

Operations Committee Meeting
Thursday, February 2, 2023 8:30 AM
Lower Platte North NRD Office
P.O. Box 126
Wahoo, NE 68066

1. NOMINATIONS FOR CHAIR AND VICE CHAIR

The Committee needs to nominate and elect an Operations Committee Chair and Vice Chair. Mark is not eligible as he is the Board Treasurer.
The chair will run the committee meetings and participate on the Executive Committee.
The vice Chair will substitute in the absence of the Chair.

Seier nominated Pollard for Chair and Johnson for Vice-Chair, seconded by Saalfeld.
The vote was unanimously in favor.

2. UNFINISHED BUSINESS

Nothing to consider for unfinished business.

3. WILD NE AND OTHER PROGRAMS

Nothing to report.

4. OPERATION & MAINTENANCE & OTHER ITEMS

The O & M crew burned multiple tree piles at Czechland Lake and one at Wanahoo, and also continued cutting trees on recreation areas.

4.A. Wanahoo Stilling Basin - (FEMA)

The final three panels were poured on Friday, January 27. The baffle plate may arrive in February for installation and grading and seeding will take place after the thaw. See Eric Suings reports via email for all the construction information.
Attached is the invoice from Houston Engineering and a pay application #2 for M.E. Collins that came in before the last Board meeting and was paid.
Also attached is Change Order 002 dealing with the extra cost of \$45,506 for overgrinding of the RCC Apron Floor and \$5,048.56 for steel reinforcement along with some deducts totaling \$46,448.24. A Technical Memorandum is attached for an explanation.

Also, find pay application #3 for Collins w/out Change Order 002 (\$247,298.97) and with CO 002 (\$292,798.07) attached.

Change Order No. 001 for the Baffle Plate Replacement was approved for \$44,358.91 following the last Board meeting. Baffle plate fabrication may take 4-5 weeks. The substantial completion date was also moved to March 7, 2023. The final completion date is April 28, 2023.

Ethan Miller and Eric Suing were present at the Committee meeting.

4.B. Cottonwood 21-A Dam Assessment

NRCS informed staff at the NARD Legislative Conference that funding was approved for the rehab of Cottonwood 21-A but, with the Federal deficit at its ceiling, there may be cuts. We will wait to hear from or meet with NRCS to figure out the next step in the process.

4.C. Wanahoo Relief Well Cleaning

Last summer, the District cleaned 7 of 29 listed relief wells on Wanahoo at a cost of \$63,600. This year Olsson's has 10 listed to be cleaned. The cleaning process for the 29 wells is over a 4 year period. (See Attachments)

Do we want to obtain a bid from Rieschick Drilling Co. for 10 or lower the number to be cleaned? The staff would prefer to stay with Rieschick since they have onsite experience. Last year we had four interested well drillers but only received two bids. The Committee directed staff to negotiate with Rieschick Drilling on a long term (3 year) contract for the remaining 22 wells with the understanding that there would be some inflationary cost increase. If an agreement is arranged, then we would ask for a motion to proceed.

4.D. NRD Owned Thomas Lakes Lots

Representatives of the Thomas Lakes Homeowners Association will be present to explain their regulations for unusable lots and to answer questions. A map is attached.

Their listed rules, regulations, and covenants for these lots are to be maintained as to trash debris and overgrowth, Not be used for any overnight camping with a tent, No temporary storage buildings or sheds, No vehicle storage including campers or trailers, No fencing or other restrictive barriers, and No livestock boarding.

After much information and discussion on how the HOA takes care of the four north lots (on high ground) and uses them as public green space, the committee made a motion to have staff re-write an agreement with the HOA to continue this practice and not sell the six lots. Staff would like to reconsider selling the two south lots on the Clear Creek Levee as the District is responsible for O & M on the levee, which should not be used as public green space.

4.E. Sand/Duck Dam 15 Land Locked Issue

This landlocked item was previously mentioned at our December meetings. Jason Scott (was present), the owner of an 8.5 acre land locked parcel at Sand/Duck Creek Dam 15 (aerial attached) has a solution to cross the creek, rather than attempting to obtain an ingress/egress easement from his neighbors (Ourada's). Attached is a photo of a UTV bridge made by Geneva Welding. The estimated cost of the bridge is \$4,800. Mr. Scott's total estimate for the bridge and installation is \$8,000. He is asking the District for cost-share assistance on the project.

Funds can be used from the Bank Stabilization budget.

4.F. Dams Exceeding Planned Service Life

NRCS sent out a notice to the District last year that we have 20 dams exceeding their planned Service Life of 50 years (attached). Lower Platte North has 43 flood control dams, of which 3 are High Hazard and 7 are Significant Hazard. This is information to keep in mind regarding possible rehab costs in the future.

The Dept. of Natural Resources Dam Safety inspects High Hazard dams once a year, Significant Hazard every 3 years and the rest every 5. The District O & M staff inspects and does maintenance on our dams once a year unless there's a high precipitation event in their respective watershed.

5. ROCK AND JETTY

We don't have any applications or pay request at this time.

6. LAKE WANAHOO

2023 Planning and Future Additions Update:

Staff has asked JEO to submit a new design and construction estimate for a fish cleaning station to be located on the west side of the park, near the boat ramp.

We will also start plans for a general store to be located near the fish cleaning station.

Partnerships, and or management, are still to be determined.

The City of Wahoo is waiting for the ground to thaw before they bore an electric line to run power for the new light at the education building parking lot.

6.A. Lake Wanhoo Permit Sales

For the month of December, the District received \$6,185.00 in annual park permit revenue. The year by year break down of annual permit sales is listed below.

Month	Monthly Total	YTD
December 2022	\$6,185.00	\$6,185.00
December 2021	\$5,045.00	\$5,045.00
November 2020	\$4,725.00	\$4,725.00
November 2019	\$4,470.00	\$4,470.00
November 2018	\$4,585.00	\$4,585.00

6.B. Lake Wanhoo Camping Revenue

For the month of December, the District received \$2,276.95 in camping revenue. The year by year comparison is listed below.

Month	Month Total	YTD
December 2022	\$2,276.95	\$131,245.06
November 2021	\$2,438.00	\$118,152.11
November 2020	\$1,485.97	\$134,027.78
October 2019	\$1,160.56	\$93,334.36

6.C. Clint Johannes Education Building

During the month of January, the building was rented 10 times with 1 NRD event. Revenue for the month was \$955.00.

7. INFORMATION AND EDUCATION

7.A. Information

7.A.1. Radio & eAds

January's KTIC Radio spot is attached - featuring the upcoming Nitrogen Certification classes for producers. February's spot is also attached - featuring the 2023 Wanhoo permits.

January's Wahoo Newspaper E-ad is attached - featuring the 2023 Wanahoo permits. This will continue through February.

7.A.2. Analytics

The LPNNRD Facebook/Twitter pages, and the website are the fastest and low-cost ways to get information out to the public. Tracking analytics are a way to see if people are seeing the information and what ways seem to be most effective. If you are on Facebook or Twitter, please like, follow, share, or retweet the Lower Platte North NRD posts!

Total reach/impressions show how many people saw the post/tweet. Engagements include likes, comments, shares/retweets and link clicks.

FACEBOOK	Total Reach	Engagements	Followers
January 2023	3,663	100	1,427
December	5,758	163	1,421
November	10,355	198	1,413

TWITTER	Total impressions	Engagements	Followers
January 2023	1,954	95	391
December	2,570	102	388
November	2,862	126	383

Top Posts on Facebook and Twitter:

- Reverse Osmosis grant through NDEE
- Upcoming Nitrogen Certification Classes
- Promoting Tree Sales
- LPNNRD "Why does and 85-Year-Old plant a tree?" video
- January's Coffee Lakeside flyer

WEBSITE	Users	Traffic Channel	Top Pages	Devices
January 2023	1,614	Organic 67.9% Direct 20.8% Referral 8.3% Social 3%	Lake Wanahoo Home Forestry Czechland Lake Nitrogen Certification	Mobile 50.87% Desktop 47.15% Tablet 1.98%

December	1,156	Organic 62.7% Direct 22.9% Referral 8.7% Social 5.7%	Home Lake Wanhoo Forestry Downloads Contact	Mobile 49.39% Desktop 48.62% Tablet 1.99%
November	988	Organic 62.3% Direct 27.6% Referral 6.9% Social 3.2%	Home Lake Wanhoo Czechland Lake Staff Downloads	Mobile 50.40% Desktop 47.27% Tablet 2.33%

Traffic channels: organic traffic means they use a search engine then choose an option that includes lpnnrd.org, direct traffic means they type in lpnnrd.org directly (or have it bookmarked), and referral traffic is any other traffic not from a search engine or social (such as a link from another site).

Social clicks: from 46 Facebook, from 4 Twitter.

Referral clicks: 48 from NARD, 12 from Visit Nebraska, 11 from NGPC, 1 from the ad on Wahoo Newspaper's site.

7.A.3. Winter Viaduct

The Winter issue of the LPNNRD's Viaduct is en route to local newspapers and will be distributed by mid-February. The newsletter is inserted in the following newspapers:

Wahoo/Ashland/Waverly Market Weekly
Fremont Tribune
North Bend Eagle
David City Banner-Press
Schulyer Sun
Columbus Area Choice (3 rural routes)
Humphrey Democrat
Albion News

Total of 22,095 delivered copies, and 365 online subscribers.

7.A.4. News Channel Nebraska

The I&E video was featured on News Channel Nebraska during January. The cost was \$475. Attached are the times the video and our logo aired. The total amount of the video and logo aired was 200 times.

7.A.5. Shell Creek Watershed Supplies Request

Attached is a list of items the Shell Creek Watershed testing group would like to have purchased for the 2023 testing season. The amount totals \$1,609.75.

7.B. Education

7.B.1. Past Events

- **January 12th:** Coffee Lakeside -11 adults and 1 child attended. We talked about animals that hoard.

- **January 20th:** St. Wenc Pre-K Classroom visit. 24 students learned about wild vs domestic animals.
- **January 23rd:** I&E Meeting and Project Learning Tree Training at Morrill Hall

Slow month with Christmas Break and students in and out of school. Survival club was supposed to be on the 19th; due to a snow day, it was pushed to Friday, February 3rd.

7.B.2. Upcoming Events

- **February 3rd:** Survival club with Wahoo M.S. - Intro to Hiking and how to read maps.
- **February 7th:** 1st, 2nd, and 5th grade Classes at Lindsay Holy Family Elementary. Animal adaptations, seed dispersal, and food chains/ecosystems.
- **February 8th-9th:** Nebraska Environmental Education Conference at Mahoney State Park.
- **February 11th-15th:** National Association of Conservation Districts in New Orleans.
- **February 16th:** Coffee Lakeside: The power of nature-based play: Why people of all ages need to spend time outdoors.
- **February 21st:** All 4 fifth grade classes at wahoo: Biodiversity: Let's talk prairies.
- **February 23rd:** David City Aquinas 6th graders: Importance of Pollinators.

Reschedule a survival club and book a St. Wenc Pre-k visit.

7.B.3. New Projector for the Education Building

The current projector at the Clint Johannes Education Building projects presentations at a low quality. Diode Technologies has given us a proposal for a BenQ 1080p 5,000 Lumen Projector to replace it. The new projector will cost \$3,059.00. Below is the breakdown of costs:

- Misc Parts: \$134.95
- Project management: \$25.20
- Shipping & Tariff: \$80.97
- Sales Tax: \$0.00

Total cost: \$3,300.12 Installation is included.

8. RURAL WATER SYSTEMS

Elliott has been working on the annual NDEE update/reporting for Emergency Contact Plans, Sample Site Plans, for both RWDs.

We have also started the RWDs vulnerability assessments and are working with the Nebraska Rural Water Association (NeRWA) through the process.

The new Lead Service Line Inventory (LSLI) guidance has been received and the RWD has begun the initial steps. All public water systems (PWS) are now required to complete the LSLI for their respective systems and are to be filed with EPA by the end

of 2024. Information for inventories can be difficult as there is minimal data about old, residential service lines.

8.A. Colon System

Routine monthly sampling completed, meters read and bills mailed 1/31.

8.B. Bruno System

Routine monthly sampling completed, meters read and bills mailed 1/31.

8.C. Other

Progress Estimate

Contractor's Application

For (Contract): Lake Wanhoo Apron Overlay										Application Number: 2			
Application Period: 12/07/2022 Through 01/05/2023										Application Date: 1/5/2023			
A					B	C1	C2	C3	D	E	F	G	H
Bid Item No.	Item Description	Contract Information			Total Value of Item (\$)	Estimated Quantity Installed this Pay Application Period	Previous Quantity Installed	Total Quantity Installed	Value of Work Installed to Date	Materials Presently Stored (not in C)	Total Completed and Stored to Date (D + E)	% (F / B)	Balance to Finish (B - F)
		Item Quantity	Units	Unit Price									
1.001	MOBILIZATION	1	LS	\$ 41,632.00	\$ 41,632.00		0.5	0.5	\$20,816.00		\$20,816.00	50.0%	\$20,816.00
1.002	WATER HANDLING	1	LS	\$ 14,433.00	\$ 14,433.00		1	1	\$14,433.00		\$14,433.00	100.0%	
1.003	RCC GRINDING/REMOVAL	114	CT	\$ 746.00	\$ 85,044.00		114	114	\$85,044.00		\$85,044.00	100.0%	
1.004	BASIN CLEANING AND PREPARATION	1	LS	\$ 11,555.00	\$ 11,555.00	0.5	0.5	1	\$11,555.00		\$11,555.00	100.0%	
1.005	SET ANCHORS	169	EA	\$ 78.00	\$ 13,182.00	169		169	\$13,182.00		\$13,182.00	100.0%	
1.006	CLASS 6000 CONCRETE	227	CY	\$ 596.78	\$ 135,469.06								\$135,469.06
1.007	FIBER REINFORCEMENT - ALTERNATIVE B	10215	LBS	\$ 6.00	\$ 61,290.00					\$23,000.00	\$23,000.00	37.5%	\$38,290.00
1.008	STEEL REINFORCEMENT - ALTERNATIVE B	14737.2	LBS	\$ 2.20	\$ 32,421.84								\$32,421.84
1.009	LONGITUDINAL/TRANSVERSE JOINTS (INCLUDING WATERSTOPS)	228.2	LF	\$ 30.00	\$ 6,846.00								\$6,846.00
1.010	PERIMETER WATERSTOPS	314.7	LF	\$ 135.00	\$ 42,484.50								\$42,484.50
1.011	SEEDING	1	LS	\$8,130.00	\$ 8,130.00								\$8,130.00
Totals					\$ 452,487.40				\$ 145,030.00	\$23,000.00	\$168,030.00	37.13%	\$ 284,457.40

INVOICE



Remit to:

1401 21st Ave N, Fargo, ND 58102

Phone: 701.237.5065

Fed Tax ID: 45-0314557

Interest of 1%/month applied to past due invoices

Lower Platte North NRD

511 Commercial Park Road

Wahoo, NE 68066

Invoice Number: 63124

Date: January 04, 2023

Project Number: 022-22-01

P.O. Number: x

Lower Platte North NRD Wahahoo Apron Overlay

For Professional Services Rendered Through: December 31, 2022

Task 3 Final Design			
	Hours	Rate	Billed
Project Engineer Miller, Ethan D.	17.25	160.00	\$2,760.00
Phase subtotal			\$2,760.00
Task 6 Construction Phase			
	Hours	Rate	Billed
Engineer 6 Keller, Wesley J.	1.50	166.00	\$249.00
Engineer Intern Suing, Eric R.	58.00	135.00	\$7,830.00
Principal Engineer Sotak, Michael K.	1.75	240.00	\$420.00
Project Engineer Miller, Ethan D.	4.25	160.00	\$680.00
Senior H&H Engineer Gegalunas, Robert J.	.50	220.00	\$110.00
PROJECT EXPENSES			
			Billed
Unit - Company Truck Mileage (OMA)			\$746.67
Unit - Survey Equipment (OMA)			\$62.50
Phase subtotal			\$10,098.17

Invoice Total **\$12,858.17**

Make all checks payable to:
Houston Engineering, Inc.
1401 21st Ave N
Fargo, ND 58102

Invoice Summary

Description	Contracted Fee	Previously Billed	This Invoice	Total To Date	% Complete
Task 1 Project Management	\$11,600.00	\$6,707.50	\$0.00	\$6,707.50	57.82%
Task 2 Site Testing/Investigation	\$6,740.00	\$4,404.56	\$0.00	\$4,404.56	65.35%
Task 3 Final Design	\$53,370.00	\$48,288.50	\$2,760.00	\$51,048.50	95.65%
Task 4 Permitting	\$5,240.00	\$0.00	\$0.00	\$0.00	0.00%
Task 5 Bid Phase	\$8,720.00	\$8,501.63	\$0.00	\$8,501.63	97.50%
Task 6 Construction Phase	\$78,770.00	\$8,076.08	\$10,098.17	\$18,174.25	23.07%
Total	\$164,440.00	\$75,978.27	\$12,858.17	\$88,836.44	54.02%

Aging Summary

Invoice	Date	0 - 30	31 - 60	61-90	Over 90	Balance
Total						

**Make all checks payable to:
Houston Engineering, Inc.
1401 21st Ave N
Fargo, ND 58102**



Wanahoo Apron Overlay
Invoice Task Summaries
December 7 thru December 31, 2022

Task 1 - Project Management

Project management duties during this invoicing period include internal efforts for processing the previous invoice.

Task 2 – Site Testing/Investigation

No work was performed this invoicing period.

Task 3 – Final Design

During this invoicing period modifications were developed for repairs of the site baffle plates.

Task 4 – Permitting

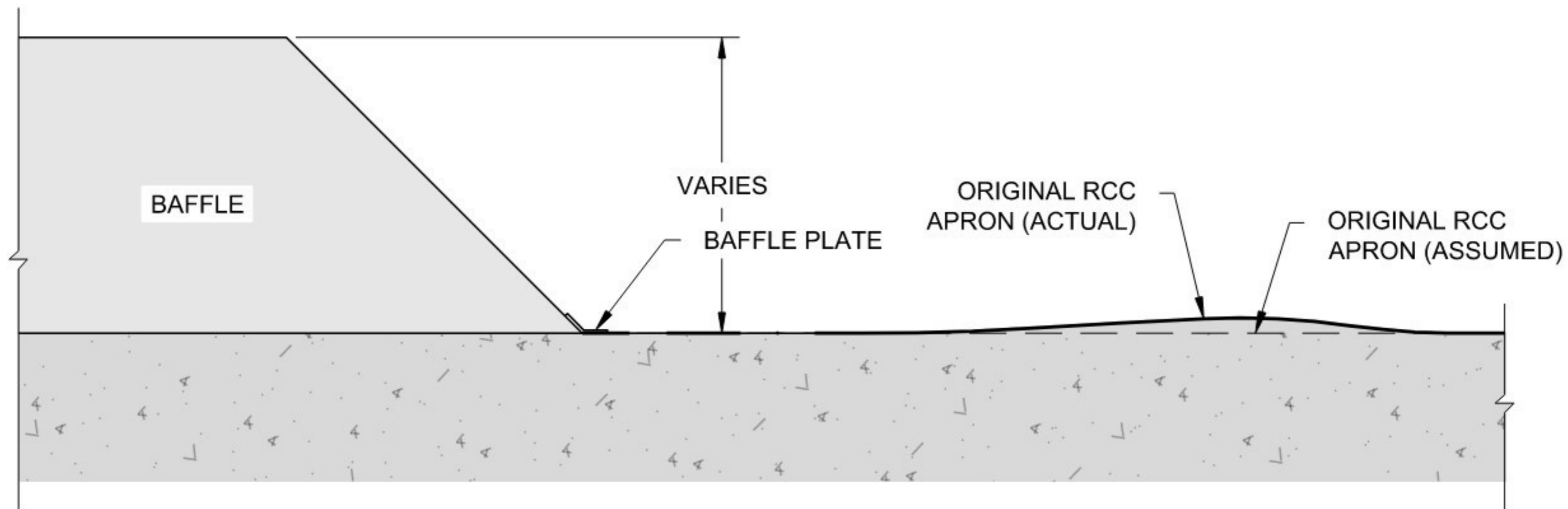
No work was performed this invoicing period.

Task 5 – Bid Phase

No work was performed this invoicing period.

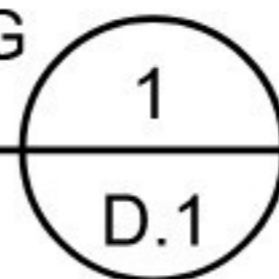
Task 6 – Construction Phase

During this invoicing period contractor submittals and payment applications were processed and construction was observed.



**CONDITIONS OF RCC APRON DURING
BAFFLE CONSTRUCTION**

NO SCALE



Technical Memorandum

To: Lower Platte North NRD
Federal Emergency Management Agency (FEMA)
From: Houston Engineering
Re: Lake Wanahoo Apron Repairs – Quantity Overage
Date: 3 February 2023

1 INTRODUCTION

FYRA Engineering is providing engineering services for repairs to the stilling basin apron at the Doug Bereuter Dam at Lake Wanahoo in Wahoo, Nebraska. The dam is operated and maintained by the Lower Platte North Natural Resource District (NRD). Funding for repairs was obtained from FEMA under Public Assistance-Damage Recovery for damage sustained in the record 2019 bomb cyclone event.

2 BACKGROUND

Construction of the Wanahoo Dam was completed in the Fall of 2010. Emergency repairs to the stilling basin end sill were performed in 2021 to mitigate damages incurred during the 2019 flood. During construction of the 2021 repairs, when the water was drained from the stilling basin area, damages to the apron floor were observed that were not initially visible. The apron floor originally consisted of a 6-foot-thick roller compacted concrete (RCC) monolithic apron, which sits below a flip bucket designed to dissipate energy from the triple reinforced concrete box culvert principal spillway. Damage to the apron consisted of delamination of the RCC to depths of approximately 1-foot. The rationale for the incurred damages include:

- Reduced interface bonding between lifts of the RCC due to high temperature and dry conditions during construction.
- Freeze thaw cycles following loss of the end sill after the 2019 flood event.
- Hydraulic forces from the flip bucket spillway combined with loss of the end sill.

3 DAMAGE ASSESSMENT

To determine the extents of the damages to the RCC apron, a contractor was hired in the spring of 2022 to drain the basin and remove and discard the delaminated concrete. An extensive survey was then performed to log the damaged conditions and elevation of the RCC apron. Elevations across the apron varied between 1176ft and 1177ft (NAVD 88), as depicted in **Figure 3.1**.

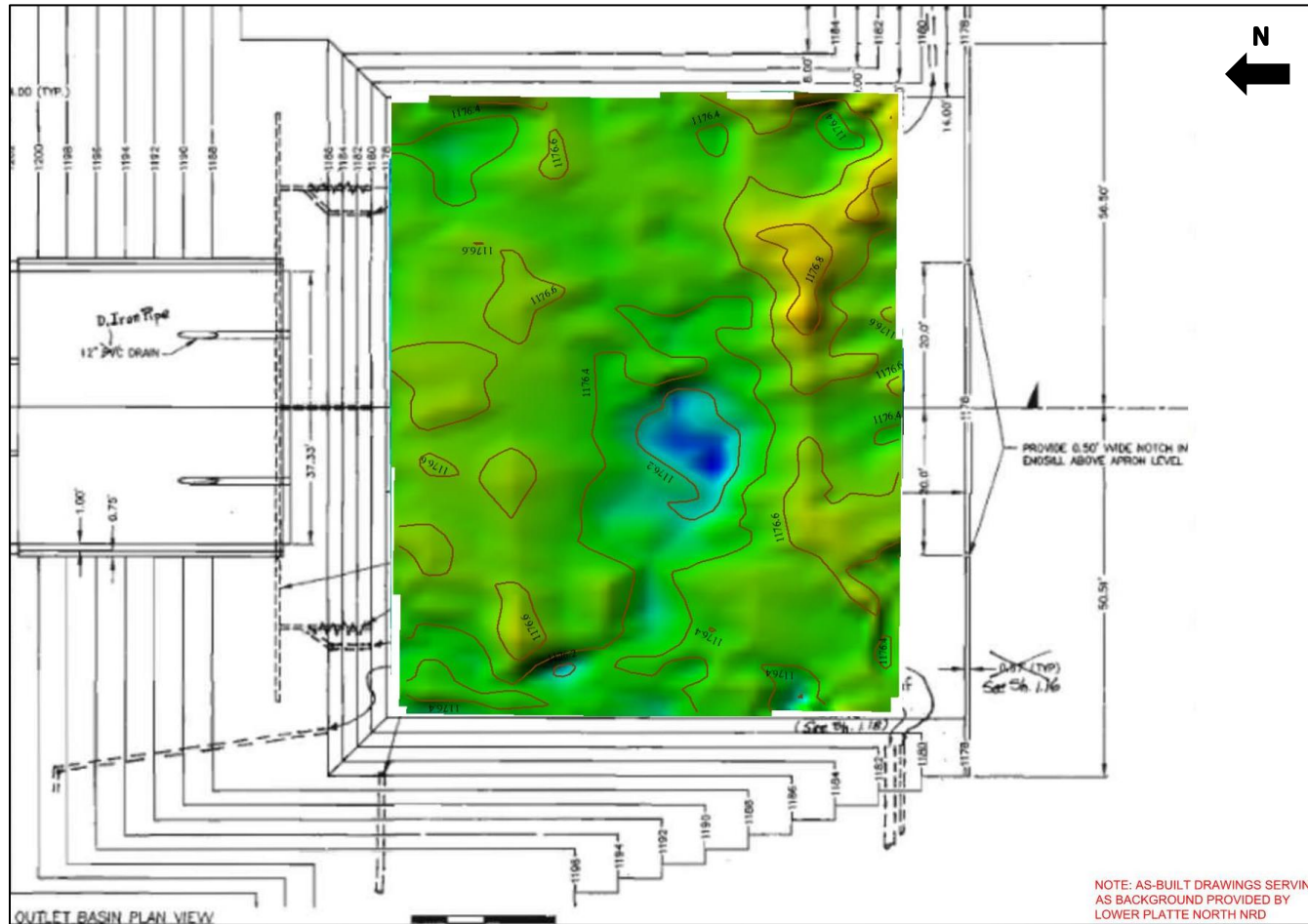


Figure 3.1 – Lake Wanahoo Scour Depth Map After Removals

4 DESIGN

4.1 Applied Loading

Due to budgetary and time constraints, a CFD model could not be completed to ascertain forces across the apron as a result of the flip bucket during significant runoff events. Without a CFD or physical model, laboratory studies performed by the Bureau of Reclamation (Frizell 2007 and Johnson 1976) were referenced to determine the maximum design loading acting upon the apron. Structural repair methods and design were determined based on guidance provided in Bureau of Reclamation Design Standard No. 14 (DS 14) and American Concrete Institute (ACI) Codes 318, 350, and 355.4. A complete summary of the method used to determine the applied loading can be found by referring to Technical Memo - Lake Wanahoo Apron Design (September 2022).

4.2 Structural Design

In accordance with guidelines published by the Bureau of Reclamation (DS 14), the Wanahoo apron will be repaired by applying a 12" fiber reinforced concrete overlay that is anchored to the underlying RCC apron with a series of steel anchors. The anchors and overlay will act to resist the hydraulic forces applied to the structure and prevent future delamination of the RCC Apron. A complete summary of the structural design can be found by referring to Technical Memo - Lake Wanahoo Apron Design (September 2022).

5 CONSTRUCTION

Construction of the designed modifications began in November of 2022. Once water was drained from the apron the contractor proceeded with grinding the RCC to provide a level base for the twelve inches fiber reinforced concrete overlay. The project was bid based on grinding depths ranging between zero and twelve inches, at an average of six inches across the basin. The grinding depths were estimated by comparing the surface developed during our assessment ([Section 3](#)) to a base elevation of 1176ft. This base elevation was set twelve inches below the baffle plates installed in 2021 as part of the end sill repairs. No direct surveys were taken of the baffle plates during the damage assessment, so the base elevation of the baffle plates was deduced. As-built documents note that the basin was poured to an elevation of 1176.5ft (NAVD 88), whereas our survey indicated the apron was poured up to an elevation of 1177ft (NAVD 88). The surveyed elevation of 1177ft was used to proceed with the design and quantity estimates. No additional survey was performed to confirm this elevation, as the basin was flooded and siltation had settled throughout the apron.

After completion of the grinding and prior to pouring the overlay, the contractor informed Houston Engineering that they estimated grinding depths averaging between nine and ten inches. An additional survey was performed at this time, which confirmed that the baffle plates were set at 1176.7ft, requiring grinding to extend to a depth of 1175.7ft.

6 SUMMARY

In order to recoup costs for the additional work, the contractor is requesting a payment of \$45,506.00, which is equivalent to the unit price multiplied by the overage in quantities. A summary of this overage, as well as further additions and subtractions needed to perform work to date, can be reviewed by referring to **Table 5.1**.

Table 5.1 – Summary of Deductions & Subtractions to Lake Wanahoo Apron Repair Project to Date

ITEM #	ITEM DESCRIPTION	UNIT	CHANGE IN QUANTITY	UNIT COST	TOTAL
1.003	RCC GRINDING/REMOVAL	CY	61	\$ 746.00	\$ 45,506.00
1.006	CLASS 6000 CONCRETE	CY	-6	\$ 596.78	\$ (3,461.32)
1.008	STEEL REINFORCEMENT - ALTERNATIVE B	LBS	2295	\$ 2.20	\$ 5,048.56
1.009	LONGITUDINAL/TRANSVERSE JOINTS (INCLUDING WATERSTOPS)	LF	-3	\$ 30.00	\$ (78.00)
1.010	PERIMETER WATERSTOPS	LF	-4.2	\$ 135.00	\$ (567.00)
				TOTAL	\$ 46,448.24

7 REFERENCES

Bureau of Reclamation Design Standard No. 14 (DS 14), August 2014. *Appurtenant Structures for Dams (Spillways and Outlet Works) Design Standard*.

Frizell, K.W., 2007. (Frizell 2007) *Uplift and Crack Flow Resulting from High Velocity Discharges over Open Offset Joints*. Report DSO-07-07, Bureau of Reclamation Dam Safety Technology Development Program.

Johnson, P. L. 1976 (Johnson 1976) *“Research into Uplift on Steep Chute Lateral Linings”*, USBR, Denver, Colorado.

Miller, Ethan and Gregalunas, Bob (September 2022) *“TM -Lake Wanahoo Apron Design”*, FYRA Engineering, Omaha, Nebraska.

Progress Estimate

Contractor's Application

For (Contract): Lake Wanhoo Apron Overlay										Application Number: 3			
Application Period: 01/05/2023 Through 01/30/2023										Application Date: 1/30/2023			
A					B	C1	C2	C3	D	E	F	G	H
Item		Contract Information			Total Value of Item (\$)	Estimated Quantity Installed this Pay Application Period	Previous Quantity Installed	Total Quantity Installed	Value of Work Installed to Date	Materials Presently Stored (not in C)	Total Completed and Stored to Date (D + E)	% (F / B)	Balance to Finish (B - F)
Bid Item No.	Description	Item Quantity	Units	Unit Price									
1.001	MOBILIZATION	1	LS	\$ 41,632.00	\$ 41,632.00	0.5	0.5	1	\$41,632.00		\$41,632.00	100.0%	
1.002	WATER HANDLING	1	LS	\$ 14,433.00	\$ 14,433.00		1	1	\$14,433.00		\$14,433.00	100.0%	
1.003	RCC GRINDING/REMOVAL	114	CY	\$ 746.00	\$ 85,044.00		114	114	\$85,044.00		\$85,044.00	100.0%	
1.004	BASIN CLEANING AND PREPARATION	1	LS	\$ 11,555.00	\$ 11,555.00		1	1	\$11,555.00		\$11,555.00	100.0%	
1.005	SET ANCHORS	169	EA	\$ 78.00	\$ 13,182.00		169	169	\$13,182.00		\$13,182.00	100.0%	
1.006	CLASS 6000 CONCRETE	227	CY	\$ 596.78	\$ 135,469.06	221.2		221.2	\$132,007.74		\$132,007.74	97.4%	\$3,461.32
1.007	FIBER REINFORCEMENT - ALTERNATIVE B	10215	LBS	\$ 6.00	\$ 61,290.00	10215		10215	\$61,290.00		\$61,290.00	100.0%	
1.008	STEEL REINFORCEMENT - ALTERNATIVE B	14737.2	LBS	\$ 2.20	\$ 32,421.84	14737		14737	\$32,421.84		\$32,421.84	100.0%	
1.009	LONGITUDINAL/TRANSVERSE JOINTS (INCLUDING WATERSTOPS)	228.2	LF	\$ 30.00	\$ 6,846.00	225.6		225.6	\$6,768.00		\$6,768.00	98.9%	\$78.00
1.010	PERIMETER WATERSTOPS	314.7	LF	\$ 135.00	\$ 42,484.50	310.5		310.5	\$41,917.50		\$41,917.50	98.7%	\$567.00
1.011	SEEDING	1	LS	\$8,130.00	\$ 8,130.00								\$8,130.00
1.012	RE-MOBILIZATION	1	LS	\$ 11,200.00	\$ 11,200.00								\$11,200.00
1.013	BAFFLE PLATE REMOVAL AND REPLACEMENT	86.5	LF	\$383.34	\$ 33,158.91								\$33,158.91
Totals					\$ 496,846.31				\$440,251.08		\$440,251.08	88.61%	\$ 56,595.23

Progress Estimate

Contractor's Application

For (Contract): Lake Wanhoo Apron Overlay										Application Number: 3			
Application Period: 01/05/2023 Through 01/30/2023										Application Date: 1/30/2023			
A					B	C1	C2	C3	D	E	F	G	H
Item		Contract Information			Total Value of Item (\$)	Estimated Quantity Installed this Pay Application Period	Previous Quantity Installed	Total Quantity Installed	Value of Work Installed to Date	Materials Presently Stored (not in C)	Total Completed and Stored to Date (D + E)	% (F / B)	Balance to Finish (B - F)
Bid Item No.	Description	Item Quantity	Units	Unit Price									
1.001	MOBILIZATION	1	LS	\$ 41,632.00	\$ 41,632.00	0.5	0.5	1	\$41,632.00		\$41,632.00	100.0%	
1.002	WATER HANDLING	1	LS	\$ 14,433.00	\$ 14,433.00		1	1	\$14,433.00		\$14,433.00	100.0%	
1.003	RCC GRINDING/REMOVAL	175	CY	\$ 746.00	\$ 130,550.00	61	114	175	\$130,550.00		\$130,550.00	100.0%	
1.004	BASIN CLEANING AND PREPARATION	1	LS	\$ 11,555.00	\$ 11,555.00		1	1	\$11,555.00		\$11,555.00	100.0%	
1.005	SET ANCHORS	169	EA	\$ 78.00	\$ 13,182.00		169	169	\$13,182.00		\$13,182.00	100.0%	
1.006	CLASS 6000 CONCRETE	221.2	CY	\$ 596.78	\$ 132,007.74	221.2		221.2	\$132,007.74		\$132,007.74	100.0%	
1.007	FIBER REINFORCEMENT - ALTERNATIVE B	10215	LBS	\$ 6.00	\$ 61,290.00	10215		10215	\$61,290.00		\$61,290.00	100.0%	
1.008	STEEL REINFORCEMENT - ALTERNATIVE B	17032	LBS	\$ 2.20	\$ 37,470.40	17032		17032	\$37,470.40		\$37,470.40	100.0%	
1.009	LONGITUDINAL/TRANSVERSE JOINTS (INCLUDING WATERSTOPS)	225.6	LF	\$ 30.00	\$ 6,768.00	225.6		225.6	\$6,768.00		\$6,768.00	100.0%	
1.010	PERIMETER WATERSTOPS	310.5	LF	\$ 135.00	\$ 41,917.50	310.5		310.5	\$41,917.50		\$41,917.50	100.0%	
1.011	SEEDING	1	LS	\$8,130.00	\$ 8,130.00								\$8,130.00
1.012	RE-MOBILIZATION	1	LS	\$ 11,200.00	\$ 11,200.00								\$11,200.00
1.013	BAFFLE PLATE REMOVAL AND REPLACEMENT	86.5	LF	\$383.34	\$ 33,158.91								\$33,158.91
Totals					\$ 543,294.55				\$490,805.64		\$490,805.64	90.34%	\$ 52,488.91

Table 1. Pressure Relief Well Results

Well #	Date	2020 Velocity (ft/s)	Date	2013 Velocity (ft/s)	Date	2012 Velocity (ft/s)	2020 Efficiency (%)	
							Versus 2013	Versus 2012
12	10.14.20	0.1	5.28.13	0.21	6.22.12	0.36	48	28
13	10.14.20	0.4	5.28.13	0.48	6.22.12	0.66	83	61
14	10.14.20	0.27	5.24.13	0.33	6.22.12	0.45	82	60
15	10.14.20	0.26	5.24.13	0.37	6.22.12	0.9	70	29
16	10.14.20	0.28	5.24.13	0.51	6.22.12	0.59	55	47
17	10.12.20	0.24	5.24.13	0.35	6.22.12	0.44	69	55
18	10.12.20	0.27	5.24.13	0.35	6.19.12	0.45	77	60
19	10.12.20	0.31	5.24.13	0.4	6.19.12	0.47	78	66
20	10.12.20	0.09	5.24.13	0.16	6.19.12	0.25	56	36
21	10.9.20	0.98	5.24.13	0.36	6.19.12	0.51	272	192
22	10.9.20	0.44	5.24.13	0.32	6.19.12	0.35	138	126
22A	10.9.20	NA	5.24.13	0.55	6.19.12	0.61	NA	NA
23	10.9.20	0.97	5.24.13	0.78	6.19.12	0.89	124	109
24	10.9.20	0.74	5.24.13	0.76	6.19.12	0.84	97	88
25	10.9.20	0.3	5.23.13	0.4	6.19.12	0.53	75	57
26	10.9.20	0.6	5.23.13	0.36	6.19.12	0.43	167	140
27	10.9.20	0.37	5.23.13	0.44	6.19.12	0.55	84	67
28	10.8.20	0.25	5.22.13	0.15	6.19.12	0.37	167	68
29	10.8.20	0.26	No Flow	NA	6.18.12	0.09	NA	289
30	10.8.20	0.64	No Flow	NA	No Flow	NA	NA	NA
31	10.8.20	0.29	5.22.13	0.78	6.18.12	2.71	37	11
32	10.7.20	0.5	5.22.13	0.67	6.18.12	2.21	75	23
33	10.6.20	0.07	10.16.13	0.47	6.18.12	0.05	15	140
34	10.6.20	0.05	5.22.13	0.6	6.18.12	0.55	8	9
35	10.7.20	0.06	5.22.13	0.56	6.18.12	0.66	11	9
36	10.7.20	0.26	5.22.13	0.46	6.18.12	0.58	57	45
37	10.7.20	0.47	5.21.13	0.28	6.18.12	0.68	168	69
38	10.12.20	0.14	5.21.13	0.23	6.18.12	0.26	61	54
39	10.12.20	0.21	No Flow	NA	6.18.12	0.03	NA	700

*NA indicates no velocity measurement was able to be performed

**2020 Efficiency is based on the ratio of 2020 velocity versus 2012 or 2013.

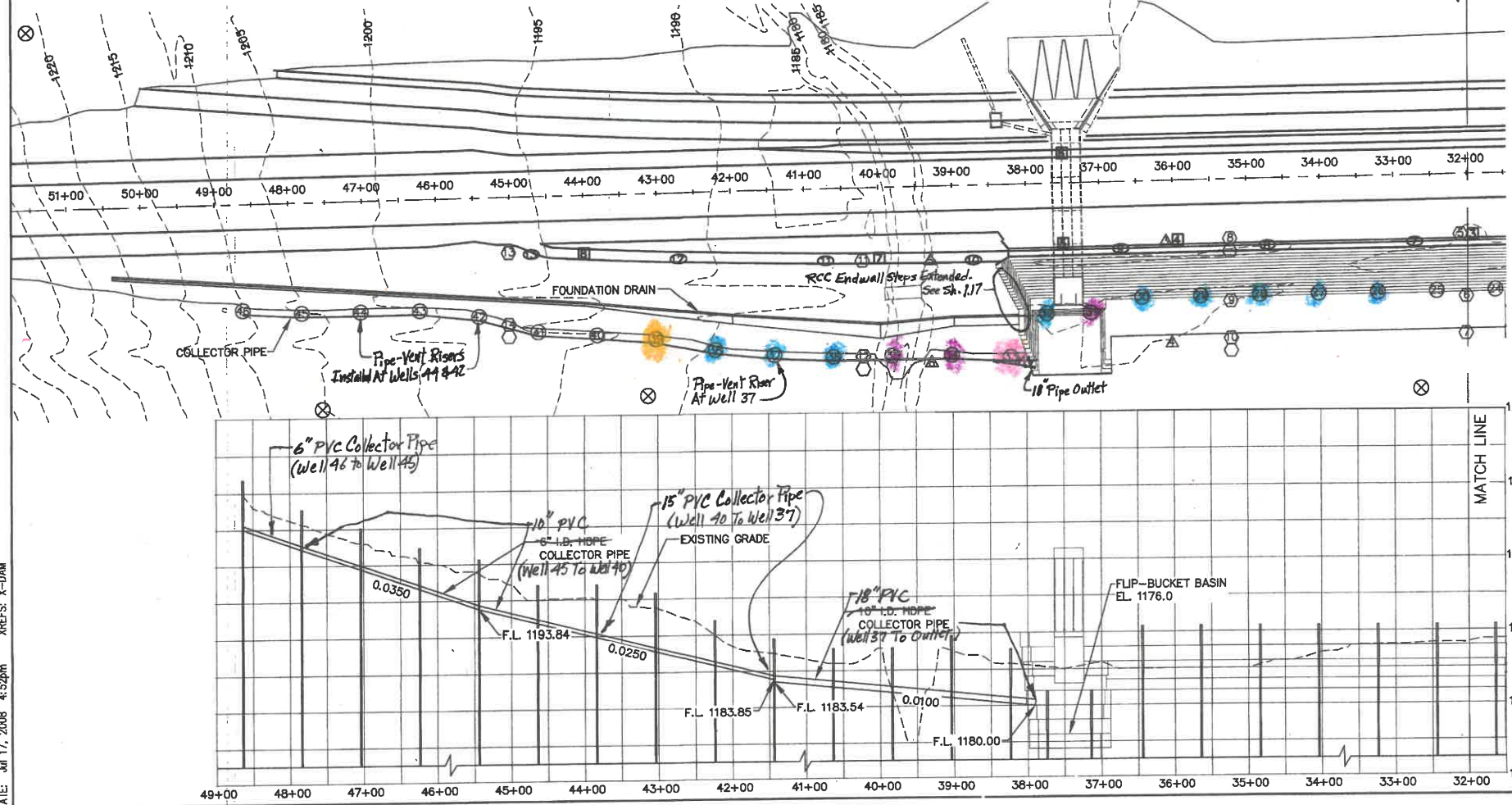
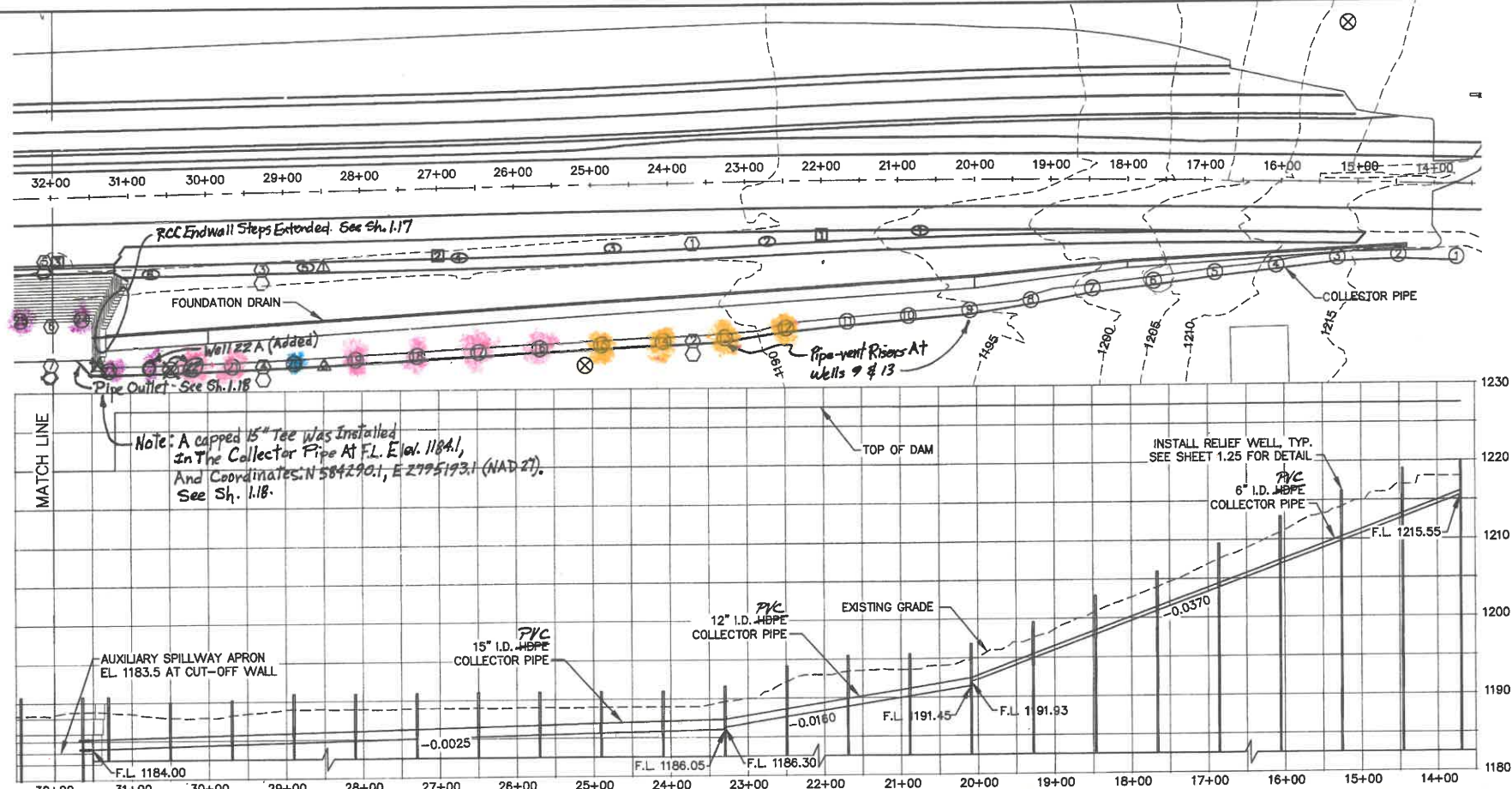
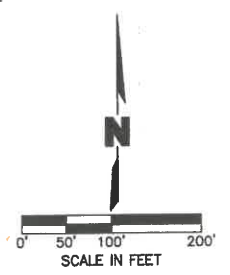
2022
2023
2024
2025

4 years total

LEGEND

- SETTLEMENT PLATES
- MOVEMENT MARKERS
- △ INCLINOMETER CASINGS
- ① PRESSURE RELIEF WELLS
- ② PIEZOMETER
- ③ DUAL-TIP PIEZOMETER
- ⊗ EXISTING ARMY CORPS OF ENGINEERS-INSTALLED PIEZOMETERS

2022 7
 2023 10
 2024 7
 2025 5



PRESSURE RELIEF WELL DATA

NUMBER	STATION	OFFSET	APPROX. EXISTING GROUND	APPROX. BASE DEPTH FROM EX. GROUND	*APPROX. SCREENED ELEV.
1	13+89	93.6' LT.	1218.6	95'	1196 - 1204
2	14+49	92.0' LT.	1217.3	95'	1195 - 1205
3	15+29	96.6' LT.	1214.2	95'	1190 - 1212
4	16+09	107.6' LT.	1210.9	95'	1180 - 1211
5	16+89	117.9' LT.	1207.5	95'	1189 - 1218
6	17+89	129.4' LT.	1204.0	95'	1186 - 1215
7	18+49	139.2' LT.	1200.8	85'	1186 - 1216
8	19+29	154.2' LT.	1197.6	85'	1183 - 1215
9	20+09	167.4' LT.	1195.0	85'	1181 - 1212
10	20+89	174.0' LT.	1193.6	85'	1178 - 1211
11	21+69	180.4' LT.	1193.5	85'	1177 - 1211
12	22+49	188.2' LT.	1192.1	85'	1176 - 1210
13	23+29	199.4' LT.	1189.4	85'	1176 - 1209
14	24+09	203.1' LT.	1189.0	85'	1177 - 1215
15	24+89	206.0' LT.	1189.0	80'	1179 - 1211
16	25+89	208.8' LT.	1188.0	80'	1178 - 1211
17	26+49	211.5' LT.	1188.0	80'	1177 - 1211
18	27+29	214.6' LT.	1188.9	80'	1176 - 1211
19	28+09	217.7' LT.	1188.8	80'	1176 - 1211
20	28+89	220.4' LT.	1189.0	80'	1176 - 1211
21	29+69	222.4' LT.	1188.2	80'	1175 - 1210
22	30+49	224.1' LT.	1188.1	80'	1175 - 1210
23	31+29	224.6' LT.	1188.8	80'	1176 - 1210
24	31+63	152.8' LT.	1188.0	80'	1175 - 1210
25	32+43	152.8' LT.	1188.0	80'	1176 - 1210
26	33+23	152.8' LT.	1188.0	80'	1176 - 1210
27	34+03	152.8' LT.	1188.0	80'	1176 - 1210
28	34+83	152.8' LT.	1188.0	80'	1174 - 1210
29	35+63	152.8' LT.	1188.0	80'	1174 - 1210
30	36+43	152.8' LT.	1188.0	80'	1174 - 1210
31	37+13	175.9' LT.	1180.0	80'	1173 - 1202
32	37+73	175.9' LT.	1180.0	80'	1173 - 1202
33	38+23	233.9' LT.	1185.8	80'	1173 - 1208
34	39+03	229.1' LT.	1187.6	80'	1174 - 1210
35	39+83	229.4' LT.	1186.0	80'	1173 - 1208
36	40+63	228.0' LT.	1186.0	80'	1174 - 1208
37	41+43	223.4' LT.	1187.4	85'	1175 - 1204
38	42+23	214.4' LT.	1190.0	85'	1176 - 1207
39	43+03	197.1' LT.	1193.8	85'	1176 - 1211
40	43+83	190.0' LT.	1195.0	85'	1174 - 1212
41	44+63	183.6' LT.	1195.0	95'	1177 - 1211
42	45+43	180.3' LT.	1198.6	95'	1175 - 1215
43	46+23	150.3' LT.	1200.3	95'	1176 - 1217
44	47+03	149.8' LT.	1203.1	95'	1177 - 1220
45	47+83	149.3' LT.	1205.7	95'	1176 - 1215
46	48+63	143.7' LT.	1209.6	95'	1178 - 1216

Added Well No. 22-A, Sta 30+76, Screened 1171.5 to 1171.5

*BASED ON TEST BORINGS. ADJUSTMENT MAY BE NEEDED IF CLAYEY SAND OR POORLY GRADED SAND IS ENCOUNTERED AT DIFFERENT ELEVATION. SEE GEOTECHNICAL REPORT



REVISIONS DESCRIPTION

REV. NO.	DATE	DESCRIPTION
1	March 2011	Complete, Revisions Noted

PRESSURE RELIEF WELLS AND INSTRUMENTS PLAN AND PROFILE

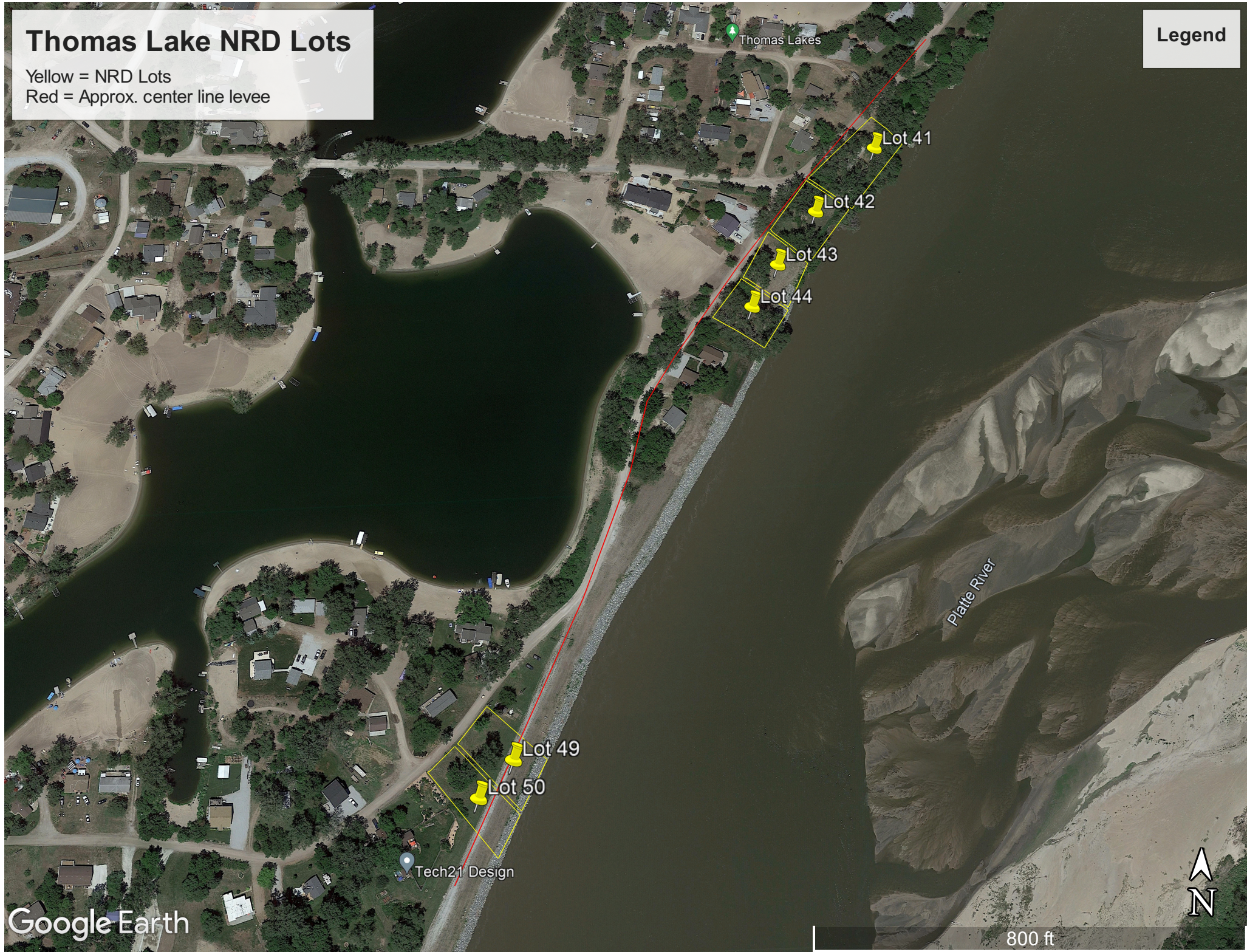
drawn by: _____
 checked by: _____
 approved by: _____
 project no.: _____
 drawing no.: _____
 date: _____

PROJECT: 20051568, Wandaoo V Dam Embankment Preliminary Sheets V.24 Instrumentation Plan and Profile.dwg
 DATE: Jul 17, 2008 4:52pm
 USER: adkin
 XREFS: X-DAM

Thomas Lake NRD Lots



Yellow = NRD Lots
Red = Approx. center line levee

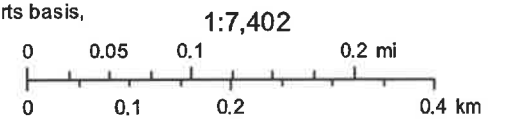
Legend





November 29, 2022 **DISCLAIMER:** This map is not intended for conveyances, nor is it a legal survey. The information is presented on a best-efforts basis, and should not be relied upon for making financial, survey, legal or other commitments.

-  Parcels
-  Sections





Attachment

Lower Platte North NRD – Structures exceeding planned Service Life:

<i>Watershed and Structure:</i>	<i>NID No.:</i>	<i>Year Constructed:</i>	<i>Service Life:</i>	<i>Age as of 2021:</i>
Swedeburg B-2	NE00046	1954	50	67
Swedeburg B-2A	NE00047	1954	50	67
Swedeburg B-3	NE00045	1954	50	67
Swedeburg 2B-1	NE00049	1957	50	64
Swedeburg 2B-2F	NE00048	1957	50	64
Bellwood 3-A	NE00016	1965	50	56
Bellwood 4-K	NE00017	1965	50	56
Bellwood 5-G	NE00015	1965	50	56
Bellwood 3-C	NE00020	1966	50	55
Bellwood 5-J	NE00019	1966	50	55
Cottonwood Creek 42-A	NE00054	1967	50	54
Cottonwood Creek 6-D	NE00053	1967	50	54
Cottonwood Creek 6-C	NE00056	1968	50	53
Cottonwood Creek 8-D	NE00057	1968	50	53
Bellwood 4-L	NE00023	1969	50	52
Bellwood 6-E	NE00024	1969	50	52
Bellwood 5-H	NE00026	1970	50	51
Bellwood 6-F	NE00025	1970	50	51
Cottonwood Creek 23-A	NE00058	1970	50	51
Cottonwood Creek 41-A	NE00059	1970	50	51

Rediscover the Outdoors

2023 Lake Wanahoo

NRD Recreation Area Permits are now available! Stop by the office in Wahoo or order online at lpnnrd.org



LOWER PLATTE NORTH
Natural Resources District



News Channel Nebraska
 214 N. 7th St. Suite 1
 Norfolk, NE 68701
 (402)-371-0100

News Channel Nebraska Invoice

Invoice ID: 23010151
 Invoice Date: 1/31/2023
 Account ID: 0552
 Order ID: 0552-005
 Account Rep: All Hupp

Amount Due: \$475.00

Amount Paid: _____

LOWER PLATTE NRD
 PO BOX 126
 WAHOO, NE 68066

Please remit payment to:
 214 N. 7th St. Suite 1
 Norfolk, NE 68701

Sponsor: Lower Platte NRD / News Sponsorship
 News Sponsorship

Date	Description	Times	Times	Times	Times	Times	Qty	Rate	Cost
1/1/2023	:30 Spot	06:10 AM					1	[Package]	[Package]
1/2/2023	:05 Bonus	09:06 AM	04:05 PM				2	[Package]	[Package]
1/2/2023	:05 Spot	01:07 PM	10:33 PM				2	[Package]	[Package]
1/2/2023	:30 Spot	07:58 AM	11:11 AM				2	[Package]	[Package]
1/3/2023	:05 Bonus	02:06 AM	04:09 PM				2	[Package]	[Package]
1/3/2023	:05 Spot	09:06 AM					1	[Package]	[Package]
1/3/2023	:30 Spot	10:43 PM					1	[Package]	[Package]
1/4/2023	:05 Bonus	02:06 AM	10:06 PM				2	[Package]	[Package]
1/4/2023	:05 Spot	12:31 PM	05:03 PM				2	[Package]	[Package]
1/4/2023	:30 Bonus	03:06 AM	11:45 AM				2	[Package]	[Package]
1/4/2023	:30 Spot	05:24 AM	07:44 AM	09:44 AM	10:43 AM	03:05 PM	5	[Package]	[Package]
1/5/2023	:05 Bonus	05:40 AM	11:08 AM				2	[Package]	[Package]
1/5/2023	:05 Spot	09:06 AM	10:06 PM				2	[Package]	[Package]
1/5/2023	:30 Bonus	02:24 AM	12:53 PM				2	[Package]	[Package]
1/5/2023	:30 Spot	04:16 AM	01:44 PM	03:44 PM	05:23 PM	11:45 PM	5	[Package]	[Package]
1/6/2023	:05 Bonus	03:28 AM	03:36 PM				2	[Package]	[Package]
1/6/2023	:05 Spot	06:33 AM	10:05 AM	02:09 PM			3	[Package]	[Package]
1/6/2023	:30 Bonus	02:48 AM					1	[Package]	[Package]
1/6/2023	:30 Spot	05:53 AM	07:53 AM	12:58 PM	04:42 PM		4	[Package]	[Package]
1/7/2023	:30 Spot	07:10 AM	08:50 PM				2	[Package]	[Package]
1/8/2023	:30 Spot	06:54 PM	09:05 PM				2	[Package]	[Package]
1/9/2023	:05 Bonus	11:06 AM	04:06 PM				2	[Package]	[Package]
1/9/2023	:05 Spot	07:31 AM	07:38 PM				2	[Package]	[Package]
1/9/2023	:30 Spot	09:57 AM					1	[Package]	[Package]
1/10/2023	:05 Bonus	02:31 AM	03:06 PM				2	[Package]	[Package]
1/10/2023	:05 Spot	12:06 PM	10:06 PM				2	[Package]	[Package]
1/10/2023	:30 Bonus	05:42 AM					1	[Package]	[Package]
1/10/2023	:30 Spot	04:56 AM	06:56 AM				2	[Package]	[Package]
1/11/2023	:05 Bonus	09:33 AM	10:05 PM				2	[Package]	[Package]
1/11/2023	:05 Spot	10:33 AM	03:05 PM				2	[Package]	[Package]
1/11/2023	:30 Bonus	03:48 AM	05:00 AM				2	[Package]	[Package]
1/11/2023	:30 Spot	02:46 AM	07:56 AM	11:17 AM	12:10 PM	05:56 PM	5	[Package]	[Package]
1/12/2023	:05 Bonus	06:32 AM	09:33 PM				2	[Package]	[Package]
1/12/2023	:05 Spot	01:05 PM	04:31 PM				2	[Package]	[Package]
1/12/2023	:30 Bonus	07:22 AM	09:54 AM				2	[Package]	[Package]
1/12/2023	:30 Spot	03:33 AM	05:36 AM	10:54 AM	12:15 PM	03:54 PM	5	[Package]	[Package]
1/13/2023	:05 Bonus	09:31 AM	10:45 PM				2	[Package]	[Package]
1/13/2023	:05 Spot	12:06 PM	04:00 PM				2	[Package]	[Package]
1/13/2023	:30 Bonus	02:36 AM					1	[Package]	[Package]
1/13/2023	:30 Spot	01:32 AM	03:42 AM	06:44 AM	11:20 AM	11:26 PM	5	[Package]	[Package]
1/14/2023	:30 Spot	07:17 AM	11:43 PM				2	[Package]	[Package]
1/15/2023	:30 Spot	05:42 PM	09:36 PM				2	[Package]	[Package]
1/16/2023	:05 Bonus	07:05 AM	07:14 PM				2	[Package]	[Package]

Continued

News Channel Nebraska Invoice

Invoice ID: 23010151
Invoice Date: 1/31/2023

Sponsor: Lower Platte NRD / News Sponsorship
News Sponsorship

Date	Description	Times	Times	Times	Times	Times	Qty	Rate	Cost
1/16/2023	:05 Spot	10:06 AM	05:33 PM				2	[Package]	[Package]
1/16/2023	:30 Spot	06:12 AM					1	[Package]	[Package]
1/17/2023	:05 Bonus	09:05 AM	03:32 PM				2	[Package]	[Package]
1/17/2023	:05 Spot	02:05 PM	10:07 PM				2	[Package]	[Package]
1/17/2023	:30 Bonus	11:05 AM					1	[Package]	[Package]
1/17/2023	:30 Spot	02:12 AM					1	[Package]	[Package]
1/18/2023	:05 Bonus	03:11 AM	11:42 PM				2	[Package]	[Package]
1/18/2023	:05 Spot	11:06 AM	03:06 PM				2	[Package]	[Package]
1/18/2023	:30 Bonus	04:21 AM	10:14 PM				2	[Package]	[Package]
1/18/2023	:30 Spot	05:55 AM	06:45 AM	09:10 AM	10:16 AM	06:11 PM	5	[Package]	[Package]
1/19/2023	:05 Bonus	05:35 AM	11:30 PM				2	[Package]	[Package]
1/19/2023	:05 Spot	12:03 PM	05:09 PM				2	[Package]	[Package]
1/19/2023	:30 Bonus	07:44 AM					1	[Package]	[Package]
1/19/2023	:30 Spot	04:23 AM	06:44 AM	10:45 AM	02:41 PM	03:53 PM	5	[Package]	[Package]
1/20/2023	:05 Bonus	04:01 AM	10:05 PM				2	[Package]	[Package]
1/20/2023	:05 Spot	02:06 PM	03:06 PM				2	[Package]	[Package]
1/20/2023	:30 Bonus	03:17 AM	11:44 PM				2	[Package]	[Package]
1/20/2023	:30 Spot	05:37 AM	07:12 AM	09:45 AM	10:55 AM	12:22 PM	5	[Package]	[Package]
1/21/2023	:30 Spot	05:35 PM	10:45 PM				2	[Package]	[Package]
1/22/2023	:30 Spot	05:45 PM	10:46 PM				2	[Package]	[Package]
1/23/2023	:05 Bonus	07:32 AM	10:06 PM				2	[Package]	[Package]
1/23/2023	:05 Spot	12:33 PM	05:10 PM				2	[Package]	[Package]
1/23/2023	:30 Spot	09:47 AM					1	[Package]	[Package]
1/24/2023	:05 Bonus	04:41 AM	10:06 PM				2	[Package]	[Package]
1/24/2023	:05 Spot	10:05 AM	03:06 PM				2	[Package]	[Package]
1/24/2023	:30 Spot	05:42 AM					1	[Package]	[Package]
1/25/2023	:05 Bonus	02:06 AM	09:06 AM				2	[Package]	[Package]
1/25/2023	:05 Spot	02:05 PM	05:35 PM				2	[Package]	[Package]
1/25/2023	:30 Bonus	03:48 AM	03:13 PM				2	[Package]	[Package]
1/25/2023	:30 Spot	04:15 AM	07:46 AM	11:16 AM	12:45 PM	10:47 PM	5	[Package]	[Package]
1/26/2023	:05 Bonus	04:05 PM	11:07 PM				2	[Package]	[Package]
1/26/2023	:05 Spot	09:06 AM	02:05 PM				2	[Package]	[Package]
1/26/2023	:30 Bonus	02:44 AM	03:14 AM	05:50 AM			3	[Package]	[Package]
1/26/2023	:30 Spot	04:51 AM	06:45 AM	12:43 PM	01:12 PM	03:20 PM	5	[Package]	[Package]
1/27/2023	:05 Bonus	03:07 AM	03:07 PM				2	[Package]	[Package]
1/27/2023	:05 Spot	12:33 PM	09:13 PM				2	[Package]	[Package]
1/27/2023	:30 Bonus	04:58 AM	01:15 PM				2	[Package]	[Package]
1/27/2023	:30 Spot	02:44 AM	07:53 AM	09:44 AM	10:54 AM	10:28 PM	5	[Package]	[Package]
1/28/2023	:30 Spot	07:10 AM	10:11 PM				2	[Package]	[Package]
1/29/2023	:30 Spot	05:42 PM	08:42 PM				2	[Package]	[Package]
1/30/2023	:05 Bonus	12:32 PM	07:35 PM				2	[Package]	[Package]
1/30/2023	:05 Spot	07:33 AM	03:03 PM				2	[Package]	[Package]
1/30/2023	:30 Spot	09:44 AM					1	[Package]	[Package]
1/31/2023	:05 Bonus	03:09 AM	11:06 AM				2	[Package]	[Package]
1/31/2023	:05 Spot	05:11 PM	07:20 PM				2	[Package]	[Package]
1/31/2023	:30 Spot	02:12 AM					1	[Package]	[Package]
1/31/2023	Package						1	475.00	475.00
200 Total Items								Total Cost:	\$475.00

Amount Due: \$475.00

Shell Creek Research Group 2023 Order Request Newman Grove High School

Forestry Suppliers 205 West Rankin St Jackson, MS 39201 800-647-5368					
	Description	Item Number	Price	Quantity	Total
	Nitrate Test Kit	94834	\$66.95	4	\$267.80
	Phosphate Test Kit	94837	\$56.25	1	\$56.25
	pH Test Kit	94836	\$74.95	1	\$74.95
	Chest Waders	94507	\$122.25	1	\$122.25
	Chest Waders	94510	\$122.25	1	\$122.25
	1 ml pipettes	53891	\$7.25	5	\$36.25
Vernier 13979 SW Millikan Way Beaverton, OR 97005 1-888-837-6437 www.vernier.com					
	LabQuest 3	LABQ3	\$399.00	1	\$399.00
	Go Direct Optical Dissolved	GDX-ODO	\$359.00	1	\$359.00
	ODO Clamp	GDX-Clamp	\$14.00	1	\$14.00
	ODO Cap	GDX-ODO-CAP	\$79.00	2	\$158.00
				TOTAL	\$1,609.75