

Association members who visit the First Colony Aquatic Center are greeted by a large zero-depth area with water buckets and geysers. Those looking for some additional excitement can grab a tube and enjoy the twists and turns of the waterslide into the lazy river and vortex pool area.

A spray pad is also located at the new aquatic center leisure pool.

Funding for the new facility came from existing capital funds. The entire project estimated cost was \$3.7 million. The aquatics cost was approximately \$1.6 million.

AMENITIES

6,404 SF Outdoor Leisure Pool Featuring Zero Depth Entry with Tot Slide, Interactive Play Feature and Geysers, a Lazy River with Wall Sprays and Vortex, and a Tube Slide

121 SF Outdoor Spray Pad





Park and Recreation Experience

Representative Project List





Bensenville Water Park, Bensenville, IL

Carver Park Aquatic Center, Milwaukee, WI

Centennial Park, Davenport, IA

CoCo Key Water Park, Waterbury, CN

CoCo Key Water Park, Fitchburg, MA

Discovery Island Family Aquatic Center, Simpsonville, SC

Greenfield Park Cool Waters Aquatic Center, West Allis, WI

Herb & Dolly Smith Park, Neenah, WI

Horicon Family Aquatic Center, Horicon, WI

Hoyt Park Pool, Wauwatosa, WI

Lake Eva Park, Haines City, FL

Lake Park East Soccer Field, Milwaukee, WI

Lincoln Park Schultz Aquatic Center, Milwaukee, WI

Little Lake Butte des Morts Park Properties, Neenah, WI

Kinderberg Park Spray Ground Addition, Germantown, WI

Magic Waters Expansion, Rockford, IL

Marx Park, Brookfield, WI

Mystic Waters Water Park, Des Plaines, IL

Milwaukee Art Museum Lake Promenade, Milwaukee, WI

New Berlin Quarry Community Park, New Berlin, WI

Plaza Park, Neenah, WI

Rand Park Aquatic Center, Chicago, IL

Red Arrow Park, Milwaukee, WI

Salem Community Park, Salem, WI

Village of Howard Baseball Field Lighting, Howard, WI

Washington County Fair Park, Washington County, WI

Wray Park, Brookfield, WI



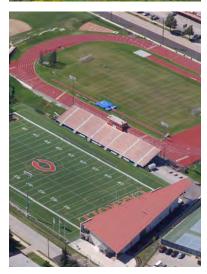




Athletic Field Experience







Facility	Running Track	Athletic Field	Synthetic Turf
Arizona State University Track, Tempe, AZ	Χ		
Aurora University Football/Soccer Field and Track & Field, Aurora, IL	Χ	Χ	Χ
Beloit College Athletic Field and Track, Beloit, WI		Χ	Χ
Bradley Tech High School Athletic Fields, Milwaukee, WI		Χ	Χ
Breese Stevens Field Turf Replacement, Milwaukee, WI		Χ	Χ
Carroll University Track and Field, Waukesha, WI		Χ	Χ
Chicago Park District Park 510, Chicago, IL		Χ	Χ
City of Wauwatosa Hart Park Athletic Fields, Wauwatosa, WI	Χ	Χ	Χ
Concordia University Baseball Field, Mequon, WI		Χ	Χ
FC Milwaukee Nationals Soccer Complex, Germantown, WI		Χ	Χ
Florida Gulf Coast University Soccer Complex, Fort Myers, FL		Χ	Χ
Hart Park Athletic Complex, Wauwatosa, WI		Χ	Χ
Homestead High School Track and Field Stadium, Mequon, WI	Χ	Χ	Χ
Marquette University Playing Fields, Milwaukee, WI		Χ	Χ
Milwaukee Kickers Soccer Field, Milwaukee, WI		Χ	Χ
Milwaukee Public Schools South & Custer Stadiums, Milwaukee, WI		Χ	Χ
Milwaukee School of Engineering Soccer Field, Milwaukee, WI		Χ	Χ
Nathan Hale High School Track Replacement, West Allis, WI			
North Shore United Soccer Club, Cedarburg, WI		Χ	Χ
Pewaukee High School Track & Field, Pewaukee, WI	Χ	Χ	Χ
Texas Tech University Track and Field, Lubbock, TX	Χ		
Town of Salem Community Park Athletic Fields, Salem, WI		Χ	Χ
University of Alabama Track and Field and Practice Fields, Tuscaloosa, AL		Χ	
University of North Florida Soccer Fields and Track & Field, Jacksonville, FL		Χ	
University of South Florida Soccer Fields and Track & Field, Tampa, FL		Χ	
University of Wisconsin-Milwaukee Engelmann Soccer Field, Milwaukee, WI		Χ	Χ
University School of Milwaukee Athletic Fields Master Plan, Milwaukee, WI		Χ	Χ
Whitman Middle School Soccer Field, Wauwatosa, WI		Χ	Χ
Wisconsin Lutheran College Athletic Fields, Wauwatosa, WI		Χ	



City of Green Bay

Dan Ditscheit
Design and Development Superintendent
Green Bay Parks, Recreation and Forestry Department
920 / 448 3381
dandi@greenbaywi.gov

City of Neenah

Michael Kading
Director of Parks and Recreation
Neenah Department of Parks and Recreation
920 / 886 6062
mkading@ci.neenah.wi.us

Friends of Hoyt Park & Pool

Kit Slawski Executive Director 414 / 302 9160 x203 kit.slawski@tosapool.com

City of Waukesha

Ron Grall
Director of Parks, Recreation, and Forestry
201 Delafield Street
Waukesha, Wisconsin 53188
262 / 524 3500

City of De Pere

Marty Kosobucki Director of Parks, Recreation, and Forestry 925 S. Sixth Street De Pere, Wisconsin 54115 920 / 339 4065

City of Wauwatosa

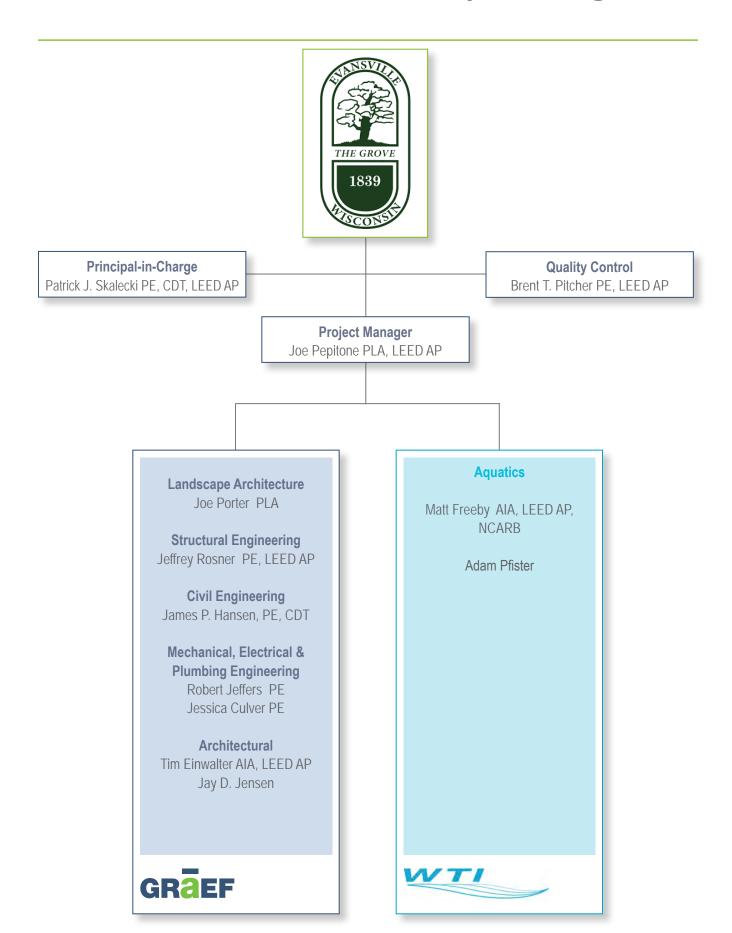
David Simpson, P.E. Director of Public Works 414 / 831 0799 dSimpson@wauwatosa.net





Section 3 **Project Team**

Project Team Organization





RegistrationsProfessional Engineer – WI, IL, IN, IA, MI, MN, ID

Certifications

Construction Specifications Institute – Construction Document Technologist

LEED® Accredited Professional

Education

B.S., Civil Engineering, 1992 University of Wisconsin-Platteville, Platteville, WI Over the past 28 years in the engineering industry, Pat has developed extensive knowledge along with technical and managerial skills in public infrastructure and site engineering. He has been involved in projects from idea to grand openings. This depth of knowledge and experience helps clients evaluate project scope and budget early on in the process. He is skilled in public presentation and delivery needed to build consensus among stakeholders. During design, he uses his abilities in hydraulic modeling, hydrologic studies, municipal utility design, storm water management and system design, roadway design, complete site development, parking lot design and associated construction engineering to realize the vision of the clients into a successful project.

VFW Park Aquatic Facility Design & Construction, City of De Pere, WI – Project Manager: Project includes an entirely new facility with bathhouse containing bathrooms/ changing rooms, office and guard spaces, first aid, entry lobby, meeting rooms, family changing rooms, and a concessions wing. Separate mechanical building will house the pumps and chemical rooms and provide storage space. Aquatic features include a lap pool with dive well, activity zone, water walk, dual body slides, drop slide, separate tot pool with zero depth entry, and tot play features.

VFW Park Aquatic Facility and Legion Park Aquatic Facility Conceptual Design, City of De Pere, WI – Project Manager: Provided master planning services and development of the conceptual design of two replacement aquatic facilities. Significant public involvement was necessary in this highly visible project with significant public interest. Included multiple open house workshops, multiple concept designs and budgets, refinement of conceptual designs into single options, 2D and 3D renderings, and several public presentations to the City Park Board.

Erb Park and Swimming Pool, City of Appleton, WI – Project Manager: Provided master planning services in the evaluation of an aging swimming pool facility in order to proactively recommend potential renovations and improvements. Efforts included the review of design drawings, field inspections of the park and its amenities, structural and architectural inspection of its buildings, and review of mechanical and plumbing systems. Public participation efforts helped identify park activities to accommodate in finalizing the concepts for the master plan.

Loop the Lake Boardwalk Bridges, Neenah and Menasha, WI – Project Manager: Feasibility study and investigation and full detailed design, bidding, and construction management of 2 separate boardwalk bridges. The Neenah bridge is 768 feet long with twelve 64-ft spans. The City of Menasha bridge is 715 feet long with ten 63-ft spans and one 84-ft span. Both were steel girder structures supported on steel pipe pile bents and concrete piers. Timber under-decking supported a 14-ft clear width composite deck boardwalk with aluminum and cable railings. Mid-span of both bridges includes an observation bumpout with covered canopy allowing pedestrians and bikers to enjoy view while not impeding the through traffic. Approach work needed to avoid and work around large utilities, cross active railroad lines, and connect to existing trail facilities.





RegistrationsProfessional Engineer – WI, IL

Certifications

LEED® Accredited Professional

Education

B.S., Civil and Environmental Engineering, 1994, University of Wisconsin-Madison, Madison, WI

Years of Experience

22

As the leader of GRAEF's Infrastructure team, Brent oversees the quality of the work on our clients' projects, as both the site/civil engineer and principal-in-charge. His focus on the details and rapport with his team give our clients the security of knowing their projects are in good hands. Brent has decades of experience working on outdoor recreation projects including family aquatic centers, splash pads, and athletic fields. After leading the Site/ Civil and Infrastructure design for the Tosa Pool at Hoyt Park Brent has served on the Board of Directors for the Friends of Hoyt Park & Pool and as the Chair of the Operations Committee for the last 5 years.

Tosa Pool at Hoyt Park, Wauwatosa, WI- Principal in Charge: Responsible for site development for the demolition of the existing deep water pool and addition of a new family aquatic center at the existing community park. Project included new utility services and parking lot reconstruction.

Reindahl Park Splash Pad, Madison, WI- Principal in Charge: Responsible for site development for the addition of a splash pad at the existing community park.

Schulz Family Aquatic Center Lincoln Park, Milwaukee, WI – Project Engineer: Project Engineer for proposed family aquatic center replacement in the City of Milwaukee.

Hart Park Athletic Field, Wauwatosa, WI – Principal-in-Charge: GRAEF designed the complete renovation of the athletic complex. Improvements include the replacement of eight tennis courts, reconstruction of the existing six lane track with an eight-lane track and associated field event areas, the replacement of the natural grass football field with a synthetic turf multi-sport field, bleachers for 5,000 spectators with a new press box, new sports lighting, and water main and storm sewer infrastructure improvements. The design team successfully met a condensed schedule with the study, design, and construction completed in less than 12 months for the start of fall football.

Noyes Park Family Aquatic Center, Milwaukee, WI: Project engineer Responsible for preliminary engineering review of a proposed family water park.

Harkins Pool, Rockford, IL – Project Manager: Responsible for site development for a family aquatic center replacement of the outdated swimming pool.

Magic Water, Rockford, IL – Project Manager: Responsible for site development of a waterslide addition at the existing water park.

Kinderburg Park, Germantown, WI – Project Manager: Responsible for site development for the addition of a children's spray pad at the existing community park.

Southside Park, Greenville, SC – Project Manager: Responsible for site development for a family aquatic center replacement of the outdated swimming pool.





Professional Registration
Registered Landscape Architect –
CA, MN, WI
CLARB National Certification

B.S., Landscape Architecture, 1986 University of Wisconsin-Madison, Madison, WI

Professional Affiliations

American Society of Landscape
Architecture

Council of Landscape Architects
Review Board

Society for College and University
Planning

American Sports Builders
Association

Professional Certification

LEED® Accredited Professional

Joe is a licensed landscape architect who brings 30 years of professional experience in project management expertise, landscape architectural design and planning to GRAEF and has won numerous design awards for his work. Joe has been involved in master planning and design for corporate office, industrial, commercial/retail, recreational facilities, urban design, multi-family residential, senior housing, healthcare and educational campuses of all sizes. His expertise includes master planning to incorporate building(s) and site program elements in a functional and cohesive manner. His thorough knowledge of all aspects of site development allow him to provide complete and thorough documentation which includes site planning, detailed design, landscape design and details, planting design, construction documentation, specifications and on-site construction administration.

VFW Park Aquatic Facility Design & Construction, City of De Pere, WI – Landscape Architect: Project includes an entirely new facility with bathhouse containing bathrooms/changing rooms, office and guard spaces, first aid, entry lobby, meeting rooms, family changing rooms, and a concessions wing. Separate mechanical building will house the pumps and chemical rooms and provide storage space. Aquatic features include a lap pool with dive well, activity zone, water walk, dual body slides, drop slide, separate tot pool with zero depth entry, and tot play features.

VFW Park Aquatic Facility and Legion Park Aquatic Facility Conceptual Design, City of De Pere, WI – Landscape Architect: Provided master planning services and development of the conceptual design of two replacement aquatic facilities. Significant public involvement was necessary in this highly visible project with significant public interest. Included multiple open house workshops, multiple concept designs and budgets, refinement of conceptual designs into single options, 2D and 3D renderings, and several public presentations to the City Park Board.

Buchner Park Pool Concept Plan Development, City of Waukesha, WI – Project Manager: Leading the concept development for potential rehabilitation or redevelopment of a community pool. Led public involvement and stakeholder meetings to ensure all opinions were heard and valued during the concept development process.

Hart Park Improvements – Playground and Splash Pad, Wauwatosa, WI – Landscape Architect: Responsible for design of interpretive play area for multiple age groups along with interactive play splash pad. Provided preliminary design through construction documents for the all accessible play areas, landscape, hardscape, site amenities and lighting. Interpretive play components based upon local Native American heritage and existing Silurian reef including; archaeological dig pit with fossils, Silurian reef wall with fossils, native plantings, dugout canoe, etc. GRAEF is also providing construction oversight on project during construction.





Professional RegistrationProfessional Engineer – WI

B.S., Civil Engineering, 1994, University of Wisconsin-Platteville, Platteville, WI

Professional CertificationsCertified Document Technologist

Professional AffiliationsAmerican Society of Civil Engineers

Jim brings 25 years of experience to site development and public works engineering projects at GRAEF. Jim's approach to designing and managing projects ensures that clients are satisfied and projects are completed on time and within budget. His site development services includes site grading, storm water management, sanitary and storm sewers, water mains, roadways, paving, erosion control, and permitting. Jim has evaluated and designed multiple types of underground storm water best management practices (BMPs) for public and private clients to provide solutions that minimize the amount of surface required for storm water management.

Drexel Town Square, Oak Creek/KM Development Corporation, Oak Creek, WI—Project Engineer: GRAEF was selected to provide a number of services for Drexel Town Square, an 85-acre, mixed-use development. Services included planning, landscape architecture, civil engineering, transportation engineering, site electrical engineering, environmental services, and field services. The site/civil engineering included site demolition; sanitary sewer, storm sewer and water mains; permitting; grading and paving; erosion control; and stormwater management. Stormwater management included enhancing an adjacent poor quality wetland area to provide improved water quality of surface runoff from the developed site. GRAEF worked with many different stakeholders, including the City of Oak Creek, MMSD, WDNR, future tenants, and other consultants. The design used AutoCAD Civil3D design software to create a three-dimensional model of the site that can be updated and review during construction, and for the owner's use during future planning.

Bellaire Ravine Improvement, City of Appleton, Appleton, WI – Project Engineer: Worked with another firm for improvements to reduce erosion problems along Bellaire Ravine from Appleton Papers to Peabody Park. Designed grouted riprap for placement downstream from the 54-inch pipe to reduce scour that had created a five-foot deep splash pool. Designed an inlet placed over the downstream 60-inch storm sewer where stormwater flows from the ravine to the storm sewer system and ultimately to the Fox River. The cast-in-place structure featured a sloped grate that passes small debris while retaining larger debris from passing to the river. Designed grading, restoration, drainage, and erosion control.

South Bank Linear Park, The Wolff Company, Tempe, AZ – Project Manager: Managed the development of ¾ mile long by 70 feet wide of lakefront parkland along Tempe Town Lake. More than 2 million people visit Town Lake each year to boat, fish, attend concerts, fireworks and a variety of festivals. Provided coordination with local and regional agencies, as well as multiple other consultants on the project. Designed site infrastructure and performed engineering services during construction, including site demolition, survey, new site utilities, grading hardscaping and paving; retaining walls, lighting, structural design of pedestrian connections, signing, and permitting. Prepared stormwater management plan and design of water quality management facilities. Stormwater storage is accomplished by a system of 4-foot diameter underground pipes accommodating 20,000 cubic feet of storage, over the lower boardwalk.





Professional Registration Registered Landscape Architect -WI

B.S., Landscape Architecture, 2002, UW Madison, Madison, WI

Awards

2019 WIASLA Honor Award for General Design - Bee Branch Creek and Open Space Restoration, Dubuque, Iowa

2018 "Reimagining Warner Beach"

Design Competition Finalist,

Madison Wisconsin

2015 WIASLA Excellence Award for Built Work, UW Health at the American Center, Madison Wisconsin

2014 WIASLA Merit Award for Un-Built Work, McKinley Marina Master Plan, Milwaukee Wisconsin

> 2008 WIASLA Merit Award for Analysis and Planning, Dillon Marina Master Plan, Dillon Colorado

Joe Porter is a licensed Landscape Architect with fifteen years of experience working on academic and corporate campuses, brownfield redevelopments, green roofs, greenway corridors, mixed-use developments, parks, plazas, streetscapes, residences, resorts, and waterfronts throughout North America and the Caribbean. His involvement with these projects has included every aspect of the design process, from conception through completion. Joe is passionate about context-sensitive design, with emphasis on sustainability and the facilitation of social interaction. He enjoys creative problem solving within a collaborative team environment.

The Hollows Community Beach Development, Lago Vista, TX – Project Landscape Architect: Provided design services from master plan conceptualization through construction documentation for the community's clubhouse, including a large zero-entry pool with splash pad, infinity edge and spa, three smaller adult pools with interactive water feature, a kids pool, terraced lounge areas, an open air pavilion with bar and grill, and an outdoor dining area. (With Another Firm)

James Madison Park Master Plan, Madison, WI - Planning & Landscape **Architecture:** (With Another Firm): James Madison Park is a 12.36-acre community park located along Lake Mendota in downtown Madison, Wisconsin and is within a 15-minute walk from student housing for the University of Wisconsin campus, State Street, and the Wisconsin State Capitol. The park attracts diverse users of all ages and backgrounds, including neighborhood residents and visitors from the greater Madison Metropolitan area. The master planning process incorporated extensive public engagement, historical research, analysis of existing conditions, and review of regulatory requirements influencing park development to inform the design. The resulting plan will be used as a guide for future development of this iconic park and includes amenities to support both active and passive forms of recreation, multigenerational play areas, a new park shelter with concessions and rentals, a small crafts boat launch and seasonal courtesy dockage, an expanded beach area, reconfigured parking, terraced seating along the shoreline, ADA accessibility throughout the park, interpretive and educational opportunities and an emergent wetland strategically located to intercept and filter 64 acres of urban stormwater before entering the lake.

Port Hawkesbury Community Park Master Plan, Port Hawkesbury-Cape Breton, Nova Scotia – Project Manager and Landscape Architect: Provided conceptual design services for a large community park with adjacent retail, reconfigured parking, multi-purpose shelter, concessions, bathroom facilities, tennis courts, track and field, baseball and softball, multi-age playgrounds, interactive splash park and community gardens. A 3D model of the entire park and associated structures was created to help the community visualize proposed improvements and was subsequently used for marketing and fundraising initiatives. (With Another Firm)





Professional Registration Licensed Architect – CO, KY, TX, WI

Professional Certification Commercial Building Inspector UDC Construction Inspector UDC HVAC Inspector

Education

B.S., Architectural Studies, 1996 University of Wisconsin-Milwaukee, Milwaukee, WI

Certificate of Urban Planning, 1996 University of Wisconsin-Milwaukee, Milwaukee, WI Tim is a licensed architect with over 20 years of experience. He has an excellent track record for large-scale project management, and code/regulation adherence. His experienced includes research and reconcile of building and life safety codes, zoning regulations and ordinances during all stages of architectural development Additionally, Tim is skilled in many structural materials, including wood studs, light weight steel framing, steel frame, timber frame, concrete block, precast concrete, composite slabs, post tensioned concrete, and ICFs.

Confidential Client Manufacturing Facility, De Pere, WI – Project Architect: Two-phased 33,000-square-foot addition to an existing manufacturing facility for a confidential client. The single-story addition is steel-framed with precast bearing walls supported by spread footings. Design included a building shell to match the existing building.

Didion Milling Project Polaris, Cambria, WI – Project Architect: Design of a single-story warehouse, two-story packaging area including a 5,000-square-foot visitor entrance/reception area and employee area with a block of office cubicles, employee break area, locker room with showers, and bathrooms. Performing a preliminary code review to determine occupancy type, as well as research of NFPA requirements for grain handling facilities (fire walls, barriers, egress requirement, deflagration requirements, etc.).

Quad/Graphics Lithoman Press Installation Versailles, KY – Project Architect: Press installation included raising the existing roof over the press, and determining existing fire rated partitions, and worked closely with client to custom design a unique coiling fire door modification. Installed exterior coiling door.

Brookdale Senior Living, Sterling House and Clare Bridge of Waxahachie, Waxahachie, TX – Project Manager and Architectural Lead: 24,000-square-foot Memory Care facility in Waxahachie, Texas. This building site had expansive soils so the building pad was excavated to bed rock and built back up with structural fill. Provided drafting, project management and construction management services for this project. (with another firm)





Education B.S., Architecture, 1988, University of Wisconsin-Milwaukee, Milwaukee, WI

Jay possesses extensive experience in the architectural design of commercial, industrial, municipal buildings and related structures. He provides design, programming, space planning, construction documents and construction cost estimate services. Jay's specialized expertise includes architectural/engineering Building Information Management (BIM), 3D Modeling, photo realistic computer rendering and animations. Jay has developed numerous project displays to assist clients in visualizing various details associated with large and complex projects.

VFW Park Aquatic Facility Design & Construction, City of De Pere, WI – Architectural Designer: Provided master planning services and development of the conceptual design of two replacement aquatic facilities. Significant public involvement was necessary in this highly visible project with significant public interest. Project includes an entirely new facility with bathhouse containing bathrooms/changing rooms, office and guard spaces, first aid, entry lobby, meeting rooms, family changing rooms, and a concessions wing. Separate mechanical building will house the pumps and chemical rooms and provide storage space. Aquatic features include a lap pool with dive well, activity zone, water walk, dual body slides, drop slide, separate tot pool with zero depth entry, and tot play features.

VFW Park Aquatic Facility and Legion Park Aquatic Facility Conceptual Design, City of De Pere, WI – Project Manager: Provided master planning services and development of the conceptual design of two replacement aquatic facilities. Significant public involvement was necessary in this highly visible project with significant public interest. Included multiple open house workshops, multiple concept designs and budgets, refinement of conceptual designs into single options, 2D and 3D renderings, and several public presentations to the City Park Board.

Colburn Park Pool - Green Bay, WI – Architectural Designer: Architectural design, and renderings for the Colburn Park pool replacement. Project included both pool, building, and associated site work. GRAEF engineers led The GRAEF/Water Tech team with overall project management, master planning, site/civil engineering, structural engineering, mechanical engineering, electrical engineering, plumbing engineering, and landscape architecture for this \$6.5 million dollar aquatic center. GRAEF staff provided multiple preliminary design options, final design services, construction drawings, construction specifications, and construction administration services.

Riverwalk, City of De Pere Parks and Recreation - De Pere, WI – Architectural Designer: Design, 3D modeling, construction documents, shop drawings, inspections for wild life viewing pier, connecting trails, boardwalk, lift bridge, fixed bridge and trail entrance. This project received multiple awards.

Hydro Park Pavilion, Kaukauna Utilities, Kaukauna, WI – Architectural Designer: Architectural design, renderings, and construction documents for a 1,000-square-foot park pavilion.





Professional RegistrationProfessional Engineer – IL, WI,
CO, RI

B.S. Architectural Engineering – Building Mechanical Systems & Building Electrical Systems Design, 2012, Milwaukee School of Engineering, Milwaukee, WI

Professional Affiliations

American Society of Heating, Refrigerating and Air-Conditioning Engineer (ASHRAE) As an experienced mechanical engineer, Jessica has a broad range of experience with clients, different building types, and varied mechanical systems. She has experience in mechanical system design, plumbing system design, fire protection design, and has some experience in electrical power and lighting system design. She has experience coordinating with other disciplines to provide critical information that drives design of power systems and interior design and has experience with various mechanical systems in different building occupancy types. Experience includes completing load calculations, sizing equipment, preparing specifications and designing mechanical distribution systems, plumbing and fire protection systems for housing, commercial, retail, education, and industrial projects.

De Pere Aquatic Center at VFW Park, De Pere, WI – Mechanical Engineer: New \$7.14 million aquatic center with a 5,330-square-foot recreational pool with diving boards, a body slide, a separate 1,800-square-foot tot pool, a 6,150-square-foot bathhouse and a 1,250-square-foot mechanical building. The main pool will be designed to accommodate families as well as lap swimming.

Colburn Park Pool, Green Bay, WI – Mechanical Engineer: New facility that features a 50-meter competition swimming pool along with zero-depth entry play area, slides and a diving well. The bath house includes a concessions area as well as a rentable conference room. Additional amenities include a sand play area, picnic pavilion, and grass viewing berm.

Green Bay Booyah Capital Credit Union Park, Ashwaubenon, WI – Mechanical Engineer: \$10 million, 2,000-seat baseball and soccer stadium, that is the new home of the current Green Bay Booyah, summer collegiate baseball team in the Northwoods League. An existing 17,000-square-foot building on the site will be converted to house the front office, team store, concessions stands and indoor/outdoor suites and club seats.

Milwaukee County Zoo Hippo Exhibit, Milwaukee, WI – Mechanical Engineer: \$13.5 million addition to the hippo holding building and a new underwater viewing exhibit. The new exhibit allows visitors an up-close underwater viewing experience with the resident hippos. The 60,000-gallon viewing tank provides the hippos with a larger and cleaner habitat, due to a new, state-of-the-art filtration system that also saves approximately 20 million gallons of water each year, filtering and reusing the same water for the entire season.





Professional RegistrationProfessional Engineer – WI

Professional Certifications
LEED® Accredited

Education B.S., Architectural Studies, 1982 University of Wisconsin Milwaukee, Milwaukee, WI

Professional Affiliations
Illuminating Engineering Society
International Association of
Electrical Inspectors
American Council of Engineering
Companies

With over 30 years of experience as an Electrical Consulting Engineer, Bob has a broad range of experience with clients, different building types, and varied electrical systems. He has significant experience as project manager of multidisciplined projects and project engineering functions for design of electrical and lighting systems, including establishing project budgets, completing calculations, selecting equipment, preparing specifications and designing low and medium electrical distribution systems, stand-by emergency generation and fire alarm systems for commercial, institutional, laboratory and sports projects.

VFW Park Aquatic Facility Design & Construction, City of De Pere, WI – Electrical Engineer: Project includes an entirely new facility with bathhouse containing bathrooms/changing rooms, office and guard spaces, first aid, entry lobby, meeting rooms, family changing rooms, and a concessions wing. Separate mechanical building will house the pumps and chemical rooms and provide storage space. Aquatic features include a lap pool with dive well, activity zone, water walk, dual body slides, drop slide, separate tot pool with zero depth entry, and tot play features.

Great Wolf Lodge, Gurnee Illinois – Electrical Team Leader: Oversaw the electrical design for remodeling and additions to the outdoor waterpark. Addition included slides and slide platforms, additional hot tubs, and a new water play structure. Completed Spring of 2018

Kalahari Water Park, Texas – Lead Electrical Engineer: New water park associated with a new hotel/convention center. Waterpark consisted of 21 outdoors pools including wave pools, whirlpools, tube slides, racing slides, play structures, infant play pools, and splash pads. Scope of work included pool equipotential bonding, power distribution to pool equipment, coordination with Building Electrical Engineer and Building HVAC Engineer. Completed summer of 2019

Great Wolf Lodge, Arizona – Lead Electrical Engineer: New water park associated with a new hotel/resort center. Waterpark consisted of 8 outdoors pools including wave pool, whirlpools, tube slides, racing slides, play structures, infant play pools, and splash pads. Scope of work included pool equipotential bonding, power distribution to pool equipment, coordination with Building Electrical Engineer and Building HVAC Engineer. Completed spring of 2019

Great Wolf Lodge, Manteca, CA - Lead Electrical Engineer: New water park associated with a new hotel/resort center. Waterpark consisted of 8 outdoors pools including wave pool, whirlpools, tube slides, racing slides, play structures, infant play pools, and splash pads. Scope of work included pool equipotential bonding, power distribution to pool equipment, coordination with Building Electrical Engineer and Building HVAC Engineer.





RegistrationProfessional Engineer – WI

CertificationsLEED Accredited Professional

Education

M.S., Structural Engineering, 1997, Marquette University, Milwaukee,

B.S., Civil Engineering, 1995, Marquette University, Milwaukee, Jeff has an outstanding record in the design of new buildings, building additions, and evaluation and repair of existing buildings. His experience encompasses a wide range of building designs for numerous indoor and outdoor pools, waterparks, and related park facility projects in Wisconsin and across the country.

VFW Park Aquatic Facility Design & Construction, City of De Pere, WI – Structural Engineer: Provided master planning services and development of the conceptual design of two replacement aquatic facilities. Significant public involvement was necessary in this highly visible project with significant public interest. Project includes an entirely new facility with bathhouse containing bathrooms/changing rooms, office and guard spaces, first aid, entry lobby, meeting rooms, family changing rooms, and a concessions wing. Separate mechanical building will house the pumps and chemical rooms and provide storage space. Aquatic features include a lap pool with dive well, activity zone, water walk, dual body slides, drop slide, separate tot pool with zero depth entry, and tot play features.

Colburn Park Pool - Green Bay, WI – Project Manager: Provided architectural design, and renderings for the pool replacement, building, and associated site work. GRAEF engineers led the multi-disciplined team with overall project management for this \$6.5 million dollar aquatic center. GRAEF staff provided multiple preliminary design options, final design services, construction drawings, construction specifications, and construction administration services.

YMCA, Ozaukee County, WI – Structural Engineer: Structural design for the 50,000-square-foot YMCA including a 8,000-square-foot aquatic center, full-size gym, fitness center, locker rooms, rock climbing wall, babysitting area and central gathering space with a cafe and concessions area.

Additional similar aquatic facility experience:

- David F. Schulz Family Aquatic Center at Lincoln Park, Milwaukee, WI
- · Fairfax Pool, Eau Claire, WI
- Manitowoc Family Aquatic Center, Manitowoc, WI
- Renovation of Existing Bathhouse and Outdoor Pool Facility, Wheeling, IL
- Renovation of Existing Bathhouse and Outdoor Pool Facility, Bensenville, IL
- Lazy River, Plunge Pool and Adventure Area, Bolingbrook, IL
- · Chula Vista Resort Wave Pool, Wisconsin Dells, WI
- Indoor Competition Pool with Dive Area, East Lansing, MI
- · Indoor Competition Pool with Dive Area, Valders, WI
- Indoor Therapy Pool and Leisure Pool, Tucson, AZ
- Indoor Lap Pool with Dive Area and Activity Pool, Oconomowoc, WI
- · Indoor Therapy Pool, Bayley Place, Cincinnati, OH
- Indoor Activity Pool, Powel Crosley Jr. YMCA, Cincinnati, OH
- Indoor Activity Pool, Clippard YMCA, Cincinnati, OH

- Indoor Leisure Pool Supported on Drilled Piers, Broomfield, CO
- Indoor Activity Pool, Family Pool, and Whirlpool, Macomb, MI
- Indoor Competition Pool with Dive Area and Leisure Pool, Ashland Recreation Center, Denver, CO
- Indoor Lap Pool with Dive Area and Access Ramp, Chilton, WI
- Indoor Competition Pool with Dive Area and Warmup Pool, Frisco, TX
- Indoor Competition Pool with Diving Area and Attached Surge Tank, Corunna, MI
- Indoor Lap Pool with Deep Well, Small Activity Pool, and Whirlpool, Iola, WI
- Indoor Lap Pool with Lap Area, Plunge Pool and Diving Well, Sheboygan Falls, WI
- Indoor River, Plung Pool, Activity Pool and Whirlpool, Brainard, MN
- · Activity Pool and Whirlpool, Pleasant Prairie, WI
- Lap Pool and Diving Well, Mequon, WI



MATT FREEBY, AIA, LEED AP, NCARB

Project Director



EDUCATION

Master's Degree, Architecture
Washington University
St. Louis, Missouri

Master's Degree, Civil Engineering, Construction Management Washington University St. Louis, Missouri

Bachelor of Arts, Architecture Washington University St. Louis. Missouri

REGISTRATIONS

AIA Architect: AL, AR, CA, DE, FL, HI, IN, LA, MI, MN, MO, NE, NJ, NM, NV, NY, OK, RI, TN, UT, WA, WI

LEED Accredited Professional

NSPF Certified Pool / Spa Operator (CPO)

PROFESSIONAL AFFILIATIONS

American Institute of Architects (AIA) National Council of Architectural Registration Boards (NCARB) Themed Entertainment Association (TEA)



Matthew Freeby has a breadth of experience in the design and construction of numerous building types and structures; with overall responsibility for large project development, he has handled projects ranging from \$1 million to \$100 million. His project experience ranges from conceptual planning to construction management.

Matt is relied upon to define project scope, goals and deliverables that support WTI's business goals in collaboration with senior management. He helps to determine and assess need for additional staff and/or consultants and make the appropriate recruitments if necessary during project cycle. A registered Architect in 22 states and a NSPF Certified Pool/Spa Operator, Mr. Freeby is a LEED Accredited Professional with an advanced depth of knowledge in green building practices and sustainable aquatic design and operations. Matt's attention to detail and persistent pursuit of excellence provides the industry benchmark in aquatic design.

INDOOR FEATURED PROJECTS

Buchner Park Pool Conceptual Design - Waukesha, WI

Erb Park Swimming Pool - Appleton, WI

Richland Center Aquatic Center - Richland Center, WI

Baldwin Medical Center - Baldwin, WI

Port Superior Marina - Bayfield, WI

Chippewa Falls - Chippewa Falls, WI

VFW Park Design - De Pere, WI

Elm Grove Western Racquet Club Design - Elm Grove, WI

Village Pointe Commons - Grafton, WI

Green Bay Colburn Pool - Green Bay, WI

The Tundra Lodge - Green Bay, WI

Water Feature - Lake Delton, WI

Christmas Mountain Village - Lake Delton, WI

Goeres Park Pool - Lodi, WI

Madison Goodman Pool Expansion Study - Madison, WI

Madison Metropolitan School District - Madison, WI

The Nick Natatorium at University of Wisconsin-Madison - Madison, WI

Manitowoc Family Aquatic Center - Manitowoc, WI

Bay Area Medical Center - Marinett, WI

Bucks Arena - Milwaukee, WI

Columbia St. Mary's Hospital - Milwaukee, WI

Saint John's on the Lake Active Independent Living Center - Milwaukee, WI

South Suburban YMCA - Milwaukee, WI Oshkosh Family YMCA - Oshkosh, WI

Creekview Aquatic Center at the Evergreen Retirement - Oshkosh, WI

Port Shiloh Swimming Pools - Port Shiloh, WI

UW River Falls - River Falls, WI

Richland Center Aquatic Center - Richland Center, WI

House on the Rock Welcome Center - Spring Green, WI

Harbour Village Resort - Sturgeon Bay, WI

VA Medical Center - Tomah, WI

Epic Systems Water Feature - Verona, WI

Edgewater Retirement Community - West Des Moines, WI

West Salem School District - West Salem, WI

Wisconsin Dells Noah's Ark Flow Rider Design - Wisconsin Dells, WI

Wisconsin Dells Municipal Aquatic Center - Wisconsin Dells, WI

Wisconsin Rapids Aquatic Complex - Wisconsin Rapids, WI

WORLD LEADERS IN AQUATIC PLANNING, DESIGN AND ENGINEERING



ADAM PFISTER

Project Designer



EDUCATION
Bachelor of Landscape Architecture,
Iowa State University
Ames, IA

REGISTRATIONS

NSPF Certified Pool / Spa Operator (CPO)
Revit Certified Professional

PROFESSIONAL AFFILIATIONS

American Society of Landscape Architects (ASLA) Themed Entertainment Association (TEA) Working within the parameters given, Adam orchestrates a symphony of aquatic elements and features throughout the facility. His designs transform flat, monotonous areas into stimulating aquatic destinations using elevation and unique, custom created structures. Adam's experience in Landscape Architecture includes environmental, urban, commercial and residential design; he also has experience in image editing.

Adam's investigative approach prior to designing each facility includes working with project management and the client to understand the demographics of the area in conjunction with their needs, wants and state codes. Once all the information is gathered, Adam uses his design skills to transform planning and programming notes into a conceptual graphic design, carefully taking into account budget constraints and objectives. Adam's dedication and passion for designing is evident throughout the design process; he works carefully with project managers and manufacturers to make sure the client's vision is seen through to completion. Adam's portfolio includes a variety of aquatic facilities including Olympic level competition, therapy and wellness, hotel, and municipal leisure.

FEATURED PROJECTS

Baraboo Aquatic Center Study - Baraboo, WI University of Wisconsin RecSports Natatorium - Madison, WI Rice Lake Aquatic Center Preliminary Planning - Rice Lake, WI Star Center Wellness Facility Design - LaCrosse, WI Aquatic Center Preliminary Study - Clintonville, WI City Park Pool Renovations - Medford, WI Oakwood Village Prairie Ridge - Madison, WI Goeres Park Swimming Pool - Lodi, WI Menasha Family Aquatic Center Study - Menasha, WI Clara R. McKenna Aquatic Center Addition - Antigo, WI Hy & Richard Smith JCC Family Aquatic Park - Meguon, WI Goodman Park Community Swimming Pool - Madison, WI Lodge Kohler Spa Addition - Green Bay, WI Oshkosh Downtown YMCA - Oshkosh, WI Bierman Family Aquatic Center - Merrill, WI Buchner Park Pool Conceptual Design - Waukesha, WI Wisconsin Rapids Regional Aquatic Center - Wisconsin Rapids, WI Sunset Pool Replacement - Elkhorn, WI Reindahl Splash Pad - Madison, WI Hoyt Park Pool - Wauwatosa, WI Erb Park Pool - Appleton, WI Colburn Pool - Green Bay, WI South Wood County YMCA - Port Edwards, WI Community Aquatic Center - Ashwaubenon, WI Western Racquet Club - Elm Grove, WI Baldwin Medical Center - Baldwin, WI Cool Waters Slide Replacement - Greenfield, WI Buchner Park Pool Conceptual Design - Waukesha, WI Swan Park Splash Pad - Beaver Dam, WI Milwaukee Bucks Arena - Milwaukee, WI VFW Park - De Pere, WI Sundara Spa at The Wilderness - Wisconsin Dells, WI McFarland High School - McFarland, WI Richland Center Aquatic Center - Richland Center, WI Manitowoc Aquatic Center - Manitowoc, WI R.W. Houser Family YMCA Warm Pool Addition - Onalaska, WI





Kickapoo Area School District Aquatics - Viola, WI



Section 4 **Project Understanding & Approach**

Project Understanding



Project Understanding

The GRAEF/Water Technologies Inc. (WTI) project team has carefully and thoroughly reviewed the Request for Proposal provided by the City of Evansville, issued February 22, 2021. It is our understanding that the City is looking for a qualified design and engineering team to first provide refinement to existing schematic design concepts in order to establish a final, approved schematic design for the park, aquatics center and splashpad. The proposed scope of services outlined in the Request for Proposals is clearly defined and shall be coordinated and managed by our in-house team of experts along with our partner WTI for the aquatics and splashpad design. We will lead and coordinate the design and engineering efforts from conceptual design phase through final construction and implementation while keeping you, the client, engaged in review and the decision-making processes throughout the project. We believe for your project to be a success it is imperative that this be a collaborative effort between the City, all stakeholders and your design team, GRAEF/WTI.



State Licensing

GRAEF is multidisciplinary engineering firm that has been in practice for 60 years in the state of Wisconsin as well as other states noted in our Firm Description and Technical Expertise summary in Section 1 of this submission. Each discipline within our office has multiple people professionally licensed to practice in the State of Wisconsin in civil, survey, structural, mechanical, electrical, plumbing, architecture, landscape architecture and environmental engineering. We are required by law to keep current our licensure registration every two years which also includes completion of professional development education hours to stay current with newest construction trends and code compliance updates. In addition, our partner WTI also holds Wisconsin professional licenses in their respective disciplines and are held to the same high standard by the State of Wisconsin Department of Safety and Professional Services licensing requirements.



GRAEF is confirming that there has been no substandard work recorded over the last 5 years as well as no unethical practice within same duration. All GRAEF employees are expected to represent the firm at a high level based on our fundamental core values: loyalty, quality, integrity and superior service to our clients. These are the benchmarks of the firms founding partners and are still highly valued and followed today.



Contract Responsibility

GRAEF will be responsible for what we are specifically contracted to do based on approved scope of services and fees. This will include review and recommendation of payments to contractor based on work completed to date. The owner has final approval to accept or deny payment recommendations. We are not responsible for contractor work since their work falls under separate contract with the owner.



Project Approach

All projects should start with a kick-off meeting to not only confirm schedule, scope and budget, but also to discuss and explore the ultimate goals and objectives of you, the facility owner. The kickoff meeting will be the first item and will set the stage for the overall project. As requested in the RFP, we will also evaluate the program for the park and pool facilities with a detailed review of the conceptual design options previously developed by other consultant for refinement and development into a final schematic design prior to development of construction documents. As your design partner, our team must maintain an open mind during the transition from concept design into detailed design. While the initial concept design was thoroughly vetted, other ideas may be appropriate since they were completed and should be considered to enhance and improve the overall project. We will have an opportunity to gather these new ideas during the early public engagement phase.



Public Engagement

Data Collection and Stakeholder/Public Input

We will work with City staff to conduct a thorough analysis and evaluation of the existing conceptual design plans and budget. The public involvement approach will be outlined and implemented. Specific tasks for this phase of work include:

Project Kick-Off Meeting – We will coordinate a kickoff meeting with the project team with the following goals:

- Refine the overall project and approach
- Refine the work program and deliverables
- Determine Project Team and Stakeholders
- Discuss design intent and preliminary program
- Define project goals and objectives

Collect and Review Existing Data and Information – The City staff will provide us with all of the available surveys, plans, maps, photographs, construction drawings, attendance records and financials of the existing facility for our review and analysis. Our team will complete a site visit to gather field information.

Meetings and Interviews with Key Stakeholders – We will interview members of the Park Board, City Staff, Park/Pool Operations Staff, Park/Pool Maintenance Staff, and any Major User Groups during a one or two day work session based on availability of attendees.

Develop a Public Involvement Plan – including an email or online questionnaire/survey. Release this survey and at conclusion of response period, review, evaluate, and summarize input received.

Design Phase

After we have confirmed the program and mapped out any adjustments to the design, we will begin the technical design effort including development of drawings and specifications. It is critical that this effort proceed in lockstep with the City staff keeping you knowledgeable and part of the process throughout. We will use our skilled staff and expertise to keep you informed seeking input at important junctures and decision points. Specific tasks for this phase of work include:

- Conduct a Project Kick Off Meeting
- Topographic Survey TBD
- Complete Geotechnical Investigation Report TBD
- Investigate Sustainable and Cost Savings Options.
- Review Conceptual Design and Conceptual Budget Estimate; Provide recommendations on adjustments if any
- Meet to discuss Sustainable/Cost Savings Strategies
- Prepare Design Development Drawings to include:
 - Architectural drawings
 - Structural drawings
 - Site/Civil drawings, including stormwater management facilities.
 - Compliance with Municipal Stormwater Ordinance
 - Electrical drawings
 - Mechanical drawings
 - Plumbing drawings



- Landscape drawings
- Swimming pool and deck, splash pad drawings
- Pool Apparatus drawings
- Prepare outline technical specifications
- Recommend and submit project materials and samples for review and approval
- Prepare exhibits for, facilitate and attend the following meetings to provide design updates and approval to proceed.
 - Public Information Meetings (PIM)
 - Parks, Recreation and/or Forestry Board
 - Plan Commission and
 - Common Council
- Conduct project review meetings on a regular interval
- Prepare 50% cost estimate prior to completion of Design Development Phase to verify budget. Make revisions, if necessary, before moving into Construction Document Phase.
- Submit plans and specifications for City review and comment.
- Revise as necessary based on comments received and finalize Design Development plans.
- Complete Internal Quality Control Reviews

Also during the early stage of the design process we will, explore sustainable design measures and potential cost saving opportunities and will evaluate their value towards the project. Some of the items could include:

- Opportunities to combine building program elements in two buildings vs. three separate buildings all needing duplicate services.
- Advantages to two pool wells vs. three while still optimizing flexibility for program uses and minimizing overlap of uses;
- MEP systems can provide the biggest value add, but options explored need to be mindful of budget. The skill we have is finding that middle point between cost and payback that makes the most sense for your project.
 - Energy recovery on HVAC systems should be a minimum baseline to consider. (Geothermal will be discussed but we anticipate that the expense may be cost prohibitive.)
 - Photovoltaic could also be considered and we could explore grant opportunities with Electric Utility providers with potential for selling energy back to the grid.

- For plumbing we can explore grey water reuse and low water fixtures.
- Long lasting LED lighting and controls of interior spaces to be illuminated only when occupied is also essential. Seasonal use considerations also need to be looked at for the concessions area. Part of our normal process is investigating alternative mechanical equipment products that are energy efficient.
- "Sustainable" is part of GRAEF's Mission Statement and something we incorporate to various levels in every project. This is an exercise that GRAEF engineering staff has completed through many successful projects including State of Wisconsin DFD projects and other LEED certified facilities.



Construction Documents

The Construction Document Phase will begin upon completion of Design Development Phase and approval to proceed. These tasks are framed to provide the clear, concise and detailed bidding documents necessary to get accurate and complete contractor bids. Specific tasks for this phase of work include:

- Prepare Construction Document Drawings to include:
 - Architectural drawings
 - Structural drawings
 - Site/Civil drawings, including stormwater management facilities.
 - Electrical drawings
 - Mechanical drawings
 - Plumbing drawings
 - Landscape drawings
 - Swimming pool and deck, splash pad drawings
 - Pool Apparatus drawings



- Prepare technical specifications for all disciplines
- Recommend and submit final project materials and samples
- Prepare 90% cost estimate prior to completion of Construction Document Phase in order to verify budget.
- Submit plans and specifications for City review and comment.
- Revise as necessary based on comments received and finalize bid documents.
- Submit for local and state plan review and approvals.
- Conduct project review meetings at regular intervals
- Internal Quality Control Review
- Assist the City with required public notices to the local paper.
- Review bidder pre-qualification documents submitted and provide comment to the City.
- Answer necessary contractor bidding questions
- Prepare necessary addenda to clarify bidding documents.
- Provide the City with a .pdf file and hard copies of the Bidding Document
- Conduct mandatory pre-bid meeting
- Attend bid opening.
- Review bids and tabulate results
- Assist with issuance of Bid Addenda

Construction Administration/Management

Construction Administration and Management work outlined in the RFP will include assisting the City with construction administration/management services.

general administrative duties, construction documentation, scheduling and review of selected work elements. The general administrative duties will include being the direct liaison with the appropriate City designated staff, point of contact for the Contractor, and manager of consultant construction oversight activities. Additional trade specific (MEP, structural, parchitectural, civil, landscape, aquatics) qualified staff will review shop drawings and perform periodic site visits at appropriate times during the work. The City will be regularly updated as to the progression of the work and be involved in coordination meetings as appropriate.

Specific tasks for this phase of work include:

- Manage the Project Schedule. Coordinate with Owner and GC or CM on any schedule adjustment and opportunities to advance the work.
- Coordinate with and provide oversight of the construction contractor's activities.
- Manage the needs for trade specific consultant staff to complete site visits for review the work of the contractor for general conformance with the Construction Documents.
- Review, respond and process Project Schedule, Correspondence, Contractor Submittals, Document Logs, RFI's, Record Drawing Information, Meeting Minutes, and any Change Order documents.
- Attend bi-weekly construction meetings on-site.
- Assist the City with public communication updates as to the progress of the project.
- Monitor contractor quality control activities and review work during critical times to verify compliance with the Construction Documents.
- Provide updates to the City staff with document logs and submittal/review/approval status logs.
- Complete shop drawing review and track submittal.
- Schedule and coordinate punch list observation site visits for all disciplines and track completion of punch list items.
- Coordinate and provide oversight on owner training for systems, provided by the trade contractors.
- Request and confirm receipt of all close-out documentation including lien waivers, wage rate affidavits, record drawing and specification, and operation and maintenance manuals.
- Assemble final close out paperwork as required by the City and State.
- Provide close-out documentation to the City.

Project Quality Control

We utilize our senior and most experienced staff to review project information and documents during a project. Quality control reviews will be conducted at designated milestone events in the design process. These reviews and verifications are not intended to duplicate the work efforts, but will be critical reviews of project criteria, assumptions, inputs, code requirements, performance, material selections and compatibility, provisions for maintenance, operation, reliability, and constructability. The emphasis will be on whether the work product can be expected to satisfy the project goals and whether it can be improved.



Proof of Insurance



REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

GRAEINC-01

SROEDER

DATE (MM/DD/YYYY)
6/1/2020

CERTIFICATE OF LIABILITY INSURANCE

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must have ADDITIONAL INSURED provisions or be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

PHONE (A/C, No, Ext): (608) 203-3893 FAX (A/C, No): (877) 254-8586	s continuate above her bother rights to the continuate hereof in hou or bush characterining.).				
E-MAIL ADDRESS: mnowak@johnsonfinancialgroup.com INSURER(S) AFFORDING COVERAGE NAIC #	PRODUCER	CONTACT Mary Jo Nowak, AU, CIC, ARM, RPLU			
Madison, WI 53717 E-MAIL ADDRESS: mnowak@johnsonfinancialgroup.com		PHONE (A/C, No, Ext): (608) 203-3893 FAX (A/C, No): (877)	254-8586		
INSURER A : Continental Casualty Company 20443 INSURER B : Valley Forge Insurance Company 20508 Graef-USA Inc INSURER C : Continental Insurance Company 35289	Madison, WI 53717				
INSURER B : Valley Forge Insurance Company Graef-USA Inc INSURER C : Continental Insurance Company 35289		INSURER(S) AFFORDING COVERAGE	NAIC#		
Graef-USA Inc INSURER C : Continental Insurance Company 35289		INSURER A: Continental Casualty Company	20443		
	INSURED	INSURER B: Valley Forge Insurance Company	20508		
275 West Wisconsin Ave., Suite 300	Graef-USA Inc	INSURER C : Continental Insurance Company	35289		
	275 West Wisconsin Ave., Suite 300	INSURER D : Transportation Insurance Company	20494		
Milwaukee, WI 53203	Milwaukee, WI 53203	INSURER E :			
INSURER F:		INSURER F:			

COVERAGES CERTIFICATE NUMBER: REVISION NUMBER:

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADDL INSD	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMIT	s	
Α	X COMMERCIAL GENERAL LIABILITY						EACH OCCURRENCE	\$	1,000,000
	CLAIMS-MADE X OCCUR			6057508580	6/1/2020	6/1/2021	DAMAGE TO RENTED PREMISES (Ea occurrence)	\$	1,000,000
							MED EXP (Any one person)	\$	15,000
							PERSONAL & ADV INJURY	\$	1,000,000
	GEN'L AGGREGATE LIMIT APPLIES PER:						GENERAL AGGREGATE	\$	2,000,000
	POLICY X PRO- JECT LOC						PRODUCTS - COMP/OP AGG	\$	2,000,000
	OTHER:						EBL AGGREGATE	\$	1,000,000
В	AUTOMOBILE LIABILITY						COMBINED SINGLE LIMIT (Ea accident)	\$	1,000,000
	X ANY AUTO			6057508594	6/1/2020	6/1/2021	BODILY INJURY (Per person)	\$	
	OWNED SCHEDULED AUTOS ONLY						BODILY INJURY (Per accident)	\$	
	HIRED AUTOS ONLY NON-OWNED AUTOS ONLY						PROPERTY DAMAGE (Per accident)	\$	
	MOTOG SHEET							\$	
С	X UMBRELLA LIAB X OCCUR						EACH OCCURRENCE	\$	10,000,000
	EXCESS LIAB CLAIMS-MADE			6057508630	6/1/2020	6/1/2021	AGGREGATE	\$	
	DED X RETENTION\$						Gen Aggregate	\$	10,000,000
D	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY						X PER OTH-		
	ANY PROPRIETOR/PARTNER/EYECLITIVE	N/A		6057508627	6/1/2020	6/1/2021	E.L. EACH ACCIDENT	\$	1,000,000
	(Mandatory in NH)	N/A					E.L. DISEASE - EA EMPLOYEE	\$	1,000,000
	If yes, describe under DESCRIPTION OF OPERATIONS below						E.L. DISEASE - POLICY LIMIT	\$	1,000,000
Α	Professional Liab			AEH254072949	6/1/2020	6/1/2021	Each Claim		5,000,000
Α	Professional Liab			AEH254072949	6/1/2020	6/1/2021	Aggregate		7,000,000

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required) Prof Liability is Claims Made Coverage. Environmental coverage Included. \$250,000 Deductible per claim.

CERTIFICATE HOLDER	CANCELLATION
Evidence of Insurance	SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.
	AUTHORIZED REPRESENTATIVE
	ALSO PA

ACORD 25 (2016/03)

© 1988-2015 ACORD CORPORATION. All rights reserved.

The ACORD name and logo are registered marks of ACORD





Section 5 **Project Costs**

Proposed Fee

Lump sum fee for scope of services listed in RFP and provided by the Consultant Team – **GRAEF/Water Tech team** is as follows:

Item	Fee
Public Engagement Services	\$ 39,400
Schematic Design Phase	\$ 80,600
Design Development Phase	\$187,000
Construction Document Phase	\$295,100
Bidding Phase	\$ 18,800
Construction Administration Phase	\$124,100
Total Fee	\$745,000

^{*}Reimbursable expenses for travel are included in lump sum fee. Municipal and State Agency review fees are not included and shall be billed at cost and paid for by owner.

Project Assumptions

The following items were not specifically identified in the RFP therefore are assumed to be provided by client. If required, estimated fees have been provided for consideration under Optional Services.

- Front End Specification Documents Typically provided by Municipality
- The three existing buildings located at Westside Park are assumed to remain with no proposed improvements.

Optional Services

Items not included in scope of services but necessary for completion of the project and will need to be provided by others or by consultant. Proposed fees for these services are provided below and are an estimate only. If requested, a detailed scope and fee can be provided for each or client can direct contract with others to perform this work.

•	Topographic Survey for both Westside Park and	\$10,000 - \$12,000
	Leonard-Leota Park proposed splash pad area	
	Geotechnical Investigation and Design Report for both sites	\$8,000 - \$10,000
	Front End Specification Documents prepared by GRAEF	\$5,000 - \$6,000



Hourly Rates

CLASSIFICATION	RATE
Professional (P1)	\$111.00
Professional (P2)	\$126.00
Professional (P3)	\$140.00
Professional (P4)	\$153.00
Professional (P5)	\$165.00
Professional (P6)	\$175.00
Senior Professional (P7)	\$185.00
Group Manager (P8)	\$199.00
Senior Group Manager (P9)	\$210.00
Technician/Inspector (T1)	\$79.00
Technician/Inspector (T2)	\$97.00
Technician/Inspector (T3)	\$109.00
Senior Technician /Inspector (T4)	\$122.00
Senior Technician/Inspector (T5)	\$132.00
Senior Technician/Inspector (T6)	\$141.00
Survey Crew - 1 Person	\$150.00
Survey Crew - 2 Person	\$215.00
Administrative	\$79.00

Automobile travel will be billed at the current federal rate of 56 cents per mile.

Survey vehicles will be billed at 75 cents per mile.

LIDAR scanner will be billed at \$150/hour.

Unmanned Aircraft System (UAS) will be billed at \$75/hour.

Expenses such as travel and supplies will be billed at actual cost.

Contracted services and consultants will be billed at cost plus 5 percent.

