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# **Village of Oak Park**

Comprehensive Sustainability and Climate Action and Resiliency Plan

Exhibit A

July 26, 2021

# **Section 1: Cover Letter**



Section 1 | Cover Letter | Page 2



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July 26, 2021

Village of Oak Park Mindy Agnew, Sustainability Coordinator 123 Madison Street Oak Park, IL 60302

SUBJECT: Comprehensive Sustainability and Climate Action and Resiliency Plan

Dear Ms. Agnew:

Planning for the future in the face of the imminent threat of climate change is no easy task. At times it can seem an unsurmountable challenge, yet inaction is not a viable option, as Oak Park's future health and wellbeing is dependent upon quick, decisive, and informed actions in the present. We applaud Oak Park for being a leader in the region in recognizing and responding to the climate emergency. The enclosed proposal describes how we will approach the creation of a Comprehensive Sustainability and Climate Action and Resiliency Plan to assist the Village in achieving its goals.

Our team is acquainted with the extensive history, character, and vibrancy of the Oak Park community and after reviewing the Village's sustainability efforts to this point, we understand that:

- Oak Park is a diverse community seeking to respond to the threat of climate change in a manner that is inclusive of all within the community;
- The Village has a robust history of gathering important greenhouse gas emissions-related data that will assist in the recording and projecting of emissions reductions planning;
- Oak Park has made ambitious commitments to regional and national climate action goals and seeks actionable tasks and metrics to assist in meeting these goals;
- The Village is home to an engaged resident and business population that will benefit from extensive community outreach to ensure the S/CARP is clearly understood and supported broadly;
- Oak Park seeks to understand the social, economic, and environmental benefits of various climate action tasks and scenarios to best plan priority actions and tackle the climate emergency.





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We also understand that the Village seeks a knowledge, experienced, and dedicated partner to help the Village understand and respond to the near-term impacts of climate change and increase community resiliency into the future. In addition, we understand the Village staff and governance stand poised to take action and seek a team that will outline key metrics, budget items, and responsibilities to ensure the S/CARP is actionable from Day 1.

The S/CARP represents an investment in Oak Park's future. The ability of your chosen team to quickly and accurately analyze the community's needs and assemble recommendations is of the utmost importance. We believe the GRAEF team is well suited to assist Oak Park with this project and stand ready to provide an innovative, inclusive, and ambitious approach to the development of the S/CARP.

The GRAEF team is composed of an experienced team of diverse professionals possessing expertise in emissions modeling and projections, economic analysis, community planning, resiliency and mitigation planning, renewable energy, and, most importantly, dedication to the project at hand. We all understand that now is the time to act on climate and strive to ensure the Village is well-positioned to respond to threats, become energy independent, and established as a thriving place to live, work, and play well into the future.

Thank you for this opportunity and we look forward to working with you on this exciting project. Should you have any questions regarding this proposal, feel free to contact us.

Sincerely,

Peter Johnston

Peter Johnston, PE Principal-in-Charge 773 / 399 5443 Peter.Johnston@graef-usa.com

Stephanie Hacker, AICP, LEED AP Project Manager 414 / 266 9226 Stephanie.Hacker@graef-usa.com



# **Section 2: Table of Contents**



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# Section 3: Respondent Background



# Respondent Background

Planning + Urban Design Sustainable Design Economic Development Landscape Architecture Structural Engineering Site/Civil Engineering Traffic/Transportation Engineering Environmental Engineering Surveying + Field Services Mechanical Engineering Electrical Engineering Plumbing/Fire Protection Engineering Commissioning



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GRAEF 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 248 employees in eight offices in the Midwest and Florida, GRAEF offers our clients a full range of consulting services.

GRAEF is ranked in Engineering News-Record (ENR) Top 500 Largest Design Firms and is ranked 28<sup>th</sup> in Building Design + Construction's (BD+C) list of the nation's Top Engineering-Architecture firms. Full Name of Respondent GRAEF

#### **Address of Respondent**

332 South Michigan Avenue, Suite 1400 Chicago, IL 60604

#### **Other Offices**

Chicago, IL – O'Hare Madison, WI Miami, FL Milwaukee, WI Minneapolis, MN Orlando, FL

State of Incorporation Wisconsin

Date of Incorporation 1967

www.graef-usa.com

### our core purpose

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



### Your Primary Project Connections

Stephanie Hacker Account Executive Project Manager Years of Experience: 17 Length of Service with GRAEF: 15 years

### Your Project Team



Eric Phillips Resilience Planner Years of Experience: 5 Length of Service with GRAEF: 2 months



Sarah Walwema Planner Years of Experience: 3.5 Length of Service with GRAEF: 2 months



Brianna Fiorillo Planner Years of Experience: 6 Length of Service with GRAEF: 2 months



Dominic Marlow Planner & Urban Designer Years of Experience: 3 Length of Service with GRAEF: 2 months Peter Johnston Principal-in-Charge Alternate Account Executive Years of Experience: 34 Length of Service with GRAEF: 26 years



Alex Halverson Resilience Planner Years of Experience: 7 Length of Service with GRAEF: 1 month



Scott Daniel Geographic Information Systems Specialist Years of Experience: 38 Length of Service with GRAEF: 4 years



Eric Bell GHG Inventory & Modeling | ERG Years of Experience: 7 Length of Service with ERG: 2 years



ERG: 1 year Section 3 | Respondent Background | Page 9

# Subconsultant

John Carter GHG Inventory & Modeling | ERG Years of Experience: 23 Length of Service with ERG: 16 years



Robert McIntosh Emission Reduction Measures Expert | ERG Years of Experience: 11 Length of Service with ERG: 1 year



# Stephanie Hackeraicp, LEED AP

Account Executive | Project Manager

### GRaEF



Stephanie's experience spans comprehensive and master planning, public participation strategies, municipal code review, neighborhood revitalization, and ongoing planning services for urban, suburban, and rural communities. At the core of Stephanie's work in economic development, planning, and urban revitalization lies her dedication to building a central vision and establishing systems that kick-start physical change. She cares deeply about using urban design

and planning to enhance the nexus of community and neighborhood vitality, public health, and the triple bottom line. Stephanie works with business, nonprofit, and government clients to implement vital enhancements in our physical environment.

**Comprehensive, Master, Strategic, and Resilience Planning** In her work as project manager for the Transform Milwaukee Strategic Action Plan for the Wisconsin Housing and Economic Development Authority and as project manager for the Whitefish Bay Comprehensive Plan Update, Stephanie infused as much about triple bottom line sustainability and resilience as feasible amidst the tasks at hand. These planning efforts required that Stephanie develop, manage, and see to completion structured assessments, public participation plans, community survey analyses, mapping and data gathering, document and report composition, and team coordination including subconsultant management.

Stephanie manages the Planning Group at GRAEF, overseeing approximately \$1 million in gross revenue annually.

# Peter Johnston PE

Principal-in-Charge | Alternate Account Executive Transportation Engineer GRAEF



Peter has managed both transportation and site development projects from planning through construction. He is able to clearly convey client expectations to team members and efficiently advance projects in order to meet required schedules. His technical background covers many civil disciplines and includes geometrics, pavements, drainage, erosion control, and utilities. Practical experience, excellent communication skills, and his formal MBA training in

Operations Research allow him to move projects from conception to construction in an efficient and timely manner. Peter takes pride in his ability to rapidly respond to client concerns and engage the appropriate disciplines as necessary. Peter was the design Project Manager for the 2015 ACEC Engineering Excellence Honor Award for Sustainable Environmental Design at the I90/ IL 47 Interchange. He also was the design Project Manager for the 2010 ASCE Illinois Section Engineering Achievement Award for the Eola Road at I-88 Interchange project.

Illinois Tollway, Elgin O'Hare Western Access, Contract I-17-4674, Jane Addams Memorial Tollway System Interchange (Westbound Collector Distributor Road), Project Manager – This project was part of the system interchange at the new I-490 Tollway and the existing Jane Addams Tollway (I-90). Peter managed in-house GRAEF staff as well as six sub-consultants. Both a bridge construction contract and Collector Distributor roadway contract were designed and let in 2018. Additional coordination was needed with the designers of the system interchange as well as those designing the Eastbound Collector Distributor Roadway. Appropriate coordination with permitting agencies and adjacent municipalities was also required.



# **Eric Phillips** Resilience Planner

### GRaEF

# Brianna Fiorillo



### GRaEF



Eric has developed regional comprehensive plans and individual site plans through classwork, research, and outreach extension projects at Michigan State and DePaul University. A Michigan State University Asian Planning and Practice Study Abroad during the 2010 Shanghai World Expo sparked his interested in developing regional plans centering around the social, economic, and environmental legacy impacts

of short-term events. In his professional career, he has project management experience in wireless telecommunications, commercial and residential developments, and solar energy projects. As a Resilience Planner, renewable energy is an important focus in sustainable development for which Eric has non-profit experience at Mid-Michigan Environmental Action Council and the Clean Energy Coalition in addition to working for a national community solar developer.

**Michigan State University Planning Practicum -** SWOT analysis, demographic and socio-economic research to determine economic development potential for the port of Cheboygan, MI. Presented findings to the City of Cheboygan and Northeast Michigan Council of Governments

**Chicago Life Expectancy** – DePaul University graduate research assistantship for GIS analysis of health disparities and spatial impacts on life expectancy in Chicago. Applied statistical analysis to determine correlation of access to transit, recreation, open space, health care facilities, food, crime rates, income, employment, education, drug usage, environmental pollutants, and demographics to life expectancy. Presented findings at 2016 College of Liberal Arts and Social Sciences Graduate Student Conference and to The Chicago Department of Public Health range of information with data-driven maps, including: site conditions, existing and future property information, and conceptual development plans.



Brianna Fiorillo has a broad range of experience in the public and non-profit sectors including the New Hampshire Public Utilities Commission Sustainable Energy Division, where she managed a statewide grant program for solar PV, and the NH Local Energy Solutions Workgroup, where she worked with dozens of cities and towns to implement energy and sustainability projects. She also worked with the Sustainability Institute at the University of New

Hampshire, the oldest endowed, university-wide sustainability program in US higher education, where she was a member of the Energy Task Force. Brianna's specialty is incorporating clean energy, energy efficiency, and clean tech into the planning and development process and assisting local community groups with diverse sustainability projects. Brianna is an experienced communicator in all forms of media and has organized and conducted various public relations projects and campaigns as well as presentations at meetings, conferences, and industry events.

#### **Community Engagement**

Brianna has extensive experience in community engagement and public participation including presenting at town meetings, preparing briefs for decision-makers, conducting focus groups, executing educational events and programs, stakeholder outreach strategies, and techniques for engaging business leaders.

#### Mapping & Design Visualization

Brianna has experience using a variety of mapping and other digital technologies to produce compelling visual images and achieve desired goals. These include maps, diagrams, tables, charts, and infographics.



# **Alex Halverson**

### **Resilience Planner**



# Sarah Walwema





Alex's experience is rooted in developing systemsbased solutions to complex problems. For over seven years, his drive for solving these complexities has allowed him to develop an impressive slate of experiences, spanning a diverse array of fields, providing him unique perspectives. This experience is spread across such disciplines as land management, conservation ecology, business development, and

social innovation. His passion lies is in finding solutions that enhance the financial and environmental sustainability of both the built and natural environments. Alex is keen on understanding the needs and wants of stakeholders because he understands the importance of finding equitable solutions that provide as much benefit to all parties involved.

#### **Project Leadership**

Alex was responsible for planning, launching, and managing the City of Denver's most successful bird conservation project, Lights Out Denver. In this capacity, he created all manuals for training, volunteering, and project implementation, managed a robust volunteer team, and brought together several stakeholder groups to find solutions to make Denver a more bird-friendly city. He has also managed international wildlife conservation projects.

#### **Community Engagement**

Alex has extensive experience leading community engagement initiatives in both the public and private sectors, spanning several countries. In these experiences, he's delivered formal presentations to key stakeholders, written both internal and external documents, developed and delivered educational programming, and administrated focus groups.



As a public servant, Sarah supported Chicago Metropolitan Agency for Planning's (CMAP) mission to provide technical assistance to local communities, especially in terms of capacity building. As the Public Interest Fellow, Sarah researched policy and demographic trends, conducted market analyses, and presented at stakeholder meetings across the 7-county region. She worked with multiple teams, including

communications, transportation, planning, research & analysis, and policy. Notably, she researched and wrote the environmental and natural resource chapter for a subarea plan in McHenry County. After finishing the written portion, she was elected to present the chapter at a stakeholder meeting and take on a more public-facing role.

**Urban Heat Informational Poster, Chicago, Illinois- Nonprofit Sector** – **Design Lead:** Designed comprehensive poster on the dangers of heat in urban settings. Poster depicted case study of two cities, Cincinnati, Ohio and New Delhi, India to emphasize the global nature of urban heat and the different strategies used to mitigate its lethality (with another firm).

Multi-site Phase I Environmental Assessment, Chicago, Illinois – Environmental Consulting – GIS Lead: Developed map automation approach in ArcGIS Pro for 19-site Phase I Environmental Assessment project, generating 494 historical aerial figures and allowing each site to be shown at unique extents and symbology (with another firm).



# **Dominic Marlow**

Planner & Urban Designer





Dominic's experience sits at the intersection of urban planning and architectural design, ranging from research and demographic studies to spatial planning, mapping, and architectural rendering. Following his Master's in City Design, Dominic has developed environmentally focused research on hydrological and stormwater planning and its intersection with the physical environment, social benefits, and the vibrancy of public spaces.

Dominic's work seeks to manage the complexities of systems in the physical environment to improve public spaces and help cities become adaptable to new or unforeseen changes. He is passionate about using design as a communication tool to help cities and communities envision the future they want to build.

Equity in Green Infrastructure Framework and Toolkit, Green Infrastructure Leadership Exchange, Chicago, IL – Project Manager: Conducted a national survey and literature review of community-based green stormwater infrastructure practices to compile and assess equity-centered processes into a framework to be shared across municipalities and stormwater utilities. Facilitated focus groups and interviews with stormwater planners and nonprofit leaders with experiences in green infrastructure towards a set of recommendations and metrics useful for setting and measuring outcomes-based goals.

# **Scott Daniel** GISP Geographic Information Systems **GRAEF** Specialist



Scott is a Certified GIS Professional and GIS programmer/analyst. Since 1999, Scott has specialized in web-based GIS application development; one of his web-based GIS applications received the URISA Exemplary Systems in Government Award. He is experienced in many GIS platforms and programming languages. Scott's focus is on creating custom, user-friendly, interactive, webbased GIS applications that provide access to detailed

spatial data for county and municipal staff and the general public. In fact, he led the development of our innovative InfiniteGIS application, which will be used on this project. He works directly with client key personnel to design and deliver web-based data management tools for managing municipal infrastructure such as sanitary sewer, water distribution, storm sewer, urban forestry, traffic signage, etc. He also trains and mentors staff in data management and application development using various applications.

#### Neenah Water Utility InfiniteGIS Implementation, Neenah,

**WI – GIS Project Manager:** Replaced city's need for ArcGIS online and Cartegraph asset management database with InfiniteGIS to track facility inspections, repairs, costs, and water meter exchanging. Includes asset reporting and accurately located facilities in an interactive GIS map.

**Village of Hales Corners GIS, Hales Corners, WI – GIS Project Manager:** Created a new GIS combining existing data in multiple formats into one standard format and location. The system is used by all departments of the Village to catalog and predict potential problems with the sanitary system, the majority of these departments would not have otherwise had access to this information.



# John Carter

### GHG Inventory and Modeling





John Carter is a Certified Energy Manager and a chemical engineer with over 20 years of professional experience. Mr. Carter's primary areas of expertise include greenhouse gas (GHG) emissions inventories and mitigation strategy development, alternative energy and energy use analyses, waste management (combustion, landfills, and anaerobic digestion), and building energy efficiency. John supported the City of Alameda's Climate Action Plan Update and managed the City of Raleigh's Community-Wide Climate Action Plan development and has managed

climate action plans for several major universities, including Cornell University, the University of North Carolina (UNC) at Chapel Hill, Duke University, North Carolina State University, and UNC Greensboro. John also led a renewable energy study for the University of Virginia and helped develop GHG inventory methodologies and solid waste projects in China.

John brings a wealth of experience and knowledge of the climate action planning process and technical expertise in GHG emission mitigation.

**Municipal Community-Wide Climate Action Planning** John managed the development of a community-wide climate action plan for Raleigh, North Carolina, and provided technical support for the update of Alameda, California's, climate action and resiliency plan. For both projects, provided technical, economic, and public engagement support related to GHG reduction strategy development, analysis, and modeling. Drew on expertise in building energy use and waste management. Developed forecasts of future GHG emissions based on each municipality's most recent GHG inventory, projected growth, and analysis of forecast drivers, and under a "business as usual" scenario for planning purposes. Worked with each city to establish targets for GHG reduction in 2030 and 2050 that are in line with state and peer city targets. Synthesized complex modeling and analysis results for presentation to clients and key stakeholders to facilitate discussion, engagement, and involvement with the community to reach agreement on the goals and strategies that will ultimately lead to the success of the plans and GHG reduction targets.

# **Robert McIntosh** Emission Reduction Measures Expert





Robert McIntosh has ten years of experience in complex systems analysis and program management in the U.S. and internationally. Predominantly has been in modeling, policy support, and implementation of transportation management, advanced energy technologies, and energy efficiency measures. He has crafted five-year industrial and transportation plans for the Chinese National Development and Reform Commission, built solar deployment strategies

for Australia, established port expansion plans in the Netherlands, fashioned energy growth plans for Rwanda and Sierra Leone, and established advanced mobility technology development strategies for the Government of India. He has also worked extensively in the U.S. in emissions mitigation at the national (EPA) level, state level (Maine) and with city governments such as Boulder, Denver, and Austin.

Robert's specific experience relates to greenhouse gas (GHG) emissions reduction, transportation planning, advanced vehicle technology deployment, infrastructure planning, and mixed-modal development.

**Climate Change Impacts Assessment on Maine's Economy** Robert worked with the State of Maine to design robust strategies, evaluate costs/benefits, and advise on implementation timelines and actions for meeting Maine's 2030 fifty percent greenhouse gas (GHG) emissions reduction and 2045 carbon neutrality goals. This involved extensive coordination and facilitation work with sector-based work groups established by Maine's Climate Council to design strategies that are specific, measurable, and attainable. These strategies have been assessed, prioritized, and adopted into state planning.



# **Eric Bell** GHG Inventory and Modeling





Eric Bell is a sustainability engineer with seven years of professional experience. Dr. Bell's primary areas of expertise include climate change mitigation and adaptation, life cycle assessment (LCA), environmental modeling, and data collections and analysis. Dr. Bell has four years of experience advancing the energy and sustainability goals of federal, state, and municipal clients, including the U.S. Environmental Protection Agency (EPA), the U.S. Department

of Justice (DOJ), and the Port of Charleston, South Carolina, among others. For several years, Dr. Bell supported the development of annual greenhouse gas (GHG) inventories and sustainability data reporting for both the DOJ and the Federal Bureau of Investigation (FBI). Dr. Bell also led the development of a DOJ report identifying opportunities to further reduce GHG emissions.

Dr. Bell has published two peer-reviewed articles on the life cycle assessment of sustainable food-energy-water systems, and has taught undergraduate courses at both the University of California, Berkeley, and Swarthmore College on climate change science and mitigation.

**Annual GHG and Sustainability Data Reporting** Eric supported the annual development of the GHG and Sustainability Data Report and associated GHG Inventory Management Plan for the DOJ and the FBI. Collected, verified, and assessed energy, water, and sustainability data for submission to the Council on Environmental Quality (CEQ) and the Office of Management and Budget (OMB). Helped to lead an onsite training session for Bureau energy and sustainability managers, followed up with DOJ Bureau/Components directly to verify submitted data, and compiled the final Data Reports and Inventory Management Plans. Led the development of a report to characterize DOJ's GHG emissions and identify potential opportunities for further emission reductions.

## Hannah Stroud GHG Inventory and Climate Adaptation





Hannah is a recent addition to the ERG team, who specializes in climate change adaptation and resilience economics. Her past work includes assessing sea level rise on ecosystem services and vulnerable communities. Much of her academic research has been on the effects on social equity in the adaptation planning process, with an emphasis on quantifying the co-benefits of green infrastructure. She is also experienced in using ArcGIS for geospatial analysis.

In addition to her research skills, Hannah has extensive experience in science communication in various formats, running stakeholder workshops and working with broad audiences and in transdisciplinary teams. Recently she has worked on writing key messages for decision makers around the economic contributions of estuarine research reserves.

**Cape Cod Commission** Assessing the Impacts of Climate Change in Barnstable County, MA. Supported a project to quantitatively estimate and qualitatively describe the socioeconomic impacts from taking no action to address climate change impacts and perform both benefit-cost analyses and economic impact analyses of both adaptation and mitigation strategies for Cape Cod, MA. Managed vulnerability assessments for County, as well as benefits/costs and prioritization of adaptation measures.

**Social Indicators of Climate Change Adaptation and Resilience.** At the University of Massachusetts Boston, Hannah researched social vulnerability indices and commonly used social indicators for natural hazards and resiliency. Assisted in facilitation of a workshop with experts in planning, community development and adaptation in identifying their use and perception of social indicators.



# **Section 4: Proposed Scope of Services**



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In anticipation of the project, we have had conversations with ERG, one of the top companies at the forefront of public efforts to develop, implement, and manage effective strategies to reduce greenhouse gas (GHG) emissions and adapt for the future. GRAEF will engage them in a consulting capacity if selected for this project and together, the GRAEF team will work with the Village to create a comprehensive S/CARP. Our detailed scope is described below.

#### Part 1: Scoping & Inventory

#### **Review Existing Plans and Collate Existing GHG Inventories**

Subcontractor ERG will review and assess existing policies, existing programs, and anticipated regulations at the state, regional, and village level as well as S/CARP approaches and inventories taken over the past two years. This information will inform the approaches taken throughout this project, including forecasts of future emissions, GHG emission goal setting and reduction scenarios, and implementation strategies for GHG mitigation projects. It is therefore critical to form an accurate understanding of what has been and is currently being done to further climate goals by other entities within and around Oak Park and how those policies, programs, and plans will affect the village in the future.

ERG will collate previous GHG emission inventories into a single software platform – ICLEI's ClearPath model. ClearPath's features are designed to facilitate long-term management of emissions data and periodic re-inventory. As cloud-based software, ClearPath will safely store all data from this inventory and make daily backups. Without spreadsheets to lose, future inventory efforts will move seamlessly into re-inventory. ClearPath also allows for updating past inventories as additional Intergovernmental Panel on Climate Change (IPCC) assessments of GHGs are released, providing a more complete comparison of inventories.

ERG will draw from a wealth of experience in GHG inventory methods and application as we conduct this task, as we have been a lead technical contractor for the U.S. EPA's national GHG emissions inventory for 20 years, served on IPCC inventory method development panels, and recently completed New York State's GHG inventory, as well as inventories for other state and municipal clients. For example, we recently supported the City of Alameda's (California) award-winning Climate Action and Resilience Plan (CARP) by reviewing existing inventories developed in ICLE1's ClearPath model, recommending updates to address state and federal policies and programs, revising the baseline GHG inventory, and developing emissions forecasts and reduction goals for 2030 and 2050.

#### **Develop GHG Inventory**

ERG will begin developing Oak Park's 2020 GHG inventory by analyzing village activity data related to GHG emissions to produce an updated GHG inventory for 2020, including both municipal government operations and the community as a whole. It should be noted that 2020 GHG emissions may provide an anomalous result compared to past and future









inventories due to the impacts of the COVID-19 pandemic on behavior patterns and the economy. We will discuss these impacts with the village and document possible anomalies as necessary. Based on previous inventories and our work with other municipalities, we expect the major sectors of GHG emissions will be facilities (commercial and residential building energy use), transportation, waste management, and land use (ecosystems). ERG's staff of engineers and scientists includes experts in the functions and data related to all these sectors of emissions as well as the related GHG inventory protocols.

Based on the protocols established in previous years' inventories collated as part of this element, ERG will work with village personnel to obtain the relevant updated data for activities that contribute to Oak Park's GHG emissions (e.g., direct fuel usage in buildings, purchased electricity, vehicle fuel usage or vehicle miles traveled (VMT), solid waste and wastewater management data, and changes in land use characteristics). After collecting and compiling relevant activity data, ERG will perform all inventory calculations in ICLEI's ClearPath model. We will use the most recent established protocols for inventory development, such as ICLEI's GHG Protocol and those developed by the World Resources Institute. We will share the results of the GHG inventory with the village using tabular and graphical output and then adjust the analysis, if necessary, based on comments received. This inventory will serve as the basis for the forecast of future GHG emissions, emission reduction goals, and GHG reduction scenarios, so it is important that the inventory provides a complete and accurate baseline for those subsequent analyses.

#### Energy, Transportation, Waste, and Ecosystems

#### Identify GHG Drivers Develop Business as Usual Forecast

Using the GHG emissions inventory developed in Required Element 1, ERG will create a forecast of future GHG emissions through 2050 based on a business as usual (BAU) scenario. This forecast will serve as the baseline by which we will consider future scenarios for GHG emissions reductions and their impacts toward reaching the village's GHG emissions reduction targets that will be set in Required Element 3. The BAU scenario assumes no changes to current practices except those that village, state, and local policies and programs have already mandated.

To create a model of future GHG emissions, ERG and GRAEF will first work with the village to identify the best available GHG drivers for estimating future emissions. GHG drivers are data projections that can be applied to the GHG inventory to calculate future GHG emissions under BAU conditions. Economic or demographic data (e.g., projections of population, housing, or commercial growth) are common GHG drivers that may be applied to certain categories of emissions to predict growth. The text box on the right lists other factors that may be useful (followed by the emissions sector to which they might apply).

ERG and GRAEF will work with the village to determine the best available GHG driver for each sector of emissions and will calculate the BAU projections of future GHG emissions for each sector annually through 2050. For example, using housing units as a growth indicator for residential energy use, we will apply the forecast of housing units in Oak Park to the current per-household energy use and GHG emissions factors associated with residential energy use to forecast future





emissions from residential energy consumption in the BAU scenario. As part of the process, we will also work with the village team to estimate GHG reductions from existing village programs, state legislation, and state policies to incorporate into the analysis.

Our forecast will include a breakdown of forecasted GHG emissions by source, corresponding to the sources from the inventory developed in Required Element 1. This will allow us to visualize the sources of emissions through 2050 and determine the impact of emissions reduction targets set in Required Element 3. Figure 1 presents an example BAU forecast of GHG emissions by sector from our work with Raleigh, North Carolina.

Throughout this project—and particularly in this phase of analysis and goal-setting—strong messaging and presentation based on robust analysis will help ensure the village has a clear and specific understanding of the GHG inventory, the BAU forecast, and supporting information necessary to communicate to the community and other village stakeholders going forward.

#### **Develop Memorandum of Baseline GHG Emissions**

At the conclusion of this task, we will provide the village with a memorandum outlining the results of the GHG emissions inventory and



Figure 1. Example BAU Forecast of GHG Emissions - Raleigh, North Carolina

the BAU emissions forecast. ERG will develop a draft outline for the summary memorandum and discuss the draft with the village team at a project working session. ERG will share the inventory and BAU assessment frameworks and outline at the session, and ERG will revise it based on village team input. Once revisions are complete, we will submit the final memorandum summarizing the analysis, findings, and how they affect the development of GHG emissions reduction targets.

#### **Scenarios**

#### **Quantitative Goals and Intermediate Milestones**

ERG team members have proven the efficacy of our approach to producing GHG emission reduction goals, forecasts, and scenarios through similar work with other clients, including the City of Alameda, California; the City of Raleigh, North Carolina; the State of Maine; Washington, D.C. for the Metro Transit Authority's energy action and sustainability plans; Cornell University; Duke University; the University of North Carolina at Chapel Hill; and North Carolina State University.

ERG and GRAEF will work with the village and its stakeholders such as the resident-led Oak Park Climate Action Planning Team to consider multiple possible GHG emissions reduction goals, including the ultimate goal of carbon neutrality by 2050 and any necessary interim goals (e.g., 2030). These considerations will be based in part on the GHG inventory and BAU emissions forecast developed in Required Elements 1 and 2, and in conjunction with state GHG targets and national and international recommendations. These goals will be quantitative in nature and based in the science of climate change. While these goals will be developed and agreed upon by the village and its stakeholders, they will require continued engagement and cooperation among village staff, residents, businesses, and other stakeholders to achieve.



#### **Development of Science-Based GHG Reduction Targets**

The science-based targets developed as part of this project will allow Oak Park to align the actions developed here and in the future with larger societal sustainability goals and the known limits for the safety and stability of earth systems. GHG emission reduction targets are generally considered to be science-based if they align with the goals of the Paris Agreement and limit global warming 1.5 degrees Celsius above pre-industrial levels.

ERG and GRAEF will work with Oak Park to determine the most appropriate methodology for calculating science-based targets, including options such as C40's Deadline 2020 methodology, World Wildlife Fund for Nature's One Planet City Challenge (OPCC), and the Tyndall Centre methodology. While each of these methodologies differs slightly, each one uses a baseline GHG emission inventory and some estimate of future growth (e.g., population, GDP, etc.). Once the methodology is chosen in consultation with the village team, ERG will gather the needed information, perform the calculations, and present the results to the village for discussion.

At the conclusion of this task, we will provide the village with a memorandum outlining the GHG emissions reduction targets developed with the village and its stakeholders. ERG will develop a draft memorandum and discuss the draft with the village team for input prior to developing the final memorandum.

#### Part 2: Implementation Strategies

The Village of Oak Park recognizes the significant challenges associated with rising GHG emissions, accelerating pace of climate change, and urgent need to react and plan for the future today.

The GRAEF team will analyze the Village's extensive history of identifying and implementing goals related to reducing waste, conserving energy, environmental protection, and building resilience. These inclusive energy and water efficiency and cost-saving renewable energy programs include the adoption of electric vehicles (EV), EV charging station installations, residential curbside compost pick-up 'CompostABLE' program, charging customers 10 cents for each single-use paper or plastic bag provided at the checkout counter, allowing residents to establish up to two honeybee colonies, and more. We will work closely with Village staff to understand the history, level of success and community engagement, and goals for these existing programs and future programs.

Next in the development of the S/CARP is for the GRAEF team to compile the recommendations and reduction targets from Part 1 and align these items with detailed strategies for achievement. These will be developed in close collaboration and alignment with the Village's Comprehensive Plan, "Envision Oak Park", and any additional sustainability or sustainable operations plans. We will place special emphasis on the Villages' goals centered around diversity and inclusion, urban sustainability, respect for Oak Park's history and legacy, collaboration and cooperation, and thriving neighborhoods. Addressing the Village's vulnerabilities and outlining short and long term realistic, strategic goals will set the Village on the right path forward. In addition, this phase will feature extensive community engagement to understand the priorities of the residents and businesses in the community. GRAEF's community engagement efforts are diverse and accessible, with the goal of attracting input from all stakeholders, and are discussed further in detail later in this proposal.





Another key aspect of this phase is to analyze and incorporate the Village's various sustainability efforts such as its designation as a gold community in the SolSmart program funded the U.S. Department of Energy SunShot Initiative, the Plan it Green-Oak Park River Forest Sustainability Plan, signing of the Chicago Climate Charter, and membership in the UNFCCC's Cities Race to Zero Initiative. These efforts each have an important, interconnected role in the overall health and long-term vibrancy of Village of Oak Park. The Comprehensive Sustainability and Climate Action and Resiliency Plan doesn't have to start from scratch; we will analyze the efforts already underway and take them to the next level in climate action.

Through extensive public engagement and stakeholder involvement along every juncture including regular communication with Village staff, elected officials, and engaged citizens, we will ensure the Village's S/CARP is robust, understandable, and, most importantly, implementable. Too often, well-intentioned sustainability goals are relegated to the dusty top-shelf; Oak Park's Plan will not suffer this fate, but will be championed by Village staff, residents, and businesses alike as a key asset for the betterment of the community long into the future.

The GRAEF team proposes the following unique elements as part of our scope:

#### Tree Canopy Assessment

Trees are the most valuable and effective form of green infrastructure, providing benefits ranging from carbon sequestration, heat mitigation, flood prevention, and improvements to air and water quality. They also promote and sustain local biodiversity. Oak Park's substantial tree inventory is a key resource which must be stewarded effectively to ensure the long-term health of the local ecosystem in the face of impending climate threats. We would like to assess the existing inventory and propose species-specific and location-based recommendations to fully support the local ecosystem while producing economic and social co-benefits from tree planting.

#### Local Business Sustainability Resources

The private sector accounts for most of the economy and therefore carbon emissions. It is crucial to climate action planning that these stakeholders are consulted and provided with the resources necessary to take proactive steps rather than just reacting to policy and regulation. Small businesses face significant barriers to taking advantage of the incentives, resources, and best practices available to them with limited personnel and capacity. We will compile and promote key resources and actions which local businesses can take to mitigate climate threats after consulting with them to understand their needs and priorities. Examples may include community solar purchasing, energy efficiency incentives, and more, A healthy, vibrant, and sustainable business community is a vital part of ensuring a community has the resources and social cohesion to implement climate action plans.

#### Sustainable Development

Oak Park's downtown redevelopment is an exciting opportunity to implement targets for emissions and waste reductions with green building standards and incentives. One such opportunity is the potential for a sustainability incubator for





which the 2021-2023 Village Board Goals adopted June 14, 2021 explores a feasibility study for. We will prepare the city to consult with developers and engineers planning new buildings and refurbishing existing structures along with approaches to infill development and adaptive reuse. New development with substantial investments in green energy, energy efficiency, construction with local materials, waste reduction strategies, and more can be given a streamlined and predictable permitting and approval process which can offset the barriers to innovation inherent in investing in new technologies while ensuring they contribute positively to the community.

#### Special Focus on the Transportation Sector

The Village of Oak Park has well-developed transportation infrastructure due to its proximity to Chicago. However, transportation is largely an under-recognized contributor to community-wide emissions and a massive opportunity to achieve reductions quickly. As Transportation is commonly the largest emitted of GHGs in communities, we propose a more detailed analysis measuring the Village's residential, commercial, and municipal transportation emissions.

We will closely evaluate the Capital Improvement Plan (CIP) and Envision Oak Park Plan as important resources when designing and implementing sustainable transportation goals in Village of Oak Park. We will take a technology-neutral approach to evaluate emissions-reducing opportunities from passenger vehicles, including expanding electric vehicle (EV) infrastructure, efficient transportation opportunities for Village departments, expanding pedestrian-friendly and bike-friendly modes of transportation, and more. Recommendations will include funding and financing resources and opportunities to ensure the Village is well-positioned to achieve goals as part of the Comprehensive Sustainability and Climate Action and Resiliency Plan.

#### Special Focus on Renewable Energy & Efficiency

Home energy efficiency and weatherization information and education was identified as the top priority based on survey results from the PlanItGreen comprehensive plan. In addition, the 2021-2023 Village Board Goals adopted June 14, 2021 calls for the creation of a Reduce energy/Encourage Solar program and a public information campaign to market Energy Efficiency Audits and Retrofits. Our team has extensive experience evaluating renewable energy and energy efficiency options. We will provide creative solutions that balance community development, natural resource conservation, and economic growth. We will analyze the wide variety of technologies available on the market as well as the local, state, and national policy landscape to provide the Village with energy options that can achieve emissions reductions and serve to make Village of Oak Park a model for energy independence.

#### **Community Resilience**

The resiliency component of our scope will focus on the capability of the residents and systems of the village to survive, adapt, and grow to address the root causes of the climate crisis while also advancing the social and economic transformation of the Village of Oak Park. Building resilience within communities provides benefits across all aspects of our society, from improving infrastructure integrity to increasing wetland retention of stormwater to reducing flooding to





ensuring sustainable sources of energy that protect the health and wellbeing of the community's environment, its people, and its systems for ensuing generations.

Resilient communities are proactive in their planning and are better more suited to withstanding the ever-changing and sudden shocks of economic, environmental, and social conditions. The conditions that exist today might not exist tomorrow, and municipalities must be able to respond to these shifts in a way that advances their environment, society, and financial bottom lines. Being unprepared to take on these challenges can result in substantial expenditures required to remediate infrastructure, community and social well-being, and environmental degradation. A resilient plan will enhance the equity, health, and economic benefits of the resources that are essential to the Village of Oak Park, such as food, water, energy, transportation, land-use, housing, and economic opportunity.

Within the implementation strategies, the Village of Oak Park specifically identifies a sustainability roadmap, resiliency and community assets, and climate risks and adaptation strategies. The Temperate Vulnerability Assessment process identifies top hazards, assesses vulnerability, and builds an action plan that will also include identifying interdependencies to maximize efficiencies and minimize financial risk. This demonstrates the village's willingness for sustainable development, not only as it relates to GHG emissions, but in terms of environmental, social, and physical impacts to future changes due to climate change and extreme weather events.





Oak Park is a unique community with diverse residential and commercial neighborhoods of different types. Spanning 1.5 miles E-W and 3 miles N-S, different suburban and quasi-urban fabrics compose the city. The city has about 5-6 commercial corridors separating 6-10 residential neighborhoods. The neighborhoods fit 3 typologies, single-family residential, a unique historic residential, and multi-family residential. The building stock across the city is very old, showings its unique character in contrast to its modern downtown.

We will take a comprehensive approach to the Village's S/CARP to ensure all aspects of climate risk are identified and recommendations are structured to provide cross-functional benefits. We'll align with the Village's efforts to preserve and enhance its natural resources in the face of uncertainty by incorporating the results from the Oak Park River Forest Sustainability Plan and surrounding natural ecosystems in Village of Oak Park. GRAEF will Assess Oak Park's climate risk using the existing Temperate Vulnerability Assessment process platform and propose adaptation strategies to reduce that risk. As part of this assessment, we will identify 3-5 climate hazard-community system pairings for assessing the degree of vulnerability and adaptive capacity to respond to climate change for each of the pairings. A social vulnerability analysis will determine which populations are most at risk of environmental hazards from natural disasters, pollution, and instability. Recommendations will include actions to promote equity in resiliency by ensuring at-risk groups are prepared to face the environmental hazards which are becoming increasingly detrimental. Assessment can include developing and administering a community survey and hosting a series of community workshops to gain input on which community systems should be prioritized.



The GRAEF team is proud to feature the following high-level aspects of our plan to assist Oak Park:

#### **Beyond the Numbers**

Emissions reductions targets are most useful when they resonate with the people who have the ability to achieve them. We will ensure that key actors, decision makers, and stakeholders hear and understand their role in the action plan to meet the Village's goals for achieving net-zero emissions reduction targets.

#### Championed By All, For All

Too often, climate change goals experience a "boom and bust" cycle where a relative few community champions burn out after a short time. By working with the Environment and Energy Commission (EEC), the Village Board, Village's Sustainability Staff, and community organizations, we will ensure the needs of the Village are front-and-center in the Comprehensive Sustainability and Climate Action and Resiliency Plan. This will create a Plan that is appealing, useful, and championed by all, for all, now and in the future.

#### **Big Picture, Local Focus**

Our team is skilled in understanding and communicating the "big picture", in this case, the timely importance of climate and resiliency, while maintaining an on-the-ground focus on the community level. We'll work with the diverse stakeholders across the Village and the community, from the Environment & Energy Commission, Oak Park Climate Action planning group, to the local activists, business owners, and beyond. Implementing the Comprehensive Sustainability and Climate Action and Resiliency Plan should not be the responsibility of one champion or department, but rather a community-wide effort that everyone can reap value from.

#### **Geographic Information Systems**

Finally, the Village may benefit from GRAEF's proprietary, powerful GIS software, Infinite GIS, an online asset management system that allows users to not only map their systems but also to track the maintenance activities related to the systems. Infinite GIS allows a user to edit the physical points, lines, and polygons, along with the associated attributes that make up the maintenance records for the particular asset. The system is completely cloud based and available to any user who has access to the internet. This could be synchronized with the GHG inventory to display areas of concern via a heat map that the village can use to update the information as energy efficiency, renewable energy, and other GHG emissions reduction technologies and infrastructure are implemented over time.

#### **GIS Visuals**

GRAEF maintains exclusive GIS software for client use. In this case, GRAEF could use GIS software to highlight rooftops or ground sites suitable for renewable energy development, areas for land conservation, redevelopment potential, and more.







#### **Community Engagement**

We offer public education and participation methods that afford the community opportunities to be closely involved and share ideas, values and concerns that become integral to the Comprehensive Sustainability and Climate Action and Resiliency Plan development. Participating members and groups should include public officials, property owners, local institutions, business leaders, local residents, neighborhood groups, special interest groups, civic groups, local government staff, and young professionals. Specifically, we will coordinate our proposals with The Environment & Energy Commission, Oak Park Climate Action planning group, The Oak Park River Forest (OPRF) Community Foundation and it's Communityworks Advisory Board, The Center for Neighborhood Technology, Seven Generations Ahead (SGA), and the Delta Institute among others. We will also conduct due diligence to ensure the representation of traditionally underserved and marginalized voices in public planning are empowered through the planning process, including Black, Indigenous, and People of Color populations, parents, people aged 65 and older, non-English speaking populations, and more. Some options available for informing the public and obtaining input include:

#### Workshops

Workshops provide a means of introducing the consultant team; informing the public about the scope of the project; exploring community values and vision; and obtaining public input throughout the process. Workshops are often conducted as listening sessions that document the detailed concerns of residents and business owners.

#### **Exhibits**

Graphic displays can be used to inform and generate interest in the Comprehensive Sustainability and Climate Action and Resiliency Plan planning process. GRAEF's exhibits are often used in press conferences and stand-alone displays in public venues like village halls or libraries. These can include the dates of workshops, survey information, or other opportunities to get involved and submit feedback.

#### **Social Pinpoint**

We offer a unique community engagement platform that allows community members to post feedback via an online virtual forum. This enables stakeholders who might be unable to attend workshops in-person to provide input, allowing us to reach traditionally hard-to-reach constituents and better structure recommendations based on wide representation from the community.

#### **Online & Household Surveys**

We can work with officials to develop and administer a survey that captures the ideas and values of the community pertaining to general land use planning and redevelopment, care and management of the environment, transportation types, renewable energy, energy efficiency, waste reduction, and overall sustainability. Our surveys are customized to fit







the specific types of issues and concerns that are voiced by each community. We achieve this high level of customization through a series of pretests with local officials and volunteers. When local communities have already conducted surveys, we help with analysis and interpretation. In some cases, follow-up surveys examine key issues or seek opinions on recommended actions. We believe surveys will be an important factor in understanding the public's willingness to embrace new and alternative technologies to reach emissions reduction goals.

#### **One-on-One Interviews**

Results of in-person stakeholder interviews uncover key issues and are kept confidential. Typically, stakeholders are identified by the client as key individuals representative of different community groups or interests and can provide ideas for promoting solutions.

#### **Advisory Committees**

Groups of residents, non-profit organizations, and local businesses may come together to form peer communities where context-specific application of Plan elements can be intimately discussed. These committees treat local knowledge as expertise, and GRAEF supplies the technical expertise to supply the committee with the resources necessary to develop actionable recommendations to the final Plan. Advisory committees may tackle a range of issues from diversity and equity, cultural experience, marketing and branding, local ecology, and more.

#### **3-D Scale Models**

We help communities maximize public dialogue about specific projects where design details are critical. We often construct large-scale models of the design options using a base model to show both existing conditions, and alternatives. The model is interactive so participants can discuss and actually manipulate the model to envision, explain, and understand the possibilities. Models could be used to illustrate potential sites for solar or wind power, electric vehicle charging station depots for municipal fleets, or others.

#### **Plan Documents**

We prepare final plan documents in formats suitable to a range of audiences: in digital format, in PDF, and in hard copy.





# **Section 5: Proposed Schedule of Implementation**



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# **Proposed Schedule of Implementation**

Village of Oak Park - Sustainability and Climate Action and Resiliency Plan (S/CARP) Proposed Timeline (September 2021 through January 2023)	Sep. 2021	Oct. 2021	Nov. 2021	Dec. 2021	Jan. 2022	Feb. 2022	Mar. 2022	Apr. 2022	May 2022	Jun. 2022	Jul. 2022	Aug. 2022	Sep. 2022
Required Element 1: Scoping and Inventory													
Review Existing Plans													
Evaluate Previous S/CARP Approaches													
Collate Village Emission Data													
Required Element 2: Energy, Transportation, Waste and Ecosystems													
Develop GHG emissions drivers and forecast of future emissions													
Required Element 3: Scenarios													
Develop quantitative goals and intermediate milestones													
Analyze technical, financial, policy, behavioral, and other requiremnents for implementation													
Develop Science-Based Targets to achieve interim GHG reduction goals in 2030 and carbon neutrality by 2050													
Required Element 4: Implementation Strategies													
Scoping meetings with Village Staff, governing bodies, committees													
Establish community outreach plans with Village Staff													
Host community engagement sessions for input (up to 3 meetings) including ongoing virtual outreach													
Review Comprehensive Plan and determine alignment to inform draft implementation strategies													
Develop draft implementation strategies including budgets, partners, priority items and present to Staff													
Revise implementation plan based on feedback from Village staff, governing bodies, and committee													
Presentation of final implementation plan to Village governing body for approval													
Creation of marketing and communication plan for Village including recommendations for real-time data access													
Creation and dissemination of public-facing report upon Village approval of final implementation plan													
Present final implementation plan to partners leading specific tasks (up to 3 meetings)													
Element 5: Project Management & Team Coordination													
Assemble data and assess gaps in existing and developing programs													
Assess community resiliency assets for inclusion into the S/CARP													



# **Section 6: References**



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# References

In this section, please find references and work samples for endeavors that the Consultant team has completed. While no two projects are alike, we selected those with similar characteristics to those services required in the RFP. These represent only a portion of our experience, yet we feel they demonstrate relevance for you.

We are incredibly excited about the opportunity to partner with you to procure an effective Comprehensive Sustainability and Climate Action and Resiliency Plan. We have worked with a large number of cities, towns, villages, and regions throughout the Midwest on a wealth of related projects. We hope our references can give you a taste of our excitement and passion.

#### WHEDA Transform Milwaukee Strategic Action Plan

Wyman Winston Former Executive Director Wisconsin Housing and Economic Development Authority wealthconcepts2015@gmail.com 503 / 810 6530

#### Beerline Equitable

Implementation Plan Beth Haskovec Small Business and Lending Specialist Local Initiatives Support Corporation (LISC) bhaskovec@lisc.org 414 / 273 1815

#### **Village of Whitefish Bay**

**Comprehensive Plan Update** Paul Boening Village Manager Village of Whitefish Bay P. Boening@wfbvillage.org 414 / 755 6516



# City of Milwaukee Green Infrastructure Plan

City of Milwaukee Environmental Collaboration Office (ECO) | Milwaukee, WI







By 2030, Milwaukee will add approximately 36 million gallons of stormwater storage by implementing green infrastructure. This is the equivalent of adding 143 acres of green space throughout the city. Green infrastructure will be designed, installed, and maintained by an inclusive workforce that is representative of the city's diversity. The Green Infrastructure Plan for the City of Milwaukee was created to provide more guidance on where to strategically plan for green infrastructure implementation throughout the city, with public and private partners.

The City of Milwaukee Green Infrastructure Plan is a roadmap to achieve this vision, providing leaders with strategic and comprehensive strategies for implementing green infrastructure and prioritizing projects. It identifies various green infrastructure practices and potential financing mechanisms, formalizes policy changes within the City, and recognizes stakeholders within City, County, private, and non-profit community groups that can partner to accomplish these goals.

As part of the partnership with the Environmental Collaboration Office (ECO), GRAEF worked with City and MMSD staff to create a geospatial analysis in ArcGIS to evaluate site suitability and priorities in order for the City to meet its capture and water quality goals. This analysis builds on the methodology of MMSD's Regional Green Infrastructure Plan and the Kinnickinnic River Watershed Green Infrastructure Plan. Subbasins were ranked by level of priority for implementation, which is critical for effective placement of green infrastructure in meeting the capture and water quality goals. Additionally, ECO will now use this Plan and its analyses moving forward to educate the community about "GI", garner additional support (including funding support) for GI, provide guidance on critical areas for implementation, and market to developers, funders, and additional stakeholders.







### **Transform Milwaukee Strategic Plan**

Wisconsin Housing and Economic Development Authority | Milwaukee, WI





#### The 5 Key Strategies

- > Use new and existing financing resources to expand business development and spur job creation.
- » Make neighborhoods more desirable for housing and business development by reducing the number of foreclosed and vacant properties.
- » Increase job training, skill enhancement, and educational opportunities by fostering partnerships between state agencies and nonprofit community groups.
- » Prevent future flooding by developing alternatives to storm sewers, such as bioswales or stormwater runoff conveyance systems.
- Direct resources to establish intermodal transportation infrastructure water, air, rail, and highway systems.

#### **The 6 Expected Results**

Through WHEDA financing and public-private partnerships, the initiative is expected to:

- » Generate \$200 million in development in Milwaukee over the initial two-year period that began May 2021.
- » Improve the City's unemployment levels by creating thousands of construction-related and other permanent jobs.
- » Diversify and strengthen local property values, housing stock, retail businesses, and manufacturing facilities.
- » Remediate longstanding flood issues to help rebuild confidence in Milwaukee's stormwater management.
- » Unite transportation networks to boost the shipment of Milwaukee goods and commodities to national and global markets.
- » Decrease the City's reliance on social service assistance while increasing state and local revenues.

**Transform Milwaukee** is a public-private partnership focused on restoring economic prosperity to the industrial, residential and transportation areas within and between the **Corridor**, **Riverworks**, **Menomonee Valley**, **Harbor District and Aerotropolis**. The Wisconsin Housing and Economic Development Authority (WHEDA) and the Wisconsin Economic Development Corporation (WEDC) are leading the initiative with a team of partners.

Transform Milwaukee was established by Governor Walker and WHEDA on April 30, 2012. While Transform Milwaukee is intended to focus on actions through April 2022, its framework will further a long-term, multi-jurisdictional commitment to Milwaukee. A thriving Wisconsin economy depends on a vibrant and prosperous Milwaukee. Transform Milwaukee will catalyze reinvestment in key areas to strengthen Milwaukee's role as a prominent industrial powerhouse. The Strategic Action Plan was undertaken not as a planning exercise, but as a strategy to prioritize investments (both public and private) based upon economic outcomes and needs of the core urban economy.



## **Beerline Equitable Implementation Plan**

Local Initiatives Support Corporation (LISC) and Beerline Trail Project Leadership Team | Milwaukee, WI

Established in 2002, the Beerline Trail runs north to south along the western side of the Milwaukee River. The trail is named the Beerline because of its location near where many of the old Milwaukee breweries were located. The trail connects the Riverwest and Harambee neighborhoods, providing access to recreational and green space. The trail has developed as a spine to advance efforts to strengthen connections among the Harambee, Riverwest, and nearby neighborhoods; spur equitable development; and reinforce the centrality of arts, makers, and creative entrepreneurs to the past and future identity of the area.





The GRAEF team was retained by LISC (Local Initiatives Support Corporation) and the Beerline Trail Project Leadership Team to continue the Beerline Trail's progress following a phase of successful community input gathering and key initiative development. Our team helped to determine the next steps for the project, identified responsible parties for key areas, assisted in seeking funding sources, and determined clearly laid out priorities to keep the project moving forward in a responsible manner. These next steps are compiled in a the Equitable Implementation Plan to guide work on this project for the next 10 years. A seminal idea of the plan is to move forward with equity, assuring the public space investment on the trail does not displace current residents and workers, whenever possible, while encouraging the growth of the trail as public enhancement. To achieve the above goals, the GRAEF team:

- Facilitated monthly meetings of the Beerline Trail Project Leadership Team and quarterly meeting of the Guiding Lenses Group. Collaborated with arts and neighborhood engagement consultants to focus on local resident, business owner, and worker needs.
- Identified appropriate partnerships to result in long-term sustainability, including reviewing pertinent neighborhood plans to identify opportunities for alignment.
- Advised neighborhood groups in the development and implementation of trail-related projects.
- Encouraged local creativity and diversity to represent the range of neighborhood cultures.
- Attended community meetings to become a visible and accessible presence during the project.



### Loop the Lake Boardwalk Bridges

City of Neenah | Neenah and Menasha, WI



GRAEF completed the full detailed design, bidding, and construction management of two (2) separate boardwalk bridges. One bridge is located in the City of Neenah spanning the Neenah channel. This bridge is 768 feet long with twelve 64-ft spans. The other bridge is located in the City of Menasha spanning the Menasha channel and is 715 feet long with ten 63-ft spans and one 84-ft span. Both bridges 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 the view while not impeding the through traffic.

Approaches on the Neenah bridge had to tie into the Arrowhead Park trail on one side and ended in a vacant lot along River St. Approaches for both bridges included new parking, landscaping, benches and picnic tables. At Menasha, close proximity of a railroad spur created challenges that were solved by including a pile supported boardwalk switchback that met the railroad pedestrian crossing requirements.

Also at Menasha, the first span from Fox St. needed to be angled and lengthened to span a sanitary interceptor and the treatment plan discharge lines into the channel. During design, soil borings revealed an extremely dense hard pan and gravel substrate that required pre-boring for all pier pipe piling.





## Whitefish Bay Comprehensive Plan Update

Village of Whitefish Bay | Location: Whitefish Bay, WI



#### for 73% of Whitefish Bay workers, commuting takes 24 minutes or less

With a limited general fund allocation to update the comprehensive plan, the Village of Whitefish Bay and GRAEF undertook an overhaul of its 2009 comprehensive plan to procure a compact, graphic-forward 2019 Comprehensive Plan Update. Whitefish Bay is a community of 14,050 people with a prominent shoreline and reliance upon the Milwaukee metropolitan economy. The question before us: with budgetary and process constraints due to other major Village priorities, how could we devise the community's first framework to focus more intentionally on sustainability and resilience?

#### First-Ever Community Engagement at a Longstanding

**Event** | As noted by Village President Julie Siegel, "[The plan] will serve as a blueprint to guide our decision-making efforts in the decade ahead." To make inroads on the topics of sustainability and resilience, we intentionally set up the Village's first-ever community engagement booth at Bay Day, the community's day to raise awareness about being green, sustainable, and recreating outdoors. Special attention is given within the plan to drive the Village's triple bottom line [i.e., economy, environment, equity] and working with a resilient way of thinking.

#### **Building Sustainability & Resilience Amidst Constraints**

In addition to covering the nine elements of comprehensive planning in a customized structure, sustainability and resilience are given a special focus through outlining how Whitefish Bay can advance via the lenses of UN sustainable development goals, RainReady and StormReady community elements, and holistic land uses to make the community less reliant on outside sources. Finally, the plan offers an intentionally simple implementation framework per the Village Board's desires so as not to tax the Village. While an economically stable community, the Village does not provide planning or economic development in-house — making a simple implementation set all the more important in order to set the foundation for success. "We have a unique challenge of addressing [resilience] with a makeup of primarily residential plots. How do we effectively address this when most of the land in our village is privately owned?"

- Whitefish Bay Resident, June 27, 2019





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## South Milwaukee Comprehensive + Downtown Plan Update

City of South Milwaukee | South Milwaukee, WI



In 2014, the City of South Milwaukee recognized a need to update not only its comprehensive plan, but also its economic development and downtown strategies. The GRAEF team worked closely with the City's staff, Plan Commission, Downtown Advisory Committee, and Common Council through 2016 to create a customized action plan to jump-start community revitalization. The City and GRAEF have since created a Downtown Guide, executed a Downtown Revitalization Grant program, created / amended / extended 3 TIDs, and secured \$2.45m in economic development grants to the City.

**Building from Assets with Candy in Hand** | With its founding dating to the latter half of the 19th century, South Milwaukee has been an integral component in the larger Milwaukee economy serving as a manufacturing hub, a provider of quality housing, and a gateway to ample green space and waterfront access on Lake Michigan. Our comprehensive and downtown planning worked to preserve and strengthen these characteristics and values, while simultaneously creating new opportunities for growth. Our Trick or Treat on the Street community engagement session filled a vacant storefront with "What I Want for South Milwaukee" activities (and coloring sheets and candy!). With the community, we identified key assets for preservation, which were then reflected in the urban design concepts and implementation strategies.

A Focus on "Making it Happen Here" | Our comprehensive plan update recommended the City rebrand, which we undertook with Savage Solutions following plan completion. The resulting unofficial tag line became "make it happen here", as the community is actively in the maker space economy. With industrial land uses shifting from traditional manufacturing toward leaner, compact facilities, the City and GRAEF saw an opportunity to develop concepts that would attract businesses and catalyze re/development concepts. Together, we completed facade grants, small business expansions, and major City investments like The Bucyrus Club renovation to open in Summer 2021. We undertook the due diligence and real estate negotiations leading to the \$5m purchase and renovation project that is bringing entertainment, a heritage museum, dining and event space back to downtown South Milwaukee.



### Neenah InfiniteGIS Implementation

City of Neenah Water Utility | Neenah, WI

InfiniteGIS is a web-based asset management tool hosted and managed by GRAEF. The City of Neenah Water Utility adopted InfiniteGIS to manage the City's water utility infrastructure. By making this decision, the City was able to replace both ArcGIS online and the Cartegraph Asset Management database.

Staff in the Neenah Water Utility use InfiniteGIS on a daily basis to track:

- facility inspections
- repairs

• costs

water meter exchanging.

The all-in-one asset management tool adds significant efficiency to reporting with accurately located facilities in an interactive GIS map.

An added benefit of InfiniteGIS is the ease of use on any device, anywhere, at anytime. Base map layers hosted by the City and the County are used dynamically to provide the most current data available.

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# ERG Similar Projects





#### City of Alameda, California Climate Action and Resiliency Plan

ERG provided technical, economic, and public engagement support to the City of Alameda, California to review, refresh, and augment its 2008 climate adaptation plan. ERG updated Alameda's 2008 climate adaptation plan, including its GHG emission inventory, into the new and comprehensive Climate Action and Resiliency Plan (CARP), which addresses both GHG reduction and climate adaptation to increase Alameda's resilience to climate change and ensure a sustainable and healthy environment, society, and economy. In considering transportation, land use, solid waste, recycling, and energy, the updated CARP integrates efforts on hazard mitigation planning, vulnerability assessments, and other city plans. We supported engagement with the City Green Working Team, a special community CARP Task Force, and three community input sessions. ERG produced a plan that identifies scalable actions to be implemented at all scales and that factors in municipal, regional, and state policies and priorities for Alameda.



#### City of Raleigh, North Carolina Community Climate Action Plan

The City of Raleigh's Community Climate Action Plan (CCAP) sets aggressive goals for GHG emissions reduction despite significant expected growth in population and forecasted GHG emissions. The ERG team engaged stakeholdersincluding representatives from city departments, a team of technical advisors, and a communitywide action team—and developed all the materials and exercises for these engagements, including graphics-rich presentations and interactive techniques. ERG developed a forecast of future GHG emissions through 2050 and assisted Raleigh with setting GHG emission reduction targets. We produced a tailored set of GHG reduction strategies based on stakeholder input that address GHG emissions from the buildings and energy (supply and demand), transportation and land use, and solid waste and wastewater sectors. We analyzed the GHG reduction strategies for their potential GHG reduction, implementation timeframe, cobenefits, and impact on social equity—a key part of this project at every phase-through the lens of a social equity framework developed specifically for this project. ERG modeled the strategies' impacts on the projected future emissions and their cumulative contribution toward meeting the city's GHG reduction targets. ERG's final plan described the project process, the results of our analyses and modeling, and an approach for implementing the strategies to achieve the city's climate goals.



# Climate Change Impacts Assessment on Maine's Economy

ERG produced four volumes of reports, which included analyzing Maine's vulnerability to the future impacts of climate change, the cost to the state of doing nothing in response to climate change, an emissions analysis of draft GHG reductions strategies proposed by the working groups, and an economic analysis of the draft emissions- and adaptation-related strategies proposed by the working groups.

- Volume 1, Statewide Vulnerability Analysis.
- Volume 2, Cost of Doing Nothing Analysis.
- Volume 3, Emissions Baseline and Analysis of Reduction Strategies.
- Volume 4, Economic Analysis.

ERG also drafted a 30-page executive summary to highlight key findings and recommendations across the work.



# **Section 7: Cost Proposal**





### Attachment I. Cost Proposal Form

Vendor shall state as part of its proposal a written description of its quality assurance method to be utilized to ensure proper indexing of all documents.

Provide cost proposal based on the proposed operations schedule under Section II in the space provided below:

Village of Oak Park - Sustainability and Climate Action and Resiliency Plan (S/CARP)	Cost
Required Element 1: Scoping and Inventory	\$ 21,174
Required Element 2: Energy, Transportation, Waste, and Ecosystems	\$ 10,127
Required Element 3: Scenarios	\$ 14,099
Required Element 4: Implementation Strategies	\$ 60,000
Element 5: Project Management & Team Coordination	\$ 19,600
Total	\$ 125,000

GRAEF's Quality Assurance Plan is included on the following two pages.



# **Quality Assurance Plan**

The main goal of the GRAEF Quality Assurance Review Program is to maximize client satisfaction and maintain technical excellence. The following information describes the Quality Assurance Review Program used at GRAEF, including project organization, project communications, and project quality management.

#### **Project Organization**

All GRAEF projects are assigned a Principal-in-Charge (PIC). The PIC's role is to assure client satisfaction, accomplish conflict resolution, prepare contractual modifications, and serve as part of the quality review team.

In addition to the PIC, every GRAEF project is assigned a Project Manager (PM). The function of the PM is to manage the project process and interact directly with the client representative. The PM has access to, and is responsible for, all the resources necessary to accomplish the work required on a project. The PM is

accountable for the overall management of the project, schedule of production, monitoring of the project budget, and is the direct communication link between the client and the technical team.

The organizational structure of the technical team is hierarchical in nature. Internal resources, as required, will staff the project. When expertise is required and not provided by GRAEF staff, outside consultants will be retained. The project manager has direct input related to resources necessary for a project, including consultants chosen as part of the project team. Internal resources and consultants are chosen based upon required expertise, previous experience with firm and similar projects, and the ability to function seamlessly as a team. On larger interdisciplinary projects, each technical discipline will have a lead project scientist or engineer (PS/PE). The lead PS/PE is responsible for technical quality and coordinating their discipline's work with other technical groups. Each PS/PE is responsible for determining a budget, a schedule, and a quality control plan for inclusion in the overall project approach. Each PS/PE is supported by scientists, engineers, GIS/CADD technicians, field personnel, and administrative and clerical staff necessary to match the manpower needs of the project. The PM manages the PS/PEs and subconsultants, assuring an understanding of and compliance with the project's scope, budget, and schedule.

#### **Project Communication**

Effective management of a project is accomplished through clear communication by all parties. Verbal and written communication channels are important to efficient transmission of information.

The project schedule is the first tool necessary for effective planning. GRAEF believes a well-defined schedule breaks a project into elements that can be easily communicated and, therefore, managed. The type of schedule used (i.e., milestone, bar graph, CPM) is a function of the project's duration and complexity, and will be determined by the client's and PM's preference.

Progress meetings will be held to communicate technical concepts, coordinate work, and resolve conflicts on a project. The schedule of meetings will depend on project complexity and size, usually with a minimum of one meeting per month. Minutes of progress meetings will be distributed by the PM to all parties, including client personnel.



### Quality Assurance Plan continued



GRAEF's on-line quality assurance review application helps maintain technical excellence.

Weekly telephone conferences are typical between the client project manager and the PM to review schedule, budget, and scope issues.

The communication channels between the client and the technical team are usually directed through the PM. Direct communication between disciplines will be documented by telephone or internal memorandum, and copied to the PM for placement in the project file.

#### **Project Quality Management**

Project quality is a continual monitoring of goals, technical excellence and objectives of the project.

At the beginning of a project, a full team meeting will be held to determine the project's goals and objectives. These goals and objectives are then used as a basis to define success for both the client and GRAEF team. The client, PIC, the PM, and all discipline PS /PEs are members of the quality management process.

During the course of the project, regular quality review meetings will be held, at a minimum of once a month, to review overall project goals and objectives, and to review overall, budget, scope, and schedule.

Internal quality control and assurance is the overall responsibility of the Project Manager and individual disciplines. Regular quality control/assurance reviews are included as a part of the overall schedule. During these review periods, which occur at predetermined phase intervals, the technical team will meet to coordinate work in their individual discipline teams to eliminate confusion.



# Section 8: License to Provide Service in Illinois and Disclosures



# License to Provide Service in Illinois and Disclosures

GRAEF and all of its assigned key professional staff have all the applicable licenses to provide service in the State of Illinois.

Pending or previous litigation the firm was involved in over the past five (5) years:

*GRAEF v. WSOR, Milwaukee County Wisconsin Circuit Court,* Case No. 16-CV-9080. This action is a pursuit of payment by GRAEF from WSOR. This case was settled in October 2017.

Connie Barnum, as Special Administrator of the Estate of Paul C. Barnum, deceased and Connie Barnum, Individually v. Village of Riverdale, et. al., Cook County Illinois Circuit Court. This civil action against multiple parties arises from automobile accident in a construction zone. This case was settled in January 2018.

Zurich American Insurance Company v. Terra Engineering & Construction et. al., Milwaukee County Wisconsin Circuit Court Case No. 17-CV-11048. 2017. This civil action against multiple parties arises from damage to an adjacent property during construction. This case was settled in December 2019.

*Dane County v. GRAEF,* Dane County claims reimbursement for cost of increased scope of construction. This case was negotiated, not litigated, and the claim was settled in December 2018.

*Maria and Thomas Murphy v. Palos Community Hospital, et. al., Cook County Illinois* Case No. 2015-L-066052. This civil action lawsuit against multiple parties arises from a slip/fall in a parking lot. This case was dismissed in August 2019.

Robin Matchett-Schmidt v. City of Oak Creek, et. al., Milwaukee County Wisconsin Circuit Court Case No. 19-CV-4295. This civil action against multiple parties arises from a slip/fall on a splash pad. This case was settled in May 2021.

*Blue Skies of Texas, Inc. v. Skanska USA Building, Inc. et. al., Bear County Texas*, 438th Judicial District. Cause No. 2019-CI-19689. This is a civil action against multiple parties for alleged building deficiencies.

*Thomas and Maria Murphy v. Palos Community Hospital, et. al., Cook County Illinois* Case No. 2020-L-001914. This is a civil action lawsuit against multiple parties arises from a slip/fall in a parking lot.



# **Section 9: Attachments**



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# **Attachments**

Please provide completed executed originals of the following required attachments:

I. Cost Proposal Form - Page 40, Section 7 - Cost Proposal II. Compliance Affidavit - Page 47-48 III. M/W/DBE Status - Page 49 IV. EEO Report - Page 50 V. No Proposal Explanation (if needed) - Not Applicable





#### Attachment II. Compliance Affidavit

I, Peter M. Johnston \_\_\_\_\_\_being first duly sworn on oath depose and state as follows:

(Print Name)

- 1. I am the (title) Principal of the Proposing Firm ("Firm") and am authorized to make the statements contained in this affidavit on behalf of the Firm.
- 2. The Firm is organized as indicated on Exhibit A to this Affidavit, entitled "Organization of Proposing Firm," which Exhibit is incorporated into this Affidavit as if fully set forth herein.
- 3. I have examined and carefully prepared this proposal based on the Request for Proposals and verified the facts contained in the proposal in detail before submitting it.
- 4. I authorize the Village of Oak Park to verify the Firm's business references and credit at its option.
- Neither the Firm nor its affiliates<sup>1</sup> are barred from proposing on this project as a result of a violation of 720 ILCS 5/33E-3 or 33E-4 relating to bid rigging and bid rotating, or Section 2-6-12 of the Oak Park Village Code related to "Proposing Requirements".
- 6. Neither the Firm nor its affiliates is barred from contracting with the Village of Oak Park because of any delinquency in the payment of any debt or tax owed to the Village except for those taxes which the Firm is contesting, in accordance with the procedures established by the appropriate revenue act, liability for the tax or the amount of the tax. I understand that making a false statement regarding delinquency in taxes is a Class A Misdemeanor and, in addition, voids the contract and allows the Village of Oak Park to recover all amounts paid to the Firm under the contract in a civil action.
- 7. I am familiar with Section 13-3-2 through 13-3-4 of the Oak Park Village Code relating to Fair Employment Practices and understand the contents thereof; and state that the Proposing Firm is an "Equal Opportunity Employer" as defined by Section 2000(E) of Chapter 21, Title 42 of the United States Code Annotated and Federal Executive Orders #11246 and #11375 which are incorporated herein by reference.
- 8. All statements made in this Affidavit are true and correct.

Signature: P.J	n. Johnst -	Printed NamePeter M. Johnston
Name of Business:	Graef-USA Inc.	Your Title:Principal
Business Address:_	8501 W. Higgins Road, Suite 280	Chicago, IL 60631
	(Number, Street, Suite #)	(City, State & Zip)



<sup>&</sup>lt;sup>1</sup> Affiliates means: (i) any subsidiary or parent of the bidding or contracting business entity, (ii) any member of the same unitary business group; (iii) any person with any ownership interest or distributive share of the bidding or contracting business entity in excess of 7.5%; (iv) any entity owned or controlled by an executive employee, his or her spouse or minor children of the bidding or contracting business entity.

Telephone: 773 399-0112 Fax: 773 399-0170 Web Address: www.graef-usa.com

Subscribed to and sworn before me this	26th	day of_	July	, 2021.
Ballute hell		NOTAF	OFFICIAL BEATRICE	SEAL LEKKI ATE OF ILLINOIS res April 11, 2022
		My Co	ommission Expl	les April 11





### Attachment III. M/W/DBE Status

Please fill out their form completely. Failure to respond truthfully to any questions on their form, or failure to cooperate fully with further inquiry by the Village of Oak Park will result in disqualification of proposal. An incomplete form will disqualify your proposal.

- 1. Vendor Name: <u>GRAEF</u>
- 2. Check here if your firm is:
  - Minority Business Enterprise (MBE) (A firm that is at least 51% owned, managed and controlled by a Minority.) Women's Business Enterprise (WBE) (A firm that is at least 51% owned,
    - managed and controlled by a Woman.)
  - Owned by a person with a disability (DBE) (A firm that is at least 51% owned
  - X None of the above

#### (Copies of all certification letters must be included)

3. What is the size of the firm's current stable work force?

225 Number of full-time employees 23 Number of part-time employee

Signature: Peter Johnstn Date:\_\_\_7-26-21



### Attachment IV. EEO Report

#### EEO REPORT

Please fill out this form completely. Failure to respond truthfully to any questions on this form, or failure to cooperate fully with further inquiry by the Village of Oak Park will result in disqualification of this Bid. An incomplete form will disqualify your Bid.

#### An EEO-1 Report may be submitted in lieu of this report

Vendor Name\_\_\_\_GRAEF

Total Employees 248

					N	lales		1.0				
Job Categories	Total Employees	Total Males	Total Females	Black	Hispanic	American Indian & Alaskan Native	Asian & Pacific Islander	Black	Hispanic	American Indian & Alaskan Native	Asian & Pacific Islander	Total Minorities
Officials & Managers	40	34	6		-	(	1	1	1		1	3
Professionals	146	112	34		4		3	1.1.1.1				7
Technicians	44	36	8	2	5		1		2			10
Sales Workers												
Office & Clerical	17								5			5
Semi-Skilled												
Laborers		1										
Service Workers				10.000		1		1				
TOTAL					1.	1	[					1.5
Management Trainees						01		(		1	1 ······	
Apprentices		112				(C						15

This completed and notarized report must accompany your Bid. It should be attached to your Affidavit of Compliance. Failure to include it with your Bid will be disqualify you from consideration.

being first duly sworn, deposes and says that he/she is the HR Generalis of Person Making Affidavit) (Title or Officer) of and that the above EEO Report information is true and accurate and is submitted with the intent that it be relied upon. 1111111000 Subscribed and sworn to before me this \_\_\_\_\_\_\_ day of 2021. man (Signature) (Date)

