LOWER PLATTE SOUTH
natural resources district
3125 Portia Street | P.O. Box 83581 • Lincoln, Nebraska 68501-3581
P: 402.476.2729 • F: 402.476.6454 | www.lpsnrd.org

Memorandum

Date: May 10, 2023

To: Urban Subcommittee

From: Mark Lindemann, District Engineer

Subject: May 10, 2023, Urban Subcommittee Meeting Minutes

The Urban Subcommittee met on Wednesday, May 10, 2023, at the NRD Office, at 5:00 pm. Subcommittee members participating included John Yoakum- committee chair, Melissa Baker, Deborah Eagan, Larry Ruth, Susan Seacrest, Stacie Sinclair, and Ray Stevens. Aldridge was not present. Others participating included NRD staff Paul Zillig, Mike Sousek, David Potter, Al Langdale, Drew Ratkovec, Mike Murren, and Mark Lindemann. Mary Furnas with Rolling Hills HOA, Mike Boehm, Chad Wemhoff with Pine Lake Association, Gordon Coke, Justin Cermak, Rick Krushenisky with The Flatwater Group, Travis Hazard of Hazard Engineering, Justin Eggleston with the Village of Ceresco, John Petersen of JEO Consulting Group, and Travis Figard with E & A Consulting Group, Inc., were also in attendance. Director Yoakum called the meeting to order at 5:00pm. A quorum was present for the meeting.

A. Consideration of a Community Assistance Program Application from the Rolling Hills Homeowners Association for a Limited Professional Services Agreement for Channel Repair Design [ACTION] – Ratkovec described the Rolling Hills HOA Channel Liner Repair Project located south of Old Cheney between 14th and 20th Streets. A map was referenced to show the location of the channel liner where erosion repairs are needed. The concrete liner remains in good condition, but continued erosion could affect liner integrity. An application for a cost-share request through Community Assistance Program was received April 24, 2023, for Clark & Enersen's proposal for engineering services to develop a design and provide bidding ,construction staking and observation services. Lindemann noted that as part of the FY 23-24 Interlocal Agreement on Stormwater approved in the April 2023 Board Meeting, the City will reimburse the NRD for engineering and construction for the portion of the liner that is within the ROW of the Rock Island Trail up to $20,000. Mary Furnas was introduced as the President of Rolling Hills Park and HOA. The total cost of Clark & Enersen's proposal is $15,000. The City will reimburse the NRD $1,500 for the engineering services, with the NRD splitting the remainder of the cost 50/50 at $6,750 each. Total funding by the NRD would be $8,250, including the City reimbursement of $1,500 to the NRD. Directors asked questions on estimated construction costs (~$75,000) and status of CAP remaining budget for FY 23. Ratkovec noted that Rolling Hills HOA intends to submit an additional CAP cost-share request for construction in FY 24 for this project

It was moved by Seacrest, seconded by Stevens, and unanimously approved by the Subcommittee to recommend that the Board of Directors approve the Community Assistance Program application request from the Rolling Hills HOA for channel repair engineering design, at a cost-share amount of $8,250 of NRD funds, with the City reimbursing the NRD $1,500.

B. Consideration of a Community Assistance Program Application for a Dam Rehabilitation Project from the Pine Lake Association [ACTION]- Lindemann started off by providing a background of the Pine Lake Association (PLA) Dam that was constructed in the 1960s and described the phases of work the PLA has performed place so far. The NRD has participated in cost-share assistance for outlet pipe emergency repairs in 2020 ($40,428 in NRD assistance), watershed study and outlet structure assessment in June of 2022 ($49,500 in NRD assistance) and additional analysis of outlet structures in November of 2022 ($15,000 in NRD assistance). The Flatwater Group (TFG) and Hazard Engineering have developed final plans and specifications to prepare the project for the construction phase and bids.

Two (2) bids were received on May 5th, 2023, with the low bid of $1,057,731.41 by Pat Thomas Construction being selected for the project. TFG has provided a memorandum summarizing work performed to date for the project and a letter stating the selection of Pat Thomas Construction for the low bid of $1,057,731.41. The PLA has submitted an application letter requesting a cost-share assistance through the Community Assistance Program (CAP). The request for cost-share with the NRD is for the amount of $1,057,731.41 for construction, and $64,500 for construction observation services, of which the NRD would reimburse 50%, or $561,115. The City of Lincoln Watershed has reviewed the project and agrees that the dam rehab project is important for the safety of the community. Zillig explained that the Dam provides a community benefit for both flood protection and water quality. Lindemann also mentioned that the City of Lincoln Watershed includes the privately owned dam in its floodplain models for Beal Slough to take into account flood reduction benefits. Directors asked questions related to funding and staff noted that if approved by the Board, the project would be included in the FY 24 budget. This will be discussed also in the Urban Budget/ LRIP Meeting May 15th. Other directors noted the history of the dam and that it was originally constructed in a rural area and now is fully developed, making the benefits of flood protection and water quality even more important. Chad Wemhoff, Co-President of PLA provided information of repairs to the outlet pipe in 2020, and that no other repairs have been performed. Justin Cermak of TFG explained that analysis shows the dam reduces flood flows by 90%. A Director question on construction time frame was answered by Travis Hazard who stated construction will start in September and will be substantially complete by December 2023. Murren also explained to directors that the dam's watershed is approximately 355 acres and consists of overland flow. Directors noted that the overland flow has increased due to development over the years. Zillig added that if the cost-share request is approved by the Board, that the PLA is solely responsible for all permits, the construction, construction observation and ensuring the project is built to the plans and specifications and will be required to submit a dam construction certification submittal to the Nebraska Department of Natural Resources Dam Safety Engineer. The NRD is not responsible for any future maintenance or other responsibilities related to the Dam.

It was moved by Stevens, seconded by Eagan, and unanimously approved by the Subcommittee to recommend that the Board of Directors approve the Community Assistance Program application for the Pine Lake Dam Rehabilitation Project from Pine Lake Association, at a cost-share amount of 50% of the total eligible costs for construction and construction observation of $1,122,231.41, not to exceed $561,115 of NRD funds pending Legal Counsel review. The Pine Lake Association shall be responsible for all permits, construction plans and specifications, construction observation, certification of work, and the operation and maintenance for this project. NRD reimbursement shall be contingent upon the dam rehabilitation construction meeting the requirements of the project plans and specifications and the Nebraska Department of Natural Resources Construction Certification for Dams.

C. Consideration of a Community Assistance Program Application for Professional Services for Hobson Branch Stream Restoration Project from the Village of Ceresco [ACTION]- Ratkovec described the project location for Hobson Branch south of Main Street to the City Park. Ratkovec explained that the Village of Ceresco had previously retained JEO Consulting Group to perform a stream assessment of Hobson Branch due to observed erosion taking place in the channel and banks. The results of the assessment provided recommendations to stabilize channel and bank at two bridge locations and near the City Park. A map and photos were referenced showing the location of interest and the channel degradation. The Village now is ready to move forward with designing the project and has asked JEO to provide a proposal for the work. JEO's proposal total is $39,900 and includes survey, design, permitting, bidding, and construction administration services. The Village of Ceresco has provided an application for cost-share through the Community Assistance Program for 50% of $35,400, with the NRD contributing $17,000. This amount excludes $4,500 for work associated with stabilization of the two bridges. Directors asked questions with Staff and JEO providing answers. This portion of the Hobson Branch is owned by Ceresco and no private property will be impacted by the project. Director Ruth also noted that he drives by this location frequently and agrees that the channel requires stabilization.

It was moved by Baker, seconded by Stevens, and unanimously approved by the Subcommittee to recommend that the Board of Directors approve the Community Assistance Program application request for the Hobson Branch Stream Restoration Project from Village of Ceresco, at a cost-share amount of 50% of the total eligible costs of $35,400, not to exceed $17,700 of NRD funds, pending legal counsel review.

D. Consideration of bids for Beal Slough Bank Stabilization Project near 52nd (5200) and Nebraska Parkway [ACTION] – Langdale described the location of this Beal Slough stabilization project, near 52nd and Nebraska Parkway. The project was designed by E&A Consulting Group, Inc. and Travis Figard, the engineer of record, was present to answer questions. The project will stabilize erosion on Beal Slough that is also encroaching the nearby LES Tower. The project was advertised for three weeks (April 17th, 24th, and May 1st) with bids due May 5th. Five (5) bids were opened May 5th at 11 pm. The low bid of $37,007, from Gana Trucking and Excavating. Travis Figard, with E&A, reviewed the bids and provided a letter with a recommendation to award the project to Gana Trucking and Excavating for the bid of $37,007. Figard has provided a bid recommendation letter and summary of contractors and bids received. Further explanation to Directors' questions noted that the bike trail will not require any closures and Figard showed the direction of construction traffic on the referenced project map.

It was moved by Seacrest, seconded by Stevens, and unanimously approved by the Subcommittee to recommend that the Board of Directors approve the low bid of $37,007 by Gana Trucking and Excavating, for the Beal Slough Bank Stabilization Project near 52nd and Nebraska Parkway.

E. Consideration of a Professional Services Agreement for Additional Services Order # 01, with E&A Consulting Group, Inc. for Beal Slough Bank Stabilization Project near 52nd (5200) and Nebraska Parkway [ACTION] – Langdale noted that the construction project in item D will need construction observation and administration to ensure the project requirements are met. E&A, the design engineer for the project has provided a proposal totaling $8,500.

It was moved by Seacrest, seconded by Baker, and unanimously approved by the Subcommittee to recommend that the Board of Directors approve the Professional Services Agreement with E&A Consulting Group, Inc. for Construction Observation and Administration Services for the Beal Slough Bank Stabilization Project near 52nd and Nebraska Parkway, at an amount not to exceed $8,500.

F. Consideration of a Professional Services Agreement for Additional Services Order #01 with E&A Consulting Group, Inc. for Beal Slough Bank Stabilization Project near 40th (3900) and Nebraska Parkway [ACTION] – The final action item on the agenda was for the Beal Slough bank stabilization project near 40th and Nebraska Parkway. Langdale explained that this is another stabilization project for Beal Slough and that a previous project 25 years ago utilized concrete A-Jacks for bank protection have become undermined and requires stabilization. E&A had performed preliminary design work to provide a concept plan for with three alternatives to stabilize the erosion and channel widening that has occurred. A concept that will lay bank slopes back and incorporate traditional bank armoring with riprap has been selected as the most feasible and economical. An amendment for Additional Services is required to develop final plans and prepare the project for bidding and construction. The proposal for Additional Services #01 is for $26,500 and includes final design, bidding services, construction observation and construction administration. The nearby trail will not require any closures during construction.

It was moved by Stevens, seconded by Eagan, and unanimously approved by the Subcommittee to recommend that the Board of Directors approve the Professional Services Agreement Amendment #1 with E&A Consulting Group, Inc. for the Beal Slough Bank Stabilization Project near 40th and Nebraska Parkway, at an amount not to exceed $26,500.

Director Ruth then briefly discussed the traditional design-bid-build method for projects that are used by the NRD and in many construction projects and the need to investigate other alternative methods, such as design-build, to give the District more options for our projects. It was suggested to look at other options in the future when time allows.

Director Seacrest discussed the ongoing Salt Creek Resiliency Subcommittee and how several of the NRD's projects are helping to make an impact to the study recommendations.

Meeting adjourned at 5:42 pm.

cc: Dave Landis
Steve Seglin
Corey Wasserburger

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Memorandum

Date: May 8, 2023

To: Urban Subcommittee

From: Mark Lindemann, District Engineer

Subject: Urban Subcommittee Background Information – May 2023

The Urban Subcommittee will be meeting on Wednesday, May 10, 2023, at the NRD Office, at 5:00 pm to review, discuss and take action on several items. The following summarizes the items to take action on at the meeting. Please find the attached background information on these items; the red letters shown on the upper right of the attachments help denote which item below they relate to.

A. Consideration of a Community Assistance Program Application from the Rolling Hills Homeowners Association for a Limited Professional Services Agreement for Channel Repair Design [ACTION] – See attached Memorandum from Drew Ratkovec, dated April 28, 2023, regarding this item. The Rolling Hills HOA is requesting the NRD to cost share for design services from Clark Enersen's proposal of $15,000. The City has agreed to reimburse the NRD $1,500 (10%) for the portion of the channel on City ROW, with the remainder ($13,500) being split by the NRD and HOA at $6,750 each. If approved by the Board, the funding would be broken down as; Rolling Hills HOA $6,750 (45%), LPSNRD $6,750 (45%), and City $1,500 (10%).

The Subcommittee will consider a motion to recommend that the Board of Directors approve the Community Assistance Program application request from the Rolling Hills HOA for channel repair engineering design, at a cost-share amount of $8,250 of NRD funds, with the City reimbursing the NRD $1,500.

B. Consideration of a Community Assistance Program Application for a Dam Rehabilitation Project from the Pine Lake Association [ACTION]- The Pine Lake Association (PLA) has been working with the Flatwater Group (TFG), and their subconsultant Hazard Engineering (Hazard), to rehabilitate their dam. The first phase of work included emergency repairs to the outlet pipe in which the NRD provided cost-share assistance of $40,528 through the Community Assistance Program (CAP), in the summer of 2020. In June of 2022, the Board approved a cost-share for phase 2 of $49,500 for watershed analysis and assessment of the outlet structures. An additional cost-share of an NRD contribution of $15,000 was approved by the Board in November of 2022, for additional analysis and review of outlet structures based on improvements required for the Significant Hazard Dam Classification requirements and input from NeDNR's Dam Safety Engineer. Final plans and specifications have now been prepared and bids for construction have been received. A total of two (2) construction bids were received by May 5th, 2023. In addition, LTU Watershed Division has reviewed the plans, specifications, and a flood impact inquiry technical memorandum from TFG and Hazard. Based on the selected low bid of $1,057,731.41 by Pat

Thomas Construction, Inc., the PLA has submitted a CAP cost-share request of 50% for eligible items that total $1,057,731.41. The total request proposed for NRD reimbursement totals $528,865.71. Attached is the HOA's CAP request letter, TFG's bid recommendation letter and list of bids, select pages from the plan set and technical memorandum. It should be noted that the Pine Lake Association is responsible for all design, plans and specifications, permits, construction, construction observation and certification, and upon completion of the project, future maintenance and operation needed for this project.

The Subcommittee will consider a motion to recommend that the Board of Directors approve the Community Assistance Program application request for the Pine Lake Dam Rehabilitation Project from Pine Lake Association, at a cost-share amount of 50% of the total eligible costs of $1,057,731.41, not to exceed $528,865.71 of NRD funds. The Pine Lake HOA shall be responsible for all permits, construction plans and specifications, construction observation, certification of work, and the operation and maintenance for this project, pending Legal Counsel review. Status: Staff is currently reviewing information on the project with the owner.

C. Consideration of a Community Assistance Program Application for Professional Services for Hobson Branch Stream Restoration Project from the Village of Ceresco [ACTION]- See Drew Ratkovec's attached Memorandum on The Village of Ceresco's CAP application request. The Village has previously retained JEO Consulting Group to perform a stream assessment study of Hobson Branch adjacent to Highway 77 due to observed erosion in the channel bed and bank. The assessment provided recommendation options for stabilization at two bridges at Main and Elm Streets and downstream of Elm Street near the park. The Village wishes to stabilize the two bridges and the channel area near the park. The stabilization near the park will consist of bank reshaping, grade stabilization, vegetation, and establishment of a riparian buffer. A proposal by JEO has been submitted to the Village for professional services that includes survey, design, permitting, bidding and construction administration services at a cost of $39,900. The Village of Ceresco has submitted a CAP cost-share request of 50% for eligible items totaling $35,400, not to exceed $17,700 of NRD funds. Excluded from the cost-share are services associated with the two bridges totaling $4,500. Attached is the Village of Ceresco's CAP request letter and JEO's professional services agreement.

The Subcommittee will consider a motion to recommend that the Board of Directors approve the Community Assistance Program application request for the Hobson Branch Stream Restoration Project from Village of Ceresco, at a cost-share amount of 50% of the total eligible costs of $35,400, not to exceed $17,700 of NRD funds, pending legal counsel review.

D. Consideration of bids for Beal Slough Bank Stabilization Project near 52nd (5200) and Nebraska Parkway [ACTION] – The Beal Slough Bank Stabilization project is located near 52nd and Nebraska Parkway near the Alamo Shopping Center. This project is designed to stabilize active erosion from Beal Slough downstream of the trail, which is also encroaching a nearby LES Tower. E&A Consulting Group, Inc. of Lincoln developed plans, obtained permits, and assisted with obtaining temporary access for the project. Construction bids were advertised on April 17th, 24th, and May 1, 2023, with a bid opening on Friday, May 5th, 2023. The NRD received five (5) bids from contractors, with the low bid of $37,007, from Gana Trucking and Excavating. Travis Figard, with E&A, reviewed the bids and has given a recommendation to award the project to Gana Trucking and Excavating for the bid of $37,007. See the attached summary of contractors and bids received.

The Subcommittee will consider a motion to recommend to the Board of Directors approve the low bid of $37,007 by Gana Trucking and Excavating, for the Beal Slough Bank Stabilization Project near 52nd and Nebraska Parkway.

E. Consideration of a Professional Services Agreement for Additional Services Order # 01, with E&A Consulting Group, Inc. for Beal Slough Bank Stabilization Project near 52nd (5200) and Nebraska Parkway [ACTION] – As discussed in item D, this project addresses active erosion from Beal Slough downstream of the trail. E&A's original contract included design, permitting, and bidding services. Upon approval of the Board for the selected bidder for the construction project, this project will require construction observation and administration services to ensure project requirements are met. NRD staff have worked with Travis Figard, the engineer of record for the project, to provide a proposal for construction observation and contract administration services in an amount not to exceed $8,500. The professional services agreement dated May 1, 2023, is attached.

The Subcommittee will consider a motion to recommend to the Board of Directors approve the Professional Services Agreement with E&A Consulting Group, Inc. for Construction Observation and Administration Services for the Beal Slough Bank Stabilization Project near 52nd and Nebraska Parkway, at an amount not to exceed $8,500.

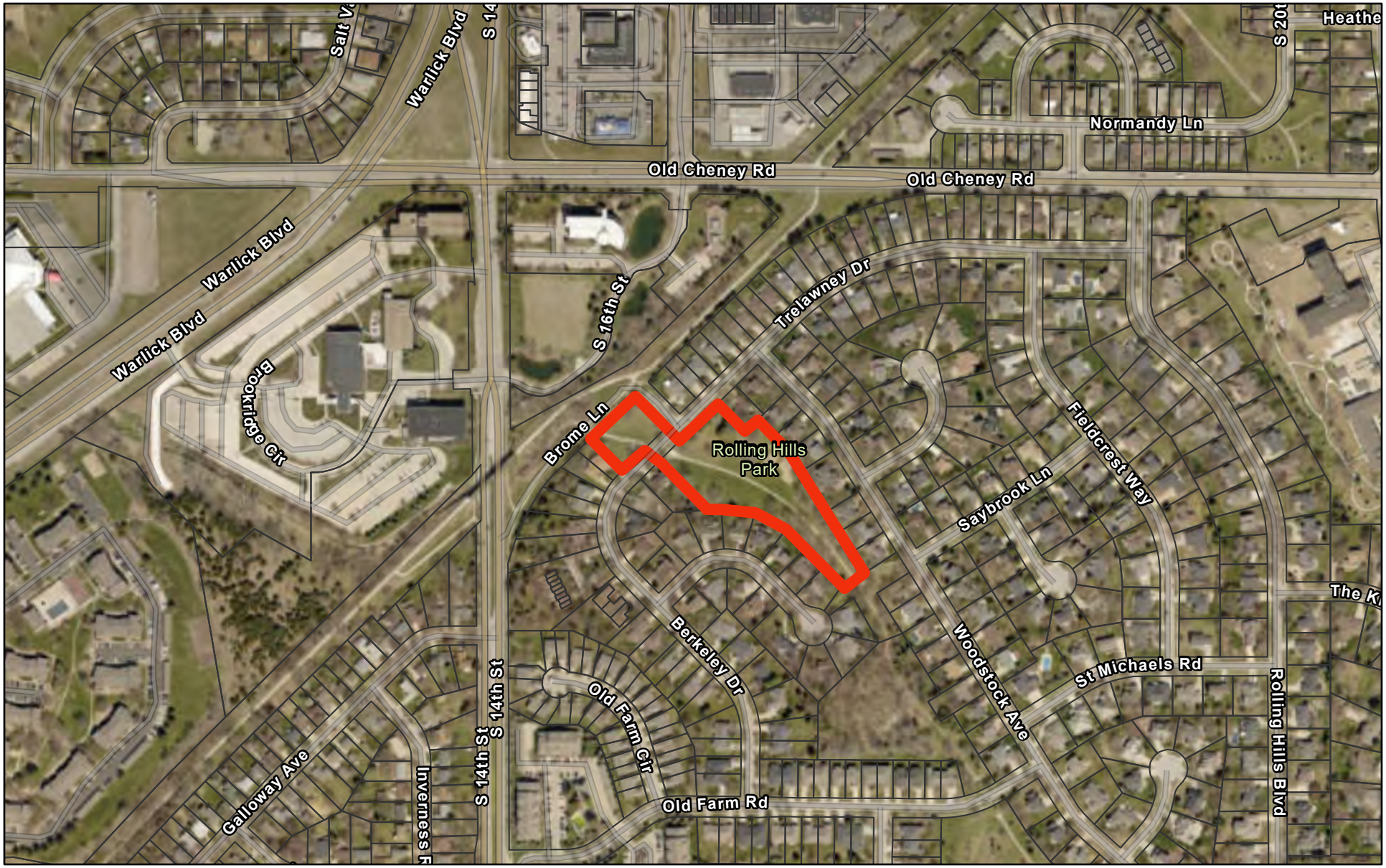
F. Consideration of a Professional Services Agreement for Additional Services Order #01 with E&A Consulting Group, Inc. for Beal Slough Bank Stabilization Project near 40th (3900) and Nebraska Parkway [ACTION] – The Beal Slough Bank Stabilization Project near 40th and Nebraska Parkway is located downstream of 40th Street. The channel has eroded around a previous bank stabilization structure and Staff have observed signs of widening and active erosion. E&A Consulting Group, Inc. previously performed preliminary engineering to develop conceptual design options to stabilize the reach and perform necessary permitting. With a design concept agreed upon, NRD staff have worked with E&A to provide a proposal for final design, bidding services, construction observation and construction administration services in an amount not to exceed $26,500. The professional services agreement dated May 1, 2023, is attached.

The Subcommittee will consider a motion to recommend to the Board of Directors approve the Professional Services Agreement Amendment #1 with E&A Consulting Group, Inc. for the Beal Slough Bank Stabilization Project near 40th and Nebraska Parkway, at an amount not to exceed $26,500.

Enclosures;
cc: Steve Seglin
Corey Wasserburger
Dave Landis

A

Rolling Hills HOA CAP Project



5/8/2023

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Memorandum

Date: April 28, 2023

To: Urban Subcommittee

From: Drew Ratkovec

RE: Rolling Hills Park Association/ Home Owners Association
Community Assistance Program Application Request
Channel Liner Repair Project

The Rolling Hills Park Association/ Home Owners Association includes 144 homes approximately located south of Old Cheney between 14th St. and 20th St. The HOA is also responsible for the Rolling Hills Park that runs from the Rock Island Trail to Old Farm Road.

A low flow concrete liner that runs through the park captures stormwater drainage that is experiencing erosion along the channel slope above and behind the existing low flow liner. Erosion has started occurring on the north end of the property between Trelawney Drive and Rock Island Trail, as well as a small portion upstream of Trelawney Drive's 60" culvert. The concrete liner itself is in good condition but there is concern that future erosion could begin to undermine the concrete and cause damage.

The President of the Rolling Hills Park/Homeowners Association (RHPA/HOA) has requested a CAP cost-share on the Agreement of Professional Services with Clark & Enersen, for the amount of $15,000 to complete Tasks I-IV of the channel design repair services. 10% of the design costs are in the City of Lincoln right-of-way, in which the city has agreed to pay their portion by reimbursing the LPSNRD. Rolling Hills HOA is requesting 50% of the total amount paid by the association. This will be broken down into these percentages: Rolling Hills-45% or $6,750, LPSNRD- 45% or $6,750, City of Lincoln- 10% or $1,500.

Staff recommended motion: The Subcommittee will consider a motion to recommend that the Board of Directors approve the Community Assistance Program request from the Rolling Hills Homeowners Association, for $8,250 on cost-share assistance for the channel repair project, with the city of Lincoln reimbursing the NRD $1,500.

Attachments

Rolling Hills Park Association Inc. / HOA
Attn: President, Mary Furnas
1816 Trelawney Dr.
Lincoln, NE 68512
furnas.rollinghillspark@gmail.com
402-770-8967

Lower Platte South Natural Resources District
3125 Portia St.
Lincoln, NE 68521

Attn: Drew Ratkovec
Stormwater/Watershed Specialist

April 24, 2023

Dear Mr. Ratkovec and LPSNRD Board Members,

The Rolling Hills Park Association HOA (RHPA/HOA) is requesting cost-share from the Lower Platte South Natural Resources District through the Community Assistance Program for the purpose of correcting an erosion issue along the waterway that runs through Rolling Hills Park. The Park is used to connect with our friends, neighbors, and the community at large. We want it to be a safe and enjoyable place for all.

The Rolling Hills neighborhood was established in September of 1974. RHPA/HOA is a division of Rolling Hills. The RHPA/HOA includes 144 homes at the following addresses: **Trelawney Drive** (1400 - 1832), **Woodstock Avenue** (5803 - 5937), **Fieldcrest Way** (5803 - 5929), **Bartholomew Circle** (5900 - 5958), **Brome Lane** (5800), **Branford Place** (5916 - 5931), **Berkeley Drive** (5800 - 5901), **St. Andrew's Place** (1710 - 1843), and **Saybrook Lane** (1710 – 1825).

The project we need assistance in financing is the correction of an erosion issue. There is a low flow liner that runs through the Rolling Hills Park property. The liner itself is in good shape, however if not repaired could further deteriorate and put the low flow liner in jeopardy. Erosion on the channel slope above/behind the liner has started occurring on the north end of the property between Trelawney Drive and Rock Island Trail, as well as a small portion upstream of Trelawney Drive's 60" culvert.

The RHPA/HOA received a Provision of Limited Professional Service Agreement from Clark & Enersen for $15,000. It is understood by the RHPA/HOA that 10% ($1,500) of this channel repair is on the city right of way, in which the city will cost share on. With that being said, the RHPA/HOA is asking for a 50% cost share from the LPSNRD for the portion of the project paid by RHPA/HOA themselves. This means it will be broken down into 45% ($6,750) RHPA/HOA, 45% ($6,750) LPSNRD, and 10% ($1,500) City of Lincoln. The LPSNRD has already received the Scope of Services from Clark & Enersen.

Thank you for considering the Rolling Hills Park Association, HOA's request. Please let me know if you have any questions.

Respectfully,

Mary Furnas

Mary Furnas
President, Rolling Hills Park Association/ HOA

An Agreement for the Provision of Limited Professional Services

Design Professional Firm: Clark & Enersen
1010 Lincoln Mall, Suite 200
Lincoln, Nebraska 68508

Client: Mary Furnas, President
Rolling Hills Park Association / HOA
1846 Trelawney Dr.
Lincoln, NE 68512

Date: April 10, 2023

Project No: TBD

Project Name/Location: Rolling Hills Park Channel Repairs, near Trelawney Drive

Scope/Intent and Extent of Services: Develop construction documents for repair of the side slope erosion of the concrete lined channel between Trelawney Drive and Rock Island Trail and at the inlet side of the Trelawney Drive 60-inch culvert. See Exhibit 'A'. A topographic survey will be required. Design services include a site visit, hydrologic and hydraulic analysis of the channel and culverts, and two design alternatives for bank stabilization measures for the length of the channel recommended for repairs as shown in Exhibit 'A'. Coordination and meetings with the Rolling Hills Park Homeowners Association, City of Lincoln, and Lower Platte South NRD during the design and bidding process will be required. Construction Staking Services and Part Time Construction Observation will be provided in this scope. Services exclude City of Lincoln design review process.

Fee Arrangement: Lump Sum of $15,000 for the following

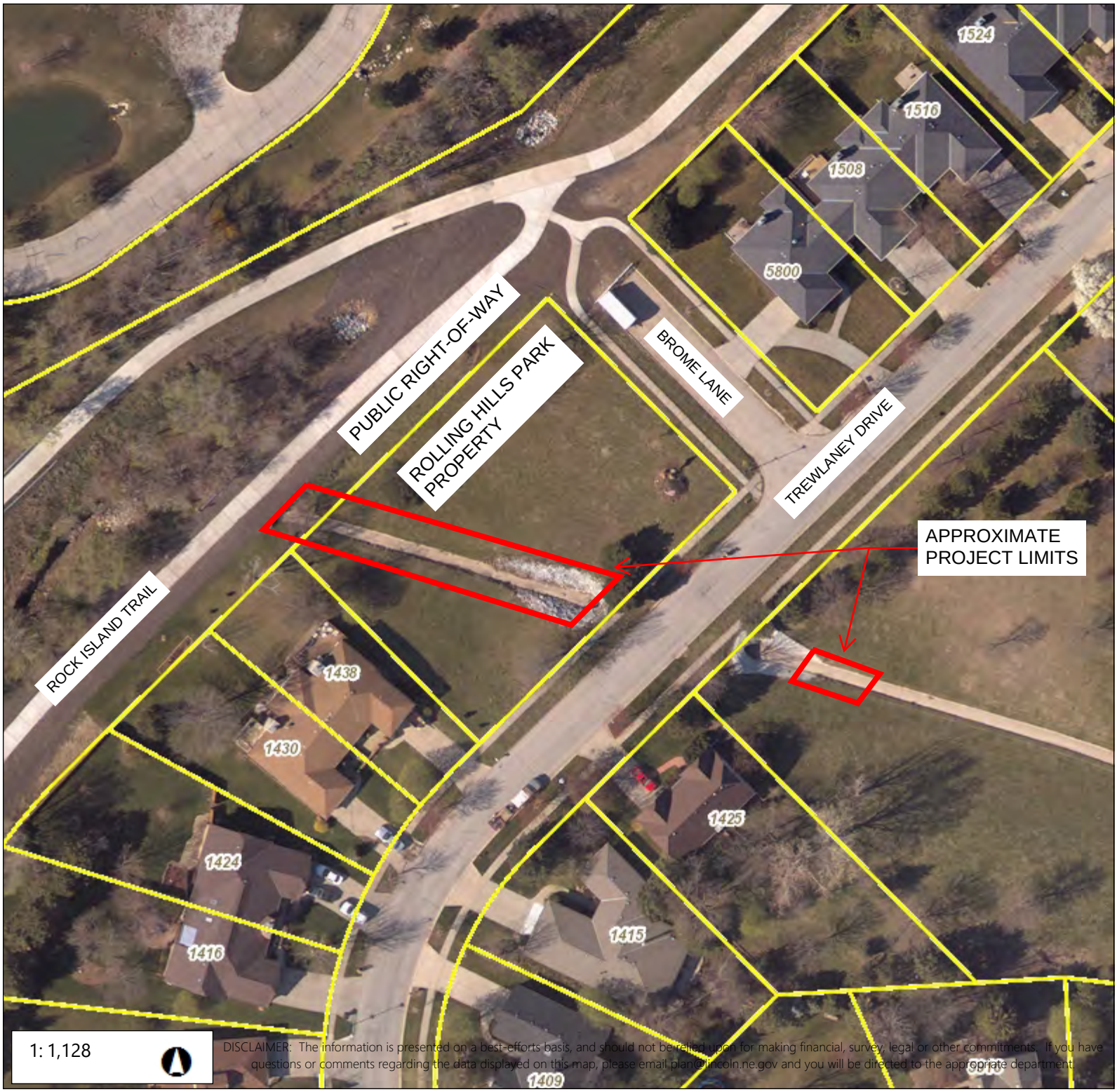
Task I – Topographic Survey
Task II – Design Services
Task III – Construction Staking Services
Task IV – Part Time Construction Observation

Offered by:	**Accepted by:**
signature	*signature* *date*
Tim Gergen, Principal *printed name/title*	*printed name/title*
Clark & Enersen *name of design professional firm*	*name of client*

The Terms and Conditions and the initials required on the following page are a part of this Agreement.

Development Viewer
CITY OF LINCOLN - LANCASTER COUNTY, NE

Rolling Hills Park



DISCLAIMER: The information is presented on a best-efforts basis, and should not be relied upon for making financial, survey, legal or other commitments. If you have questions or comments regarding the data displayed on this map, please email plan@lincoln.ne.gov and you will be directed to the appropriate department.

Legend

- Address Labels
- Parcels_Aerial
- Parcels_Street

EXHIBIT 'A'

Terms and Conditions

The firm shall perform the services outlined in this agreement for the stated fee arrangement.

Access To Site:
Unless otherwise stated, the Firm will have access to the site for activities necessary for the performance of the services. The Firm will take precautions to minimize damage due to these activities, but has not included in the fee the cost of restoration of any resulting damage.

Billings/Payments:
Invoices for the Firm's services shall be submitted on a monthly basis. Invoices shall be payable within 30 days after the invoice date.

Late Payments:
Accounts unpaid 60 days after the invoice date may be subject to a monthly service charge of 1.5% (or the legal rate) on the then unpaid balance. In the event any portion or all of an account remains unpaid 90 days after the billing, the Client shall pay all costs of collection, including reasonable attorney's fees.

Indemnification:
The Client shall, to the fullest extent permitted by law, indemnify and hold harmless the Firm, his or her officers, directors, employees, agents and subconsultants from and against all damage, liability and cost, including reasonable attorney's fees and defense costs, arising out of or in any way connected with the performance by any of the parties above named of the services under this agreement, excepting only those damages, liabilities or costs attributable to the sole negligence or willful misconduct of the Firm.

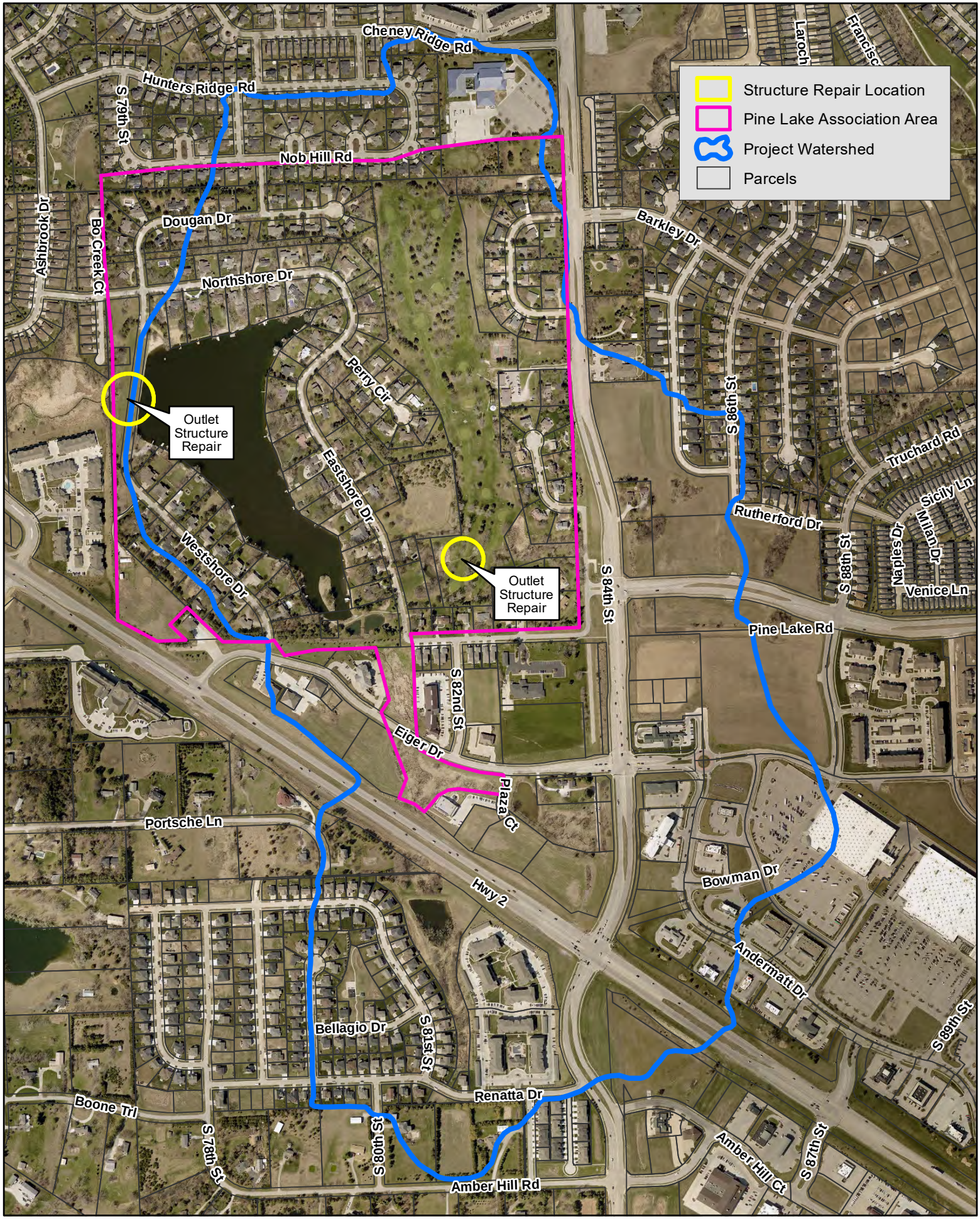
Certification:
Guarantees and Warranties: The Firm shall not be required to execute any document that would result in its certifying, guaranteeing or warranting the existence of conditions whose existence the Firm cannot ascertain.

Limitation of Liability:
In recognition of the relative risks and benefits of the project to both the Client and the Firm, the risks have been allocated such that the Client agrees that, to the fullest extent permitted by law, the Firm's total liability to the Client for any and all injuries, claims, losses, expenses, damages or claim expenses arising out of this agreement from any cause or causes, shall not exceed the Fee. Such causes include, but are not limited to, the Firm's negligence, errors, omissions, strict liability, breach of contract or breach of warranty.
Initial here: TG (Firm) _____ (Client).

Termination of Services:
This agreement may be terminated by the Client or the Firm should the other fail to perform its obligations hereunder. In the event of termination, the Client shall pay the Firm for all services rendered to the date of termination, all reimbursable expenses, and reimbursable termination expenses.

Ownership of Documents:
All documents produced by the Firm under this agreement shall remain the property of the Firm and may not be used by the Client for any other endeavor without the written consent of the Firm.

Community Assistance Request - Pine Lake HOA, Outlet Structures Needing Reengineering/Replaced



Map By: Lower Platte South NRD, sdr - June 2022

8 May 2023

Mark Lindeman, P.E. – District Engineer
Lower Platte South NRD
P.O. Box 83581
Lincoln, NE
mlindemann@lpsnrd.org

RE: Community Assistance Program Application Letter for Next Phase of PLA Dam Rehabilitation Project, Pine Lake, Lincoln, Nebraska

Dear Mark:

The Pine Lake Association (PLA) has been partnering with Lower Platte South NRD (LPSNRD) through the Community Assistance Program (CAP) since the summer of 2020 on emergency repairs (outlet pipe), watershed analysis, and dam outlet structure rehabilitation efforts at Pine Lake in Lincoln, Nebraska. Below is a brief summary of CAP funding to-date:

- Emergency Repairs Main Dam – Summer 2020. PLA received $40,528 in CAP cost-share (40% of project total) for emergency repairs on the dam outlet pipe.
- Watershed Assessment & Outlet Structures Analysis and Preliminary Design – Summer/Fall 2022. PLA received $49,500 (50% of project total) for Pine Lake Watershed Assessment and Sediment Loading Analysis and preliminary design for outlet structure alternatives. PLA contracted with The Flatwater Group, Inc. (TFG) for this effort.
- Additional Outlet Structure Design Cost – November 2022. PLA received $15,000 (50% of total) to support additional design costs for the preferred alternative for complete replacement of the riser and drawdown pipe.

TFG solicited bids for the PLA Dam Rehabilitation portion of the project on 26 April 2023. Bid documents were sent to nine (9) regional construction firms. Bids were requested to be submitted to TFG by Friday May 5, 2023. TFG's bid review and bid tabulation documentation is attached.

PLA is requesting a CAP cost share of 50% ($528,865) toward the estimated cost of the PLA Dam Rehabilitation portion of this comprehensive project. The estimated project cost is $1,057,731.41 based on the low construction bid received from Pat Thomas.

PLA is also requesting $32,250 (50% of the total cost) in CAP assistance for construction management for the dam outlet replacement portion of the project.

PLA plans to seek an additional cost-share of 50% for removal of sediment in two small retention basins and watershed improvements. We will solicit bids for this portion of the project and provide that cost-share request under separate cover.

PLA is looking forward to continued partnership with LPSNRD on the Pine Lake Rehabilitation Project. PLA board members and TFG design team staff will be present to discuss any questions at the subcommittee meeting on May 10th. Should you have any questions before May 10th, do not hesitate to contact me (614-264-1482 cell).

Sincerely,

Mike Boehm
Board Co-President
Pine Lake Association
Lincoln, NE
mcboehm1990@gmail.com

Cc: Chad Wemhoff, Board Co-President

THE FLATWATER GROUP INC.

8200 Cody Drive, Suite A
Lincoln, NE 68512-9550
Phone: 402.435.5441
Fax: 402.435.7108
www.flatwatergroup.com

8 May 2023

Chad Wemhoff, Board President
Pine Lake Association
Lincoln, NE
cwemhoff@lincolnpt.com

RE: Review and Recommendation of Bid Proposals for the PLA Dam Rehabilitation Project, Pine Lake, Lincoln, Nebraska

Dear Chad:

The Flatwater Group, Inc. (TFG), solicited bids for the Pine Lake Association Dam Rehabilitation project at Pine Lake on 26 April 2023. Bid documents were sent to nine (9) regional construction firms. Bids were requested to be submitted to TFG by Friday May 5, 2023. TFG requested that potential bidders respond to Rick Krushenisky (either by email or phone) by Monday May 1, 2023, indicating to the best of their knowledge, whether they intended to submit a bid so that we could ensure that we received the requisite number of bids. It was noted to the prospective bidders that this is a private solicitation and not publicly advertised. Bid documents were sent directly to the following construction firms: HR Bookstrom, Gana Trucking and Excavating, VK Bros., ME Collins, Pat Thomas Construction, Empire Construction and Trenching, Lipsey Construction, Midwest Infrastructure and Yost Excavating. During the bid period, it was communicated that VK Bros., and HR Bookstrom would not be bidding due to other commitments.

TFG has reviewed the bid proposals and prepared a summary spreadsheet for the Dam Rehabilitation Project at Pine Lake, Lincoln, Nebraska. The bid opening was held at the office of the Engineer at 3:00 PM on 5 May 2023. TFG received bid proposals from the following construction firms: Pat Thomas Construction, Inc., and Midwest Infrastructure for the above-mentioned project.

Based on our review of the bid proposals summarizing all unit and extended prices, Pat Thomas Construction, Inc. is the apparent low bidder at $1,057,731.41 for the Base Bid. Pat Thomas Construction had one extended price error on their bid form (bid item no.15). They showed an extended price of $11,000.00 and the correct amount should have been $11,005.21. The $5.21 difference did not affect the outcome of the apparent low bidder. Midwest Infrastructure submitted a Base Bid of $5,788,740.36. The Engineer's estimate of probable cost of construction without contingency was $888,125.80.00.

TFG and Hazard Engineering both have prior knowledge of Pat Thomas Construction.

TFG understands that PLA intends to provide this bid information to the Lower Platte South Natural Resources District as supporting documentation for CAP application. TFG recommends continued correspondence with Pat Thomas Construction to keep them abreast of the project timeline. Should PLA be prepared to enter into a contractual agreement with Pat Thomas Construction, TFG will, at your direction, request Pat Thomas Construction submit post bid information per Section 00100 Instructions to Bidders, Paragraph VI Post Bid Information (subparagraph B. Submissions) as soon aspossible.

We look forward to our continued work with you on this phase of this project. Should you have any questions do not hesitate to contact us at (402) 416-4470.

Sincerely,

Rick Krushenisky, P.E.
Construction Manager
THE FLATWATER GROUP, INC.

Bid Tabulation:
Pine Lake Association
Pine Lake Dam Rehabilitation Project

5/05/23 @ 3:00pm | **5/05/23 @ 3:00pm**

Bidder **Base Bid:** **Bid Security**				Midwest Infrastructure 5320 N. 148th Lincoln, NE 68527 402-786-7410 Ryan Manning rmanning@midwesti.com		Pat Thomas Construction, Inc. 1028 G Street, No. 102 Patrick K. Thomas, Owner	
				5%		5%	
Item	**Description**	**Unit**	**Quantity**	**Unit Price**	**Total**	**Unit Price**	**Total**
1	Mobilization	LS	1	$357,500.00	$357,500.00	$91,676.00	$91,676.00
2	Clearing and Grubbing	LS	1	$19,500.00	$19,500.00	$15,000.00	$15,000.00
3	Traffic Control	LS	1	$7,800.00	$7,800.00	$1,000.00	$1,000.00
4	Remove and Reset LES Power Line	LS	1	$650,000.00	$650,000.00	$7,000.00	$7,000.00
5	Dewatering/Handling of Water	LS	1	$2,600,000.00	$2,600,000.00	$7,500.00	$7,500.00
6	Bypass Pumping	LS	1	$260,000.00	$260,000.00	$25,500.00	$25,500.00
7	Stripping and Topsoiling	SY	2078	$18.20	$37,819.60	$3.75	$7,792.50
8	Demo - Principal Spillway	LS	1	$130,000.00	$130,000.00	$7,500.00	$7,500.00
9	Demo - Asphalt	SY	458	$19.50	$8,931.00	$13.00	$5,954.00
10	Excavation - Pipe Removal (in-situ)	CY	6241	$32.50	$202,832.50	$16.00	$99,856.00
11	Excavation - Proposed Pipe Removal (in-situ)	CY	2014	$32.50	$65,455.00	$16.00	$32,224.00
12	Embankment - Fill (Borrow in-situ)	CY	2228	$45.50	$101,374.00	$25.00	$55,700.00
13	Concrete - Riser	CY	75.3	$4,030.00	$303,459.00	$1,738.00	$130,871.40
14	Reinforcing Steel - Riser	LB	14355	$2.86	$41,055.30	$2.20	$31,581.00
15	Strutctural Steel - Riser	LB	3973	$7.80	$30,989.40	$2.77	$11,005.21
16	Chain Link Fence - Riser	LF	65	$169.00	$10,985.00	$132.00	$8,580.00
17	Trash Rack - Riser	LS	1	$62,894.00	$62,894.00	$5,500.00	$5,500.00
18	24" x 24" Downward Opening Weir Gate	LS	1	$76,375.00	$76,375.00	$29,760.00	$29,760.00
19	12" Drawdown Gate Valve	LS	1	$22,581.00	$22,581.00	$8,500.00	$8,500.00
20	Type B/C Riprap - Inlet Protection	TN	68	$156.00	$10,608.00	$73.00	$4,964.00
21	12" SDR35 PVC Pipe	LF	26	$202.15	$5,255.90	$63.00	$1,638.00
22	48" RCPP Principal Spillway	LF	110	$1,690.00	$185,900.00	$1,926.00	$211,860.00
23	Pipe Bedding - Principal Spillway	LF	110	$812.50	$89,375.00	$136.00	$14,960.00
24	Sand Filter	CY	249	$304.20	$75,745.80	$158.00	$39,342.00
25	8" A-2000 PVC Pipe	LF	28	$208.00	$5,824.00	$60.00	$1,680.00
26	8" A-2000 Perforated PVC Pipe	LF	4	$260.00	$1,040.00	$75.00	$300.00
27	Concrete - Impact Basin	CY	47.2	$4,030.00	$190,216.00	$1,721.00	$81,231.20
28	Reinforcing Steel - Impact Basin	LB	9526	$2.86	$27,244.36	$2.20	$20,957.20
29	4" A-2000 Perforated PVC Pipe	LF	35	$149.50	$5,232.50	$80.00	$2,800.00
30	Chain Link Fence - Impact Basin	LF	24	$169.00	$4,056.00	$110.00	$2,640.00
31	Type B/C Riprap - Outlet Protection	TN	100	$156.00	$15,600.00	$75.00	$7,500.00
32	3" Crushed Aggregate Base Course	TN	24	$130.00	$3,120.00	$75.00	$1,800.00
33	8" SDR35 PVC Pipe	LF	165	$182.00	$30,030.00	$69.66	$11,493.90
34	Concrete - Drawdown Headwall	CY	1.2	$8,450.00	$10,140.00	$3,100.00	$3,720.00
35	Reinforcing Steel - Drawdown Headwall	LB	120	$5.20	$624.00	$2.20	$264.00
36	Trash Rack - Drawdown Headwall	LS	1	$9,750.00	$9,750.00	$1,000.00	$1,000.00
37	Manhole Connection	LS	1	$13,000.00	$13,000.00	$3,500.00	$3,500.00
38	Reinforcing Concrete Paving - 7"	SY	458	$169.00	$77,402.00	$92.00	$42,136.00
39	1" Crushed Aggregate Basecourse	TN	77	$78.00	$6,006.00	$85.00	$6,545.00
40	Erosion and Sediment Control	LS	1	$19,500.00	$19,500.00	$4,500.00	$4,500.00
41	Seeding and Mulching	AC	1.6	$8,450.00	$13,520.00	$6,500.00	$10,400.00
	Subtotal of Base Bid items 1 through 41			$ 0.00	$ 5,788,740.36		$ 1,057,731.41
	Difference from Engineers Estimate				551.79%		19.10%
					551.79%		19.10%

PAGE INDEX

PINE LAKE DAM REHABILITATION PROJECT

Pine Lake Association
Lincoln, Nebraska

HAZARD ENGINEERING

COORDINATING PROFESSIONAL:
TRAVIS R. HAZARD, PE, CFM
PHONE: 402.525.3651
EMAIL: thazard@hazardeng.com

THE FLATWATER GROUP INC.

PROJECT MANAGER:
GORDON COKE
PHONE: 402.730.8480
EMAIL: gcoke@flatwatergroup.com

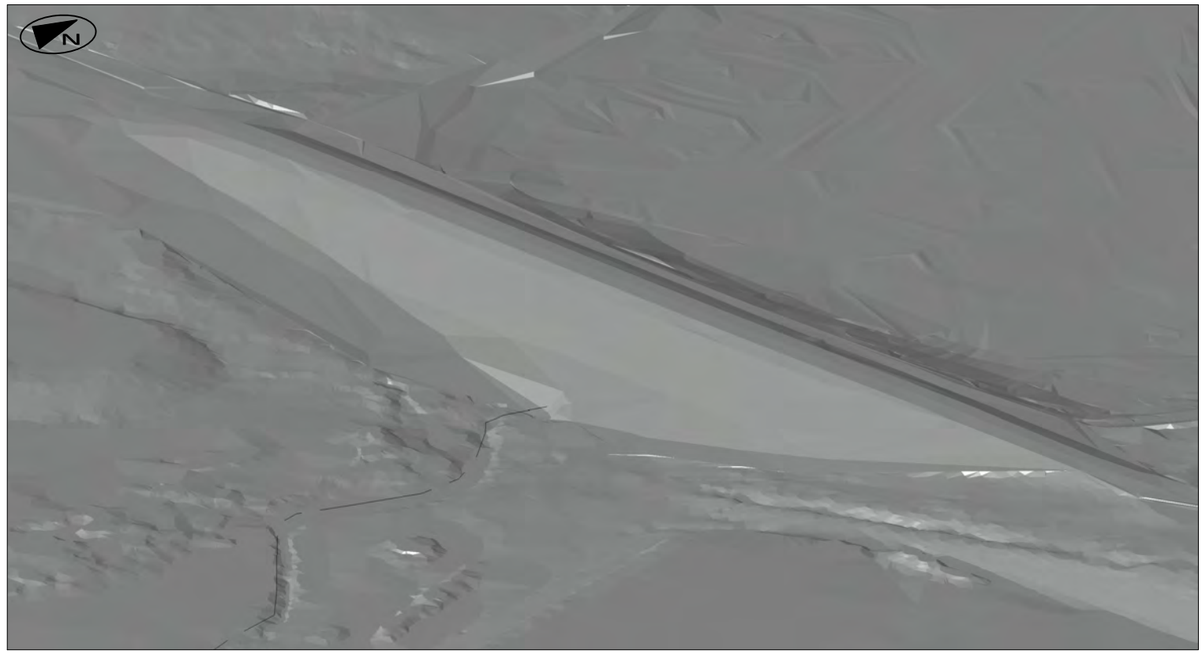
I certify that the site survey and the design of the Pine Lake Dam Rehabilitation represented on these drawings were made under my direction and consist of 23 sheets.

I further certify that this dam was designed to meet the requirements of a SIGNIFICANT hazard structure.

Engineer Signature Date

I certify that these drawings were made with my full knowledge and consent

Applicant Signature Date



N 1 PROJECT LOCATION
NOT TO SCALE

HAZARD ENGINEERING, LLC
NBEA COA - CA4833
Valparaiso, NE 68065
Phone: (402) 525-3651
thazard@hazardeng.com

COVER

PINE LAKE DAM REHABILITATION PROJECT
Pine Lake Association
Lincoln, Nebraska
Lat: 40.7446 Long: 96.6153

Printed: 4/26/23	
Rev.	Date

PROFESSIONAL CIVIL ENGINEER
Travis R. Hazard
E-16149
04/26/2023
STATE OF NEBRASKA
COORDINATING PROFESSIONAL

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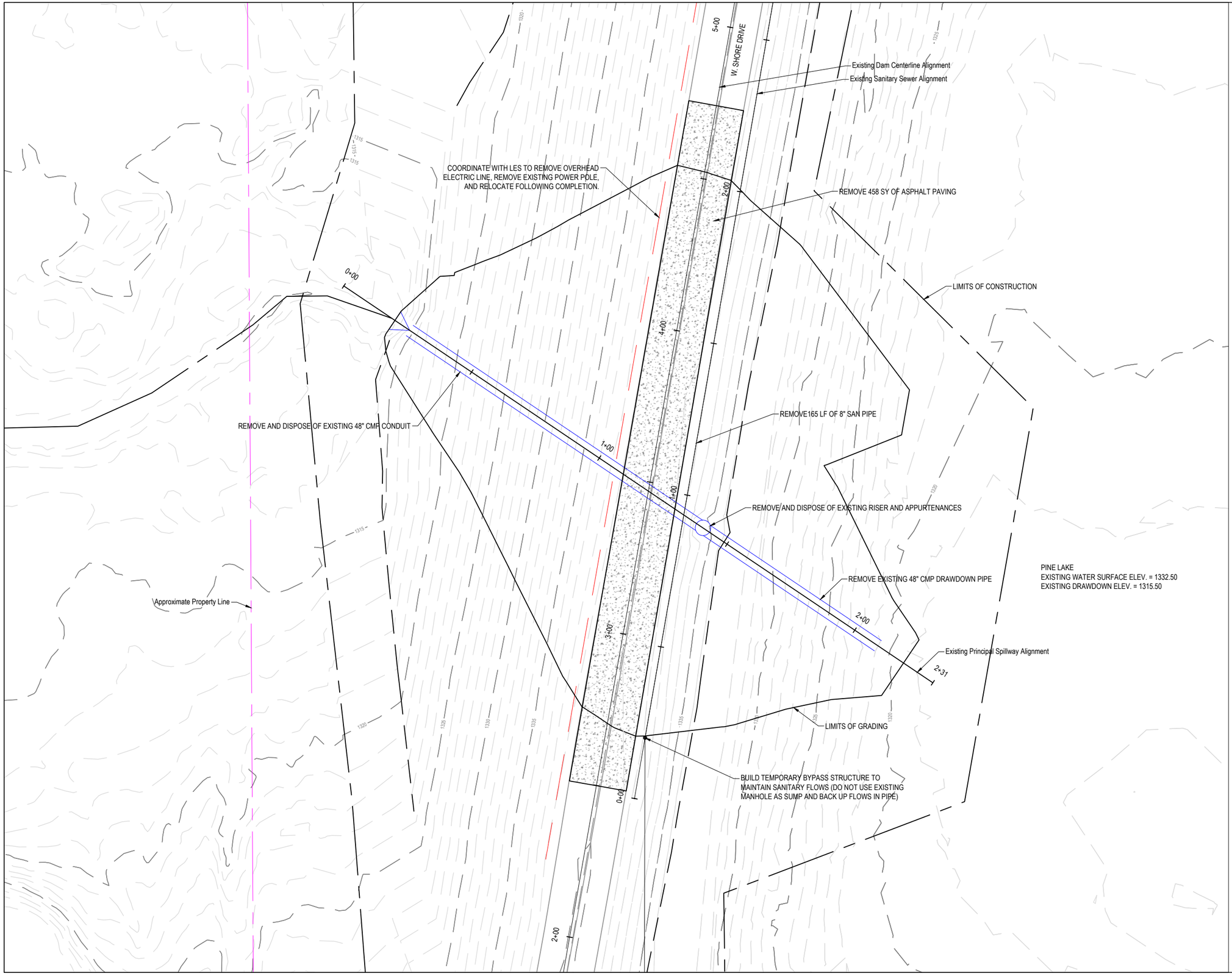


NOTE:

- OWNER WILL HAVE WATER IN LAKE DRAWN DOWN TO THE DRAWDOWN PIPE PRIOR TO CONSTRUCTION.
- CONTRACTOR IS RESPONSIBLE FOR HANDLING AND MANAGING STORMWATER FOR THE DURATION OF CONSTRUCTION TO ENSURE A SUITABLE WORKING AREA.
- CONTRACTOR SHALL COORDINATE WITH LINCOLN ELECTRIC SYSTEM (LES) AREA ENGINEER
  - JAMES HENDERSON
    - PHONE: 402.889.3237
    - EMAIL: jhenderson@les.com
  - LES WILL COMPLETE FIELD WORK TO TEMPORARILY REMOVE THE EXISTING OVERHEAD POWER LINE FOR CONSTRUCTION AND REMOVE POWER POLE WITHIN GRADING LIMITS.
  - LES WILL REPLACE POWER POLE AND HOOK UP POWER LINE FOLLOWING CONSTRUCTION.
  - THE PLAN IS SUBJECT TO CHANGE AND CONTRACTOR SHALL COORDINATE WITH ENGINEER AND LES TO ACCOMMODATE FOR THE DURATION OF CONSTRUCTION.
- PIPE REMOVAL AND DISPOSAL IS THE RESPONSIBILITY OF THE CONTRACTOR.
- CONTRACTOR SHALL COMPLETE A ONE-CALL REQUEST PRIOR TO COMPLETING ANY DIGGING ON THE PROJECT.

Know what's below. Call before you dig.

HAZARD ENGINEERING, LLC
NBEA COA - CA4833
Valparaiso, NE 68065
Phone: (402) 525-3651
thazard@hazardeng.com

DEMO PLAN

PINE LAKE DAM REHABILITATION PROJECT
Pine Lake Association

Lincoln, Nebraska
Lat: 40.7446 Long: 96.6153

Printed:	4/26/23
Rev.	Date

NATIONAL CIVIL
Tim R. Hyl
E-16149
STATE OF NEBRASKA
04/26/2023

C1.0

THE FLATWATER GROUP INC.

8200 Cody Drive, Suite A
Lincoln, NE 68512-9550
Phone: 402.435.5441
Fax:402.435.7108
www.flatwatergroup.com

28 April 2023

Tim Zach, Superintendent
LTU – Watershed Management Division
555 S. 10th St, Suite 203
Lincoln, NE 68508
402-441-7532

RE: Pine Lake Association Dam Rehabilitation Project Flood Impact Inquiry

Dear Tim:

This letter responds to your request for additional information regarding the proposed modifications to the principal spillway of Pine Lake Dam and their potential impact on flooding. The Pine Lake Association has engaged The Flatwater Group and Hazard Engineering to assist them with a rehabilitation project for their reservoir. In addition to providing recreational benefits to the Association, this reservoir provides greater benefits including wildlife habitat and downstream water quality and flood reduction benefits for the City of Lincoln. The Beal Slough Watershed Master Plan completed by the City of Lincoln in 2000 calculated a 90% reduction in the 100-year peak flood discharge (1,900 cfs) by the Pine Lake Dam.

Hazard Engineering designed the proposed principal spillway for this dam. The dam is classified as a significant hazard structure by NDNR, such that failure of the dam could result in major economic loss, environmental damage, or disruption of lifeline facilities. NDNR's 2008 Hazard Classification Study calculated a maximum breach discharge of 8,800cfs. The proposed project will upgrade the existing dam to meet minimum design requirements for a new significant hazard structure based on current climate data. I have enclosed Hazard Engineering's letter to the Lower Platte South NRD's board that further details the flood risk reduction benefits of the proposed project.

Additionally, The Flatwater Group conducted an investigation on the project's potential impact on flooding, which is summarized in the enclosed technical memorandum. When comparing the proposed principal spillway structure with updated climate data to the FEMA effective Beal Slough model with historic climate data, potential increases were found in peak inflow (280 cfs), peak outflow (140-160 cfs), and peak elevation in the reservoir (0.4 – 0.7 ft). The range of values reflects uncertainty in revising the FEMA model to account for current storage data. A portion of the increased peak outflow (14 – 72 cfs) can be attributed to the change in principal spillway structure, which was sized to accommodate updated climate data. When evaluating this increase in peak outflow by the proposed structure, the increase in peak inflow and reservoir elevation should also be considered.

If you have any questions or require additional information, please call me at (402) 435-5441.

Sincerely,

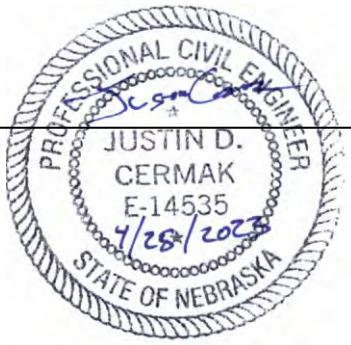
Justin Cermak, P.E.
Nebraska E-14535
THE FLATWATER GROUP INC.

Cc: Mark Lindeman, Lower Platte South NRD
Travis Hazard, Hazard Engineering

THE FLATWATER GROUP INC.

8200 Cody Drive, Suite
A Lincoln, NE 68512-9550
Phone: 402.435.5441
Fax: 402.435.7108
www.flatwatergroup.com

TECHNICAL MEMORANDUM



To: **Tim Zach, P.E., Superintendent**
LTU - Watershed Management Division

From: **Justin Cermak, P.E., E-14535**
The Flatwater Group, Inc., CA1145

Date: **27 April 2023**

Re: **Pine Lake Association Dam Rehabilitation Project Flood Impact Inquiry**

The Flatwater Group (TFG) was tasked by the City of Lincoln and Lower Platte South NRD to investigate the potential downstream impact to the 100-year flood by the proposed principal spillway (PS) modification for the Pine Lake dam. Hazard Engineering, Inc. (Hazard) designed the PS to meet the minimum design requirements for a new significant hazard structure. TFG's investigation compared the proposed structure to the City of Lincoln's Beal Slough Master Plan model[1] (BEAL FIS), which was used to delineate the FEMA effective floodplain downstream.

Storage-Discharge Comparison

TFG compared the storage-discharge curves assumed in the BEAL FIS model to the proposed structure. Hazard provided current stage-storage data for the existing dam[2], which is based on 2016 LiDAR[3] data and bathymetric survey data collected by TFG in 2020. The BEAL FIS model assumed an initial elevation of 1332.0 ft, which 0.5 ft lower than the measured normal pool (1332.5 ft). The BEAL FIS curve was adjusted to the measured normal pool elevation to allow for comparison with the current storage data (Figure 1). TFG found that the current storage is less than what is assumed in the BEAL FIS model.

Hazard provided stage-discharge data for the proposed PS structure (Attachment A). TFG developed stage-discharge data for the existing auxiliary spillway (AS) based on Hazard's measurements[2]. The AS rating curve was generated using HydroCAD, added to the PS rating curve (Figure 2), and combined with the current storage data to generate a storage-discharge curve (Figure 3). The BEAL FIS storage-discharge curve was derived by combining the stage-discharge data in the BEAL FIS model with the current storage data, which corrects for the difference in initial elevation and storage volumes. TFG also generated an adjusted BEAL FIS, which assumes that the difference in initial elevation is actually due to an error in elevation or a datum shift. This curve was generated by raising the stage-discharge curve up 0.5 ft (Figure 2) before combining with the stage-storage data (Figure 3). Comparison of the storage-discharge curves shows that the proposed PS structure trends toward the BEAL FIS model at around 300cfs, before diverging as the AS is engaged.

[1] Olsson Associates and Wright Water Engineers. City of Lincoln and LPSNRD, Beal Slough Watershed Master Plan. May 2000.
[2] Hazard Engineering. Pine Lake Dam Rehabilitation Project, Sheet C0.1 Project Data. 4/26/23.
[3] USGS. NE Eastern Nebraska LIDAR 2016 B16. December 2016.

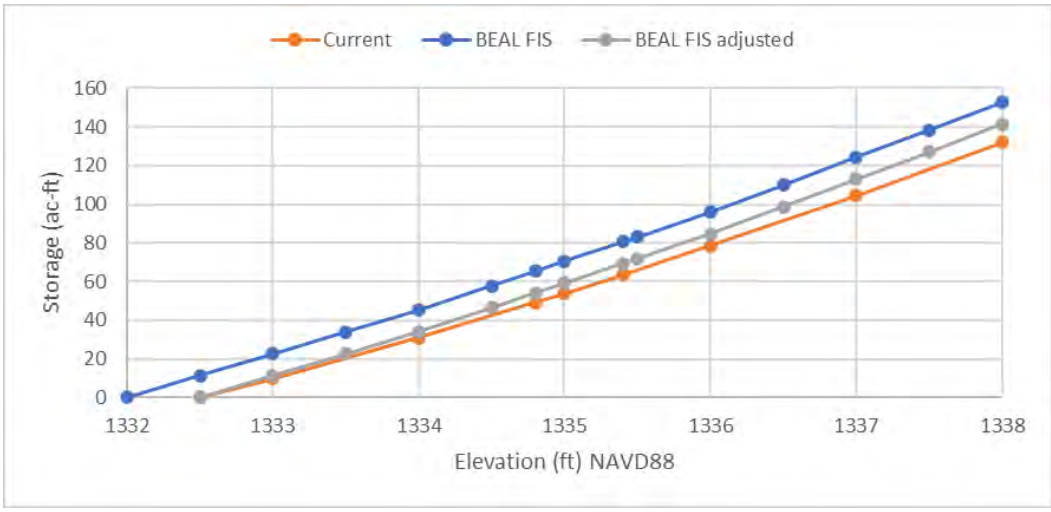


Figure 1 – Pine Lake Stage-Storage Curve

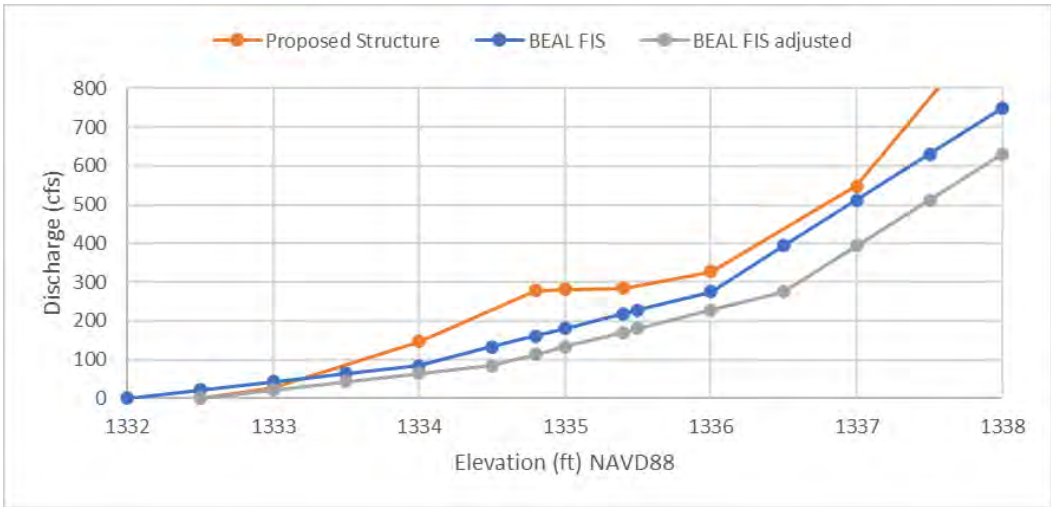


Figure 2 – Pine Lake Stage-Discharge Curve

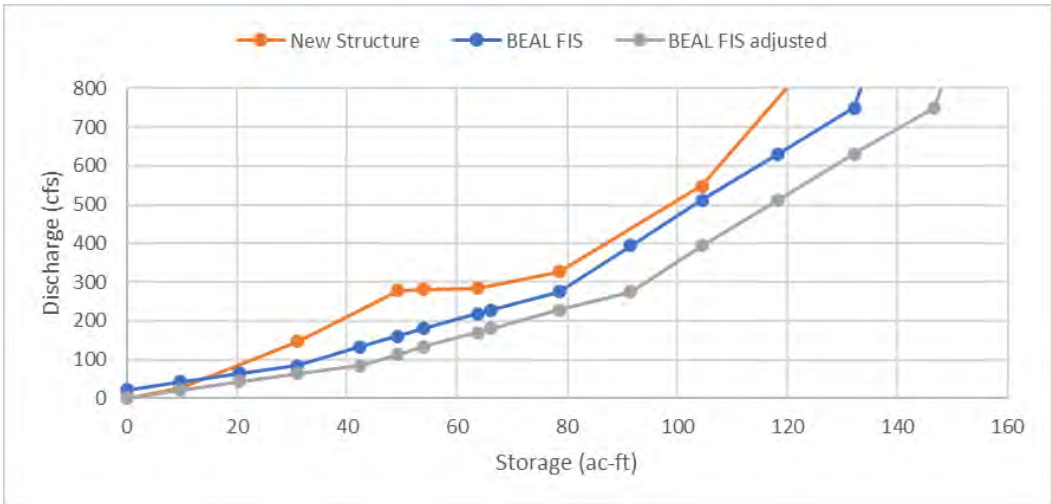


Figure 3 – Pine Lake Storage-Discharge Curve

Peak Flow Rate and Reservoir Elevation Comparison

TFG developed a HydroCAD SCS TR-20 hydrologic model to evaluate peak flood discharge (Attachment B). This model applies sub-basin data obtained from the BEAL FIS model (Table 1). The BEAL FIS parameters were more conservative when compared to Hazard's design[2] and were applied for use in this analysis. Rainfall was modeled in the BEAL FIS model using the 100-year 24-hour TP-40 SCS rainfall depth of 6.68-inches with the SCS Type 2 distribution. This climate data was considered and updated to the NOAA Atlas 14 rainfall depth of 7.33-inches with the MSE 3 distribution[4]. Stage-Storage-Discharge data described above were incorporated into the model. Results from the model are provided in Table 2.

Table 1 – Sub-basin Input Data

	Acreage (acre)		**Curve Number**		**Time of Conc. (min)**	
Subbasins	BEAL FIS	Hazard	BEAL FIS	Hazard	BEAL FIS	Hazard
Sub 11	167	-	82	-	18	-
Sub 12	211	-	82	-	10	-
Total	378	352	82	82	-	33

Table 2 – Hydrologic Results

	100-year Flood TP-40		**100-year Flood NOAA Atlas 14**	
Scenario	Peak Q (cfs)	Peak Elev (ft)	Peak Q (cfs)	Peak Elev (ft)
All Scenarios Inflow	2,207	-	2,486	-
Proposed PS Outflow	297	1,335.69	386	1,336.38
BEAL FIS Outflow	249	1,335.72	372	1,336.41
BEAL FIS adj Outflow	225	1,335.98	316	1,336.67

When comparing the proposed PS structure with updated climate data to the BEAL FIS models with historic climate data, potential increases were found in peak inflow (280 cfs), peak outflow (140-160 cfs), and peak elevation in the reservoir (0.4 – 0.7 ft). The range of values reflects the uncertainty of input parameters in the BEAL FIS models when accounting for current storage data. A portion of the increased peak outflow (14 – 72 cfs) can be attributed to the change in PS structure, which was sized to accommodate updated climate data.

[4] City of Lincoln. Flood and Water Quality Protection Manual. March 2023.

Project Name: *Pine Lake Dam Rehab*
Computed by: *Travis Hazard*
Date: *3/27/2023*
Checked by: _____
Date: _____

laDropInlet.xls Ver 1.10

Input Data

Riser Type & Diameter (in)	**D x 3D**	
Length of Weir Obstruction(ft)		***2***
Radius of crest rounding, (in)		***6***
Principal Spillway Crest Elev (ft)		***1332.5***
Invert of Barrel Elevation (ft)		***1317***
Barrel Orifice Coefficient (C)		***0.7***
Pipe Diameter (in)		***48***
Pipe Length (ft)		***110***
Entrance Coefficient 'Ke'		***1***
Mannings 'n-value'		***0.013***
Elbow Elev (if None, Leave 'BLANK')		
Length of Outlet ('BLANK' if none)		
Outlet Type	***Cantilever***	
Outlet Elevation (ft)		***1313.3***
Tailwater Elev (if unknown, leave 'Blank')		***1313***
Auxiliary Spillway Elev (ft)		***1335.4***
Maximum Headwater Elev (ft)		***1339.2***
Elev Increment After Full Pipe Flow		***0.5***

Basic Output

Full Pipe Flow - Max. Outflow (cfs):	311.47
Full Pipe Flow - Max. Velocity (fps):	24.79
Useable Weir Length (Ft):	24.00
Riser Area (Sq Ft):	48.00
Barrel Area (Sq Ft):	12.57
Kp:	0.004928
Friction Slope (HW at the A.S. Crest):	0.03829
Pipe Slope:	0.03411
Outlet Elbow Angle (deg):	0.0
Maximum Barrel Invert Elevation for avoiding Barrel Orifice Control:	1317.11
Km:	0.00000
Tailwater Elev Used For Full Pipe Flow:	1315.25

Notes & Warnings

		Outflow, CFS					
Elev	HW Ft	Weir	Inlet Orfice	Barrel Orifice	Full Pipe	Structure Outflow, CFS	Controlling Factor
1332.5	0.0	0.00	0.00	259.37	262.69	0.00	Weir Flow
1332.6	0.1	2.53	74.30	260.33	263.45	2.53	Weir Flow
1332.7	0.2	7.15	105.08	261.28	264.21	7.15	Weir Flow
1332.8	0.3	13.13	128.70	262.23	264.97	13.13	Weir Flow
1332.9	0.4	20.22	148.61	263.18	265.72	20.22	Weir Flow
1333.0	0.5	28.26	166.15	264.13	266.47	28.26	Weir Flow
1333.1	0.6	37.14	182.01	265.07	267.22	37.14	Weir Flow
1333.2	0.7	46.81	196.59	266.01	267.97	46.81	Weir Flow
1333.3	0.8	57.19	210.16	266.94	268.72	57.19	Weir Flow
1333.4	0.9	68.24	222.91	267.87	269.46	68.24	Weir Flow
1333.5	1.0	79.92	234.97	268.80	270.20	79.92	Weir Flow
1333.6	1.1	92.20	246.44	269.73	270.94	92.20	Weir Flow
1333.7	1.2	105.06	257.40	270.65	271.68	105.06	Weir Flow
1333.8	1.3	118.46	267.91	271.57	272.41	118.46	Weir Flow
1333.9	1.4	132.39	278.02	272.49	273.15	132.39	Weir Flow
1334.0	1.5	146.82	287.78	273.40	273.88	146.82	Weir Flow
1334.1	1.6	161.75	297.22	274.31	274.61	161.75	Weir Flow
1334.2	1.7	177.14	306.36	275.22	275.33	177.14	Weir Flow
1334.3	1.8	193.00	315.25	276.12	276.06	193.00	Weir Flow
1334.4	1.9	209.31	323.88	277.02	276.78	209.31	Weir Flow
1334.5	2.0	226.05	332.30	277.92	277.51	226.05	Weir Flow
1334.6	2.1	243.21	340.51	278.81	278.23	243.21	Weir Flow
1334.7	2.2	260.79	348.52	279.71	278.94	260.79	Weir Flow
1334.8	2.3	278.77	356.35	280.59	279.66	278.77	Weir Flow
1334.9	2.4	297.15	364.02	281.48	280.37	280.37	Full Pipe Flow
1335.0	2.5	315.91	371.52	282.36	281.09	281.09	Full Pipe Flow
1335.5	3.0	415.28	406.98	286.74	284.62	284.62	Full Pipe Flow
1336.0	3.5	523.31	439.59	291.06	288.11	288.11	Full Pipe Flow
1336.5	4.0	639.36	469.94	295.30	291.56	291.56	Full Pipe Flow
1337.0	4.5	762.91	498.45	299.49	294.98	294.98	Full Pipe Flow
1337.5	5.0	893.53	525.41	303.62	298.35	298.35	Full Pipe Flow
1338.0	5.5	1030.86	551.06	307.70	301.68	301.68	Full Pipe Flow
1338.5	6.0	1174.58	575.56	311.72	304.98	304.98	Full Pipe Flow
1339.0	6.5	1324.42	599.06	315.69	308.24	308.24	Full Pipe Flow
1339.5	7.0	1480.14	621.67	319.62	311.47	311.47	Full Pipe Flow

RESERVOIR CAPACITY TABLE		
ELEV.	ACRES	CUM. AC-FT
1317.0	0	0.0
1318.0	0.16	0.02
1319.0	1.52	0.8
1320.0	2.77	2.9
1321.0	3.99	6.3
1322.0	5.16	10.8
1323.0	6.39	16.6
1324.0	7.67	23.6
1325.0	9.43	32.1
1326.0	11.41	42.5
1327.0	12.84	54.7
1328.0	14.59	68.4
1329.0	17.84	84.7
1330.0	19.13	102.9
1331.0	19.95	122.3
1332.0	20.29	142.4
*1332.5	12.44	153.0
1333.0	20.58	162.8
1334.0	21.94	184.0
1335.0	23.19	206.8
**1335.4	23.90	216.7
1336.0	24.96	231.5
1337.0	26.33	257.5
***1338.0	28.49	285.1
1339.0	30.04	314.2
1340.0	31.51	344.8

* Principal Spillway (PS)
** Auxiliary Spillway (AS)
*** Top of Dam (AS Transition)
NOTE:
- As-built stage storage data will be confirmed following completion of construction.
- Stage Storage data was quantified using Civil3D with collected bathymetric and available LiDAR data.

STRUCTURE DATA		
LENGTH OF TOP OF DAM	851	FEET
EFFECTIVE HEIGHT	29	FEET
HAZARD CLASSIFICATION	SIGNIFICANT	6
NDNR DAM ID	NE00529	7.63

HYDROLOGIC DATA		
DRAINAGE AREA	352	ACRES
TIME OF CONCENTRATION	0.55	HOURS
RUNOFF CURVE NUMBER	82	CN

STORM DATA				
	PSH	SDH	FBH	FBH
STORM FREQUENCY, YEARS	50	N/A	N/A	N/A
RAINFALL DISTRIBUTION, TYPE	II	NRCS	5-PT	II
RAINFALL DURATION, HOURS	24	6	24	24
RAINFALL, INCHES	6.51	7.63	14.03	14.03
RUNOFF, INCHES	4.46	5.51	11.70	11.70
PEAK FLOW, CFS	1296.8	1343.8	678.3	3280.0

ROUTING SUMMARY				
	ELEV.	STORAGE (AC-FT)	PS OUTFLOW (CFS)	AS OUTFLOW (CFS)
DRAWDOWN	1322.0	10.8	-	-
PRINCIPAL SPILLWAY CREST	1332.50	153.0	-	-
AUXILIARY SPILLWAY CREST	1335.40	216.7	302.2	-
100-YR EVENT	1335.84	227.4	305.4	10.3
SDH	1336.00	231.5	306.6	21.4
500-YR EVENT	1337.09	260.1	314.6	205.9
FBH	1338.54	300.7	325.0	837.0

PRINCIPAL SPILLWAY DATA	
DRAWDOWN PIPE	12" C905 PVC
RISER STRUCTURE	CONCRETE - Dx3D
CONDUIT	48" RCPP
OUTLET PROTECTION	CONCRETE IMPACT BASIN

AUXILIARY SPILLWAY DATA		
CREST WIDTH	22	FEET
LEVEL SECTION LENGTH	35	FEET
OUTLET SLOPE	5.7	PERCENT
FLOW DEPTH AT FBH	3.14	FEET
CRITICAL VELOCITY AT FBH	6.36	FPS

ITEM #	DESCRIPTION	QUANTITY	UNIT
1	Mobilization	1	LS
2	Clearing and Grubbing	1	LS
3	Traffic Control	1	LS
4	Remove and Reset LES Power Line	1	LS
5	Dewatering/Handling of Water	1	LS
6	Bypass Pumping	1	LS
7	Stripping and Topsoiling	2078	SY
8	Demo - Principal Spillway	1	LS
9	Demo - Asphalt	458	SY
10	Excavation - Pipe Removal (In-situ)	6241	CY
11	Excavation - Proposed Pipe (In-situ)	2014	CY
12	Embankment - Fill (Borrow)	2228	CY
13	Concrete - Riser	75.3	CY
14	Reinforcing Steel - Riser	14355	LB
15	Structural Steel - Riser	3973	LB
16	Chain Link Fence - Riser	65	LF
17	Trash Rack - Riser	1	LS
18	24" x 24" Downward Opening Weir Gate	1	LS
19	12" Drawdown Gate Valve	1	LS
20	Type B/C Riprap - Inlet Protection	68	TN
21	12" SDR35 PVC PIPE	26	LF
22	48" RCPP Principal Spillway	110	LF
23	Pipe Bedding - Principal Spillway	110	LF
24	Sand Filter	249	CY
25	8" A-2000 PVC Pipe	28	LF
26	8" A-2000 Perforated PVC Pipe	4	LF
27	Concrete - Impact Basin	47.2	CY
28	Reinforcing Steel - Impact Basin	9526	LB
29	4" A-2000 Perforated PVC Pipe	35	LF
30	Chain Link Fence - Impact Basin	24	LF
31	Type B/C Riprap - Outlet Protection	100	TN
32	3" Crushed Aggregate Basecourse	24	TN
33	8" SDR 35 PVC Pipe	165	LF
34	Concrete - Drawdown Headwall	1.2	CY
35	Reinforcing Steel - Drawdown Headwall	120	LB
36	Trash Rack - Drawdown Headwall	1	LS
37	Manhole Connection	1	LS
38	Reinforced Concrete Paving - 7"	458	SY
39	1" Crushed Aggregate Basecourse	77	TN
40	Erosion and Sediment Control	1	LS
41	Seeding and Mulching	1.6	AC

HAZARD ENGINEERING, LLC
NBEA - CA4833
Valparaiso, NE 68065
Phone: (402) 525-3651
thazard@hazardeng.com

PROJECT DATA

PINE LAKE DAM REHABILITATION PROJECT
Pine Lake Association
Lincoln, Nebraska
Lat: 40.7446 Long: 96.6153

Printed: 4/26/23	
Rev.	Date

C0.1

C

LOWER PLATTE SOUTH
natural resources district
3125 Portia Street | P.O. Box 83581 • Lincoln, Nebraska 68501-3581
P: 402.476.2729 • F: 402.476.6454 | www.lpsnrd.org

Memorandum

Date: May 2, 2023

To: Urban Subcommittee

From: Drew Ratkovec

RE: Village of Ceresco CAP Application- Hobson Branch Stream Stabilization Project

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The Hobson Branch flows north to south, west of highway 77 through Ceresco. The reach south of Elm Street has experienced significant erosion and stability issues with the stream bank and bed. There is a concern for erosion to worsen, damaging upstream bridges and infrastructure. In 2019, the Village hired JEO Consulting Group, Inc to evaluate the stream to get an understanding of the causes and extent of the stream degradation so that an improvement can be developed, in which the NRD assisted on. Since then, the assessment was completed, recommendations were provided, and Ceresco is planning to continue to work with JEO to create a design for stream restoration.

The Village of Ceresco has requested a CAP cost-share on the Agreement for Professional Services with JEO Consulting Group, Inc. The total cost of this agreement is $39,900. After removing items not cost-shareable with the program, the total amount for the stream restoration design phase comes out to be $35,400. The scope of work from JEO will consist of 1) survey and design, 2) Permitting, 3) Bidding and Contracting. The Village of Ceresco is requesting 50% of the total eligible cost of $35,400, not to exceed $17,700 in NRD funds.

Staff recommended motion: The Subcommittee will consider a motion to recommend that the Board of Directors approve the Community Assistance Program request from the Village of Ceresco, for $17,700 on cost-share assistance for the stream restoration design phase.

Attachments

Village of Ceresco Park Segment

5/1/2023, 2:11:19 PM

Parcels

Sections (PLSS)

Counties (lpsnrd)

1:4,514

0 0.03 0.06 0.11 mi

0 0.04 0.09 0.18 km

Esri, HERE, iPC, Maxar

Web AppBuilder for ArcGIS

The original data was clipped from the Nebraska Section Corner Boundaries shapefile downloaded from the Nebraska Department of Natural Resources. | gWorks, Cass County GIS, Lancaster County Assessor/Register of Deeds Office | Digitized Deeds and

VILLAGE OF CERESCO
217 S 2ND STREET PO BOX 160 CERESCO, NE 68017

PHONE: 402-665-2391 FAX: 402-665-2393

April 27, 2023

Drew Ratkovec
Lower Platte South Natural Resources District
3125 Portia Street
Lincoln, NE 68521

Mr. Ratkovec,

The Village of Ceresco is requesting assistance through the NRDs Community Assistance Program (CAP). Hobson Branch flows north to south, generally just west of Highway 77 through Ceresco, before flowing into Rock Creek, South of town. The reach south of Elm Street has experienced significant erosion and stability issues with the stream bank and bed. This has already caused issues with park maintenance. There is concern that the stream erosion will worsen, migrate upstream, and threaten infrastructure (bridges, pump station, etc.). Representatives from the Village met with Jared Nelson and Dave Potter in 2019.

The Village hired JEO Consulting Group (JEO) to evaluate the stream through town to better understand the causes and extents of the stream degradation so that an improvement plan can be developed. The Village previously authorized JEO to begin work on Tasks 1 and 2 of the project scope. We are not at the point where we would like JEO to perform Task 3, which will detail out an improvement plan for the stream. Attached is the cost proposal from JEO which includes fees as well as an outlined scope of the project proposal.

The total cost of this phase is $39,900. The stream restoration effort portion equals $35,400. Currently, the Village is requesting the NRD cost-share on this phase at a 50/50 split, bringing the request from the NRD at $17,700. The anticipated time frame is notice to proceed May 1, 2023. At that time costs, schedule, etc. of future phases (if necessary) would be identified.

I appreciate your assistance, and the consideration by the NRD Board of Directors on this project. If you have any additional questions, or need any additional information, please don't hesitate to contact me at 402.665.2391 or by email jlindgren@cerescone.com.

Sincerely,

Joan Lindgren
Village Clerk

Attachments

AGREEMENT
BETWEEN OWNER AND ENGINEER FOR
PROFESSIONAL SERVICES

THIS IS AN AGREEMENT effective as of _____("Effective Date") between Village of Ceresco ("Owner") and JEO Consulting Group, Inc. ("Engineer").

Owner's project, of which Engineer's services under this Agreement are a part, is generally identified as follows:

Stream Rehabilitation ("Project").

JEO Project Number: 230744.00

Owner and Engineer further agree as follows:

ARTICLE 1 - SERVICES OF ENGINEER

1.01 Scope

A. Engineer shall provide, or cause to be provided, the services set forth herein and in Exhibit A.

ARTICLE 2 - OWNER'S RESPONSIBILITIES

2.01 Owner Responsibilities

A. Owner responsibilities are outlined in Section 3 of Exhibit B.

ARTICLE 3 - COMPENSATION

3.01 Compensation

A. Owner shall pay Engineer as set forth in Exhibit A and per the terms in Exhibit B.

B. The Project is to be billed at a lump sum:

Total Fee: $39,900.00

C. The Standard Hourly Rates Schedule shall be adjusted annually (as of approximately January 1st) to reflect equitable changes in the compensation payable to Engineer. The current hourly rate schedule can be provided upon request.

ARTICLE 4 - EXHIBITS AND SPECIAL PROVISIONS

4.1 Exhibits

Exhibit A – Scope of Services
Exhibit B – General Conditions

4.2 TOTAL AGREEMENT

A. This Agreement (consisting of pages 1 to 2 inclusive, together with the Exhibits identified as included above) constitutes the entire agreement between Owner and Engineer and supersedes all prior written or oral understandings. This Agreement may only be amended, supplemented, modified, or canceled by a duly executed written instrument.

IN WITNESS WHEREOF, the parties hereto have executed this Agreement.

Owner: Village of Ceresco	Engineer: JEO Consulting Group, Inc.
By:	By: John G. Petersen, PE
Title:	Title: Project Manager
Date Signed:	Date Signed:
Address for giving notices:	Address for giving notices:
Village of Ceresco	JEO Consulting Group, Inc.
217 S. 2nd Street	11213 Davenport St, Suite 200
Ceresco, NE 68017	Omaha, NE 68154

EXHIBIT A
SCOPE OF SERVICES

Stream Rehabilitation
Village of Ceresco
JEO Project No. 230744.00
April 2023

PROJECT DESCRIPTION:

In 2020, the Village of Ceresco retained JEO Consulting Group to perform an assessment of a stream adjacent to Highway 77. The stream, known as Hobson Branch, generally flows north to south along the western edge of Highway 77. The stream has experienced erosion on both the bed and banks and the village was concerned with long-term impacts to infrastructure, including roads, bridges, the city park, and others.

The assessment report outlined recommendations for adding stabilization at two bridges (Elm Street and Main Street) and some alternatives for stabilization/restoration of the stream downstream of Elm Street to the southern end of the stream reach, near the park area.

The Village is interested in pursuing stabilization at the two bridges and the basic restoration alternative for the downstream stream reach, which includes reshaping the banks, two rock cross vanes, seeding, and establishing a riparian buffer.

PROJECT SCOPE OF WORK:

JEO will assist the Village with the following main tasks:

- Survey and Design
- Permitting
- Bidding and Construction

1 – Survey and Design

1.1 – Project Management

Regular communication will be maintained to inform team members and Village staff of budget, schedule, milestones and receive feedback from the Village and other stakeholders (LPSNRD, Regulatory agencies, etc). This includes general project administration and monthly progress reports, in addition to routine coordination with the Village. JEO will assist the Village with LPSNRD coordination, including documentation of project costs.

1.2 – Topographic Survey

A topographic survey will be conducted at the project site. Survey data collection may include stream profile & cross sections, drainage infrastructure, adjacent road grades, nearby utilities, and other information pertinent to the design of improvements. The survey may be supplemented with LiDAR data. The Village will coordinate with any property owners, as needed, to allow survey crews access to private property (not anticipated).

- Complete One Call Locate Request
- Set horizontal and vertical control on site.
- Locate pertinent infrastructure.
- At necessary locations - full cross sections from top of bank to top of bank plus 25’ each way.
- Note location of large trees, riprap, scour holes, extra sediment deposits, etc.
- Provide drawing file in AutoCAD format.

Deliverables:

- CAD drawing of existing conditions

1.3 – Design

The JEO team will provide design of rehabilitation/improvements at the two bridge sites and the park area stream reach in general accordance with the concept developed by JEO and provided in the assessment report. JEO will perform internal QAQC of the documents at the two milestones listed below.

Deliverables:

- Drawings
- Specifications may be included on the drawings depending upon project complexity and bidding procedure
- Operation and Maintenance Plan for improvements
- Project schedule
- Monthly project invoices and progress reports

Assumptions:

- 60% Draft Design Submittal
- Final Design and Specifications Submittal
- One in-person meeting with the Village to review draft plans
- Attendance at one LPSNRD Board Meeting to assist with funding assistance

2 – Permitting

2.1 – USACE 404 Permitting

It is assumed that the project can be permitted via a Nationwide Permit. JEO will conduct a wetland delineation, prepare a wetland delineation report, and develop a Nationwide Permit application. Additionally, JEO will conduct a Nebraska Stream Condition Assessment Procedure (NESCAP) to facilitate the Nationwide Permitting effort.

2.2 – NPDES and Floodplain Permitting

It is assumed that neither NPDES or Floodplain permits will be necessary for this project.

Deliverables:

- 404 Permit Application and Permit

Assumptions:

- Wetland impacts will be less than 0.1 AC at the site
- One site visit for environmental science staff
- Nationwide or General permits will be issued for the site
- Detailed hydraulic modeling will not be required
- No mitigation will be required, and no Individual Permit will be required
- No historical/archaeology investigations will be performed (or will be performed by others)

3 – Bidding and Construction

3.1 – Bidding and Contracting

JEO will assist the Village during the bidding process. No pre-bid meeting is anticipated. JEO will conduct the bid opening and recommend action to the Village based upon the received bids and alternates. JEO will facilitate contract documents between the selected contractor and the Village.

4.2 – Construction

4.2.1 – Construction Administration

JEO will assist the Village with processing change orders, reviewing payment requests from the contractor, final walk-through, as-built drawings, and recommendation of acceptance. JEO will also coordinate with any permitting/regulatory agencies, if required.

4.2.2 – Pre-Construction Meeting

Once construction contracts have been awarded and notice to proceed given, JEO will coordinate a pre-construction meeting with the contractor, Village, and other potential stakeholders.

4.2.3 – Construction Observation

JEO will provide a part-time Resident Project Engineer (up to 30 hours) to observe construction of the project. RPR is estimated at approximately six visits at four hours per visit, plus one visit by a senior engineer or project manager. Specific duties of the Resident Project Engineer include:

- Review the contractor's work for general compliance with the plans and specifications
- Review, coordinate, and document construction progress
- Provide photographic documentation of the work

4.2.4 – Staking

JEO will stake the improvements for the selected contractor. One staking trip is included. Additional trips will be at the contractor's expense.

Deliverables:

- Bid documents
- Pay applications
    - Cost breakdown between stream restoration work and bridge stabilization work
- Change orders, if necessary
- Punch List
- Certificate of Substantial Completion

Assumptions:

- One construction staking trip
- Contractor will be responsible for materials testing (not anticipated)

PROPOSED PROJECT SCHEDULE:

The anticipated time frame is as follows:

Notice to Proceed (NTP):	May 1, 2023
Survey:	May-June 2023
Design and Permitting:	May-August 2023
Bidding:	September 2023
Construction:	November 2023 – March 2024

Project schedule is dependent upon:

- Timely reviews of submittals by Village
- Regulatory approvals
- LPSNRD approvals (if necessary)

Project Fee and Payment Schedule

The engineering fee will be billed monthly based upon work completed to date up to a total lump sum amount of $39,900.00.

- Fee Breakdown:

Phase	Fee
Survey and Design	$20,000.00
Permitting	$8,900.00
Bidding & Construction	$11,000.00
TOTAL	**$39,900.00***

**$4500 of the total is for design, permitting, and RPR of the bridge stabilization effort ($35,400 for the stream restoration effort)*

JEO will invoice monthly for services to date, due upon receipt. Invoices unpaid after 30 days will accrue interest at 12% per annum (1% per month), credited first to interest and then to principal. JEO reserves the right to redistribute fee amongst project tasks so long as the total contract amount remains unchanged.

Scope of Services and Fee Estimate for Additional Services

A scope of services and fee estimate for additional services outside of this agreement and any future phases will be provided at such time as the scope of services can be further refined.

Services Not Included:

If necessary, a fee for these services can be negotiated.

1. Additional site visits, meetings, and public information efforts not previously noted
2. Geotechnical investigations
3. Cultural resource investigation and/or coordination
4. Threatened or endangered species surveys
5. USACE 404 Permitting beyond standard Nationwide Permit
6. NPDES/SWPPP services
7. Title research
8. Survey of other utilities other than what is located via One Call
9. FEMA (or other) grant applications or assistance

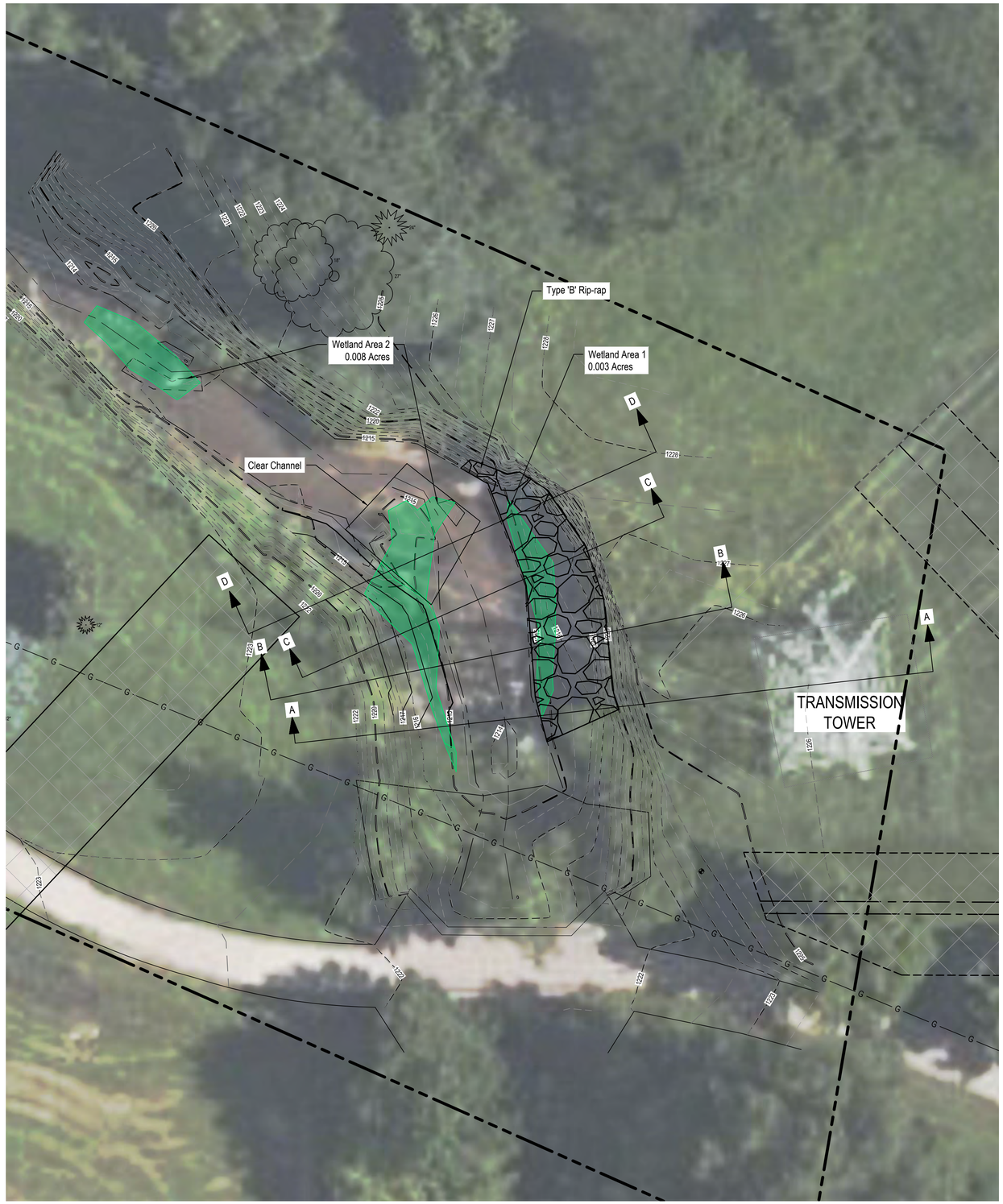
Services Provided by Village:

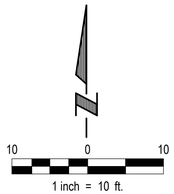
1. Designate a staff member as the project representative.
2. Provide available data and feedback, as necessary.
3. Ensure right of entry (if necessary) from landowners for field activities.

Beal Slough Bank Stabilization near 52nd & Nebraska Parkway

D

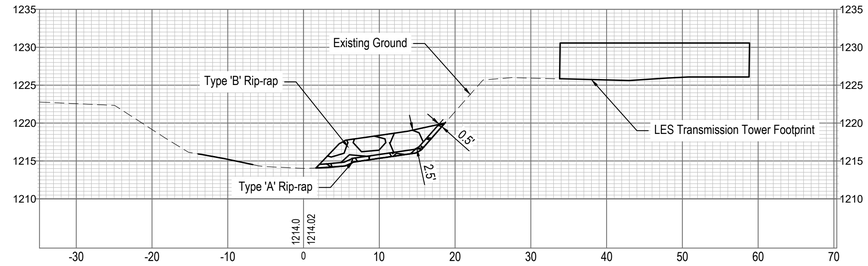
Map By: Lower Platte South NRD, sdr - March 2022 - Sources: City of Lincoln/Lancaster County; Lower Platte South Natural Resources District



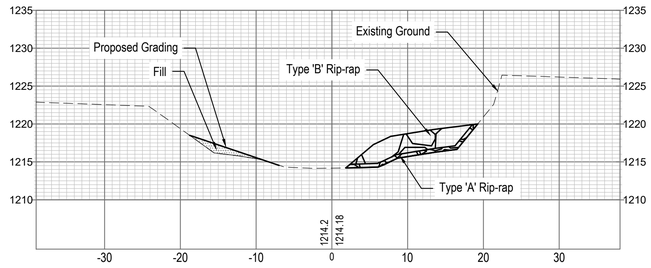


LEGEND

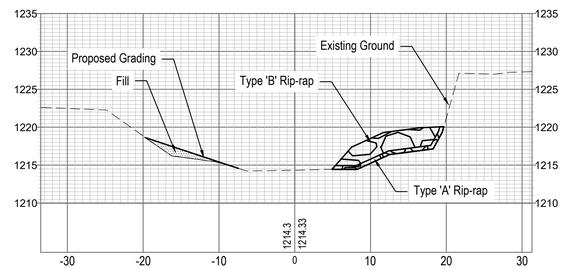
- Existing Contours (1120)
- Limits of Construction
- Type 'B' Rip-rap
- Wetlands



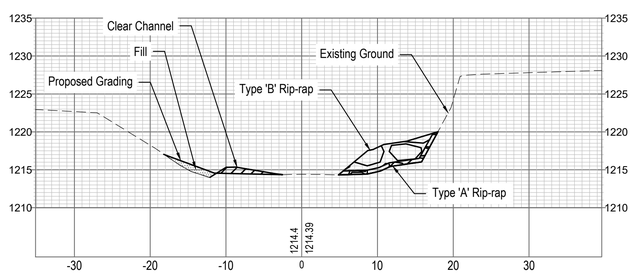
SECTION A-A BANK STABILIZATION



SECTION B-B BANK STABILIZATION



SECTION C-C BANK STABILIZATION



SECTION D-D BANK STABILIZATION

E & A CONSULTING GROUP, INC.
Engineering • Planning • Environmental & Field Services
10909 Mill Valley Road, Suite 100 • Omaha, NE 68154
Phone: 402.895.4700 • Fax: 402.895.3599
www.eacg.com

E & A CONSULTING GROUP, INC. *Engineering Answers*

52ND AND HIGHWAY 2 BEAL SLOUGH BANK STABILIZATION

CHANNEL IMPROVEMENTS - SECTION 1

LINCOLN, NE

PLAN

Revisions		
No.	Date	Description
1		

Proj No:	P2022.070.001
Date:	6.22.2022
Designed By:	TAF
Drawn By:	JRV
Scale:	AS SHOWN
Sheet:	3 of 4

Matt Gimple 3/15/2023 10:55 AM K:\Projects\2022\070\p01\engineering\cad files\channel improvement\52 Hwy 2 Channel 000.dwg

E & A CONSULTING GROUP, INC.
Engineering Answers
701 O Street, Suite 400 • Lincoln, NE 68508-1433
P 402.420.7217
www.eacg.com

May 8, 2023

Mr. Paul Zillig
Lower Platte South NRD
3125 Portia Street
Lincoln, NE 68521

RE: **CONTRACT AWARD**
52nd AND NEBRASKA PARKWAY BEAL SLOUGH BANK STABILIZATION PROJECT
E&A #P2022.070.001

Dear Mr. Zillig:

We received a total of 5 bids for the 52nd and Nebraska Parkway Beal Slough Bank Stabilization Project with 4 being deemed valid bids. We have reviewed the submitted bids received on May 5, 2023 with Gana Trucking & Excavating being the apparent low bidder with a bid of $37,007.00. There were no errors in Gana's bid and based off our past experience with this contractor, we recommend Award of Contract on the total base bid to Gana Trucking & Excavating, low bidder, in the total amount of $37,007.00.

Enclosed is a copy of the Tabulation of Bids for the bank stabilization project. If you have any questions relative to the above information, please contact the undersigned.

E & A CONSULTING GROUP, INC.

Travis A Figard

Travis A. Figard, PE, CFM
Project Manager

E & A CONSULTING GROUP, INC.
Engineering Answers

Bid Tabulations
52nd and Nebraska Parkway Beal Slough Bank Stabilization Project
Bank Stabilization

Bid Date: 5/5/2023
E&A Project No. P2022.070.001

				Engineer's Estimate		Gana Trucking & Excavating		HR Bookstrom		Yost		Strong Ties		Van Dorn Valley Construction	
Bid Item	Description	Quantity	Unit	Unit Price	Amount	Unit Price	Amount	Unit Price	Amount	Unit Price	Amount	Unit Price	Amount	Unit Price	Amount
1	Mobilization	1	LS	5,000.00	$ 5,000.00	432.00	$ 432.00	7,000.00	$ 7,000.00	12,500.00	$ 12,500.00	15,200.00	$ 15,200.00		$ -
2	Traffic Control	1	LS	7,500.00	$ 7,500.00	1,250.00	$ 1,250.00	1,000.00	$ 1,000.00	4,000.00	$ 4,000.00	1,875.00	$ 1,875.00		$ -
3	Clearing and Grubbing - General	1	LS	7,500.00	$ 7,500.00	2,300.00	$ 2,300.00	15,000.00	$ 15,000.00	5,500.00	$ 5,500.00	6,870.00	$ 6,870.00		$ -
4	Construction Entrance	1	EA	5,000.00	$ 5,000.00	4,220.00	$ 4,220.00	1,000.00	$ 1,000.00	4,000.00	$ 4,000.00	3,425.00	$ 3,425.00		$ -
5	Channel Clearing	1	LS	5,000.00	$ 5,000.00	2,300.00	$ 2,300.00	20,600.00	$ 20,600.00	9,000.00	$ 9,000.00	18,125.00	$ 18,125.00		$ -
6	Excavation	50	CY	20.00	$ 1,000.00	74.00	$ 3,700.00	20.00	$ 1,000.00	125.00	$ 6,250.00	243.00	$ 12,150.00		$ -
7	Type 'B' Rock Riprap	80	TON	125.00	$ 10,000.00	156.38	$ 12,510.40	125.00	$ 10,000.00	180.00	$ 14,400.00	184.00	$ 14,720.00		$ -
8	Type 'A' Rock Riprap	20	TON	125.00	$ 2,500.00	156.38	$ 3,127.60	125.00	$ 2,500.00	180.00	$ 3,600.00	197.00	$ 3,940.00		$ -
9	Erosion Control Blanket, C125	2500	SY	5.00	$ 12,500.00	2.11	$ 5,275.00	4.00	$ 10,000.00	3.00	$ 7,500.00	6.75	$ 16,875.00		$ -
10	Seeding, Type 1	0.5	AC	3,500.00	$ 1,750.00	3,784.00	$ 1,892.00	10,000.00	$ 5,000.00	7,000.00	$ 3,500.00	11,200.00	$ 5,600.00		$ -
TOTAL BASE BID (ITEMS 1-10, INCLUSIVE)					$57,750.00		$37,007.00		$73,100.00		$70,250.00		$98,780.00		$ -
		Start Date:													
		Completion:	July 15, 2023												

E & A CONSULTING GROUP, INC.
Engineering Answers
701 O Street, Suite 400 • Lincoln, NE 68508-1433
P 402.420.7217
www.eacg.com

LPSNRD – 52nd and Nebraska Parkway Beal Slough Bank Stabilization Project
Bid Opening – 5/5/2023 at 11:00 am
Sign-In Sheet

Name	Email	Phone Number
Nick Borgman	Nick@vandornvalley.com	402-450-8753
Jon Miller	jmiller@ganatrucking.com	402-332-7045
Al Langdale	alangdale@lpsnrd.org	
Mark Lindemann	mlindemann@lpsnrd.com	402-480-2616
Travis Figard	tfigard@eacg.com	402-309-5074

Beal Slough Bank Stabilization near 52nd & Nebraska Parkway

E

Map By: Lower Platte South NRD, sdr - March 2022 - Sources: City of Lincoln/Lancaster County; Lower Platte South Natural Resources District

ADDITIONAL SERVICES ORDER #01

E&A Project Name: 52nd and Nebraska Parkway Beal Slough Bank Stabilization

E&A Project Number: P2022.070.001 Date: 05/01/2023

Client

Client: Lower Platte South NRD

Attn: Al Langdale

Additional Services

Description of additional services: 006 – Construction Services. E&A will provide as needed construction services and as described in Attachment 1.

Reason for Additional Services: Construction Services during construction that were not a part of the original scope and fee.

Fee Arrangement

☐ Hourly – per current schedule of hourly rates, see Exhibit "A" -

☒ Time and Expense basis not to exceed – See Attachment 1
Anticipated T&E NTE = $8,500

☐ Fixed Fee

Authorization

☐ Per your email authorization, we are proceeding with these Additional Services immediately. Please return a signed copy of this ASO for our records.

☐ Per your verbal authorization, we are proceeding with these Additional Services immediately. Please return a signed copy of this ASO for our records.

☒ Please sign and return this ASO. We will begin work on these Additional Services upon receipt of this signed Order.

If the above is not per your understanding, please notify us immediately.

E & A Consulting Group, Inc. LPSNRD

Travis A. Figard

Paul Zillig, General Manager

ATTACHMENT 1

Construction Services for 52nd and Nebraska Parkway Beal Slough Bank Stabilization Project

I. SCOPE OF SERVICES

A. PHASE 006 – CONSTRUCTION SERVICES

E&A will provide the following construction services:

- Conduct a pre-construction meeting. E&A will prepare and distribute minutes of the meeting.
- Receive, log and review contractor submittals.
- Review and recommend for payment contractor's pay applications.
- Answer contractor's questions and interpret construction documents. Questions and interpretations will be answered with a written Request for Information (RFI).
- E&A will conduct periodic site visits during the construction period.
- E&A will conduct project walk-through at substantial and final completion stages. A "punch list" of remaining items or deficiencies will be prepared and distributed.
- E&A will prepare record drawings, based on contractors' plans. A PDF version of the record drawings will be submitted to the Client.
- E&A will conduct a Warranty walk-through with the Client and contractor to remedy any deficiencies prior to the expiration of the warranty period. A "punch list" of deficiencies will be prepared and distributed.

FEES AND EXPENSES

For services outlined under Section I above, the Client agrees to pay E&A the actual time of personnel performing such services at our standard hourly rates which is attached as part of this contract. Payment of fees shall be made on a monthly basis as work progresses. E&A's scope of services will be provided on a time and expense basis not to exceed $8,500.00.

Proposal Section	Scope Description	Fee Amount	/ Format
I.A	Construction Services	$8,500.00	T&E NTE
	Total:	$8,500.00	

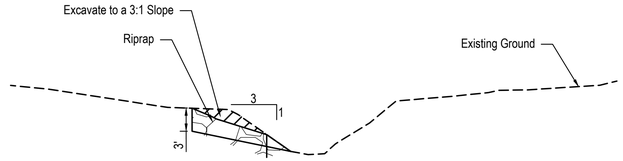
Beal Slough Bank Stabilization near 40th and Nebraska Parkway

F

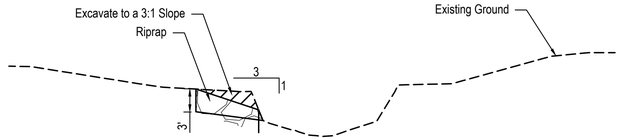
Map By: Lower Platte South NRD, sdr - March 2022 - Sources: City of Lincoln/Lancaster County; Lower Platte South Natural Resources District

40 0 40

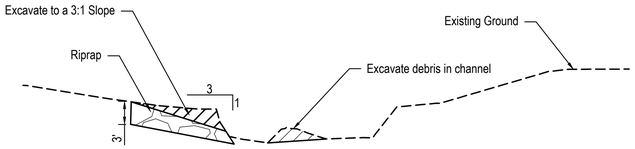
1 inch = 40 ft.



SECTION A-A CHANNEL GRADING
NOT TO SCALE



SECTION B-B CHANNEL GRADING
NOT TO SCALE



SECTION C-C CHANNEL GRADING
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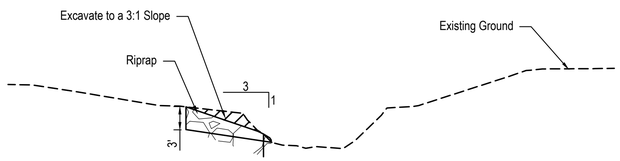
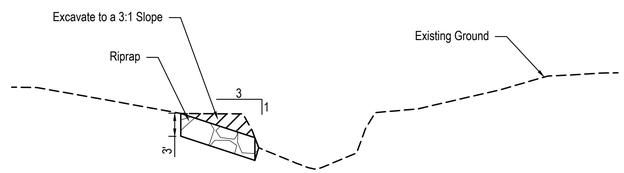


SECTION D-D CHANNEL GRADING
NOT TO SCALE



SECTION E-E CHANNEL GRADING
NOT TO SCALE

E & A CONSULTING GROUP, INC.
Engineering • Planning • Environmental & Field Services
10909 Mill Valley Road, Suite 100 • Omaha, NE 68154
Phone: 402.895.4700 • Fax: 402.895.3599
www.eacg.com

E & A CONSULTING GROUP, INC.
Engineering Answers

40TH AND HIGHWAY 2 BEAL SLOUGH BANK STABILIZATION
CHANNEL IMPROVEMENT - SECTION 1
Lincoln, NE

3 PLAN

Revisions		
No.	Date	Description

Proj No: P2022.071.001
Date: 6.22.2022
Designed By: TAF
Drawn By: JRV
Scale: AS SHOWN
Sheet: 3 of 5

jama Vogt 7/14/2022 1:39 PM K:\Projects\2022\071\p01\Engineering\CAD Files\Channel Improvement\40thHwy2Channel Final Alternatives 000.dwg

ADDITIONAL SERVICES ORDER #01

E&A Project Name: 40th and Nebraska Parkway Beal Slough Bank Stabilization

E&A Project Number: P2022.071.001 Date: 05/01/2023

Client

Client: Lower Platte South NRD

Attn: Al Langdale

Additional Services

Description of additional services: 005 – Final Bank Stabilization Design, 006 – Bidding Services and 007 - Construction Services. E&A will provide final construction plans and as needed construction services as described in Attachment 1.

Reason for Additional Services: Final Construction Documents, Bidding Services and Construction Services during construction that were not a part of the original scope and fee.

Fee Arrangement

☐ Hourly – per current schedule of hourly rates, see Exhibit "A" -

☒ Time and Expense basis not to exceed – See Attachment 1
Anticipated T&E NTE = $26,500

☐ Fixed Fee

Authorization

☐ Per your email authorization, we are proceeding with these Additional Services immediately. Please return a signed copy of this ASO for our records.

☐ Per your verbal authorization, we are proceeding with these Additional Services immediately. Please return a signed copy of this ASO for our records.

☒ Please sign and return this ASO. We will begin work on these Additional Services upon receipt of this signed Order.

If the above is not per your understanding, please notify us immediately.

E & A Consulting Group, Inc. LPSNRD

Travis A. Figard

Paul Zillig, General Manager

ATTACHMENT 1

Construction Services for 40th and Nebraska Parkway Beal Slough Bank Stabilization Project

I. SCOPE OF SERVICES

A. PHASE 005 – FINAL BANK STABILZATION PLANS

E&A will provide the following final design services:

- Prepare full construction plans for the eroded bank area along Beal Slough north of Nebraska Parkway west of S. 40th Street.
- Construction packet will include final construction specifications and permitting documentation to obtain a Floodplain Development Permit and other pertinent permits if required.
- Prepare a Final Opinion of Probable Cost associated with final construction cost for the proposed bank stabilization plans.

B. PHASE 006 – BIDDING SERVICES

E&A will provide the following bidding services:

- E&A will coordinate the issuance of notices to bidders and the production and distribution of the construction bidding documents.
- E&A will coordinate answering any questions raised by bidders during the bidding process and issue addenda as needed.
- E&A will attend the bid opening and review all properly received bids. Inconsistencies or irregularities found in the bids will be reported to the Client. E&A will prepare a tabulation of bids and distribute as requested to the bidders. E&A will evaluate the bids and make a written recommendation to the Client for awarding the construction contract.

C. PHASE 007 – CONSTRUCTION SERVICES

E&A will provide the following construction services:

- Conduct a pre-construction meeting. E&A will prepare and distribute minutes of the meeting.
- Receive, log and review contractor submittals.
- Review and recommend for payment contractor's pay applications.
- Answer contractor's questions and interpret construction documents. Questions and interpretations will be answered with a written Request for Information (RFI).
- E&A will conduct periodic site visits during the construction period.
- E&A will conduct project walk-through at substantial and final completion stages. A "punch list" of remaining items or deficiencies will be prepared and distributed.
- E&A will prepare record drawings, based on contractors' plans. A PDF version of the record drawings will be submitted to the Client.
- E&A will conduct a Warranty walk-through with the Client and contractor to remedy any deficiencies prior to the expiration of the warranty period. A "punch list" of deficiencies will be prepared and distributed.

FEES AND EXPENSES

For services outlined under Section I above, the Client agrees to pay E&A the actual time of personnel performing such services at our standard hourly rates which is attached as part of this contract. Payment of fees shall be made on a monthly basis as work progresses. E&A's scope of services will be provided on a time and expense basis not to exceed $26,500.00.

Proposal Section	Scope Description	Fee Amount	Format
I.A	Final Bank Stabilization Plans	$15,000.00	T&E NTE
I.B	Bidding Services	$3,000.00	T&E NTE
I.C	Construction Services	$8,500.00	T&E NTE
	Total:	$26,500.00	