

CONTRACTOR SERVICES AGREEMENT

THIS CONTRACTOR SERVICES AGREEMENT (“**Agreement**”) is made and entered into this 10 day of August 2023, by and between Vadnais Lake Area Water Management Organization, a Minnesota joint powers entity (“**VLAWMO**”), and Erosion Works (“**Contractor**”). VLAWMO and Contractor may hereinafter be referred to individually as a “party” or collectively as the “parties.”

RECITALS

- A. VLAWMO desires to undertake the 2023 Spent Lime Treatment for Oak Knoll Pond in the City of White Bear Lake (“**Project**”).
- B. VLAWMO is working with Barr Engineering as the engineer for this Project (“**Engineer**”).
- C. The Project involves the Contractor providing all personnel and equipment required to deliver and apply spent lime slurry (referred to as spent lime) to Oak Knoll Pond (“**Pond**”) to mitigate the internal release of phosphorus from pond sediment as further described in the Request for Quotations and Technical Specifications attached hereto as Exhibit A (collectively, the “**Contract Documents**”).
- D. VLAWMO sought written quotes for the Project and selected Contractor to perform the work to complete the Project based on its quote, which is attached hereto as Exhibit B (“**Quote**”).
- E. Contractor desires to undertake and complete the Project for VLAWMO in accordance with the terms and conditions of this Agreement. VLAWMO and Contractor negotiated some changes to the original draft of this Agreement prior to execution and the parties intend the language in this document to be controlling.

AGREEMENT

In consideration of the mutual promises and agreements contained herein, and intending to be legally bound, VLAWMO and Contractor hereby agree as follows:

- 1. Scope of Work. Contractor agrees to perform all work and provide all services needed to complete the Project in accordance with the Contract Documents and the terms and conditions of this Agreement (collectively, the “**Work**”).
 - (a) Contractor agrees to furnish all materials, all necessary tools, and equipment, and to perform all the work and labor necessary to complete the Project. The Project shall be completed in accordance with the terms and conditions of this Agreement, Contractor’s Quote, and the Contract Documents.
 - (b) Contractor agrees to diligently perform all Work required to complete the Project and to comply in all respects with the Contract Documents. VLAWMO may conduct such inspections of the Work as it may determine is needed. VLAWMO has the right to reject

any Work or materials it reasonably determines is defective or unsuitable, or that otherwise does not comply with the Contract Documents or the terms of this Agreement. If VLAWMO rejects any Work or materials, Contractor is responsible for, at its own cost, promptly removing and replacing such defective Work or materials with approved work or materials as needed to comply with the Contract Documents.

- (c) Contractor is responsible for picking up the spent lime from the City of White Bear Lake's ("City") water treatment plant. Contractor must work directly with the City to arrange for picking up the spent lime from the plant. The City has informed VLAWMO that its water treatment plant will be shut down during its project to replace a major piece of equipment within the plant. During the shutdown, the plant will not be producing spent lime and so none will be available for pick up by Contractor. The City currently anticipates the shutdown will be from September 5th through September 30th, but cannot guarantee the date on which the plant will resume producing spent lime. VLAWMO will remain in contact with the City during the shutdown and notify Contractor once the plant resumes producing spent lime.
- (d) Contractor shall only access the Pond via the routes identified by VLAWMO, as VLAWMO has obtained temporary easements from certain property owner around the Pond to establish access for the purpose of completing the Project as identified on Figure 2 of the Contract Documents (collectively, the "Access Routes"). Contractor shall comply with the following restrictions placed on the temporary easements:
 - (1) Contractor may only use the Access Routes between the hours of 8:00 a.m. and 5:00 p.m. on business days. No use of the Access Routes may occur outside of those hours or on weekends or state holidays.
 - (2) Contractor shall only use the portions of the Access Routes that are within 10 feet of either side of the property lines of the properties to be used as part of the Access Routes.
 - (3) Contractor shall take all reasonable steps to avoid damaging the Access Routes. If any damages do occur, Contractor is solely responsible at its own cost for repairing all such damages to restore the property to at least the same condition as prior to Contractor utilizing the property as part of the Access Routes.
- (e) Contractor shall be responsible for any damage to or loss of its equipment caused by its performance of this Agreement. Contractor shall also be responsible, if necessary, for placing and maintaining such traffic control devices as may be required to warn the travelling public of the Work being performed. The selection and placement of traffic control devices if required to provide the Work shall be consistent with the standards established in the Minnesota Manual on Uniform Traffic Control Devices.
- (f) Contractor will select the means, methods, and manner for performing the Work.

2. Performance and Payments Bonds. The parties agree performance and payment bonds are not required for this Project.
3. Schedule. Contractor agrees to promptly commence the Work on the Project after VLAWMO has received all required documents and authorizes the start of the Work. Contractor agrees to prosecute the Work diligently and to have the work entirely completed in every respect to the satisfaction and approval of VLAWMO on or before November 3, 2023 (“**Completion Deadline**”). Contractor agrees to notify VLAWMO in writing of any and all causes of delay of Work, or any part thereof, within 24 hours after such cause of delay shall arise. If the reason for the delay is reasonably determined by VLAWMO to be outside Contractor’s control, such as fire, flood, epidemic, pandemic, strikes, wars, acts of God, acts of public authorities, or delays or defaults caused by public carriers, VLAWMO shall reasonably extend the Completion Deadline and in such case Contractor shall only become liable for liquidated damages provided for herein for failure to perform during any delay after the time is so extended.
4. Liquidated Damages. Time is of the essence for this Agreement. If Contractor fails for any reason, except upon written consent of VLAWMO, to complete the Project on or before the Completion Deadline, VLAWMO shall have the right to deduct from any money due or which may become due to Contractor, the amount of two hundred dollars (\$200.00) per day for each and every day elapsing between the time stipulated for the completion and the actual date of completion, in accordance with the terms thereof; or if no moneys shall be due Contractor, VLAWMO shall have the right to recover such sum; such deduction to be made or such sum to be recovered not as a penalty, but as liquidated damages. Contractor agrees that it will be difficult for VLAWMO to determine the amount of all damages that VLAWMO would incur as a result of delay and that the liquidated damages set forth in this paragraph are reasonable. Liquidated damages shall not apply to delays directly resulting from the Engineer indicating the application of the materials is not allowed.
5. Compensation.
 - (a) This is a unit price, not to exceed amount, contract. VLAWMO agrees to pay Contractor the unit price for each unit identified in Contractor’s Quote, which is attached hereto as Exhibit B to complete the Project. If Contractor properly performs the work, VLAWMO shall, from month to month before completion of the Work, and pursuant to invoices from Contractor, pay Contractor up to 95 percent of the amount already earned under the Agreement. When the work is 95 percent or more completed, upon the sole determination of VLAWMO staff, such portions of the retained price shall be released only as VLAWMO determines it need not be retained to protect the interest of VLAWMO in the satisfactory completion of the Agreement. The balance shall be retained by VLAWMO until the final performance and completion of this Agreement by Contractor to the satisfaction, approval, and acceptance of VLAWMO including provision by Contractor of Minnesota Department of Revenue Form IC-134 or other authorized proof of Contractor’s compliance with applicable state laws.
 - (b) Contractor is not entitled to any compensation for any of the scheduled application dates where the Engineer has determined spent line application cannot occur. Nothing in this

Agreement guarantees Contractor a certain number of days of application. The actual number of days of application will be based on the Engineer's determinations over the course of this Agreement and VLAWMO will only pay Contractor based on the actual days of application approved by the Engineer.

- (c) No claim for extra work done or materials furnished by Contractor will be made by Contractor or allowed by VLAWMO, nor shall Contractor do any work or furnish any materials not covered by the Contract Documents, unless such work or materials is ordered in writing by VLAWMO. Any such work or materials which may be done or furnished by Contractor without such written order first being given, shall be at Contractor's own risk and expense.
- 6. Non-Discrimination. Contractor agrees that in the hiring of common or skilled labor for the performance of any work under this Agreement or any subcontract hereunder, no Contractor, material supplier, or vendor, shall, by reason of race, color, sex, creed, national origin, disability, age, sexual orientation, status with regard to public assistance, or religion, discriminate against any person or persons who are qualified and available to perform the work to which such employment relates; that neither Contractor nor any subContractor, material supplier, or vendor, shall in any manner discriminate against, or intimidate, or prevent the employment of any such person or persons from the performance of work under this Agreement or any subcontract hereunder on account of race, color, sex, creed, national origin, disability, age, sexual orientation, status with regard to public assistance, or religion.
- 7. Insurance. Contractor shall maintain commercial general liability coverage for all work covered under the Agreement in at least the amounts of \$1,000,000.00 per occurrence for combined bodily injury and property damage, and \$2,000,000 in the general aggregate, and commercial automobile liability insurance in at least the amount of \$1,000,000 per occurrence for combined bodily injury and property damage covering owned, non-owned, and hired automobiles. Contractor shall provide VLAWMO with a current certificate of insurance listing VLAWMO as an additional insured with respect to the aforementioned policies prior to commencing any Work. To meet the requirements herein, Contractor may use a combination of excess and umbrella coverage. Contractor also agrees to keep in force during the entire term of this Agreement statutory workers' compensation insurance.
- 8. Indemnification. Contractor will indemnify, defend, and hold harmless VLAWMO, its officers, board members, employees and agents from any and all actions, claims, costs, reasonable attorney's fees, damages and liabilities of any nature arising out of or by reason of any act or omission of Contractor, its officers, agents, Contractors or employees, in the execution, performance, or failure to adequately perform Contractor's obligations pursuant to this Contract. This indemnification, defense, and hold harmless obligation to protect VLAWMO includes, but is not limited to, claims of trespass or damage to private property resulting from Contractor accessing the Pond. Contractor is not required to indemnify, defend, or hold VLAWMO harmless against its negligence. This obligation shall survive the termination of this Contract. Nothing in this Contract shall constitute a waiver by VLAWMO of any statutory limits or immunities from liability whether provided in Minnesota Statutes, Chapter 466 or elsewhere.

9. Independent Contractor. Contractor and its employees are not employees of VLAWMO. Nothing in the Agreement is intended or should be construed in any manner as creating or establishing the relationship as employer/employee, co-partners, or a joint venture between VLAWMO and Contractor. It is agreed that Contractor and its employees will act as an independent Contractor and acquire no rights to tenure, workers' compensation benefits, unemployment compensation benefits, medical and hospital benefits, sick and vacation leave, severance pay, pension benefits or other rights or benefits offered to employees of VLAWMO. The manner in which the Project is to be performed shall be controlled by Contractor; however, the nature of the services and the results to be achieved shall be specified by VLAWMO.

10. Termination.
 - (a) VLAWMO may terminate this Agreement upon 30 days' written notice, except that if Contractor is in default and fails to cure the default within ten days following written notice by VLAWMO, VLAWMO has the right to terminate this Agreement immediately upon written notice of termination. Contractor will be paid for the Work properly rendered prior to the effective date of termination.

 - (b) VLAWMO may also immediately terminate this Agreement if the Engineer determines the application of the spent lime to the Pond as part of the Project causes, or has the potential to cause, the Pond to exceed a pH of 9.0. Under existing regulations, the Project is not allowed to increase the pH of the Pond above 9.0. As such, if the Engineer determines that pH level has been reached, or has the potential to be reached with additional treatments, it will provide Contractor written notice that it must stop the Work and that the Agreement is terminated. Contractor shall be entitled to compensation for the Work properly completed prior to termination, but shall not be entitled to any further compensation or reimbursement for the early termination as the pH limitation is beyond VLAWMO's control.

 - (c) The following provisions of this Agreement shall survive expiration, termination, or cancellation of this Agreement: Indemnification; Insurance; Governing Law; Data Practices; and Audit.

11. Amendments. Any amendment to this Agreement must be in writing and signed by both parties.

12. Assignment. No assignment or attempted assignment of this Agreement or of any rights hereunder shall be effective without the prior written consent of VLAWMO.

13. Authority. Each of the undersigned parties warrants it has the full authority to execute this Agreement.

14. No Personal Liability. No officer, agent or employee of VLAWMO shall be personally liable to Contractor, or any successor in interest, in the event of any default or breach by VLAWMO on any obligation or term of this Agreement.

15. Notices. Any notice, demand, or other communication under this Agreement by either party to the other shall be sufficiently given or delivered if it is dispatched by registered or certified mail, postage prepaid, return receipt requested, or delivered personally to the addresses listed in the preamble to this Agreement, or at such other address with respect to either such party as that party may, from time to time, designate in writing and forward to the other as provided in this section.
16. No Agency. Contractor acknowledges that nothing contained in this Agreement nor any act by VLAWMO or Contractor shall be deemed or construed by Contractor or by any third person to create any relationship of third-party beneficiary, principal and agent, limited or general partner, or joint venture between VLAWMO and Contractor.
17. Counterparts. This Agreement may be executed in any number of counterparts, each of which shall constitute one and the same instrument.
18. Governing Law. This Agreement shall be governed by and construed in accordance with the laws of the state of Minnesota. Any disputes, controversies, or claims arising out of this Agreement shall be heard in the state or federal courts of Minnesota, and all parties to this Agreement waive any objection to the jurisdiction of these courts, whether based on convenience or otherwise.
19. Compliance with Laws. Contractor warrants that all work performed pursuant to this Agreement shall be in compliance with all federal, state and local laws, ordinances, regulations, rules, and standards.
20. Entire Agreement. This Agreement, any attached exhibits and any addenda or amendments signed by the parties shall constitute the entire Agreement between VLAWMO and Contractor, and supersedes any other written or oral agreements between and VLAWMO and Contractor.
21. Severability. In the event that any one or more of the provisions of this Agreement, or any application thereof, shall be found to be invalid, illegal or otherwise unenforceable, the validity, legality, and enforceability of the remaining provisions in any application thereof shall not in any way be affected or impaired thereby.
22. Waivers. No failure by any party to insist upon the strict performance of any covenant, duty, agreement, or condition of this Agreement or to exercise any right or remedy consequent upon a breach thereof, shall constitute a waiver of any such breach of any other covenant, agreement, term, or condition, nor does it imply that such covenant, agreement, term or condition may be waived again.
23. Third Party Rights. The parties to this Agreement do not intend to confer on any third party any rights or benefits under this Agreement.
24. Data Practices. Any and all data created, collected, received, stored, used, maintained, or disseminated by the parties pursuant to this Agreement shall be administered in accordance

with, and is subject to the requirements of the Minnesota Government Data Practices Act, Minnesota Statutes, Chapter 13.

25. Audit. Contractor agrees that VLAWMO, the Minnesota State Auditor, and Minnesota Legislative Auditor, or any of their duly authorized representatives, at any time during normal business hours and as often as they may reasonably deem necessary, shall have access to and the right to examine, audit, excerpt and transcribe any books, documents, papers, and records that are relevant and involve transactions relating to this Agreement for six years following termination of this Agreement.

IN WITNESS THEREOF, the parties hereto have executed this Agreement as of the day and year written above.

VLAWMO:

By:


Board chair

Its:

By: _____

Its:

Contractor:

By:

Chad Mitchell

Its:

Manager

EXHIBIT A
Request for Quotations and Technical Specifications

[attached hereto]

REQUEST FOR QUOTATIONS

2023 SPENT LIME TREATMENT FOR OAK KNOLL POND WHITE BEAR LAKE, MINNESOTA VADNAIS LAKE AREA WATERSHED MANAGEMENT ORGANIZATION AND CITY OF WHITE BEAR LAKE

This Request for Quotations was prepared by Barr Engineering Company.



Barr Engineering Company
4300 MarketPointe Drive, Suite 200
Bloomington, MN 55435

**2023 SPENT LIME TREATMENT FOR OAK KNOLL POND
WHITE BEAR LAKE, MINNESOTA
VADNAIS LAKE AREA WATERSHED MANAGEMENT ORGANIZATION AND
CITY OF WHITE BEAR LAKE**

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- G. Review and Signing of Agreement
- H. Definitions

TECHNICAL SPECIFICATIONS

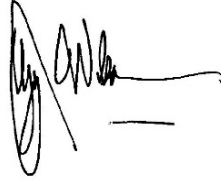
<u>Division 1</u>	General Specifications
01000	Summary of Work
01010	Measurement and Payment
01070	Project Meetings
01080	Submittals
01085	Safety
01095	Closeout Procedures
01100	Mobilization and Demobilization
<u>Division 2</u>	Technical Specifications
02400	Chemical Treatment

DRAWINGS: Figures 1 and 2

ATTACHMENTS: Attachments 1 and 2

CERTIFICATION

I hereby certify that these specifications were prepared by me or under my direct supervision and that I am a duly Licensed Professional Engineer under the Laws of the State of Minnesota.



Gregory J. Wilson, P.E.
Reg. No. 25782 Date May 25, 2023

REQUEST FOR QUOTATIONS
2023 SPENT LIME TREATMENT FOR OAK KNOLL POND
WHITE BEAR LAKE, MINNESOTA
VADNAIS LAKE AREA WATERSHED MANAGEMENT ORGANIZATION AND
CITY OF WHITE BEAR LAKE

The Vadnais Lake Area Watershed Management Organization (Owner) is requesting written quotations for conducting a spent lime treatment of Oak Knoll Pond in White Bear Lake, Minnesota. The Work (as defined below) includes delivering and applying spent lime slurry (referred to as spent lime) to the pond to mitigate the internal release of phosphorus from pond sediment. The Work is to be completed by October 13, 2023. Quotations must be submitted to the Owner in accordance with the requirements herein by **noon CST on Friday, June 9, 2023**.

The form of the contract to be entered by the selected contractor and the Vadnais Lake Area Watershed Management Organization is provided in Attachment 1. Respondents must prepare a quote based upon the requirements of the contract form, attached drawings (Figures 1 and 2) and technical specifications. The quotes provided in response to this request must represent full reimbursement for all costs associated with completing the scope of work.

A. Scope of Work

The Work includes:

1. Mobilize and demobilize labor, equipment, and materials, as needed.
2. Deliver and apply spent lime slurry to the pond.
3. Maintain and protect shoreline areas used for access to pond and areas used for parking of equipment and materials.
4. Install and remove all appropriate signage and buoys (if used) in a timely manner.
5. Restore all land areas directly or indirectly disturbed by the Work.

B. Contractor Qualifications

1. The quote must include documentation of past relevant experience, including examples of application of spent lime slurry to ponds.
2. The Owner reserves the right to make inquiries regarding whether a respondent has the practical knowledge, experience, available personnel, equipment and financial resources for the timely and professional completion of the Work. The Owner also reserves the right to make inquiries regarding past performance of a respondent on previous contracts. The



object of this review and subsequent inquiries is to provide the Owner with the best available information regarding the capabilities of the respondent to complete the Work as specified in the Contract Documents, and minimize the risk of awarding work to an unqualified Contractor.

3. The Owner reserves the right to reject all quotes or any quote providing insufficient or unsatisfactory evidence to demonstrate the respondent's ability to perform the Work. Failure on the part of any respondent to have carried out previous contracts satisfactorily, to show adequate experience, or to possess necessary equipment or labor for completion of the work, may be deemed sufficient cause for disqualification of said respondent.
4. The Owner will exercise its discretion to select from among the respondents the Contractor it determines is most likely to complete the Work in a timely and satisfactory manner in accordance with the Contract Documents and specifications.

C. Examination of Contract Documents and Site

1. It is the responsibility of each respondent before submitting a price quote to examine this request for quotations and all attachments (the Contract Documents, as defined in the Agreement form in Attachment 1) and become thoroughly familiar with all terms, conditions, and requirements; visit the site to become familiar with local conditions that may affect cost, progress, performance or furnishing of the Work; and notify Owner of all conflicts, errors or discrepancies in the request for quotations and all attachments.
2. A site visit is recommended. Portions of the site (shown in Figure 2) are available for inspection during normal working hours with prior notice to the Engineer, who will notify VLAWMO, at least 48 hours in advance.
3. Any questions shall be directed to:

Greg Wilson, PE
Senior Water Resources Engineer
Barr Engineering Co.
952.832.2672
gwilson@barr.com

D. Work Schedule

1. The Work will begin immediately after Owner issues a notice to proceed to Contractor and must be completed by October 13, 2023. Following notice to proceed, Contractor will notify Engineer and Owner 5 days in advance of the beginning of the Work to allow for notification to residents living around the pond.

E. Price Quote Form

1. The undersigned Contractor proposes and agrees, if this quote is accepted, to enter into an agreement with the Owner in the form included in the Contract Documents (Attachment 1), and to perform all work as specified or indicated in the Contract Documents for the prices in its quote and within the times indicated, in accordance with the terms and conditions of the



Contract Documents. Contractor accepts all terms and conditions of the request for quotes. A submitted quote will remain subject to acceptance for 45 days after the date for submission of quotes stated above.

- In submitting this quote, the Contractor represents that it has examined and carefully studied the Contract Documents, and any data and reference items identified in the Contract Documents, and hereby acknowledges receipt of the following addenda:

Addendum No.	Addendum Date

- The price quote form may be completed in ink, by typewriter, or by computer program.
- The address and telephone number for communications regarding the price quote must be shown on the price quote form.

Item	Description	Unit	Estimated Quantity	Unit Price	Extension
1.1	Spent Lime Slurry Application to Zone 1 of Oak Knoll Pond	Loads	14		
1.2	Spent Lime Slurry Application to Zone 2 of Oak Knoll Pond	Loads	8		
Total Quote					

GRAND TOTAL OF BASE PRICE QUOTE EXTENSIONS

(in words) _____ Dollars
 (\$ _____)

F. Submission of Price Quotes

- All price quotes shall be submitted on the unaltered forms included with the quotation. The blank spaces on the form shall be filled in correctly in ink, typewritten or printed where indicated for each and every item for which a quantity is given, and the respondent shall clearly indicate the prices for which he/she proposes to do each item of the Work.
- All costs to complete the Work will be considered to be included in the quoted price and no additional compensation will be provided.
- The price quote submittal must include documentation of past relevant experience, in a format of choice, including examples of applications of spent lime slurry to ponds.



4. The price quote form including required attachments shall be submitted by email to Greg Wilson at gwilson@barr.com or by mail to:

Barr Engineering Company
4300 MarketPointe Drive, Suite 200
Bloomington, MN 55435
Attn: Greg Wilson gwilson@barr.com

5. Price quotes must be received not later than **noon CST, June 9, 2023**.

G. Review and Signing of Agreement

1. Owner will notify the Contractor selected to complete the Work of its selection on or before the close of business July 14, 2023, and will provide the required number of unsigned counterparts of the Contract Documents for the Work.
2. The respondent shall review Attachment 1, noting all insurance requirements. Attachment 1 includes baseline terms regarding indemnification, insurance, property, and data management. Owner is disinclined to negotiate the terms of the Contract Documents, but encourages respondents to call to discuss any terms. Modification of terms in the Agreement is solely at Owner's discretion.
3. Within ten calendar days after receiving notice of selection, the selected Contractor must sign and deliver the required number of counterparts of the Contract Documents with attachments to Owner, in accordance with the instruction for delivery in the notice, along with the required evidence of insurance and any other required submittals.

H. Definitions

1. Terms used in the Contract Documents have the following meanings:
 - a. **Agreement**– the template document included in the Contract Documents titled Agreement between Vadnais Lake Area Watershed Management Organization and Contractor, to be completed and executed by Vadnais Lake Area Watershed Management Organization and the selected Contractor (Attachment 1).
 - b. **City** – the City of White Bear Lake, fee title holder of the Site.
 - c. **Contract Documents**– the documents listed in the recitals of the Agreement.
 - d. **Engineer**– Barr Engineering Co., the owner's agent, responsible for project oversight on behalf of the Owner.
 - e. **Owner**– Vadnais Lake Area Watershed Management Organization.
 - f. **Project** – is synonymous with the Work.
 - g. **Site**– the area within which the Work is to be performed, shown in Figure 1.
 - h. **Load**– between 3,600 and 4,000 gallons of spent lime slurry that is expected to be available for pickup from the White Bear Lake water treatment facility for each day of the Work to be performed.
 - i. **Selected Contractor or Contractor** – the respondent selected by Owner to complete the Work. The selected contractor becomes the Contractor on execution of the agreement.



- j. **Work**– pursuant to the Contract Documents, furnishing all materials, equipment and labor to complete the scope of work in Section A of this request for quotations and the items in the Price Quote Form.

Communications concerning this price quote shall be addressed to the address of respondent at the address indicated below.

This quotation is submitted by:

Firm Name:

By (Typed or Printed):

Signature:

Title:

Official Address:

Phone:

()

Federal Tax I.D. No.

Date:

**Experience With Spent
Lime Applications to
Ponds (Yes or No):**

**Contact Information
for Project
Reference(s):**



TECHNICAL SPECIFICATIONS

**REQUEST FOR QUOTATIONS
2023 SPENT LIME TREATMENT FOR OAK KNOLL POND
WHITE BEAR LAKE, MINNESOTA
VADNAIS LAKE AREA WATERSHED MANAGEMENT ORGANIZATION AND
CITY OF WHITE BEAR LAKE**

DIVISION 1

GENERAL SPECIFICATIONS

01000	Summary of Work
01010	Measurement and Payment
01070	Project Meetings
01080	Submittals
01085	Safety
01095	Closeout Procedures
01100	Mobilization and Demobilization

DIVISION 2

TECHNICAL SPECIFICATIONS

02400	Chemical Treatment
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Division 1 – General Specifications

SECTION 01000

SUMMARY OF WORK

PART 1: GENERAL

1.01 CONTRACT DOCUMENTS

- A. The Contract Documents are as defined in the Agreement. The terms of the Contract Documents apply to these Specifications as fully as though repeated herein.
- B. The format of these Specifications is based upon the CSI MASTERFORMAT, 1995 Edition, however differences in format and subject matter location do exist. It is the respondent's sole responsibility to thoroughly read and understand these Specifications and request written clarification of those portions which are unclear.
- C. Division of the Work as made in these Contract Documents is for the purpose of specifying and describing work to be completed. There has been no attempt to make a classification according to trade or agreements, which may exist, between Contractor, Subcontractors, or trade unions or other organizations. Such division and classification of the Work shall be the Contractor's sole responsibility.

1.02 EXISTING SITE CONDITIONS AND USES

- A. Project limits are shown on Figure 1 (Drawings).
- B. Owner has acquired temporary easement rights to access the Site, as shown in Figure 2. Access to Oak Knoll Pond will be provided with the locations for boat ingress/egress and truck parking to be identified by Engineer and the Contractor as part of a pre-project site visit.

1.03 WORK COVERED BY CONTRACT DOCUMENTS

- A. The overall scope of the Work which is more fully described in these Contract Documents includes, but is not necessarily limited to, furnishing all labor, tools, equipment, and materials necessary to:
 - 1. Mobilize and demobilize labor, equipment, and materials, as needed.
 - 2. Deliver and apply spent lime slurry to each of the two treatment zones of the pond.
 - 3. Maintain and protect shoreline areas used for access to pond and areas used for material application.
 - 4. Restore all land areas directly or indirectly disturbed by the Work.
- B. It is the intent of the Contract Documents to cover all aspects of the Work. Should there be some item or items not shown on Figure 1 or not described in these Specifications which are



required for the Work, those items and the furnishing of all labor, materials, and equipment shall be considered incidental to the Work and no additional compensation will be provided.

- C. The Work includes the furnishing of all labor, equipment, tools, machinery, materials, and other items required for spent lime treatment of Oak Knoll Pond as specified. Equipment furnished shall be in safe operating condition and of adequate size, capacity, and condition for the performance of the Work.
- D. Contractor shall be solely responsible for the coordination of its activities regarding the Work with the activities of Subcontractors and Engineer.

1.04 WORK BY ENGINEER

- A. Engineer has obtained approval from the Minnesota Pollution Control Agency for spent lime treatment of Oak Knoll Pond and will provide documentation of approval to Contractor. Contractor shall request such information from Engineer a minimum of five days prior to the time when such information is needed.

1.05 OWNER FURNISHED PRODUCTS

- A. Owner will not furnish any products for this Project.

1.06 CONTRACTOR USE OF PREMISES

- A. Definition of Site: The Site is defined as the area within the project limits shown on Figure 1. Within the project limits, the Contractor shall limit ingress/egress and operations, including materials and equipment parking, to Oak Knoll Pond and the temporary easement areas as shown on Figure 2, which is the area over which Owner will obtain the necessary access and use rights. Any disturbance inside the project limits to existing facilities, pavements, sidewalks, and/or vegetation and outside the project limits shall be fully restored in-kind or better at the Contractor's expense. Contractor shall coordinate and finalize parking areas with the Owner prior to beginning the Work to ensure that public access to Oak Knoll Pond and pedestrian and vehicle traffic is maintained throughout the duration of the Work. Contractor is subject to the conditions of the temporary easements as described in Attachment 2.
- B. Hours of Operation: Contractor will ascertain hours approved by the City of White Bear Lake for conducting the Work and limit conduct of operations in accordance with same and all other local laws and regulations.
- C. Unfavorable Treatment Conditions:
 - 1. No portion of the Work shall occur under conditions which would adversely affect the quality of the Work pursuant to the criteria of Paragraph 3.02 of Section 02400, and the judgment of Engineer as necessary to apply those criteria, unless special means or precautions, approved by the Engineer, are taken to perform the Work in a proper and satisfactory manner.



1.07 SEQUENCE OF WORK

- A. Spent lime application shall be conducted such that the Work is completed by October 13, 2023.
- B. Contractor shall determine the sequence of Work required to efficiently progress with the Work.

1.08 BASIS FOR COMPENSATION

- A. All costs to comply with the requirements of this Section of the Specifications shall be considered to be included in the Contract Price and no additional compensation will be provided.

PART 2: PRODUCTS [NOT USED]
PART 3: EXECUTION [NOT USED]

END OF SECTION 01000



SECTION 01010

MEASUREMENT AND PAYMENT

PART 1: GENERAL

1.01 GENERAL

- A. This Section of the Specifications describes the measurement and payment for the Work to be done under the items listed on the Quote Form.
- B. Each unit or lump sum price stated on the Quote Form shall constitute full compensation as herein specified for each item of work completed in accordance with the requirements of the Contract Documents including Figure 1, Figure 2 and Specifications, including all clean up and restoration.
- C. All costs in connection with the Work, including furnishing all materials, supplies and appurtenances; providing all equipment and tools; and performing all necessary labor, coordination, supervision, and management to fully complete the Work shall be included in the unit prices or unit lump sum prices quoted on the Quote Form. All Work not specifically set forth as a separate cost item herein shall be considered a subsidiary obligation of the Contractor and all costs in connection therewith shall be included in the amounts and prices submitted on the Quote Form. The quote price shall include all work necessary to complete all of the Work. Variation in the supply of spent lime slurry or any other component of the Work will not be a basis for a change in the contract price.

1.02 ESTIMATED QUANTITIES

- A. All estimated quantities for Unit Price items in the Quote Form are approximate and are to be used only as a basis for determining the initial Contract Price. The actual amount of work to be done or materials to be furnished under the Unit Price items may differ from the estimated quantities. The basis of payment for work or materials placed will be the actual quantities of work performed or material placed. The Contractor agrees to make no claim for damages, anticipated profits, or otherwise due to any difference between the quantities of Work actually performed or materials placed, and the estimated quantities included in the Quote Form.

1.03 INTENT OF QUOTE FORM ORGANIZATION

- A. Payment for all Work shall be in accordance with the terms and conditions set forth elsewhere in the Contract Documents and the Contractor's Quote prices set forth in Contractor's conformed Quote Form. The cost items set forth in the Quote Form subdivide the Work for purposes of measurement and payment only, and are intended to represent the entire and complete Project as set forth in the Contract Documents. The cost items set forth in the Quote Form shall constitute full compensation to Contractor for providing all supervision, labor, materials, equipment, tools and supplies, and overhead and profit to complete the Work in complete accordance with the Contract Documents.



- B. The following paragraphs provide additional descriptions of the quote line items subject to the provisions of paragraphs 1.01, 1.02, and 1.03 of this Section
 - 1. Quote items are based on Unit Prices. For those items, progress payments shall be based on the actual quantities of each item of Work completed in accordance with the Contract Documents.
- C. The procedures for submitting and processing progress payments are set forth elsewhere in the Contract Documents.

1.04 QUOTE ITEMS

- A. Spent Lime Slurry Application to Oak Knoll Pond
 - 1. Method of Measurement: Spent lime slurry will be estimated as a full load applied to the pond to achieve the specific dose determined by the Engineer as described in Section 02400. At the end of each day, Contractor shall provide Engineer with documentation of total number of gallons applied that day. Once picked up, Contractor must apply all spent lime in the load to the pond unless directed by the Engineer to return slurry to plant. Excess spent lime slurry not applied directly to the pond shall not be included in this measurement unless Engineer directs Contractor to return remaining spent lime slurry to the White Bear Lake water treatment facility.
 - 2. Basis of Payment: Contractor will be paid a unit price per load of spent lime slurry applied, all complete as specified. This unit price shall be payment in full for the costs of all supervision, materials, equipment, labor, supplies, profit and overhead, and perform all operations necessary to transport and apply the chemicals to selected areas, all complete as specified. In the event that permit conditions preclude the application of a full load of spent lime, Engineer will direct Contractor to return the remaining spent lime slurry to the White Bear Lake water treatment facility and Contractor will be paid the unit price per load of spent lime slurry applied for the treatment zone receiving the application on that day.

1.05 BASIS FOR COMPENSATION

- A. All costs to comply with the requirements of this Section of the Specifications shall be considered to be included in the Contract Price and no additional compensation will be provided.

PART 2: PRODUCTS [NOT USED]

PART 3: EXECUTION [NOT USED]

END OF SECTION 01010



SECTION 01070

PROJECT MEETINGS

PART 1: GENERAL

1.01 TREATMENT PLANNING CONFERENCE

- A. After Owner notifies Contractor of selection to complete the Work, Engineer will schedule a treatment planning meeting that shall be attended by Owner, Contractor, and Engineer. The meeting will be scheduled as far in advance of the date the Work is to start as is practical.
- B. Agenda items may include:
 - 1. Distribution of Contract Documents
 - 2. Designation of responsible personnel for all parties, lines of communication, and lines of authority, including Project Contacts (see Paragraph 1.04 of this Section).
 - 3. Scope of work and the anticipated schedule of operations, including estimated progress schedule that clearly shows 22 dates that Contractor has committed for spent lime application, plus 5 additional dates to make up for unfavorable conditions (as described in Paragraph 3.02 of Section 02400)
 - 4. Critical work sequencing
 - 5. Site access for spent lime distribution to barge or boat
 - 6. Record documents and reporting
 - 7. Site safety and security procedures
 - 8. List of major subcontractors
 - 9. Procedures for processing change orders
 - 10. Use of premises including equipment and material storage
 - 11. Materials deliveries
 - 12. Housekeeping procedures

1.02 PROGRESS PHONE CALLS/EMAILS

- A. Progress phone calls or emails may be scheduled by the Engineer as needed at a time mutually agreeable to the Contractor and Engineer. A preferred time for one of these calls or emails is prior to Contractor's submittal of Application for Payment. Due to the nature of the Work, it is anticipated that an email will be sent to Contractor following each day of spent lime application by 3:00 PM CST, whereby Engineer will review the pH monitoring and weather



forecast and direct the Contractor for targeted treatment zone and area of application for the next Work day.

- B. Following each phone call/email, the Engineer will prepare and distribute to Owner and Contractor copies of the notes of the phone call/email. These will include a brief summary of the progress of the Work since the previous phone call/email.

1.03 UNSCHEDULED MEETINGS

- A. The Contractor shall attend other unscheduled meetings which may be reasonably requested by Engineer or Owner to discuss unanticipated changes in the Work, or conditions at the site, or other issues and which must be resolved before progression of work.

1.04 PROJECT CONTACTS

- A. Contractor shall submit to Engineer the name of personnel available for ongoing technical support and who are familiar with the Project and are responsible for its completion.
- B. The list should include name(s), functional title(s), mailing address(es), phone number(s) and email address(es).
- C. At least two phone numbers shall be furnished which will provide 24-hour answering by a competent technical representative of Contractor in the event of an emergency or other unanticipated condition requiring immediate attention. At least one person shall be available at all times for immediate response to the site within 2 hours of being called. The responding person shall be the Contractor's representative at the Site and shall have authority to act on behalf of Contractor.

1.05 BASIS FOR COMPENSATION

- A. All costs to comply with the requirements of this Section of the Specifications shall be considered to be included in the Contract Price and no additional compensation will be provided.

PART 2: PRODUCTS [NOT USED]

PART 3: EXECUTION [NOT USED]

END OF SECTION 01070



SECTION 01080

SUBMITTALS

PART 1: GENERAL

1.01 GENERAL SUBMITTAL PROCEDURES

A. Contractor shall:

1. Transmit each submittal labeled with the Project name, name of the submittal, and Section and page number of these Contract Documents in which the submittal was required. Indicate the type or purpose of the submittal as more fully described elsewhere in this Section with regard to the Schedule of Submittals. Transmit the correct number of copies as described below for each type of submittal. Each submittal shall be accompanied by a transmittal letter stating the same information.
2. Transmit all submittals to Engineer at the address set forth in the Quote Form and to the attention of the Project Engineer designated by Owner.
3. Apply Contractor's stamp, signed or initialed certifying that review and coordination of information is in accordance with the requirements of the Work and Contract Documents. Unstamped or unsigned submittals will be returned without action.
4. Schedule submittals to expedite Project and in accordance with the Schedule of Submittals to be prepared by Contractor. Coordinate submission of related items.
5. Identify all variations or deviations from the Contract Documents and identify alternative products or system limitations which may be detrimental to successful performance of the completed Work.
6. Provide space for Engineer review stamps and comments on all submittals.
7. Revise and resubmit submittals as required in a timely manner. Identify all changes made since previous submittal.
8. Promptly distribute copies of reviewed submittals to Subcontractors, suppliers, and other concerned parties. Instruct parties to promptly report any inability to comply with provisions.
9. Do not proceed with any Work requiring a submittal, including resubmittal, to Engineer until the submittal has been returned to Contractor without a requirement for resubmittal.

B. All submittals that are made that are not specifically required by the Contract Documents will be returned without action.

C. All submittals shall come from the Contractor and submittals directly from Subcontractors or vendors will be returned without action.



1.02 PROGRESS SCHEDULE

- A. Contractor shall submit an estimated progress schedule and a finalized progress schedule that clearly shows 22 dates that Contractor has committed for spent lime application, plus 5 additional dates to make up for unfavorable conditions (as described in Paragraph 3.02 of Section 02400).
- B. The Contractor shall revise the finalized progress schedule from time to time, as may reasonably be requested and approved by Engineer or Owner, to reflect the current status and progress of the Work and the operations necessary to complete the Work as required.
- C. The progress schedule shall clearly illustrate the sequence of the Work (by locations and other factors as may be appropriate) to be followed by Contractor to efficiently progress with the Work.

1.03 REVIEW OF SUBMITTALS

- A. The Engineer's review of engineering data will cover only general conformity of the data to the Specifications and Contract Documents, external connections, and interfaces with equipment and materials furnished under separate specifications. The Engineer's review does not indicate a thorough review of all dimensions, quantities, and details of the equipment, material, device, or item indicated or the accuracy of the information or documentation submitted; nor shall review or approval by the Engineer be construed as relieving the Contractor from any and all responsibility for errors or deviations from the requirements of the Contract Documents.
- B. All engineering data submitted, after final processing by the Engineer shall become a part of the Contract Documents and the work indicated or described thereby shall be performed in conformity therewith unless otherwise required by the Owner.

1.04 SUBMITTAL FOR INFORMATION OR DOCUMENTATION

- A. Submit one copy to Engineer.
- B. Submittal shall be made at least 5 days before the subject of the submittal is to be incorporated into the Work.
- C. Submittal is for the purpose of formal verification that the subject of the submittal conforms to the requirements of the Specifications, for formal documentation of the Work, or both.
- D. No action is required by Owner or Engineer. Engineer will generally notify Contractor if deficiencies are identified; however Contractor is solely responsible for ensuring that the subject of the submittal conforms to the requirements of the Specifications.

1.05 SUBMITTAL FOR REVIEW

- A. Submit two copies to the Engineer.
- B. Submittal shall be made at least 10 days before the subject of the submittal is to be incorporated into the Work. Engineer will respond within 5 days from receipt of submittal.



- C. Submittal is for the purpose of providing opportunity to Engineer for review and comment on the subject of the submittal.
- D. Engineer will respond to the submittal either with a list of comments or indicating no comments.
- E. If Engineer's comments indicate a deficiency with respect to the requirement of the Specifications, Contractor shall amend the submittal and resubmit. Engineer will again respond to the resubmittal.
- F. If Engineer's comments are in regards to an issue which based upon the Contract Documents is at Contractor's discretion, Contractor shall furnish additional information provide justification, and otherwise cooperate in addressing and resolving Engineer's comments.
- G. Contractor shall remain solely responsible for ensuring that the subject of the submittal conforms to the requirements of the Specifications.

1.06 SUBMITTAL FOR APPROVAL

- A. Submit two copies to the Engineer.
- B. Submittal shall be made at least 7 days before the subject of the submittal is to be incorporated into the Work. Engineer will respond within 5 days from receipt of submittal.
- C. Submittals shall be stamped with Contractor's approval. Contractor's stamp shall be a representation that Contractor has assumed full responsibility for determining the submittal requirements and verifying that the subject of the submittal conforms to the requirements of the Specifications. Submittals not bearing Contractor's stamp will be returned without review or action.
- D. Engineer will review, make notations as appropriate, stamp, and return submittals to Contractor. Engineer's stamp and Contractor's required action are described below:
 1. NO EXCEPTIONS TAKEN. Contractor may proceed without further action.
 2. RECOMMENDED REVISIONS NOTED. Contractor shall review Engineer's notations and revise subject of submittal as required to conform to the requirements of the Drawings and Specifications before proceeding with the Work. Resubmittal is not required.
 3. RESUBMIT. Contractor shall review Engineer's notations, revise subject of submittal as required to conform to the requirements of Figure 1, Figure 2 and the Specifications, and resubmit to Engineer for additional action.
 4. REVIEW COMPLETE, FURNISH THREE FILE COPIES. Contractor shall furnish the requested number of copies and may proceed without further action.
- E. Work may proceed when submittals have been returned marked RECOMMENDED REVISIONS NOTED, provided the work is performed in accordance with the Engineer's notations, or NO EXCEPTIONS TAKEN.



1.07 ALTERNATE PRODUCT SUPPORTING DATA

- A. If Contractor proposes to use alternate or substitute products, Contractor shall submit written application.
- B. Submit two (2) copies of literature, drawings, and any other data necessary to substantiate that proposed substitute is equivalent or equal to the item named, and otherwise meets the conditions established in the Specifications.
- C. Do not proceed with product installation or use until written approval by Engineer is received.

1.08 RECORD DOCUMENTS

- A. Submit one original copy to Engineer of all record documents (or clearly legible copies) prior to substantial Completion.
- B. Record documents consist of all Drawings, Specifications, Addenda, Change Orders, and Shop Drawings legibly annotated to reflect all changes made during construction.

1.9 WARRANTY OR GUARANTEE CERTIFICATES

- A. Submit three (3) executed copies prior to Substantial Completion.
- B. All warranty or guarantee certificates shall be signed by Contractor and all other parties as requested in specific sections.

1.10 BASIS FOR COMPENSATION

- A. All costs to comply with the requirements of this Section of the Specifications shall be considered to be included in the Contract Price and no additional compensation will be provided.

PART 2: PRODUCTS [NOT USED]

PART 3: EXECUTION [NOT USED]

END OF SECTION 01080



SECTION 01085

SAFETY

PART 1: GENERAL

1.01 GENERAL

- A. In accordance with generally accepted chemical treatment practices, the Contractor shall be solely and completely responsible for job site conditions and safety procedures and programs, including safety and health of all persons and property, on those portions of the site affected by or used by Contractor, Contractor's employees, subcontractors, agents, and others during performance of the Work. This requirement will apply continuously and not be limited to normal working hours. Observation of the Work and Contractor's performance by Owner and Engineer is not intended to include review of the adequacy of the Contractor's safety and health procedures and programs on or near the construction site. The Contractor is solely responsible for the protection of property and the safety and health of its employees, Subcontractors, Suppliers, Agents and others on or near the Site.

1.02 SAFETY

- A. In addition to the requirements of the Agreement, the Contractor shall be responsible for:
 - 1. Furnishing Contractor's employees, as well as any subcontractor's and supplier's employees, with all safety equipment and other protection devices needed to comply with Laws and Regulations or accepted safety practices.
 - 2. Any safety violation and/or fine that may occur because of any neglect by Contractor, Contractor's employees, Contractor's subcontractors, or any third party under Contractor's supervision or direction. Contractor shall also be responsible for any safety violation and/or fine Owner may incur due to neglect by Contractor, Contractor's employees, Contractor's subcontractors, and any third party under Contractor's supervision or direction at the Site.
 - 3. Contractor shall be responsible for implementing adequate safety requirements for workers, passers-by, both humans and pets, at all times, during both working and nonworking hours, all days and nights, for the duration of the Work.

1.03 HAZARD COMMUNICATION PROGRAMS

- A. Contractor shall be responsible for coordinating any exchange of material safety data sheets or other hazard communication information required to be made available to or exchanged between or among employers at the Site in accordance with applicable laws and regulations.

1.04 EMERGENCIES

- A. In emergencies affecting the safety or protection of persons or the Work or property at the Site or adjacent thereto, Contractor is obligated to act to prevent threatened damage, injury, or loss. Contractor shall give Engineer prompt written notice if Contractor believes that any significant changes in the Work or variations from the Contract Documents have been caused



thereby or are required as a result thereof. If Engineer determines that a change in the Contract Documents is required because of the action taken by Contractor in response to such an emergency, a change order will be issued.

1.05 BASIS FOR COMPENSATION

- A. All costs to comply with the requirements of this Section of the Specifications shall be considered to be included in the Contract Price and no additional compensation will be provided.

PART 2: PRODUCTS [NOT USED]

PART 3: EXECUTION [NOT USED]

END OF SECTION 01085



SECTION 01095

CLOSEOUT PROCEDURES

PART 1: GENERAL

1.01 RECORD DOCUMENTS

- A. The Contractor shall maintain at the Site (or in Contractor's possession) one set of record documents including all Drawings, Specifications, and Change Orders in good condition and legibly annotated to show changes made during construction. Store record documents separate from documents used for construction, clearly mark, and make accessible to Engineer and Owner at all times.
- B. Record information on record documents concurrent with treatment progress. Engineer or Owner may require Contractor to improve its performance with regard to recording information during the treatment process.
- C. Submit record documents and other submittals required by other sections of these Specifications.

1.02 CLEANUP

- A. The Contractor shall keep the premises free from accumulations of waste materials, rubbish and other debris resulting from the Work, and at the completion of the Work, shall remove all waste materials, rubbish and debris from the premises as well as all tools, treatment equipment, and surplus materials. Contractor shall leave the site clean.

1.03 GUARANTIES AND WARRANTIES

- A. The Contractor shall guarantee all work against all defects as specified in the Agreement or as otherwise required for specific items in these Specifications. The Contractor shall repair or replace any such defective Work to conform to the provisions of the Contract and without expense to the Owner, within one (1) day after notification in writing by the Owner or Engineer of such defective Work. If the Contractor does not make said repairs or replacements or have made arrangements for the correction thereof within the period specified above, the Owner may do so and will charge the cost of same to the Contractor. The Contractor shall perform repair work so as to cause the Owner a minimum of inconvenience and interruption of services.

1.04 FINAL SUBMITTALS

- A. Contractor shall complete all submittals required by these Contract Documents prior to the payment of Contractor's Final Application for Payment by Owner. Final payment shall not become due and payable until 10 days after all submittals have been made acceptable to Engineer.
- B. When the Work has been completed, Engineer will prepare a final statement showing the accepted quantities of every item of work performed by the Contractor. All estimates upon which previous payments have been based are subject to correction in the final statement. The



final voucher, showing the accepted quantity and value of each item of work performed and all amounts to be retained or deducted under the provisions of the Agreement, will be submitted to the Contractor for approval before being passed for payment.

1.05 BASIS FOR COMPENSATION

- A. All costs to comply with the requirements of this Section of the Specifications shall be considered to be included in the Contract Price and no additional compensation will be provided.

PART 2: PRODUCTS [NOT USED]

PART 3: EXECUTION [NOT USED]

END OF SECTION 01095



SECTION 01100

MOBILIZATION AND DEMOBILIZATION

PART 1: GENERAL

1.01 MOBILIZATION/DEMOBILIZATION

- A. The Work covered by mobilization/demobilization consists of, but is not limited to furnishing all labor, equipment, and materials, and performing all operations necessary to move personnel, equipment, supplies, and incidentals to the project site to establish and maintain project materials and equipment storage areas, parking areas, and other areas necessary for the Work; provide public convenience and safety, barricades, lights and warning signals; provide water and chemical tracking control; perform all work that must be completed before beginning work on the project for which payment is not provided elsewhere in these Specifications; remove all equipment, materials and labor from the project site after it is no longer necessary and restore the Work area; furnish all bonds and insurance certificates obtained specifically for this project, all in accordance with the Contract Documents, and in compliance with all requirements of Division 1 of these Specifications.

1.02 BASIS FOR COMPENSATION

- A. All costs to comply with the requirements of this Section of the Specifications shall be considered to be included in the Contract Price and no additional compensation will be provided.

PART 2: PRODUCTS [NOT USED]

PART 3: EXECUTION [NOT USED]

END OF SECTION 01100



Division 2 – Technical Specifications

SECTION 02400

CHEMICAL TREATMENT

PART 1: GENERAL

1.01 DESCRIPTION

- A. All Work included in this Section shall be performed in accordance with the following paragraphs, the General Requirements set forth in Division 1 of these Specifications, and the provisions of the other Contract Documents.
- B. Work covered by this Section includes furnishing all supervision, labor, materials, and equipment required to deliver, store, and apply spent lime slurry to Oak Knoll Pond, as shown on Figure 1 (Drawings). The Contractor shall:
 - 1. Deliver and apply liquid spent lime slurry (referred to as spent lime) to the pond to mitigate the internal release of phosphorus from the pond sediment.
 - 2. Treat at appropriate weather and temperature conditions as directed by the Engineer.
 - 3. Furnish, install and remove all appropriate signage and buoys (if used) in a timely manner.
 - 4. Restore all areas directly or indirectly disturbed by the Work.
 - 5. All other Work required for a completion of the spent lime treatment as a project whole.

1.02 SEQUENCE OF WORK

- A. Treatment is to occur once in 2023.
- B. The Contractor shall be responsible for all labor, spent lime application equipment and arrangements for the timely delivery of spent lime slurry required to complete the project.
- C. Spent lime application shall be conducted such that the Work is completed by October 13, 2023.

1.03 SUBMITTALS

- A. The Contractor shall submit a spill prevention and contingency plan to Engineer for review prior to beginning Work on the Project.
- B. The Contractor shall submit a marked up copy of Figure 1 indicating the specific area(s) and amount(s) of spent lime slurry applied to the pond. This data shall be collected by the Contractor in real-time during the application and submitted to Engineer on a daily basis.



1.04 BASIS FOR COMPENSATION

- A. Compensation for all Work covered under this Section of these Specifications shall be in accordance with the provisions set forth in Section 01010, Unit Price Measurement and Payment.

PART 2: PRODUCTS

2.01 CHEMICALS

- A. Spent Lime Slurry
 - 1. Spent lime slurry shall be supplied by the City of White Bear Lake at their water treatment facility.

PART 3: EXECUTION

3.01 DELIVERY, STORAGE AND HANDLING

- A. The Contractor shall be responsible for all coordination with the spent lime supplier necessary to ensure timely delivery to the project site. The Contractor shall confine all equipment and materials within the public rights-of-way or temporary easement access areas as shown on Figure 2 and otherwise in a safe, secure and environmentally sound manner. If gradual off-loading is required the contractor shall be responsible for all demurrage charges.
- B. The Contractor shall maintain a copy of the spill prevention and spill contingency plan described on site for the duration of the project.

3.02 UNFAVORABLE TREATMENT CONDITIONS

- A. Application of spent lime shall not occur when wind speeds directly above the pond surface exceed 15 miles per hour.
- B. Treatment will cease and all personnel will leave the water when thunder and/or lightening are observed. Treatment can resume 30 minutes after the last sound of thunder or lightening flash.
- C. Application of spent lime shall not occur if pond water temperatures drop below 45° F.
- D. No portion of the Work shall occur under conditions which would adversely affect the quality of the Work, unless special means or precautions, approved by the Engineer, are taken to perform the Work in a proper and satisfactory manner.

3.03 LOCATION OF WORK

- A. Project treatment limits and temporary easement access areas are shown on Figures 1 and 2 (Drawings), respectively. Owner has acquired temporary easement rights to use portions of the Site outside of the public water area of the pond as described in Attachment 2. Contractor shall apply spent lime within the Treatment Area as shown on Figure 1 (Drawings).



3.04 SPENT LIME APPLICATION

- A. The Contractor shall conduct the spent lime application from shore and/or utilizing a boat or similar vessel with a hydroseeder, or approved equal, application system that allows for uniform application of spent lime slurry to the pond. Spent lime application shall be made to the indicated treatment zones of the pond, as shown in Figure 1. The treatment area for Zone 1 is 3.3 acres and the treatment area for Zone 2 is 1.2 acres.
- B. The Contractor shall ensure that the spent lime slurry is evenly distributed throughout the treatment area and that the specified dose is applied to the Treatment Zones shown in Figure 1 (as described in Paragraph 3.03A of this Section). The Contractor shall maintain and provide records to verify the area of coverage (as described in Paragraph 1.04C of Section 01080). The Contractor shall provide copies of a digital map showing treated areas of the pond to Engineer.
- C. Engineer may direct Contractor to the Treatment Zone, and possibly the treatment area within each zone, for spent lime application on a daily basis to prioritize treatment area coverage and/or mitigate overspray due to wind speed or wind direction.
- D. Engineer will monitor the ambient pH in the pond during the spent lime treatment application. If at any time during treatment, the depth-averaged ambient pH in the pond falls below 6.0 or increases above 9.0 S.U., Contractor will stop the treatment. Treatment will not resume until authorized by the Engineer.
- E. Following each day of spent lime application, Engineer will review the pH monitoring and weather forecast by 3:00 PM CST and direct the Contractor for targeted treatment zone and area of application for the next Work day. The Contractor shall apply spent lime slurry at a treatment dose rate of:
 - a. 16,970 gallons/acre spent lime slurry across Treatment Zone 1 area that will require a total of **56,000** gallons; and
 - b. 26,670 gallons/acre spent lime slurry across Treatment Zone 2 area that will require a total of **32,000** gallons.

It is Contractor's responsibility to ensure that enough material is procured to complete the Work in accordance with the dosing requirements stated herein.

- F. The Contractor shall keep daily records acceptable to the Engineer and available for review as a basis for and substantiation of payment. Daily logs shall minimally state the following:
 - (1) Hours of spent lime application
 - (2) The quantity of spent lime applied
 - (3) The approximate acreage and volume treated, as indicated on a copy of Figure 1
 - (4) Explanation of any downtime

END OF SECTION 02400

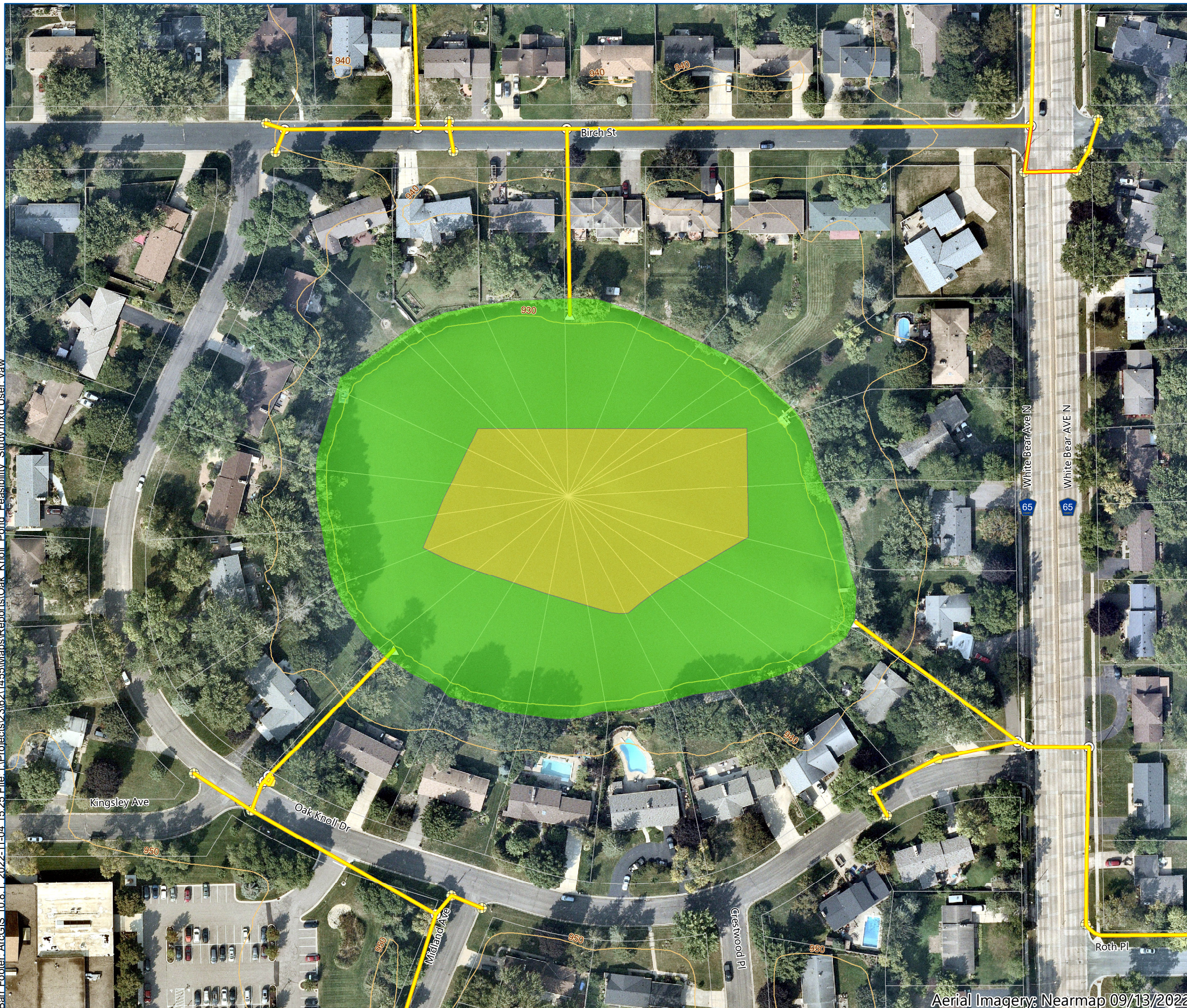







Drawings

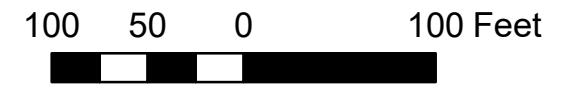
Figures 1 and 2



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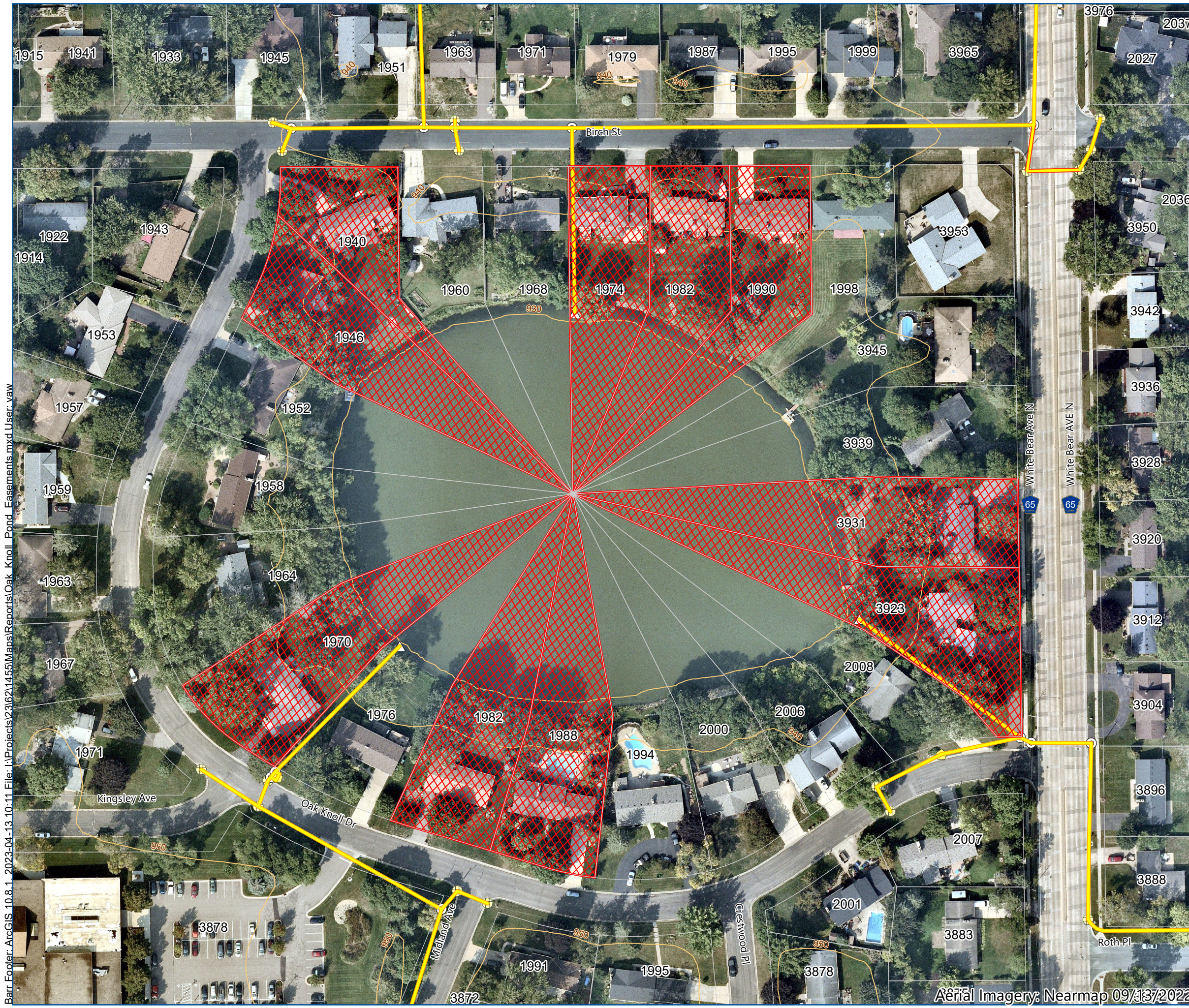
-  Storm Sewer Pipe Easement
 -  10-Foot Elevation Contour
 -  Parcel Boundary
- Spent Lime Treatment Zones**
-  Zone 1
 -  Zone 2







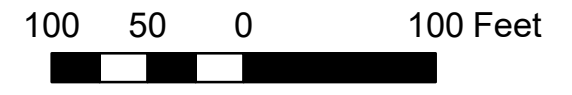
OAK KNOLL POND
 SPENT LIME TREATMENT
 Vadnais Lakes Area
 Watershed Management
 Organization

FIGURE 1

Aerial Imagery: Nearmap 09/13/2022



-  Storm Sewer Pipe Easement
-  10-Foot Elevation Contour
-  Temporary Easement
-  Parcel Boundary



OAK KNOLL POND
EASEMENTS
Vadnais Lakes Area
Watershed Management
Organization

FIGURE 2

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Aerial Imagery: Nearmap 09/13/2022

Attachment 1

Contract Agreement



Attachment 2

Temporary Easement Agreement for Access Routes



TEMPORARY EASEMENT AGREEMENT

This Temporary Easement Agreement (“Agreement”) is entered into by and between _____ and _____ (collectively, the “Owners”), if two a married couple, or, if one a single person, as the owner(s) of the property described in the attached Exhibit A (“Property”) and the Vadnais Lake Area Water Management Organization (“VLAWMO”). For good and sufficient consideration, the receipt and sufficiency of which is hereby acknowledged by the parties, the Owners hereby grant and convey to VLAWMO a nonexclusive temporary easement (“Easement”) over the Property in accordance with the terms and conditions of this Agreement.

1. Temporary Easement. Owners grant a nonexclusive temporary easement to VLAWMO over the portions of the Property located within 10 feet of the entire length of both side Property lines (from the public right-of-way to the pond). VLAWMO will only utilize the 10-foot area along one of the side Property lines (“Easement Area”), which will be determined based on the design to best achieve the goals of the Spent Lime Demonstration Project for Oak Knoll Pond/Wood Lake (“Project”). VLAWMO, its staff, contractors, and agents may enter and utilize the Easement Area for the purposes of running an above-ground hose and possibly carrying a small fishing boat (collectively, the “Equipment”) to place spent lime in the pond at the rear of the Property as part the Project intended to improve water quality in the pond. The Equipment will be carried, placed, and operated over and within the Easement Area several times over the term of the Easement. Owners warrant they own the Property and have the right to grant this Easement.
2. Restrictions. The Easement granted herein is subject to the following limitations and restrictions:
 - (a) The Easement granted herein shall be effective for 90 days from the start of the Project (“Project Period”). VLAWMO will provide the Owners written notice of the start date for the Project and that date shall serve as the beginning of the 90-day Project Period.
 - (b) Entry and operation of the Equipment in the Easement Area shall only occur on business days (no weekends or state holidays) between the hours of 8:00 a.m. and 5:00 p.m. during the Project Period.
 - (c) The carrying, pulling, and operation of the Equipment is not anticipated to cause any damage to the Property, but VLAWMO will require as part of its contract with the contractor performing the work to repair any damage it causes to the Property.
 - (d) No vehicles or equipment (other than the hose and carried fishing boat) will enter the Easement Area.
 - (e) VLAWMO agrees to defend and indemnify the Owners against any claims, suits, or liabilities brought by VLAWMO’s contractor or a third party related to its use of the Easement Area for the Project, except to the extent caused by the Owners’ own negligence.
 - (f) The Easement granted herein shall terminate at the conclusion of the Project Period, but in no case later than December 1, 2024. If VLAWMO determines it is not feasible for proceed with the Project, this Easement shall terminate upon written notice by VLAWMO that it is not proceeding with the Project.

3. Binding Effect. The terms and conditions of this instrument shall run with the land and be binding on the Owners, their successors and assigns until terminated as provided herein.
4. Governing Law. This Agreement is made under the laws of the State of Minnesota and such laws shall control its interpretation.

The parties have executed this Agreement effective as of the date of the last party to execute it.

OWNERS

STATE OF MINNESOTA)
) ss
COUNTY OF RAMSEY)

The foregoing instrument was acknowledged before me this ___ day of _____
2023, by _____ and _____, a married couple or a single
person, owner(s) of the real estate described in the attached Exhibit A.

Notary Public

**Vadnais Lake Area
Water Management Organization**

By: _____
Chair

Attest: _____
Secretary

STATE OF MINNESOTA)
) ss.
COUNTY OF RAMSEY)

The foregoing instrument was acknowledged before me this ____ day of _____ 2023 by _____ and _____, the Chair and Secretary, respectfully, of the Vadnais Lake Area Water Management Organization, a Minnesota joint powers entity, on behalf of the entity.

Notary Public

Drafted by:
Kennedy & Graven, Chartered (TJG)
150 South 5th St, Suite 700
Minneapolis, MN 55402
612-337-9300

EXHIBIT B
Contractor's Quote

[attached hereto]

REQUEST FOR QUOTATIONS

2023 SPENT LIME TREATMENT FOR OAK KNOLL POND WHITE BEAR LAKE, MINNESOTA VADNAIS LAKE AREA WATERSHED MANAGEMENT ORGANIZATION AND CITY OF WHITE BEAR LAKE

This Request for Quotations was prepared by Barr Engineering Company.



Barr Engineering Company
4300 MarketPointe Drive, Suite 200
Bloomington, MN 55435

**2023 SPENT LIME TREATMENT FOR OAK KNOLL POND
WHITE BEAR LAKE, MINNESOTA
VADNAIS LAKE AREA WATERSHED MANAGEMENT ORGANIZATION AND
CITY OF WHITE BEAR LAKE**

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TECHNICAL SPECIFICATIONS

<u>Division 1</u>	General Specifications
01000	Summary of Work
01010	Measurement and Payment
01070	Project Meetings
01080	Submittals
01085	Safety
01095	Closeout Procedures
01100	Mobilization and Demobilization
<u>Division 2</u>	Technical Specifications
02400	Chemical Treatment

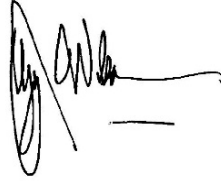
DRAWINGS: Figures 1 and 2

ATTACHMENTS: Attachments 1 and 2



CERTIFICATION

I hereby certify that these specifications were prepared by me or under my direct supervision and that I am a duly Licensed Professional Engineer under the Laws of the State of Minnesota.



Gregory J. Wilson, P.E.
Reg. No. 25782 Date May 25, 2023

REQUEST FOR QUOTATIONS
2023 SPENT LIME TREATMENT FOR OAK KNOLL POND
WHITE BEAR LAKE, MINNESOTA
VADNAIS LAKE AREA WATERSHED MANAGEMENT ORGANIZATION AND
CITY OF WHITE BEAR LAKE

The Vadnais Lake Area Watershed Management Organization (Owner) is requesting written quotations for conducting a spent lime treatment of Oak Knoll Pond in White Bear Lake, Minnesota. The Work (as defined below) includes delivering and applying spent lime slurry (referred to as spent lime) to the pond to mitigate the internal release of phosphorus from pond sediment. The Work is to be completed by October 13, 2023. Quotations must be submitted to the Owner in accordance with the requirements herein by **noon CST on Friday, June 9, 2023**.

The form of the contract to be entered by the selected contractor and the Vadnais Lake Area Watershed Management Organization is provided in Attachment 1. Respondents must prepare a quote based upon the requirements of the contract form, attached drawings (Figures 1 and 2) and technical specifications. The quotes provided in response to this request must represent full reimbursement for all costs associated with completing the scope of work.

A. Scope of Work

The Work includes:

1. Mobilize and demobilize labor, equipment, and materials, as needed.
2. Deliver and apply spent lime slurry to the pond.
3. Maintain and protect shoreline areas used for access to pond and areas used for parking of equipment and materials.
4. Install and remove all appropriate signage and buoys (if used) in a timely manner.
5. Restore all land areas directly or indirectly disturbed by the Work.

B. Contractor Qualifications

1. The quote must include documentation of past relevant experience, including examples of application of spent lime slurry to ponds.
2. The Owner reserves the right to make inquiries regarding whether a respondent has the practical knowledge, experience, available personnel, equipment and financial resources for the timely and professional completion of the Work. The Owner also reserves the right to make inquiries regarding past performance of a respondent on previous contracts. The



object of this review and subsequent inquiries is to provide the Owner with the best available information regarding the capabilities of the respondent to complete the Work as specified in the Contract Documents, and minimize the risk of awarding work to an unqualified Contractor.

3. The Owner reserves the right to reject all quotes or any quote providing insufficient or unsatisfactory evidence to demonstrate the respondent's ability to perform the Work. Failure on the part of any respondent to have carried out previous contracts satisfactorily, to show adequate experience, or to possess necessary equipment or labor for completion of the work, may be deemed sufficient cause for disqualification of said respondent.
4. The Owner will exercise its discretion to select from among the respondents the Contractor it determines is most likely to complete the Work in a timely and satisfactory manner in accordance with the Contract Documents and specifications.

C. Examination of Contract Documents and Site

1. It is the responsibility of each respondent before submitting a price quote to examine this request for quotations and all attachments (the Contract Documents, as defined in the Agreement form in Attachment 1) and become thoroughly familiar with all terms, conditions, and requirements; visit the site to become familiar with local conditions that may affect cost, progress, performance or furnishing of the Work; and notify Owner of all conflicts, errors or discrepancies in the request for quotations and all attachments.
2. A site visit is recommended. Portions of the site (shown in Figure 2) are available for inspection during normal working hours with prior notice to the Engineer, who will notify VLAWMO, at least 48 hours in advance.
3. Any questions shall be directed to:

Greg Wilson, PE
Senior Water Resources Engineer
Barr Engineering Co.
952.832.2672
gwilson@barr.com

D. Work Schedule

1. The Work will begin immediately after Owner issues a notice to proceed to Contractor and must be completed by October 13, 2023. Following notice to proceed, Contractor will notify Engineer and Owner 5 days in advance of the beginning of the Work to allow for notification to residents living around the pond.

E. Price Quote Form

1. The undersigned Contractor proposes and agrees, if this quote is accepted, to enter into an agreement with the Owner in the form included in the Contract Documents (Attachment 1), and to perform all work as specified or indicated in the Contract Documents for the prices in its quote and within the times indicated, in accordance with the terms and conditions of the



Contract Documents. Contractor accepts all terms and conditions of the request for quotes. A submitted quote will remain subject to acceptance for 45 days after the date for submission of quotes stated above.

- In submitting this quote, the Contractor represents that it has examined and carefully studied the Contract Documents, and any data and reference items identified in the Contract Documents, and hereby acknowledges receipt of the following addenda:

Addendum No.	Addendum Date

- The price quote form may be completed in ink, by typewriter, or by computer program.
- The address and telephone number for communications regarding the price quote must be shown on the price quote form.

Item	Description	Unit	Estimated Quantity	Unit Price	Extension
1.1	Spent Lime Slurry Application to Zone 1 of Oak Knoll Pond	Loads	14	\$1,750.00	\$24,500.00
1.2	Spent Lime Slurry Application to Zone 2 of Oak Knoll Pond	Loads	8	\$4,500.00	\$36,000.00
Total Quote					\$60,500.00

GRAND TOTAL OF BASE PRICE QUOTE EXTENSIONS

(in words) sixty thousand five hundred and xx/100 Dollars
 (\$ \$60,500.00)

F. Submission of Price Quotes

- All price quotes shall be submitted on the unaltered forms included with the quotation. The blank spaces on the form shall be filled in correctly in ink, typewritten or printed where indicated for each and every item for which a quantity is given, and the respondent shall clearly indicate the prices for which he/she proposes to do each item of the Work.
- All costs to complete the Work will be considered to be included in the quoted price and no additional compensation will be provided.
- The price quote submittal must include documentation of past relevant experience, in a format of choice, including examples of applications of spent lime slurry to ponds.



4. The price quote form including required attachments shall be submitted by email to Greg Wilson at gwilson@barr.com or by mail to:

Barr Engineering Company
4300 MarketPointe Drive, Suite 200
Bloomington, MN 55435
Attn: Greg Wilson gwilson@barr.com

5. Price quotes must be received not later than **noon CST, June 9, 2023**.

G. Review and Signing of Agreement

1. Owner will notify the Contractor selected to complete the Work of its selection on or before the close of business July 14, 2023, and will provide the required number of unsigned counterparts of the Contract Documents for the Work.
2. The respondent shall review Attachment 1, noting all insurance requirements. Attachment 1 includes baseline terms regarding indemnification, insurance, property, and data management. Owner is disinclined to negotiate the terms of the Contract Documents, but encourages respondents to call to discuss any terms. Modification of terms in the Agreement is solely at Owner's discretion.
3. Within ten calendar days after receiving notice of selection, the selected Contractor must sign and deliver the required number of counterparts of the Contract Documents with attachments to Owner, in accordance with the instruction for delivery in the notice, along with the required evidence of insurance and any other required submittals.

H. Definitions

1. Terms used in the Contract Documents have the following meanings:
 - a. **Agreement**– the template document included in the Contract Documents titled Agreement between Vadnais Lake Area Watershed Management Organization and Contractor, to be completed and executed by Vadnais Lake Area Watershed Management Organization and the selected Contractor (Attachment 1).
 - b. **City** – the City of White Bear Lake, fee title holder of the Site.
 - c. **Contract Documents**– the documents listed in the recitals of the Agreement.
 - d. **Engineer**– Barr Engineering Co., the owner's agent, responsible for project oversight on behalf of the Owner.
 - e. **Owner**– Vadnais Lake Area Watershed Management Organization.
 - f. **Project** – is synonymous with the Work.
 - g. **Site**– the area within which the Work is to be performed, shown in Figure 1.
 - h. **Load**– between 3,600 and 4,000 gallons of spent lime slurry that is expected to be available for pickup from the White Bear Lake water treatment facility for each day of the Work to be performed.
 - i. **Selected Contractor or Contractor** – the respondent selected by Owner to complete the Work. The selected contractor becomes the Contractor on execution of the agreement.



- j. **Work**– pursuant to the Contract Documents, furnishing all materials, equipment and labor to complete the scope of work in Section A of this request for quotations and the items in the Price Quote Form.

Communications concerning this price quote shall be addressed to the address of respondent at the address indicated below.

This quotation is submitted by:

Firm Name: Erosion Works

By (Typed or Printed): Chad Mitchell

Signature: *Chad Mitchell*

Title: operations

Official Address: 8177 199th ave nw
Nowthen MN 55330

Phone: (612)282-9907

Federal Tax I.D. No. 26-1605885

Date: 6/9/2023

Experience With Spent Lime Applications to Ponds (Yes or No): Yes

Contact Information for Project Reference(s): Chad Mitchell



TECHNICAL SPECIFICATIONS

**REQUEST FOR QUOTATIONS
2023 SPENT LIME TREATMENT FOR OAK KNOLL POND
WHITE BEAR LAKE, MINNESOTA
VADNAIS LAKE AREA WATERSHED MANAGEMENT ORGANIZATION AND
CITY OF WHITE BEAR LAKE**

DIVISION 1

GENERAL SPECIFICATIONS

01000	Summary of Work
01010	Measurement and Payment
01070	Project Meetings
01080	Submittals
01085	Safety
01095	Closeout Procedures
01100	Mobilization and Demobilization

DIVISION 2

TECHNICAL SPECIFICATIONS

02400	Chemical Treatment
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Division 1 – General Specifications

SECTION 01000

SUMMARY OF WORK

PART 1: GENERAL

1.01 CONTRACT DOCUMENTS

- A. The Contract Documents are as defined in the Agreement. The terms of the Contract Documents apply to these Specifications as fully as though repeated herein.
- B. The format of these Specifications is based upon the CSI MASTERFORMAT, 1995 Edition, however differences in format and subject matter location do exist. It is the respondent's sole responsibility to thoroughly read and understand these Specifications and request written clarification of those portions which are unclear.
- C. Division of the Work as made in these Contract Documents is for the purpose of specifying and describing work to be completed. There has been no attempt to make a classification according to trade or agreements, which may exist, between Contractor, Subcontractors, or trade unions or other organizations. Such division and classification of the Work shall be the Contractor's sole responsibility.

1.02 EXISTING SITE CONDITIONS AND USES

- A. Project limits are shown on Figure 1 (Drawings).
- B. Owner has acquired temporary easement rights to access the Site, as shown in Figure 2. Access to Oak Knoll Pond will be provided with the locations for boat ingress/egress and truck parking to be identified by Engineer and the Contractor as part of a pre-project site visit.

1.03 WORK COVERED BY CONTRACT DOCUMENTS

- A. The overall scope of the Work which is more fully described in these Contract Documents includes, but is not necessarily limited to, furnishing all labor, tools, equipment, and materials necessary to:
 - 1. Mobilize and demobilize labor, equipment, and materials, as needed.
 - 2. Deliver and apply spent lime slurry to each of the two treatment zones of the pond.
 - 3. Maintain and protect shoreline areas used for access to pond and areas used for material application.
 - 4. Restore all land areas directly or indirectly disturbed by the Work.
- B. It is the intent of the Contract Documents to cover all aspects of the Work. Should there be some item or items not shown on Figure 1 or not described in these Specifications which are



required for the Work, those items and the furnishing of all labor, materials, and equipment shall be considered incidental to the Work and no additional compensation will be provided.

- C. The Work includes the furnishing of all labor, equipment, tools, machinery, materials, and other items required for spent lime treatment of Oak Knoll Pond as specified. Equipment furnished shall be in safe operating condition and of adequate size, capacity, and condition for the performance of the Work.
- D. Contractor shall be solely responsible for the coordination of its activities regarding the Work with the activities of Subcontractors and Engineer.

1.04 WORK BY ENGINEER

- A. Engineer has obtained approval from the Minnesota Pollution Control Agency for spent lime treatment of Oak Knoll Pond and will provide documentation of approval to Contractor. Contractor shall request such information from Engineer a minimum of five days prior to the time when such information is needed.

1.05 OWNER FURNISHED PRODUCTS

- A. Owner will not furnish any products for this Project.

1.06 CONTRACTOR USE OF PREMISES

- A. Definition of Site: The Site is defined as the area within the project limits shown on Figure 1. Within the project limits, the Contractor shall limit ingress/egress and operations, including materials and equipment parking, to Oak Knoll Pond and the temporary easement areas as shown on Figure 2, which is the area over which Owner will obtain the necessary access and use rights. Any disturbance inside the project limits to existing facilities, pavements, sidewalks, and/or vegetation and outside the project limits shall be fully restored in-kind or better at the Contractor's expense. Contractor shall coordinate and finalize parking areas with the Owner prior to beginning the Work to ensure that public access to Oak Knoll Pond and pedestrian and vehicle traffic is maintained throughout the duration of the Work. Contractor is subject to the conditions of the temporary easements as described in Attachment 2.
- B. Hours of Operation: Contractor will ascertain hours approved by the City of White Bear Lake for conducting the Work and limit conduct of operations in accordance with same and all other local laws and regulations.
- C. Unfavorable Treatment Conditions:
 - 1. No portion of the Work shall occur under conditions which would adversely affect the quality of the Work pursuant to the criteria of Paragraph 3.02 of Section 02400, and the judgment of Engineer as necessary to apply those criteria, unless special means or precautions, approved by the Engineer, are taken to perform the Work in a proper and satisfactory manner.



1.07 SEQUENCE OF WORK

- A. Spent lime application shall be conducted such that the Work is completed by October 13, 2023.
- B. Contractor shall determine the sequence of Work required to efficiently progress with the Work.

1.08 BASIS FOR COMPENSATION

- A. All costs to comply with the requirements of this Section of the Specifications shall be considered to be included in the Contract Price and no additional compensation will be provided.

PART 2: PRODUCTS [NOT USED]
PART 3: EXECUTION [NOT USED]

END OF SECTION 01000



SECTION 01010

MEASUREMENT AND PAYMENT

PART 1: GENERAL

1.01 GENERAL

- A. This Section of the Specifications describes the measurement and payment for the Work to be done under the items listed on the Quote Form.
- B. Each unit or lump sum price stated on the Quote Form shall constitute full compensation as herein specified for each item of work completed in accordance with the requirements of the Contract Documents including Figure 1, Figure 2 and Specifications, including all clean up and restoration.
- C. All costs in connection with the Work, including furnishing all materials, supplies and appurtenances; providing all equipment and tools; and performing all necessary labor, coordination, supervision, and management to fully complete the Work shall be included in the unit prices or unit lump sum prices quoted on the Quote Form. All Work not specifically set forth as a separate cost item herein shall be considered a subsidiary obligation of the Contractor and all costs in connection therewith shall be included in the amounts and prices submitted on the Quote Form. The quote price shall include all work necessary to complete all of the Work. Variation in the supply of spent lime slurry or any other component of the Work will not be a basis for a change in the contract price.

1.02 ESTIMATED QUANTITIES

- A. All estimated quantities for Unit Price items in the Quote Form are approximate and are to be used only as a basis for determining the initial Contract Price. The actual amount of work to be done or materials to be furnished under the Unit Price items may differ from the estimated quantities. The basis of payment for work or materials placed will be the actual quantities of work performed or material placed. The Contractor agrees to make no claim for damages, anticipated profits, or otherwise due to any difference between the quantities of Work actually performed or materials placed, and the estimated quantities included in the Quote Form.

1.03 INTENT OF QUOTE FORM ORGANIZATION

- A. Payment for all Work shall be in accordance with the terms and conditions set forth elsewhere in the Contract Documents and the Contractor's Quote prices set forth in Contractor's conformed Quote Form. The cost items set forth in the Quote Form subdivide the Work for purposes of measurement and payment only, and are intended to represent the entire and complete Project as set forth in the Contract Documents. The cost items set forth in the Quote Form shall constitute full compensation to Contractor for providing all supervision, labor, materials, equipment, tools and supplies, and overhead and profit to complete the Work in complete accordance with the Contract Documents.



- B. The following paragraphs provide additional descriptions of the quote line items subject to the provisions of paragraphs 1.01, 1.02, and 1.03 of this Section
 - 1. Quote items are based on Unit Prices. For those items, progress payments shall be based on the actual quantities of each item of Work completed in accordance with the Contract Documents.
- C. The procedures for submitting and processing progress payments are set forth elsewhere in the Contract Documents.

1.04 QUOTE ITEMS

- A. Spent Lime Slurry Application to Oak Knoll Pond
 - 1. Method of Measurement: Spent lime slurry will be estimated as a full load applied to the pond to achieve the specific dose determined by the Engineer as described in Section 02400. At the end of each day, Contractor shall provide Engineer with documentation of total number of gallons applied that day. Once picked up, Contractor must apply all spent lime in the load to the pond unless directed by the Engineer to return slurry to plant. Excess spent lime slurry not applied directly to the pond shall not be included in this measurement unless Engineer directs Contractor to return remaining spent lime slurry to the White Bear Lake water treatment facility.
 - 2. Basis of Payment: Contractor will be paid a unit price per load of spent lime slurry applied, all complete as specified. This unit price shall be payment in full for the costs of all supervision, materials, equipment, labor, supplies, profit and overhead, and perform all operations necessary to transport and apply the chemicals to selected areas, all complete as specified. In the event that permit conditions preclude the application of a full load of spent lime, Engineer will direct Contractor to return the remaining spent lime slurry to the White Bear Lake water treatment facility and Contractor will be paid the unit price per load of spent lime slurry applied for the treatment zone receiving the application on that day.

1.05 BASIS FOR COMPENSATION

- A. All costs to comply with the requirements of this Section of the Specifications shall be considered to be included in the Contract Price and no additional compensation will be provided.

PART 2: PRODUCTS [NOT USED]

PART 3: EXECUTION [NOT USED]

END OF SECTION 01010



SECTION 01070

PROJECT MEETINGS

PART 1: GENERAL

1.01 TREATMENT PLANNING CONFERENCE

- A. After Owner notifies Contractor of selection to complete the Work, Engineer will schedule a treatment planning meeting that shall be attended by Owner, Contractor, and Engineer. The meeting will be scheduled as far in advance of the date the Work is to start as is practical.
- B. Agenda items may include:
 - 1. Distribution of Contract Documents
 - 2. Designation of responsible personnel for all parties, lines of communication, and lines of authority, including Project Contacts (see Paragraph 1.04 of this Section).
 - 3. Scope of work and the anticipated schedule of operations, including estimated progress schedule that clearly shows 22 dates that Contractor has committed for spent lime application, plus 5 additional dates to make up for unfavorable conditions (as described in Paragraph 3.02 of Section 02400)
 - 4. Critical work sequencing
 - 5. Site access for spent lime distribution to barge or boat
 - 6. Record documents and reporting
 - 7. Site safety and security procedures
 - 8. List of major subcontractors
 - 9. Procedures for processing change orders
 - 10. Use of premises including equipment and material storage
 - 11. Materials deliveries
 - 12. Housekeeping procedures

1.02 PROGRESS PHONE CALLS/EMAILS

- A. Progress phone calls or emails may be scheduled by the Engineer as needed at a time mutually agreeable to the Contractor and Engineer. A preferred time for one of these calls or emails is prior to Contractor's submittal of Application for Payment. Due to the nature of the Work, it is anticipated that an email will be sent to Contractor following each day of spent lime application by 3:00 PM CST, whereby Engineer will review the pH monitoring and weather



forecast and direct the Contractor for targeted treatment zone and area of application for the next Work day.

- B. Following each phone call/email, the Engineer will prepare and distribute to Owner and Contractor copies of the notes of the phone call/email. These will include a brief summary of the progress of the Work since the previous phone call/email.

1.03 UNSCHEDULED MEETINGS

- A. The Contractor shall attend other unscheduled meetings which may be reasonably requested by Engineer or Owner to discuss unanticipated changes in the Work, or conditions at the site, or other issues and which must be resolved before progression of work.

1.04 PROJECT CONTACTS

- A. Contractor shall submit to Engineer the name of personnel available for ongoing technical support and who are familiar with the Project and are responsible for its completion.
- B. The list should include name(s), functional title(s), mailing address(es), phone number(s) and email address(es).
- C. At least two phone numbers shall be furnished which will provide 24-hour answering by a competent technical representative of Contractor in the event of an emergency or other unanticipated condition requiring immediate attention. At least one person shall be available at all times for immediate response to the site within 2 hours of being called. The responding person shall be the Contractor's representative at the Site and shall have authority to act on behalf of Contractor.

1.05 BASIS FOR COMPENSATION

- A. All costs to comply with the requirements of this Section of the Specifications shall be considered to be included in the Contract Price and no additional compensation will be provided.

PART 2: PRODUCTS [NOT USED]

PART 3: EXECUTION [NOT USED]

END OF SECTION 01070



SECTION 01080

SUBMITTALS

PART 1: GENERAL

1.01 GENERAL SUBMITTAL PROCEDURES

A. Contractor shall:

1. Transmit each submittal labeled with the Project name, name of the submittal, and Section and page number of these Contract Documents in which the submittal was required. Indicate the type or purpose of the submittal as more fully described elsewhere in this Section with regard to the Schedule of Submittals. Transmit the correct number of copies as described below for each type of submittal. Each submittal shall be accompanied by a transmittal letter stating the same information.
2. Transmit all submittals to Engineer at the address set forth in the Quote Form and to the attention of the Project Engineer designated by Owner.
3. Apply Contractor's stamp, signed or initialed certifying that review and coordination of information is in accordance with the requirements of the Work and Contract Documents. Unstamped or unsigned submittals will be returned without action.
4. Schedule submittals to expedite Project and in accordance with the Schedule of Submittals to be prepared by Contractor. Coordinate submission of related items.
5. Identify all variations or deviations from the Contract Documents and identify alternative products or system limitations which may be detrimental to successful performance of the completed Work.
6. Provide space for Engineer review stamps and comments on all submittals.
7. Revise and resubmit submittals as required in a timely manner. Identify all changes made since previous submittal.
8. Promptly distribute copies of reviewed submittals to Subcontractors, suppliers, and other concerned parties. Instruct parties to promptly report any inability to comply with provisions.
9. Do not proceed with any Work requiring a submittal, including resubmittal, to Engineer until the submittal has been returned to Contractor without a requirement for resubmittal.

B. All submittals that are made that are not specifically required by the Contract Documents will be returned without action.

C. All submittals shall come from the Contractor and submittals directly from Subcontractors or vendors will be returned without action.



1.02 PROGRESS SCHEDULE

- A. Contractor shall submit an estimated progress schedule and a finalized progress schedule that clearly shows 22 dates that Contractor has committed for spent lime application, plus 5 additional dates to make up for unfavorable conditions (as described in Paragraph 3.02 of Section 02400).
- B. The Contractor shall revise the finalized progress schedule from time to time, as may reasonably be requested and approved by Engineer or Owner, to reflect the current status and progress of the Work and the operations necessary to complete the Work as required.
- C. The progress schedule shall clearly illustrate the sequence of the Work (by locations and other factors as may be appropriate) to be followed by Contractor to efficiently progress with the Work.

1.03 REVIEW OF SUBMITTALS

- A. The Engineer's review of engineering data will cover only general conformity of the data to the Specifications and Contract Documents, external connections, and interfaces with equipment and materials furnished under separate specifications. The Engineer's review does not indicate a thorough review of all dimensions, quantities, and details of the equipment, material, device, or item indicated or the accuracy of the information or documentation submitted; nor shall review or approval by the Engineer be construed as relieving the Contractor from any and all responsibility for errors or deviations from the requirements of the Contract Documents.
- B. All engineering data submitted, after final processing by the Engineer shall become a part of the Contract Documents and the work indicated or described thereby shall be performed in conformity therewith unless otherwise required by the Owner.

1.04 SUBMITTAL FOR INFORMATION OR DOCUMENTATION

- A. Submit one copy to Engineer.
- B. Submittal shall be made at least 5 days before the subject of the submittal is to be incorporated into the Work.
- C. Submittal is for the purpose of formal verification that the subject of the submittal conforms to the requirements of the Specifications, for formal documentation of the Work, or both.
- D. No action is required by Owner or Engineer. Engineer will generally notify Contractor if deficiencies are identified; however Contractor is solely responsible for ensuring that the subject of the submittal conforms to the requirements of the Specifications.

1.05 SUBMITTAL FOR REVIEW

- A. Submit two copies to the Engineer.
- B. Submittal shall be made at least 10 days before the subject of the submittal is to be incorporated into the Work. Engineer will respond within 5 days from receipt of submittal.



- C. Submittal is for the purpose of providing opportunity to Engineer for review and comment on the subject of the submittal.
- D. Engineer will respond to the submittal either with a list of comments or indicating no comments.
- E. If Engineer's comments indicate a deficiency with respect to the requirement of the Specifications, Contractor shall amend the submittal and resubmit. Engineer will again respond to the resubmittal.
- F. If Engineer's comments are in regards to an issue which based upon the Contract Documents is at Contractor's discretion, Contractor shall furnish additional information provide justification, and otherwise cooperate in addressing and resolving Engineer's comments.
- G. Contractor shall remain solely responsible for ensuring that the subject of the submittal conforms to the requirements of the Specifications.

1.06 SUBMITTAL FOR APPROVAL

- A. Submit two copies to the Engineer.
- B. Submittal shall be made at least 7 days before the subject of the submittal is to be incorporated into the Work. Engineer will respond within 5 days from receipt of submittal.
- C. Submittals shall be stamped with Contractor's approval. Contractor's stamp shall be a representation that Contractor has assumed full responsibility for determining the submittal requirements and verifying that the subject of the submittal conforms to the requirements of the Specifications. Submittals not bearing Contractor's stamp will be returned without review or action.
- D. Engineer will review, make notations as appropriate, stamp, and return submittals to Contractor. Engineer's stamp and Contractor's required action are described below:
 1. NO EXCEPTIONS TAKEN. Contractor may proceed without further action.
 2. RECOMMENDED REVISIONS NOTED. Contractor shall review Engineer's notations and revise subject of submittal as required to conform to the requirements of the Drawings and Specifications before proceeding with the Work. Resubmittal is not required.
 3. RESUBMIT. Contractor shall review Engineer's notations, revise subject of submittal as required to conform to the requirements of Figure 1, Figure 2 and the Specifications, and resubmit to Engineer for additional action.
 4. REVIEW COMPLETE, FURNISH THREE FILE COPIES. Contractor shall furnish the requested number of copies and may proceed without further action.
- E. Work may proceed when submittals have been returned marked RECOMMENDED REVISIONS NOTED, provided the work is performed in accordance with the Engineer's notations, or NO EXCEPTIONS TAKEN.



1.07 ALTERNATE PRODUCT SUPPORTING DATA

- A. If Contractor proposes to use alternate or substitute products, Contractor shall submit written application.
- B. Submit two (2) copies of literature, drawings, and any other data necessary to substantiate that proposed substitute is equivalent or equal to the item named, and otherwise meets the conditions established in the Specifications.
- C. Do not proceed with product installation or use until written approval by Engineer is received.

1.08 RECORD DOCUMENTS

- A. Submit one original copy to Engineer of all record documents (or clearly legible copies) prior to substantial Completion.
- B. Record documents consist of all Drawings, Specifications, Addenda, Change Orders, and Shop Drawings legibly annotated to reflect all changes made during construction.

1.9 WARRANTY OR GUARANTEE CERTIFICATES

- A. Submit three (3) executed copies prior to Substantial Completion.
- B. All warranty or guarantee certificates shall be signed by Contractor and all other parties as requested in specific sections.

1.10 BASIS FOR COMPENSATION

- A. All costs to comply with the requirements of this Section of the Specifications shall be considered to be included in the Contract Price and no additional compensation will be provided.

PART 2: PRODUCTS [NOT USED]

PART 3: EXECUTION [NOT USED]

END OF SECTION 01080



SECTION 01085

SAFETY

PART 1: GENERAL

1.01 GENERAL

- A. In accordance with generally accepted chemical treatment practices, the Contractor shall be solely and completely responsible for job site conditions and safety procedures and programs, including safety and health of all persons and property, on those portions of the site affected by or used by Contractor, Contractor's employees, subcontractors, agents, and others during performance of the Work. This requirement will apply continuously and not be limited to normal working hours. Observation of the Work and Contractor's performance by Owner and Engineer is not intended to include review of the adequacy of the Contractor's safety and health procedures and programs on or near the construction site. The Contractor is solely responsible for the protection of property and the safety and health of its employees, Subcontractors, Suppliers, agents and others on or near the Site.

1.02 SAFETY

- A. In addition to the requirements of the Agreement, the Contractor shall be responsible for:
 - 1. Furnishing Contractor's employees, as well as any subcontractor's and supplier's employees, with all safety equipment and other protection devices needed to comply with Laws and Regulations or accepted safety practices.
 - 2. Any safety violation and/or fine that may occur because of any neglect by Contractor, Contractor's employees, Contractor's subcontractors, or any third party under Contractor's supervision or direction. Contractor shall also be responsible for any safety violation and/or fine Owner may incur due to neglect by Contractor, Contractor's employees, Contractor's subcontractors, and any third party under Contractor's supervision or direction at the Site.
 - 3. Contractor shall be responsible for implementing adequate safety requirements for workers, passers-by, both humans and pets, at all times, during both working and nonworking hours, all days and nights, for the duration of the Work.

1.03 HAZARD COMMUNICATION PROGRAMS

- A. Contractor shall be responsible for coordinating any exchange of material safety data sheets or other hazard communication information required to be made available to or exchanged between or among employers at the Site in accordance with applicable laws and regulations.

1.04 EMERGENCIES

- A. In emergencies affecting the safety or protection of persons or the Work or property at the Site or adjacent thereto, Contractor is obligated to act to prevent threatened damage, injury, or loss. Contractor shall give Engineer prompt written notice if Contractor believes that any significant changes in the Work or variations from the Contract Documents have been caused



thereby or are required as a result thereof. If Engineer determines that a change in the Contract Documents is required because of the action taken by Contractor in response to such an emergency, a change order will be issued.

1.05 BASIS FOR COMPENSATION

- A. All costs to comply with the requirements of this Section of the Specifications shall be considered to be included in the Contract Price and no additional compensation will be provided.

PART 2: PRODUCTS [NOT USED]

PART 3: EXECUTION [NOT USED]

END OF SECTION 01085



SECTION 01095

CLOSEOUT PROCEDURES

PART 1: GENERAL

1.01 RECORD DOCUMENTS

- A. The Contractor shall maintain at the Site (or in Contractor's possession) one set of record documents including all Drawings, Specifications, and Change Orders in good condition and legibly annotated to show changes made during construction. Store record documents separate from documents used for construction, clearly mark, and make accessible to Engineer and Owner at all times.
- B. Record information on record documents concurrent with treatment progress. Engineer or Owner may require Contractor to improve its performance with regard to recording information during the treatment process.
- C. Submit record documents and other submittals required by other sections of these Specifications.

1.02 CLEANUP

- A. The Contractor shall keep the premises free from accumulations of waste materials, rubbish and other debris resulting from the Work, and at the completion of the Work, shall remove all waste materials, rubbish and debris from the premises as well as all tools, treatment equipment, and surplus materials. Contractor shall leave the site clean.

1.03 GUARANTIES AND WARRANTIES

- A. The Contractor shall guarantee all work against all defects as specified in the Agreement or as otherwise required for specific items in these Specifications. The Contractor shall repair or replace any such defective Work to conform to the provisions of the Contract and without expense to the Owner, within one (1) day after notification in writing by the Owner or Engineer of such defective Work. If the Contractor does not make said repairs or replacements or have made arrangements for the correction thereof within the period specified above, the Owner may do so and will charge the cost of same to the Contractor. The Contractor shall perform repair work so as to cause the Owner a minimum of inconvenience and interruption of services.

1.04 FINAL SUBMITTALS

- A. Contractor shall complete all submittals required by these Contract Documents prior to the payment of Contractor's Final Application for Payment by Owner. Final payment shall not become due and payable until 10 days after all submittals have been made acceptable to Engineer.
- B. When the Work has been completed, Engineer will prepare a final statement showing the accepted quantities of every item of work performed by the Contractor. All estimates upon which previous payments have been based are subject to correction in the final statement. The



final voucher, showing the accepted quantity and value of each item of work performed and all amounts to be retained or deducted under the provisions of the Agreement, will be submitted to the Contractor for approval before being passed for payment.

1.05 BASIS FOR COMPENSATION

- A. All costs to comply with the requirements of this Section of the Specifications shall be considered to be included in the Contract Price and no additional compensation will be provided.

PART 2: PRODUCTS [NOT USED]

PART 3: EXECUTION [NOT USED]

END OF SECTION 01095



SECTION 01100

MOBILIZATION AND DEMOBILIZATION

PART 1: GENERAL

1.01 MOBILIZATION/DEMOBILIZATION

- A. The Work covered by mobilization/demobilization consists of, but is not limited to furnishing all labor, equipment, and materials, and performing all operations necessary to move personnel, equipment, supplies, and incidentals to the project site to establish and maintain project materials and equipment storage areas, parking areas, and other areas necessary for the Work; provide public convenience and safety, barricades, lights and warning signals; provide water and chemical tracking control; perform all work that must be completed before beginning work on the project for which payment is not provided elsewhere in these Specifications; remove all equipment, materials and labor from the project site after it is no longer necessary and restore the Work area; furnish all bonds and insurance certificates obtained specifically for this project, all in accordance with the Contract Documents, and in compliance with all requirements of Division 1 of these Specifications.

1.02 BASIS FOR COMPENSATION

- A. All costs to comply with the requirements of this Section of the Specifications shall be considered to be included in the Contract Price and no additional compensation will be provided.

PART 2: PRODUCTS [NOT USED]

PART 3: EXECUTION [NOT USED]

END OF SECTION 01100



Division 2 – Technical Specifications

SECTION 02400

CHEMICAL TREATMENT

PART 1: GENERAL

1.01 DESCRIPTION

- A. All Work included in this Section shall be performed in accordance with the following paragraphs, the General Requirements set forth in Division 1 of these Specifications, and the provisions of the other Contract Documents.
- B. Work covered by this Section includes furnishing all supervision, labor, materials, and equipment required to deliver, store, and apply spent lime slurry to Oak Knoll Pond, as shown on Figure 1 (Drawings). The Contractor shall:
 - 1. Deliver and apply liquid spent lime slurry (referred to as spent lime) to the pond to mitigate the internal release of phosphorus from the pond sediment.
 - 2. Treat at appropriate weather and temperature conditions as directed by the Engineer.
 - 3. Furnish, install and remove all appropriate signage and buoys (if used) in a timely manner.
 - 4. Restore all areas directly or indirectly disturbed by the Work.
 - 5. All other Work required for a completion of the spent lime treatment as a project whole.

1.02 SEQUENCE OF WORK

- A. Treatment is to occur once in 2023.
- B. The Contractor shall be responsible for all labor, spent lime application equipment and arrangements for the timely delivery of spent lime slurry required to complete the project.
- C. Spent lime application shall be conducted such that the Work is completed by October 13, 2023.

1.03 SUBMITTALS

- A. The Contractor shall submit a spill prevention and contingency plan to Engineer for review prior to beginning Work on the Project.
- B. The Contractor shall submit a marked up copy of Figure 1 indicating the specific area(s) and amount(s) of spent lime slurry applied to the pond. This data shall be collected by the Contractor in real-time during the application and submitted to Engineer on a daily basis.



1.04 BASIS FOR COMPENSATION

- A. Compensation for all Work covered under this Section of these Specifications shall be in accordance with the provisions set forth in Section 01010, Unit Price Measurement and Payment.

PART 2: PRODUCTS

2.01 CHEMICALS

- A. Spent Lime Slurry
 - 1. Spent lime slurry shall be supplied by the City of White Bear Lake at their water treatment facility.

PART 3: EXECUTION

3.01 DELIVERY, STORAGE AND HANDLING

- A. The Contractor shall be responsible for all coordination with the spent lime supplier necessary to ensure timely delivery to the project site. The Contractor shall confine all equipment and materials within the public rights-of-way or temporary easement access areas as shown on Figure 2 and otherwise in a safe, secure and environmentally sound manner. If gradual off-loading is required the contractor shall be responsible for all demurrage charges.
- B. The Contractor shall maintain a copy of the spill prevention and spill contingency plan described on site for the duration of the project.

3.02 UNFAVORABLE TREATMENT CONDITIONS

- A. Application of spent lime shall not occur when wind speeds directly above the pond surface exceed 15 miles per hour.
- B. Treatment will cease and all personnel will leave the water when thunder and/or lightening are observed. Treatment can resume 30 minutes after the last sound of thunder or lightening flash.
- C. Application of spent lime shall not occur if pond water temperatures drop below 45° F.
- D. No portion of the Work shall occur under conditions which would adversely affect the quality of the Work, unless special means or precautions, approved by the Engineer, are taken to perform the Work in a proper and satisfactory manner.

3.03 LOCATION OF WORK

- A. Project treatment limits and temporary easement access areas are shown on Figures 1 and 2 (Drawings), respectively. Owner has acquired temporary easement rights to use portions of the Site outside of the public water area of the pond as described in Attachment 2. Contractor shall apply spent lime within the Treatment Area as shown on Figure 1 (Drawings).



3.04 SPENT LIME APPLICATION

- A. The Contractor shall conduct the spent lime application from shore and/or utilizing a boat or similar vessel with a hydroseeder, or approved equal, application system that allows for uniform application of spent lime slurry to the pond. Spent lime application shall be made to the indicated treatment zones of the pond, as shown in Figure 1. The treatment area for Zone 1 is 3.3 acres and the treatment area for Zone 2 is 1.2 acres.
- B. The Contractor shall ensure that the spent lime slurry is evenly distributed throughout the treatment area and that the specified dose is applied to the Treatment Zones shown in Figure 1 (as described in Paragraph 3.03A of this Section). The Contractor shall maintain and provide records to verify the area of coverage (as described in Paragraph 1.04C of Section 01080). The Contractor shall provide copies of a digital map showing treated areas of the pond to Engineer.
- C. Engineer may direct Contractor to the Treatment Zone, and possibly the treatment area within each zone, for spent lime application on a daily basis to prioritize treatment area coverage and/or mitigate overspray due to wind speed or wind direction.
- D. Engineer will monitor the ambient pH in the pond during the spent lime treatment application. If at any time during treatment, the depth-averaged ambient pH in the pond falls below 6.0 or increases above 9.0 S.U., Contractor will stop the treatment. Treatment will not resume until authorized by the Engineer.
- E. Following each day of spent lime application, Engineer will review the pH monitoring and weather forecast by 3:00 PM CST and direct the Contractor for targeted treatment zone and area of application for the next Work day. The Contractor shall apply spent lime slurry at a treatment dose rate of:
 - a. 16,970 gallons/acre spent lime slurry across Treatment Zone 1 area that will require a total of **56,000** gallons; and
 - b. 26,670 gallons/acre spent lime slurry across Treatment Zone 2 area that will require a total of **32,000** gallons.

It is Contractor's responsibility to ensure that enough material is procured to complete the Work in accordance with the dosing requirements stated herein.

- F. The Contractor shall keep daily records acceptable to the Engineer and available for review as a basis for and substantiation of payment. Daily logs shall minimally state the following:
 - (1) Hours of spent lime application
 - (2) The quantity of spent lime applied
 - (3) The approximate acreage and volume treated, as indicated on a copy of Figure 1
 - (4) Explanation of any downtime

END OF SECTION 02400

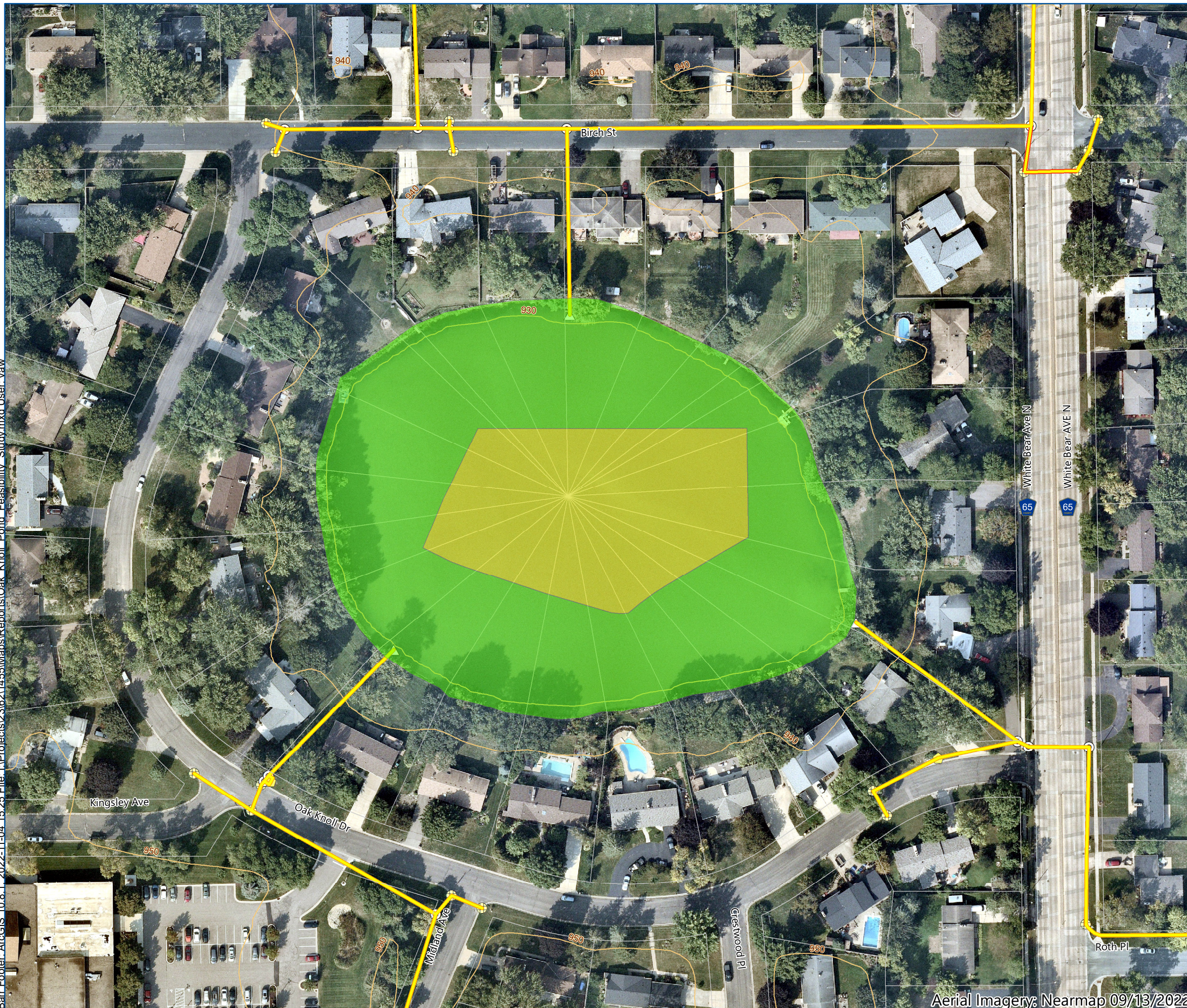







Drawings

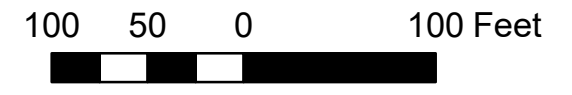
Figures 1 and 2



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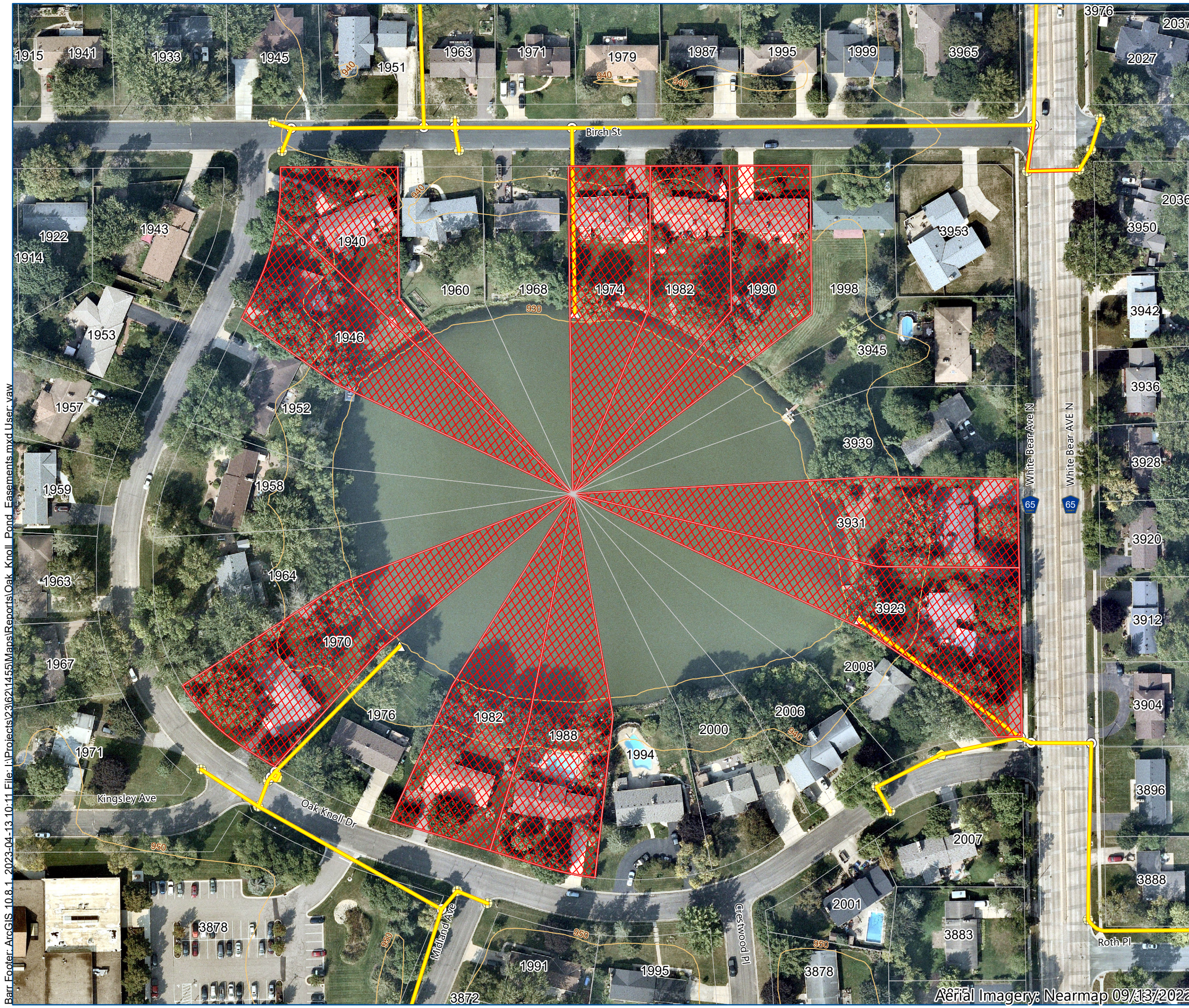
-  Storm Sewer Pipe Easement
 -  10-Foot Elevation Contour
 -  Parcel Boundary
- Spent Lime Treatment Zones**
-  Zone 1
 -  Zone 2







OAK KNOLL POND
 SPENT LIME TREATMENT
 Vadnais Lakes Area
 Watershed Management
 Organization

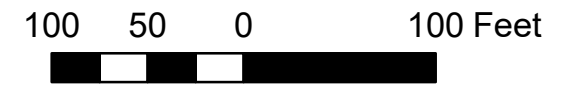
FIGURE 1

Aerial Imagery: Nearmap 09/13/2022



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-  Storm Sewer Pipe Easement
-  10-Foot Elevation Contour
-  Temporary Easement
-  Parcel Boundary



OAK KNOLL POND
EASEMENTS
Vadnais Lakes Area
Watershed Management
Organization

FIGURE 2

Aerial Imagery: Nearmap 09/13/2022

Attachment 1

Contract Agreement



Attachment 2

Temporary Easement Agreement for Access Routes

