October 11, 2024

Ms. Jennifer Lopez
Administrator
Village of Edgar
Jennifer.Lopez@EDGARWI.GOV

Re: Proposal for Professional Services

VIA: EMAIL

Dear Ms. Lopez,

We are excited to share our watershed planning and implementation experience with the Village of Edgar to improve the habitat and water quality in Scotch and Edgar Creeks. This proposal describes our proposed scope to develop a comprehensive watershed management plan that can be approved by the Wisconsin Department of Natural Resources (DNR), providing an avenue to obtain public and private funding for watershed improvements.

Background

We understand that Village of Edgar officials and citizens wish to improve the health of Scotch Creek, which flows through the center of the Village (Figure 1), and its tributary, Omar Creek. Based on discussions with Village representatives, Scott Provost of the DNR, and reviewing available information, it appears that there are both local and watershed-wide issues to address.

The local issue, which is most visible to Village residents, is sedimentation that has greatly reduced water depth in part of Scotch Creek in the heart of the Village. DNR's observations suggest this may be at least partially related to impacts from stormwater draining from land within the Village, but an upstream sediment source is also certainly possible. We are aware of current efforts by the Village to restore 9 acres of wetlands near Scotch Creek Park, which could be beneficial for habitat and demonstrate the commitment and capacity to improve conditions.

Watershed-wide issues include poor water quality due to high levels of phosphorus and nitrogen, leading to listing of Scotch Creek by the DNR as being impaired for Total Phosphorus. Limited water quality sampling data has been collected by the DNR over the past several decades (Water Detail - Scotch Creek). The DNR has developed a Total Maximum Daily Load (TMDL) plan for the Wisconsin River basin, including the Scotch Creek watershed. This plan includes targets for phosphorus reductions from agricultural lands and point sources, such as wastewater plants, to meet the state water quality criteria. This provides a starting point to evaluate pollutant loads and potential reductions in the watershed.

Another opportunity you have expressed interest in is improving the fishery of Scotch Creek. Information from the DNR indicates that the watershed supports a degraded warm water sport fishery. Many of the actions that could improve water quality could also benefit the fishery.

Figure 1. View of Scotch Creek Park from County Highway H looking upstream.

Project Team

EOR's leaders for this project, introduced below, have decades of experience with watershed planning and implementation of improvements in the upper Midwest. We also have a bench of professionals to conduct the assessment, modeling and engagement tasks, and to provide expert advice on stream habitat, water quality, stakeholder engagement, engineering design, and fundraising.

Steve Gaffield, PE, PhD will be the project manager and lead the watershed technical analysis. Steve has managed EOR's restoration efforts in the Little Plover River watershed, development of a watershed green infrastructure plan for Black Earth Creek, and an analysis of wetland restoration opportunities across the central sands region of Wisconsin.

Jay Michels, **CPESC, NGICP/IGICP** will lead planning and implementation of urban green infrastructure in the Village of Edgar. Over the last decade, Jay has served this role for the City of Cumberland, Wisconsin, helping plan and implement many improvements to Beaver Dam Lake and Library Lake. He brings practical experience in planning, fundraising, and green infrastructure implementation.

Camilla Correll, PE will be an advisor and provide technical support/review on watershed planning and engagement. She has decades of experience leading watershed management plans in Minnesota, including extensive stakeholder engagement. She is also leading EOR's support to the Wisconsin DNR in developing an action plan framework for the Green Bay Blueprint.

Scope of Services

Our watershed planning scope is organized according to the EPA's 9 Key Element framework. This approach to planning is supported by the Wisconsin DNR and it creates the potential to request EPA approval of the plan to open federal funding opportunities. Our proposed approach is broken into 3 phases, because what we collectively learn in each phase will inform the details and level of effort for subsequent phases. We suggest that the Village authorize Phase 1 at this time, and we are including potential scope and cost ranges for Phases 2 and 3 to assist your planning and budgeting.

Phase 1 – Data review and scoping

The purpose of this phase is to get the technical and stakeholder engagement aspects of the plan off to a strong start, laying the foundation for success throughout the process. We will identify the key stressors causing the water quality and habitat problems in the watershed, determine what data are available to guide implementation planning, identify data gaps to be addressed in the next phases, and plan stakeholder engagement. Project management, meetings and coordination with the Village and relevant agencies are included in our scope.

Identify causes and sources of watershed problems (EPA Key Element 1).
This will include summarizing baseline data and historical management activities in the watershed. Data review (TMDL, DNR water quality and fisheries data). Key tasks include:

1. Desktop data review. This will include contacting Portage County Land and Water Conservation and the Wisconsin DNR to determine what data they have available.
2. Watershed tour with local stakeholders and meeting with Village representatives and, if possible, agency staff. This has proven to be time well spent for the Black Earth Creek and other watershed plans, fostering sharing of information and building relationships and momentum. Observations will include the following where these features can be readily observed during the tour:
    a. Geomorphic condition of the reach of Scotch Creek through the Village.
    b. Village storm sewer system that drains to the problematic reach of Scotch Creek. Scott Provost at the DNR has observed stormwater outfalls near Scotch Creek Park that may be contributing to the erosion and sedimentation problems.
    c. Riparian buffer and stream channel condition at road crossings.
    d. Typical agricultural practices.
3. Calls with agency staff to discuss available data, related planning efforts, and needs for the watershed. Portage County Land and Water Conservation will be an especially important partner in this effort. (This could be accomplished in a watershed tour, if agency staff are able to participate.)
4. Mapping key data.
5. Data gaps analysis.
6. Scoping tasks and the budget for the next project phase. This may include different approaches for local and watershed issues, with the potential to address local stormwater drainage and stream channel impacts in the near term and watershed wide phosphorus, nitrogen and sediment loading over a longer timeframe.

Develop an information/educational component (EPA Key Element 5).
Stakeholder engagement will be critical for successful implementation of watershed improvements. We recommend beginning this process early in the planning phase of the project and continuing it through implementation in Phase 3 and beyond. In Phase 1, we will work with you to develop an engagement plan addressing:

- Who are key stakeholders for local urban and watershed-wide agricultural issues? Can we identify trusted people or organizations who can help engage them? Stakeholders are likely to include Village residents, farmers in the watershed, Township officials, County and State agency staff, and non-profit organizations (e.g. Central Wisconsin Conservation Club, Upper Mississippi/Great Lakes Joint Venture)
- What information are we trying to gather and distribute?
- How can we best engage them? These methods may be different for each stakeholder group.

Phase 1 Deliverables

- Technical memorandum summarizing existing data and gaps and identifying key watershed stressors (to be wrapped into the comprehensive watershed plan in Phase 3).
- Stakeholder engagement plan.
- Meeting virtually with Village to plan next steps.

Lessons Learned

Township board members proved to be trusted contacts for many farmers in the ***Black Earth Creek watershed*** and were able to engage landowners more successfully than other project team members.

Farmer attendance at traditional public meetings is typically low. For the ***Little Plover River restoration***, the most effective engagement has been in the form of on-farm walks with landowners and small meetings of a farmer-led watershed group. This requires a long-term investment in building relationships. In the Black Earth Creek watershed, cover crops proved to be the topic that generated the most engagement among farmers (Figure 2) as a gateway to considering conservation measures.

Figure 2. Cover crop farm tour in the Black Earth Creek watershed (from Sand County Foundation).

Phase 2 – Management alternatives analysis

This phase of the planning process will build upon the information evaluated and plans developed in Phase 1 to develop recommendations to improve conditions in Scotch and Omar Creeks. This will include technical analyses of pollutant loads and necessary reductions, as well as engagement of stakeholders to build buy-in and capacity for future implementation efforts.

Estimate pollutant loading and expected load reductions (EPA Key Element 2).

Local stream channel improvements

EOR will evaluate stormwater drainage in the Village qualitatively and quantitatively with models to identify how and where stormwater is impacting the Scotch Creek channel, and what changes are needed to restore conditions in the channel (e.g. reductions in peak discharge, runoff volume and/or sediment loads). The details of this analysis will depend on the issues identified in phase 1 and the data and tools that are available (e.g. stormwater models).

Watershed-wide water quality improvements

This step will use available information from Marathon County and the DNR, supplemented by new modeling as needed, to quantify existing watershed loads of phosphorus, nitrogen and sediment and reductions that are possible through various management actions to meet the project goals. This will build on the Wisconsin River TMDL pollutant reduction analysis and the data and experience of Marathon County. It is possible that the data gaps analysis will indicate that additional water quality monitoring data and/or observations of erosion and sediment transport are needed to adequately define existing pollutant loads, source areas and necessary reductions. Potential models to quantify water quality and reductions include EPA's STEPL pollutant loading and reduction model and more detailed, process-oriented models such as SWAT.

This element will also include an evaluation of the conditions of fish habitat in the watershed and improvements that are needed to meet management goals. Depending on the issues identified in Phase 1, this could include inventorying fish habitat conditions and streambank stability throughout the watershed to map stream reaches in need of habitat restoration.

Management measures to achieve load reductions, targeting critical areas (EPA Key Element 3).

This element will use available data, modeling, and stakeholder knowledge to develop management alternatives that can be used to address priority issues and hot spots in the watershed.

Local stream channel improvements

Addressing local issues related to scour and sedimentation in Scotch Creek may be relatively straightforward, if the main driver of problems is runoff within the Village. In that case, stormwater modeling and your local knowledge can be used to identify green infrastructure solutions to address runoff and/or sedimentation problems and develop specific project concepts. It is also possible that conditions farther upstream in the watershed are contributing to this problem, which would need to be addressed with the approach described below.

Watershed-wide water quality improvements

Our experience working with farmers is that it is most effective to identify a short list of potential management strategies that would be effective at addressing priority issues, then engage with individual landowners to identify which practices would be the best fit for the issues and objectives they have on their property. This creates a more collaborative and creative approach to finding win-win opportunities

(like measures that reduce runoff and improve soil health) than prescriptively identifying management measures for private lands.

The models developed under EPA Key Element 2 (above) would be used to quantify the effectiveness of different management alternatives. In addition, the Wetlands by Design mapping tool is an efficient screening tool to identify locations where beneficial wetland functions have been lost and could potentially be restored. This could aid in locating management practices to address hot spots. Data from the NRCS indicates that there are many potentially restorable wetlands in the watershed (Figure 3).

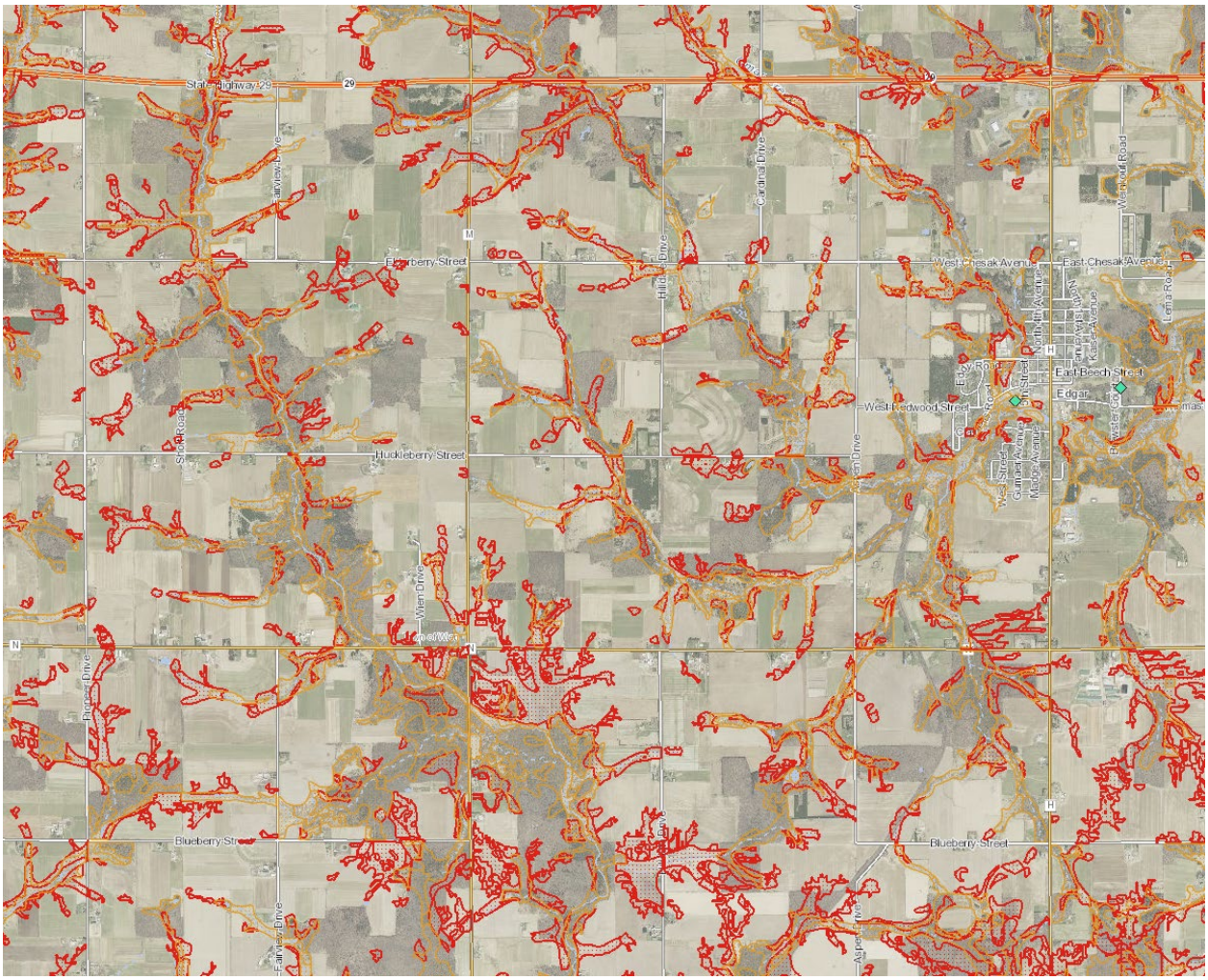

Figure 3. Mapped wetlands (yellow) and NRCS potentially restorable wetlands layer (red).

Consistent with DNR guidance for comprehensive watershed management plans, this effort will also include the following:

- Assessing organizations, jurisdictions and ordinances likely to affect management decisions.
- Discussing potential adverse impacts of each management measure.
- Discussing measures considered but not recommended, including costs, expected outcomes or adverse effects.
- Outlining a decision framework that will help select from management alternatives in future.

Stakeholder engagement (EPA Key Element 5).
Phase 2 will be the time to begin implementing the engagement plan developed in Phase 1. The purpose will be to build relationships, get input to help shape the plan, and to collaboratively identify potential management strategies to improve watershed conditions. For local runoff issues, effective engagement might come in the form of traditional public open houses and a tour of the area around Scotch Creek Park. Engaging with farmers in the watershed will likely take more time and a wider variety of methods. This can be informed by the ongoing work just to the west in the Fenwood Creek Watershed, where there is a producer-led watershed group funded by the State Department of Agriculture, Trade and Consumer Protection. A similar group has formed in the Little Plover River watershed and has proven to be an effective way to engage farmers in addressing watershed issues.

Phase 2 deliverables

- Technical memorandum documenting the alternatives analysis including concept designs (to be wrapped into the comprehensive watershed plan in Phase 3).
- Meeting with Village to plan next steps.

Phase 3 – Implementation planning and comprehensive plan completion

Estimate technical and financial assistance needed and key partners for implementation (EPA Key Element 4).
Concept designs developed in Phase 2 and input from stakeholders on preferred alternatives will help budget for implementation. Projects on private lands are typically identified where there is a willing landowner in a priority area, so that implementation progresses over time as landowners are ready to take action. Plans and budgets for initial management actions will form the basis of grant applications, and the plan will provide a road map for continued implementation opportunities and funding needs into the future. Both the Village and Marathon County are eligible grantees.

Continued stakeholder engagement (EPA Key Element 5).
Stakeholder engagement will continue, with a focus on gathering information and support from Village residents for local improvements and working with farmers to identify mutually beneficial projects in priority areas of the watershed. The latter is likely to entail on-farm visits and small group meetings to identify practices to implement from the short lists developed in Phase 2. This approach has proven successful in the Little Plover River watershed. Continuing to strengthen collaboration with Marathon County and other stakeholder groups will be critical.

If desired for urban or agricultural engagement, EOR could develop outreach materials such as a 1-page project brochure to distribute in hardcopy and digitally to spread the word about the project goals and progress. Demonstrating progress will demonstrate that this effort has the capacity to affect positive change, building momentum. Highlighting actions that the Village has taken to reduce local impacts on the stream will set the stage for then asking upstream neighbors to consider doing their part in improving the watershed.

Another key task will be to find opportunities to partner with other organizations that can assist with implementation and monitoring. This could entail support from Marathon County and/or the NRCS with engaging farmers and designing management practices, or support from the DNR or University of Wisconsin-Stevens Point in watershed monitoring.

Lessons Learned

In the ***Little Plover River watershed***, Portage County has been a key partner in planning, permitting, construction management, and funding for implementation of watershed management practices. The NRCS has also provided design support.

University of Wisconsin-Stevens Point faculty and students have provided expertise and many hours of labor in managing woodlands along the Little Plover River to improve fish habitat. This effort has also energized and engaged volunteers who have donated dozens of hours to improve habitat.

Develop an implementation timeline (EPA Key Element 6).
Although it can be hard to predict when private landowners will be ready to implement projects on their lands, it nevertheless is valuable to have a timeline for implementation based on the best available information about which projects are likely to be feasible in the short term and long term. This helps keep the plan implementation on-track and plan budgets. This timeline should be a living document that gets updated regularly, even after the comprehensive management plan is approved by DNR.

The timeline will also include 20-year operation and maintenance plans for any structural management practices recommended in the plan, as required by DNR.

Develop key milestones for implementation (EPA Key Element 7).
Our experience in the Little Plover River watershed is that tracking progress against interim and long-term targets (in that case, stream baseflow) provides motivation to all involved and helps keep efforts on-track. Milestones could take the form of the quantity of practices installed or other metrics.

Identify measurable outcomes to track progress and make adjustments, and implement a monitoring strategy to measure outcomes (EPA Key Elements 8 & 9).
Tracking improvements in the habitat of Scotch Creek within the Village may be relatively simple to monitor through tracking channel characteristics such as depth, width, bank stability, and riparian vegetation. Improvements in watershed-wide water quality may be more challenging, since water quality varies substantially from year to year depending on whether conditions. Monitoring efforts must be designed wisely to detect improvements within the natural variability and, even so, it requires a long-term effort to detect change.

This element will also include a strategy for updating the watershed implementation plan based on what monitoring tell us is working and not working.

Phase 3 deliverables

- A comprehensive watershed management plan including the EPA's 9 key elements, incorporating tech memos from Phases 1 and 2.
- Meetings with Village to plan next steps (outreach, funding, implementation).

Assumptions and Conditions

We have assumed the following regarding the scope of our services:

1. Permitting for specific projects would be conducted under a separate authorization and is not included in this scope of services. Additional details on actual projects to be permitted will be needed to develop a budget and schedule.
2. Funding applications for implementation and other follow-up activities is not included in this scope of services. The content of the implementation plan will form the basis for future funding applications, and we will be glad to discuss how EOR can help you obtain future funding.

Contract, Fees and Schedule

Our proposed budget and schedule are summarized in Table 1 below. At this time, ***we are requesting authorization of Phase 1***; the estimated cost and schedule for Phases 2 and 3 are presented for your planning and will be refined as each previous phase is completed and more details are available.

Fees billed will be based on the level of effort required on a time and expenses basis, according to the rates and procedure described on the attached rate sheet.

Table 1. Estimated budget and schedule

Phase	Budget	Estimated Completion
1 – Data review & scoping	$20,000	2024 Q4 or 2025 Q1
2 – Alternatives analysis	$20,000 - $40,000	2025 Q2 or Q3
3 – Implementation plan	$20,000 - $30,000	2025 Q3 or Q4*

** The portion of the plan addressing local improvements in the Village may be completed before the watershed-wide components of the plan, due to the number of stakeholders likely to be involved in addressing watershed water quality and habitat issues. We can discuss options for addressing these differences and implications for funding and implementation as the project progresses.*

Services by EOR on this project will be conducted according to the terms and conditions described in the attached Services Agreement. Receipt of a signed copy of the Services Agreement will be authorization for EOR to proceed with the services described in this proposal.

Thank you very much for the opportunity to provide this proposal. Please contact me at 608-839-4422 with any questions.

Emmons & Olivier Resources, Inc.

Stephen J. Gaffield, PE, PhD
Water Resources Engineer

Copy: Gordon Krall: gordonkrall@gmail.com

Enclosure: 2025 Fee Schedule
Services Agreement (Please return a signed copy)

Services Agreement

Emmons Olivier Resources, Inc. (EOR, Consultant) will perform services according to the terms and conditions of this Agreement with the Village of Edgar (Client). The Consultant shall perform the services described in the attached Proposal dated October 11, 2024 (Proposal), in consideration of the fee and payment terms stated in the Proposal. Additional services requested by the Client, but not described in the Proposal, shall be paid according to hourly rates specified in the Proposal. The following terms and conditions apply to the Agreement, unless specifically altered in the attached Proposal.

Terms and Conditions

1. **Access to Site: Unless otherwise stated, the Consultant shall have access to the site for the activities necessary or** desirable for the performance of the services. The Consultant will take reasonable precautions to minimize damage due to these activities but has not included in the fee the cost of restoration of any resulting damage and will not be responsible for such costs.

2. **Billing and Payment:** The Client agrees to pay the Consultant for all services performed and all costs incurred, as described in the Proposal attached to this Agreement. Invoices for the Consultant's services shall be submitted, at the Consultant's option, either upon completion of such services or on a monthly basis. Invoices shall be due and payable upon receipt. Client will also pay a finance charge thereon of 1.5 percent or the maximum rate allowed by law, whichever is less, for each month thereafter or portion thereof that an invoice remains unpaid. For any invoice not paid within 60 days, the Consultant may, without waiving any claim or right against the Client, and without liability whatsoever to the Client, suspend or terminate the performance of services. In the event litigation is required to collect unpaid balances, Client shall pay all costs of collection, including reasonable attorney fees. By signing this Agreement, Client acknowledges that liens may be placed upon the Client's property for unpaid balances.

3. **Indemnification:** The Client shall, to the fullest extent permitted by law, indemnify and hold harmless the Consultant and subconsultants from and against all damage, liability and cost, including reasonable attorney fees, arising out of or in any way connected with the performance of the services under this Agreement, excepting only those damages, liabilities or costs attributable to the gross negligence or willful misconduct of the Consultant.

4. **Information for the Sole Use and Benefit of the Client:** All opinions and conclusions of the Consultant, whether written or oral, and any plans, specifications or other documents and services provided by the Consultant are for the sole use and benefit of the Client and are not to be provided to any other person or entity without the prior written consent of the Consultant. Nothing contained in this Agreement shall create a contractual relationship with or a cause of action in favor of a third party against either the Consultant or the Client.

5. **Certifications, Guarantees and Warranties:** The Consultant shall not be required to execute any document that would result in the Consultant certifying, guaranteeing or warranting the existence of any conditions. The Consultant will render services and opinions according to the normal standards of practice of professional engineering.

6. **Limitation of Liability:** In recognition of the relative risks, rewards and benefits of the project to both the Client and the Consultant, the risks have been allocated such that the Client agrees that, to the fullest extent permitted by law, the Consultant's total liability to the Client for any and all injuries, damages, claims, losses or expenses arising out of this Agreement from any cause or causes, shall not exceed $50,000, or the amount of the fee paid to EOR, whichever is greater. Such causes include, but are not limited to, Consultant's negligence, errors, omissions, strict liability, breach of contract or breach of warranty. Client has not negotiated a different agreement that does not include the waivers and damage limitations listed above, the cost of which would be higher.

7. **Use of Documents:** All documents produced by the Consultant under this Agreement are instruments of the Consultant's professional service for use in the project for which the Consultant was retained. These documents may not be used by the Client for any other purpose without the prior written consent of the Consultant.

8. **Termination of Services:** This Agreement may be terminated at any time by either party should the other party fail to perform its obligations hereunder. In the event of termination for any reason whatsoever, the Client shall pay the Consultant for all services rendered to the date of termination, and all reimbursable expenses incurred prior to termination and reasonable termination expenses incurred as the result of termination.

The above Agreement, Terms and Conditions and referenced Proposal scope of services and fees are agreed upon:

Consultant:  Date 10/11/2024 Client:_____Date_____

Stephen Gaffield, Office Manager _____

Emmons Olivier Resources, Inc. (EOR) _____

1334 Dewey Court, Madison, WI 53703 _____