

Projects Committee Meeting
Thursday, July 2, 2020 7:30 AM
Lower Platte North NRD Office
P.O. Box 126

1. UNFINISHED BUSINESS

No unfinished business to address.

2. SWCP

Elliott reviewed the attached FY21 SWCP spreadsheet. We have not been OFFICIALLY allocated SWCP dollars from DNR as of July 1. Elliott has been in contact with Jill Richters (who oversees SWCP at DNR) and she has said that it "should be fairly close to last year".

A. SWCP Application Approvals

20-D-1 - Diers Family Farm - Dodge County, Section 32-18N-9E - Livestock well, pumping plant, and stock tank: \$18,964.65

The location of this application borders our Rawhide Ditch. In the easement that the NRD and adjoining landowners entered into there is a clause that requires the NRD to supply livestock water if we disallow livestock entering the ditch. Due to the maintenance issues on the banks over the years caused by cattle entering/leaving the ditch our Operations Department decided to fence off the ditch and would like to provide a well for Diers. Through the DNR SWCP program we can submit up to 75% cost-share with the remaining 25% covered by NRD local funds.

B. SWCP Payments

20-C-2 - Terry & Spring Wendt - Planned Grazing System - \$7,464.60

C. SWCP Cancellations

None

D. Wahoo Creek Cost Share Approvals

None

3. WATERSHEDS

A. Shell Creek

1. Shell Creek Environmental Enhancement Plan Implementation

a. Shell Creek Channel Improvement/Benching Project

Bill Bos has lined up several landowner conservation and septic system upgrade projects in the Shell Creek Watershed and now that we have all grant funding approved, we will now able to begin approving those projects.

At the May 11th LPNNRD Board Meeting, we approved the low bid from Pruss Excavating totaling \$167,962.32 for completing the Shell Creek North Channel Improvement/Benching Project and work has started. Colfax County is providing the needed landowner easements, project engineering and construction oversight. This project is located just north of the U.P. Railroad Bridge near County Road 15, east of Schuyler. The County has also started to work on lining things up for moving forward on the Shell Creek South Channel Improvement Project, just south of the U.P. Railroad Bridge. Pruss has agreed to do this south channel work as a contract addendum at the same unit prices for the Shell Creek North Channel Project. Director Bailey reported that the U.P. Railroad is moving forward with replacing their bridge at Colfax County road 14 and the County Road bridge replacement project is also scheduled to be replaced this summer.

b. Tom Sprunk Bank Stabilization/Wetlands Project

Tom Sprunk has been working with Bill Bos and Jim Reedy, NRCS, on finalizing plans for completing his wetlands enhancement and bank stabilization project. LPNNRD will assist with the bidding process as the project is scheduled to be completed this summer. We have previously approved 75% cost share on this project that has a rough estimate of \$25,000 at this time. Our plan is to use approved grant funding from NDEE and NET to reimburse LPNNRD for our contribution.

c. Shell Creek Grant Funding Update

We have received the Inter-Governmental Grant Agreement (attached) from the Nebraska Department of Environment and Energy (NDEE) for the Shell Creek Watershed. Jovan has reviewed the agreement and his comments are attached. This EPA 319 grant will provide \$365,000 to combine with our approved \$104,688 from the Nebraska Environmental Trust (NET) for helping complete Shell Creek projects. These projects include the Shell Creek Channel Improvement Project, Tom Sprunk Wetland Project and numerous landowner conservation and septic system upgrade projects in the watershed. Manager Gottschalk electronically signed the attached NDEE agreement on June 22nd so that projects could immediately begin.

B. Wahoo Creek Watershed

1. Wahoo Creek Dam Site Planning Update & FYRA Invoices

NRCS and FYRA continue to work with NRCS in Little Rock NRCS on what additional work and expense will be needed for moving forward with completing the economic analysis for the Wahoo Creek Watershed Plan. We anticipate that a contact addendum with FYRA and agreement with NRCS to cover the additional scope of work and expense will be coming soon.

We may have another invoice from FYRA by the July 13th Board meeting for work completed under our present contract.

2. Olsson Design Update and Invoice - Mike Placke & Andrew Philips

Attached is a \$12,706.55 Olsson invoice for Geo-tech (soil analysis) on Wahoo Creek Sites 26a, 26b and 27 from. Mountford asked about the monthly invoices when the field work for soil sampling actually occurred last fall. Olsson explained that the required work has been done in segments instead of all at once, since the project has not been on a fast track due to the watershed plan completion delays. To date, 79.2% of the Geo-tech budget has been expended for the three dam sites mentioned (see attachment). After this payment, \$245,281.11 (42%) will have been expended from this project phase that totals \$583,825. As has been mentioned in the past, the majority of the contract phase involving the design of the eight dams has been unspent and will remain so until the Wahoo Creek Watershed Plan is approved. The contract phase for designing the eight remaining dams totals \$1,416,153.

Andrew Philips, Olsson, joined the Projects Committee meeting by Zoom and gave a presentation of what has been accomplished thus far at Dam Sites 26a, 26b and 27.

3. Wahoo Creek Watershed Water Quality Plan Phase II

We continue to prepare for upcoming Wahoo Creek Watershed Projects with landowners.

a. MIKE CHVATAL DAM

Mike Chvatal received another bid for his approved dam project per our suggestion (both bids attached). His current approved cost-share amount is \$32,297.00. The dam's location is above one of the high hazard structures (21-A) within the Cottonwood Creek watershed which qualifies it as a "high priority" within our local SWCP Policy. This project also qualifies for grant reimbursement through our NDEE and NET Water Quality grant partnership. Mr. Chvatal is requesting consideration for obtaining up to 75% cost share based on the lower bid of \$61,808 as attached. This would raise our maximum cost from \$32,297 up to \$46,356 (\$14,059 increase).

For review: the dam was approved in 2015 and due to a combination of weather, contractor availability, and crop loss worries the project has not been completed and was given a Board mandated completion for 2020. During a

pre-stake out design review it was noted that the planned dam outlet elevation was located too high and the potential for erosion to occur from the outlet to the dam embankment was realized. A redesign was completed adding:
1200 cubic yards of additional excavation for an outlet channel
33 extra feet of 12" corrugated metal pipe to reach new, stable outlet location

4. JOINT WATER MANAGEMENT ADVISORY BOARD (JWMAB) - 7:45 a.m.

We have been working with Dodge County and the City of Fremont on several joint projects. Tom Smith & Bob Missel (Dodge County) and Brian Newton and Lottie Mitchell (Fremont), joined the meeting (by Zoom) to discuss joint project efforts to include those listed below.

A. Platte River Camera/Sensor Project

We have been working with Dodge County, City of Fremont and the Papio-Missouri River NRD to place cameras and additional water level sensors at five locations along the Platte River (HW 15, 64, 77, 79 and near the Burlington Northern Railroad Bridge west of Schuyler) to assist with observing flooding issues developing from seasonal rainstorm and ice jams. Attached is an Interlocal Agreement between LPNNRD, PMRNRD, Dodge County and City of Fremont to share the project costs. Dodge County will also submit a FEMA grant application for up to 75% of the maximum project costs as attached. The maximum equipment purchases and related expenses over a two year is estimated at \$27,000. While the project includes up to ten cameras, three water sensors and other equipment, only five cameras and two sensors are planned to be placed in 2020. If it is determined that there will be value to place additional cameras and sensors, that would occur in 2021. The Partners are proposing to share the costs (\$6,750 each), however there is an excellent chance will will receive up to \$20,250 (75%) from the FEMA grant which would cover the cameras, sensors and other equipment costs. If the grant is approved, a good portion of the local expense will be in the form of in-kind staff time provided toward the project.

B. North Bend Drainage District Project - FEMA/NEMA Grant Fiscal Agent Discussion

Dodge County, LPNNRD and Fremont have been assisting the North Bend Drainage District (NBDD), with submitting a Hazard Mitigation grant application for 75% assistance on what is estimated at \$1.7 million project, to repair and improve four miles of the drainage system. Dodge County Emergency Manager Tom Smith has been working on the cost benefits for the project application. Attached is a project map and project description from Larry Ruzicka, NBDD. Discussion at the Projects committee centered on who should be the fiscal agent for the project as NBDD would not be able to handle it. The committee felt that LPNNRD should be consistent with our past precedence to have the county or city be the fiscal agent for large projects. One major reason LPNNRD has followed this precedence is being the fiscal agent on large projects could cause budget challenges while awaiting project reimbursements from grant and local partners. The committee offered to assist Dodge County with

project management if they are the fiscal agent.

C. Dodge County Platte River Breach Repair (Fremont Rod & Gun Club) Project

The Nebraska Department of Economic Development has awarded the Dodge County Platte River Breach Repair (Fremont Rod & Gun Club) Project up to a \$485,000 CDBG grant (letter attached). LPNNRD has approved up to \$50,000 toward the Repair Project, located on Fremont Rod and Gun Club property. Mountford has drafted an interlocal agreement (attached) between Fremont, Dodge County and LPNNRD, outlining our financial contributions and future operation and maintenance of the completed project. A very important issue was who will secure and hold public easements for the project area and Fremont has recently agreed to be that party. Jovan has reviewed and commented on the Interlocal Agreement.

D. Fremont East Drainage Ditch Improvement Project Grant Application

Tom Smith, Dodge County Emergency Manager will comment on a Hazard Mitigation Grant application he submitted to study potential improvement on the ditch system east of Fremont. Besides Dodge county and Fremont, LPNNRD is a logical partner to assist financially on a potential project.

5. HAZARD MITIGATION PLAN UPDATE, PROJECT CONSIDERATION - JEO

As previously reported, JEO has submitted our final Hazard Mitigation Plan to EPA for review and comments. Our Board approved the plan as written on May 11, 2020, which was submitted to FEMA for review.

As discussed at previous committee meetings, there remains \$22,000 that is unapproved in the contract that could be used for other project work if we desire. Of the \$22,000, up to \$16,500 (75%) would be reimbursed from FEMA. Lalit Jha and Becky Appleford, JEO, joined the meeting (by Zoom) to discuss possibilities (presentation attached). One previous thought was completing some additional breach inundation maps on a few more of our low hazard dams, but after closer review, staff feels that we already have mapped the priority structures and do not feel the need to do more at this time. However, there has been discussion on working with Saunders County on possibly establishing a Dam Breach Overlay District on our already mapped dams, to provide structured zoning requirements for inhabitable dwellings proposed in downstream breach areas. Another item discussed was sponsoring Levee Failure Tabletop Workshop to prepare us and our partners for future levee disasters. The committee was interested in having JEO present a scope of work on expanding our Dam Breach Overlay District (for 15 existing dams) in Saunders County and holding a future Levee Failure Tabletop Workshop. JEO will have a contract outlining a scope of work for Board approval consideration at the July 13th Board meeting. JEO representatives will be also be available at the Board Meeting to answer questions.

Attached is JEO's May 29th invoice totaling \$1,386.48 for work completed under our HMP contract (progress report also attached). After this payment, \$5,313.88 will remain

under the \$228,000 portion of the contact that LPNNRD has authorized thus far.

6. NEBRASKA BUFFER STRIP PROGRAM

We received four applications for the Nebraska Buffer Strip Program:

Mary Theresa Norton (3 applications): Sections 19 & 20-18N-2E Colfax Co

8 acres - \$219.68/acre = \$1,757.44 annual payment

13.7 acres - \$219.68/acre = \$3,009.62 annual payment

11.2 acres - \$214.20/acre = \$2,399.04 annual payment

Sheryl Hansen: Section 32-15N-2E Butler County

9.1 acres - \$237.80/acre = \$2,163.98 annual payment

7. EROSION AND SEDIMENT RULES AND REGULATIONS

No new updates.

8. OTHER

A. Johnson Lake Aeration Project

Fremont representative Don Cunningham joined the Projects Committee to bring more details regarding the proposed aeration system for the City's Johnson Lake. The systems primary purpose is to improve the lakes water quality. The total project including electrical hookup costs is estimated at around \$10,000. Mr. Cunningham has been working with the community for donations toward the project as well.

9. ADJOURNMENT

The Projects Committee adjourned at 10:15 a.m.

SWCP Monthly Report

SWCP #

STATUS

NAME

APPROVED SMALL DAM PROJECTS:

15-S-12 Approved Mike Chvatal

APPROVED SUMMER PROJECTS:

20-S-1	Dennis Beranek
20-S-2	Randy Beranek
20-S-3	Rick Beranek
20-S-4	Elaine Kaspar
20-C-1	Louis Lutjelusche
20-C-2	Terry & Spring Wendt
20-C-3	Randy Brabec
20-P-1	Keith Runge
20-P-2	Jeff Lusche
20-D-1	Diers Family Farm

TOTAL SUMMER APPROVALS

APPROVED FALL PROJECTS:



TOTAL FALL APPROVALS

TOTAL FY20 SWCP APPROVAL



PAID PROJECTS

SWCP #	STATUS	NAME
20-C-2	PAID	Terry & Spring Wendt

Total SWCP PAID:



July 1, 2020

SWCP LOCAL
SWCP TREE ALLOCATION
STATE ALLOCATION
CASH CARRY-OVER
AMOUNT SPENT
CASH BALANCE
ALLOCATION %

<i>AMOUNT</i>	<i>PROJECT</i>
\$ 32,297.00	Small Dam
\$ 10,000.00	TOT
\$ 10,000.00	TOT
\$ 10,000.00	TOT
\$ 12,500.00	WASCOB/TO
\$ 12,123.00	Planned grazing system
\$ 12,500.00	Planned grazing system
\$ 6,534.56	Grass Waterway
\$ 11,276.95	Livestock well (solar)
\$ 10,759.69	Livestock well (solar)
\$ 18,964.65	Livestock well (solar)
\$ 114,658.85	



\$ -

\$ 114,658.85



LANDS FOR CONSER

	<i>AMOUNT</i>	<i>PROJECT</i>	<i>Name</i>
\$	7,464.60	Planned Grazing System	

\$ 7,464.60

TOTALS



\$50,000.00

\$3,000.00

\$87,074.48

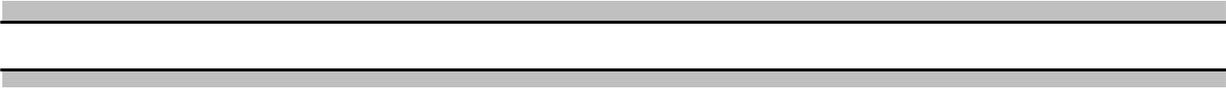
\$0.00

\$7,464.60

\$129,609.88

82%

SHELL CREEK FUND





ATION (GRANT FUNDED)

Acres

Amount

-83 \$ (15,770.00)









































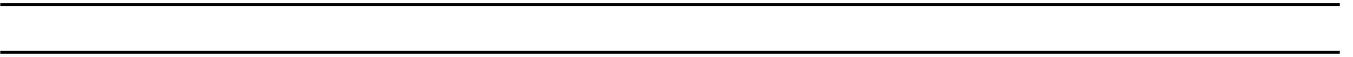


























































Diers Livestock Well

Located just north of County Road S and 25. Access through the farmstead north.

Legend

Diers Well Location

Google Earth

© 2020 Google



1000 ft

Tom's Well Service

P.O. Box 151
Blair, Ne 68008
402-426-5976

Estimate

Date	Estimate #
6/7/2020	2382

Name / Address	
Diers Family Farm Kirk Diers P.O. Box 491 Fremont, NE 68026-0491	
Phone #	402-719-5925

Description
Float Switch 1 1/4 Inch SCH 80 PVC Pipe 3 Inch SCH 80 PVC Pipe Misc fittings Miscs Elec Labor & Equipment (Per Man Hour)
<p>This is to drill a new well and install a solar pump and panel array with the option to plug in a backup generator.</p> <p>This includes installing a 15' diameter bottomless tank with a with a float switch, poured concrete bottom and a 6 foot concrete apron around it.</p> <p>You will need to install fencing to keep cows away from the well and equipment.</p>

Total	\$18,964.65
--------------	-------------

Tom Mountford

From: Jovan Lausterer <jlaus@wahoolaw.com> on behalf of Jovan Lausterer
Sent: Wednesday, July 1, 2020 9:54 AM
To: Tom Mountford
Cc: egottschalk@lpnrd.org
Subject: RE: Agreements

Following are a few comments relative to the NDEE Shell Creek Agreement:

- Funds are contingent upon approval of the final project report.
- There is no timeframe to which NDEE is required to issue payment (i.e. 30 days from application for payment).
- Payments are capped at \$365,000 so cost overruns would necessarily be the responsibility of the NRD as the project sponsor.
- The NRD, as sponsor, is objected to supervise and manage compliance with clean water act, best management practices, etc. Failure to follow these after the project is complete can result in an obligation to repay the grant funds.
- The EPA's general terms and conditions are incorporated into the document by reference: <https://www.epa.gov/grants/grant-terms-and-conditions>
- Three written bids and sealed bidding are likely required under the terms of the agreement given the threshold amounts listed in Section 3.
- Contractors are required to follow federal guidelines for worker reporting, non-discrimination, drug free workplace, etc.
- We are past the Q2 of 2020 schedule requiring complete project approval and student volunteer monitoring to have already been completed.

Note that I'm not suggesting that changes to the documents are necessary but rather just pointing out things the District should make sure they are aware of. Thank you.

Jovan W. Lausterer

Jovan Wayne Lausterer, #23081
Bromm, Lindahl, Freeman-Caddy & Lausterer
551 North Linden
Wahoo, NE 68066
Office Phone: (402) 443-3225
Cellular Phone: (402) 770-2283
Fax: (402) 443-4005
E-mail: jlaus@wahoolaw.com
Website: <http://www.wahoolaw.com>

IRS Circular 230 DISCLOSURE: In accordance with IRS Circular 230, please note the following with regard to any portion of the above message which involves federal tax issues: Unless expressly stated otherwise above, (1) nothing contained in this message is intended or written to be used or relied upon by any taxpayer for the purpose of avoiding penalties that may be imposed under the Internal Revenue Code; and (2) nothing contained in this message may be used to recommend, promote or market any federal tax transaction or matter. Please be assured that this legend does not in any way affect the manner in which we endeavor to provide our clients with the highest quality legal advice or reduce in any way the level of care we take in doing so.

INTER-GOVERNMENTAL AGREEMENT
Between the
Nebraska Department of Environment and Energy
and
Lower Platte North Natural Resources District
regarding the implementation of the project titled
Shell Creek Corridor Enhancement and Conservation Implementation

NDEE Reference Number: 2020-102571485

THIS AGREEMENT is made and entered into by and between the Nebraska Department of Environment and Energy (NDEE) and Lower Platte North Natural Resources District (Sponsor) in accordance with Nebr. Rev. Stat. Sec. 81-1504 Nebraska Environmental Protection Act;

WHEREAS, the Sponsor made a request to the NDEE for Section 319 grant funds (CFDA #66.460), pursuant to the Federal Clean Water Act and the Nebraska Nonpoint Source (NPS) Management Program, which have been made available to NDEE through the Region VII Office of the U.S. Environmental Protection Agency (USEPA); and

WHEREAS, the Sponsor agrees to comply with all provisions of the Federal Clean Water Act as amended by the Water Quality Act of 1987, 33 U.S.C. §1251 et seq. and intends to use the funds as set out in this Agreement;

NOW, THEREFORE, the parties do hereby agree to the terms and requirements of this Agreement as follows:

I. TERM OF THE AGREEMENT

This Agreement will begin on June 19, 2020, and will remain in effect until all identified tasks are completed for this Section 319 Project unless terminated under §IV-C-12 of this agreement, but will not remain in effect past June 30, 2022.

II. WORK DESCRIPTION AND SCHEDULE

This project shall complete objectives and work items as described in the approved project implementation plan (PIP). The PIP is hereby incorporated into this document in its entirety (Attachment A).

III. FINANCIAL REQUIREMENTS

- A.** Grant funds in the amount up to \$365,000 are to be used to implement this Section 319 NPS project.
- B.** Sponsor agrees to contribute 40% of grant funds spent up to \$243,333 in nonfederal match as cash and/or services in-kind for implementation of project activities.

C. Statement of Costs

The Sponsor will submit, no more often than monthly, a properly documented statement of costs for which reimbursement is sought AND properly documented nonfederal match as claimed pursuant to the terms of this Agreement and the approved PIP. The statement of costs shall be signed by the Sponsor's authorized representative. For purposes of this agreement, reimbursable costs and nonfederal match claims shall be related to budget items as described in the approved PIP. Documentation of costs and match shall consist of paid receipts, signed time records, and/or similar verification of expenditures. A description of the activities performed, list of personnel and documentation of time worked, in relation to reported match dollars, shall be included.

D. Disbursements

1. All requests for reimbursement of costs incurred by the Sponsor shall be reviewed pursuant to the provisions of the Nebraska Prompt Payment Act.
2. Reimbursements will be contingent on receipt of required reports.
3. NDEE shall withhold 10% of the total award but not less than \$10,000.00, of grant funds pending receipt and approval of the final project report.
4. The total amount of payments under this Agreement shall not exceed \$365,000.
5. The Sponsor agrees to contribute 40% of grant funds spent or up to \$243,333 in nonfederal match as cash and/or services in-kind for implementation of project activities.

IV. GRANT REQUIREMENTS**A. Program Requirements**

1. The Sponsor agrees to follow the approved Project Implementation Plan (PIP) outlining the project schedule, budget categories and amounts, and specific work items to be undertaken during the course of the project.
2. A Quality Assurance Project Plan (QAPP) must be approved by NDEE prior to any collection of environmental data and subsequent reimbursement request from Section 319 grant funds for monitoring activities. All environmental data collected under this agreement shall be provided to NDEE.
3. The Sponsor agrees to submit progress reports to the NDEE by March 20 and September 20 each year for the duration of the project agreement. These reports shall contain the following components:
 - a. Progress to date;
 - b. Significant findings or events;
 - c. Corrective actions taken to resolve any problems that are encountered;
 - d. Activities planned for the next reporting period.

4. The Sponsor agrees to MBE/WBE reports to the NDEE by September 20 each year for the duration of the project agreement and a final MBE/WBE report by June 30, 2022.
5. A final project report must be submitted to NDEE within 60 days after completion of project tasks, but no later than June 30, 2022. This report shall contain the following components in addition to those outlined in the 319 Project Final Report Guidelines to be provided by NDEE:
 - a. Significant findings or events;
 - b. Corrective actions taken to resolve any problems that were encountered;
 - c. Final budget with actual amounts of expenditures and matching listed as well as the source(s) of matching identified.
6. The Sponsor agrees that if indirect costs are authorized, as specified in the approved PIP, they will be charged at the approved indirect rate.
7. The Sponsor agrees that any contract, inter-governmental agreement, sub-agreement and/or procurement of equipment under this grant must receive NDEE approval prior to expenditure of funds associated with those transactions. Copies of all sub-agreements and inter-governmental agreements will be provided to the NDEE.
8. All equipment purchased with Section 319 grant funds must be approved by the NDEE. Any such purchased equipment shall be retained by the NDEE upon completion of the project unless otherwise authorized in writing by the NDEE.
9. The Sponsor agrees that all water quality data collected under this grant shall be provided to the NDEE.
10. The Sponsor agrees to recognize the contributions and/or involvement of the Federal Nonpoint Source Management Program (authorized by Section 319 of the Clean Water Act and administered by USEPA and NDEE) in project publicity, reports, newsletters, and other materials. The Sponsor shall work with the NDEE to ensure that all necessary peer review requirements are met prior to publication. A minimum of three (3) copies of outreach material (printed or other media) produced under this grant shall be provided to the NDEE unless otherwise specified.
11. The Sponsor agrees to ensure that persons receiving cost-share assistance from Section 319(h) funds shall, where relevant, practice nutrient and best management on those portions of their operations that fall in the critical area of the project.
12. The Sponsor agrees to maintain all practices or structural Best Management Practices (BMPs) developed or constructed under Section 319, consistent with the operation and maintenance requirements for structures or practices as

described in standard engineering design or as identified in the Natural Resources Conservation Service's Field Office Technical Guides or other appropriate federal/state/local standards.

B. Federal Requirements

1. General Terms and Conditions

The recipient agrees to comply with the current EPA general terms and conditions. These terms and conditions are in addition to the assurances and certifications made as part of the award and the terms, conditions or restrictions cited throughout the award. The EPA repository for the general terms and conditions by year (Grant Conditions) can be found at:
<http://www.epa.gov/ogd/tc.htm>

2. Federal Tax Liability

With signature on this Agreement, the sponsor certifies that they: (1) are not subject to any unpaid Federal tax liability that has been assessed, for which all judicial and administrative remedies have been exhausted or have lapsed, and that is not being paid in a timely manner pursuant to an agreement with the authority responsible for collecting the tax liability, and (2) have not been convicted (or had an officer or agent acting on its behalf convicted) of a felony criminal conviction under any Federal law within 24 months preceding the award, unless EPA has considered suspension or debarment of the corporation, or such officer or agent, based on these tax liabilities or convictions and determined that such action is not necessary to protect the Government's interests.

3. Subaward Policy

If there will be contractual services provided in association with this agreement for \$3,000 or more, the Sponsor is required to get three written bids. If there will be contractual services provided in association with this agreement exceeding \$150,000, the Sponsor is required to conduct a sealed bid Request for Proposals.

4. Civil Rights Statutes and EPA Regulations

This term and condition incorporates by reference the signed assurance provided by the recipient's authorized representative on: 1) EPA Form 4700-4, "Preaward Compliance Review Report for All Applicants and Recipients Requesting EPA Financial Assistance"; and 2) Standard Form 424B or Standard Form 424D, as applicable. The assurances and this term and condition obligate the recipient to comply fully with applicable civil rights statutes and implementing EPA regulations.

C. State Requirements

1. Amendments

This agreement may be amended in writing at any time by mutual agreement of the parties, except insofar as any proposed amendments are in any way contrary to applicable law or requirements of the USEPA or NDEE.

2. Forfeiture, Repayment, and Delays in Disbursement of Funds

Violation of any of the requirements of this Agreement by the Sponsor or failure of the Sponsor to complete and maintain the project in the manner described in the project implementation plan, including any amendments thereto which have been properly approved, shall result in the forfeiture of any funds not disbursed. In addition, if for any reason the project is not completed as described in the project PIP, including any amendments thereto that have been or are hereafter approved by the NDEE, the NDEE may recover from the Sponsor any or all funds disbursed.

3. Remedies Not Exclusive

The use by either the Sponsor or the NDEE of any remedy specified herein for the enforcement of this Agreement is not exclusive and shall not deprive the party from using such remedy, or limit the application of any other remedy provided by law.

4. Assignment

No assignment or transfer of this agreement or any part hereof, rights hereunder, or interest herein by the Sponsor shall be valid unless and until it is approved by the NDEE and made subject to such reasonable terms and conditions as the NDEE may impose.

5. Waiver of Rights

The Sponsor or NDEE may from time to time waive any of their rights under this Agreement; however, any waiver of rights with respect to a default of any condition of this Agreement shall not be deemed to be a waiver with respect to any other default.

6. Applicable Rules and Regulations

Both parties shall abide by all applicable rules and regulations of the NDEE including any that may be adopted subsequent to the effective date of this Agreement except those that would invalidate or be inconsistent with the provisions of this Agreement.

7. Inspection of Books, Records, and Reports

The duly authorized representative of either party shall have the right to inspect and make copies of any books, records, or reports of the other party pertaining to this Agreement or related matters during regular office hours. Each party shall maintain and make available for such inspection accurate records of all its costs, disbursements, and receipts with respect to its activities under this Agreement. A single audit is required if \$500,000 or more is provided by the federal funding in any one-year period. Verification of completion of the single audit report shall be sent to NDEE.

8. Independent Contractor

The Sponsor is and shall perform this Agreement as an independent contractor and as such shall have and maintain exclusive control over all of its employees, agents, and operations. Neither the Sponsor nor any person employed by the Sponsor shall act, propose to act, or be deemed the NDEE's agent, representative, or employee. The Sponsor assumes full and exclusive responsibility for the payment of all premiums, contributions, payroll taxes and other taxes now or hereafter required by any law or regulation and agrees to comply with all applicable laws, regulations, and orders relating to social security, unemployment compensation, OSHA, affirmative action, equal employment opportunity, and other laws, regulations, and orders of like nature. For any work hereunder subject to the Veterans Readjustment Assistance Act of 1974, or the Rehabilitation Act of 1973, the parties hereto shall comply with all provisions thereof, together with all applicable rules, regulations and orders of the Department of Labor, and the notices required pursuant to 41 CFR 60-1.4, 60-250.4 and 60-741.4, which are hereby incorporated by reference into this Agreement.

9. Nondiscrimination

The Nebraska Fair Employment Practice Act prohibits contractors to the State of Nebraska and their subcontractors from discriminating against any employee, or applicant for employment in the performance of such contracts, with respect to hire, tenure, terms, conditions or privileges of employment because of race, color, religion, sex, disability, or national origin. The Sponsor's signature is a guarantee of compliance with the Nebraska Fair Employment Practice Act, and breach of this provision shall be regarded as a material breach of this Agreement. The Sponsor shall insert a similar provision in all subcontracts for services to be covered by any contract resulting from this Agreement.

10. Drug Free Workplace

The Sponsor by executing this Agreement certifies and assures that it operates a drug free workplace as addressed in the State of Nebraska Drug Free Workplace Policy of July 7, 1989.

11. Publication

All parties shall have publication and reproduction rights for all reports and materials, which are produced as a result of this Agreement.

12. Termination

This agreement may be terminated in whole or in part in writing by either party in the event of substantial failure by the other party to fulfill its obligations under this Agreement through no fault of the terminating party provided that no termination may be effected unless the other party is given:

- a. Not less than thirty (30) calendar days' written notice (delivered by certified mail, return receipt requested) of intent to terminate, and
- b. An opportunity for consultation with the terminating party prior to termination.
- c. If an emergency situation occurs, the effective date of termination will be negotiated.

13. New Employee Work Eligibility

The Sponsor is required and hereby agrees to use, and require sub-contractors to use, a federal immigration verification system to determine the work eligibility status of new employees physically performing services within the State of Nebraska. A federal immigration verification system means the electronic verification of the work authorization program authorized by the Illegal Immigration Reform and Immigrant Responsibility Act of 1996, 8 U.S.C. 1324a, known as the E-Verify Program, or an equivalent federal program designated by the United States Department of Homeland Security or other federal agency authorized to verify the work eligibility status of a newly hired employee.

If the Sponsor or Contractor is an individual or sole proprietorship, the following applies:

The Contractor must complete the United States Citizenship Attestation Form, available on the Department of Administrative Services website at:

<http://www.das.state.ne.us/>

http://www.das.state.ne.us/lb403/attestation_form.pdf

If the Contractor indicates on such attestation form that he or she is a qualified alien, the Contractor agrees to provide the US Citizenship and Immigration Services documentation required to verify the Contractor's lawful presence in the United States using the Systematic Alien Verification for Entitlements (SAVE) Program.

The Contractor understands and agrees that lawful presence in the United States is required and the Contractor may be disqualified or the contract terminated if such lawful presence cannot be verified as required by Neb. Rev. Stat. §4-108.

ATTACHMENT A

Nebraska Department of Environment and Energy
319 Project Implementation Plan

Shell Creek Corridor Enhancement and Conservation Implementation
56-1884

Project Sponsor

Lower Platte North Natural Resources District
P.O. Box 126
511 Commercial Park Road
Wahoo, NE 68066
(402) 443-4676
Contact: Tom Mountford, Assistant Manager (402) 443-4665, tmountford@lpnrd.org

Project Partners

Lower Platte North Natural Resources District. Coordinate the project and provide funding and technical assistance to install BMPs. Provide direction and assistance in developing watershed and project implementation plans. Contact: Tom Mountford, (402) 443-4665. tmountford@lpnrd.org

Shell Creek Watershed Improvement Group. Coordinate project promotion and recruitment of conservation participants. Provide assistance in developing watershed and project implementation plans. Contact: Matt Bailey. mattbailey@yahoo.com

USDA – Natural Resources Conservation Service. Provide funding and technical assistance for BMP installation through EQIP and other USDA programs. Contact: Melissa Foreman, (402) 564-0506. melissaforeman@hotmail.com

Nebraska Environmental Trust. Provide funding for installation of BMPs.

Nebraska Department of Environmental and Energy. Provide funding and technical assistance for BMP implementation and project management. Provide direction and assistance in developing watershed and project implementation plans.

Project Area

The project area includes five HUC-12 priority areas in the lower end of the watershed: Taylor Creek (102002010208), Brewery Hill-Shell Creek (102002010209), St. Paul's Church (102002010101), Headwaters Loseke Creek (102002010102), and Schaad Creek (102002010103). The project area also includes a 3,000 feet corridor adjacent to the main stem of Shell Creek and its major tributaries.

Funding

Section 319 Funds:	\$365,000	Other Federal:	\$197,486
Non-federal Match:	\$244,000	Other Non-federal:	\$106,373

Project period

May 15, 2020 – June 30, 2022

Shell Creek Corridor Enhancement and Conservation Implementation

BACKGROUND

The Shell Creek watershed encompasses more than 304,000 acres in northeast Nebraska. The stream is a major tributary of the lower Platte River that influences the wellfields of Lincoln and Omaha. Three segments of Shell Creek are impaired for recreation and/or aquatic life uses due to E. coli concentrations or aquatic habitat disturbance.

The Shell Creek Watershed Improvement Group (SCWIG), a coalition of area farmers, formed in 1999 to address flooding and water quality issues in Shell Creek. With assistance from Nebraska Department of Environmental Quality (DEQ), Lower Platte North Natural Resources District (NRD) and USDA Natural Resources Service (NRCS), SCWIG developed and implemented the first watershed management plan for Shell Creek between 2005 and 2015.

Significant progress was made in getting effective management practices implemented on agricultural lands. For example, the use of conservation tillage applied to cropland increased from approximately 14% to 85% (67% No Till) over the life of the first management plan. Atrazine impairment of Aquatic Life Use was removed recently from Segment LP1-20700 in 2018 following implementation of the 2005 Shell Creek Watershed Management Plan. However, Atrazine management will remain a priority in this project to protect the recent delisting.

A new watershed plan, Shell Creek Environmental Enhancement Plan, developed and approved in 2015-2016, continues implementation of cropland BMPs to reduce erosion and Atrazine run off, but puts greater emphasis on reducing E. coli runoff and the impact of hydrologic alteration stream and riparian area on aquatic habitat. The plan also puts greater emphasis on protecting groundwater in wellhead protection areas from leaching of nitrate and other contaminants.

New efforts to protect surface waters will be concentrated in five priority sub-watersheds in the lower end of the watershed and within a 3,000 feet corridor along the main stem and tributary channels of Shell Creek. Efforts to protect community source water supplies (groundwater) will be concentrated in the delineated wellhead protection areas in the Shell Creek watershed.

GOALS AND OBJECTIVES

This project will advance the goals and objectives of the Shell Creek Watershed Environmental Enhancement Plan. For convenience, the goals and objectives of this project are cross-referenced to the management plan goals (G#), objectives (O#) and tasks (T#) in parentheses.

Goal 1: Efficiently and effectively implement actions to restore and protect natural resources from degradation and impairment (G1).

Objective 1: Maintain collaborative partnerships to advance management of natural resources (O2/T1,2,3).

Task 1: Continue SCWIG leadership in developing and promoting watershed management activities.

Task 2: Continue coordination of USDA, NRD and Section 319 programs in the watershed.

Task 3: Support the new USDA source water protection initiative in wellhead protection areas.

Objective 2: Actions will be strategically employed to restore and protect natural resources (O3/T2,3).

Task 1: Prioritize targeting of agricultural BMPs in five priority watersheds and the stream corridor.

Task 2: Prioritize targeting of stream BMPs in the Special Priority Areas for tributary stabilization and stream channel renovation.

Task 3: Install select BMPs approved for watershed-wide implementation.

Task 4: Install select BMPs for nutrient and irrigation management in wellhead protection areas.

Objective 3: Project Activities will be continually assessed and reported to appropriate audiences (O4/T2,3).

Task 1: Maintain a record of type, quantity and area of impact of BMP implemented.

Task 2: Maintain a record of stakeholder participation in project events and activities.

Task 3: Continue weekly Atrazine monitoring (May-June) at ambient monitoring site.

Task 4: Conduct weekly E. coli monitoring (May-September) at ambient monitoring site.

Task 5: Conduct weekly E. coli monitoring (May-September) at a new site near Schuyler.

Task 6: Re-evaluate stream and cropland conditions in the watershed.

Task 7: Submit semi-annual reports of accomplishments and activities to project partners.

Goal 2: Watershed stakeholders will understand water quality deficiencies in Shell Creek and support restoration and protection of water resources (G2).

Objective 1: Knowledge gaps that impede project participation by key stakeholders will be identified and addressed (O1/T2).

Task 1: Collect information on stakeholder knowledge about watershed conditions, water quality and management options through one-on-one contact and a mail-in survey.

Task 2: Develop and distribute a flier on guidance on accessing available conservation programs to support BMP implementation.

Task 3: Develop and distribute an educational brochure to enhance watershed stakeholders' understanding of stream hydrology and stream geo-morphology.

Task 4: Develop and distribute an educational brochure on the impact of soil health on water quality management.

Objective 2: Tools to effectively transfer knowledge and facilitate management of natural resources will be developed, improved and employed (O2/T1,2,3,4).

Task 1: Distribute an educational traveling display to promote understanding of watershed management issues.

Task 2: Promote project activities and BMPs through 1 meeting or field demonstration and releases through commercial and social media networks.

Task 3: Provide periodic training about BMPs, watershed dynamics and project management to SCWIG members at three monthly meetings.

Task 4: Improve volunteer monitoring and training opportunities for local school groups.

Task 5: Hire a part-time Producer Liaison to recruit and help producers enroll in BMP cost share programs.

Goal 3: The productivity and sustainability of water, land and biological resources of Shell Creek will be improved (G3).

Objective 1: Sub-watershed contributions of Atrazine and E.coli loads will be significantly reduced (O1/T1).

Task 1: Evaluate reduction of Atrazine and E.coli through monitoring at the Columbus gauging station and Schuyler monitoring site.

Task 2: Model pollutant load reductions from installed BMPs.

Objective 2: Sub-watershed contributions of sediment and nutrient run-off to streams will be significantly reduced (O1/T2).

Task 1: Evaluate reduction of sediment and nutrients through modeling of installed BMPs.

Objective 3: Stability of stream and land resources will be significantly improved (O2/T1,2,3,4,5).

Task 1: Evaluate reduction of stream erosion through site observation and modeling of installed BMPs.

Objective 4: The health and productivity of the flora and fauna community will be significantly improved (O3/T1,2).

Task 1: Evaluate re-establishment or increase in desirable flora and fauna in the stream and riparian zone at stream renovation sites through observation and volunteer monitoring.

PROJECT DESCRIPTION

This project initiates implementation of the 2017 Shell Creek Watershed Environmental Enhancement Plan. It incorporates both traditional cropland and pastureland treatment and near and in-stream treatments to abate contamination of the stream and its tributaries by Atrazine and E. coli, and to enhance habitat to improve aquatic life in the stream. The project is expected to reduce run-off of nitrogen, phosphorus and sediment as well, although those are not the primary focus of the practices to be implemented. Nutrient and irrigation management practices implemented in wellhead protection areas are expected to reduce leaching of nitrate to groundwater. A multi-modal approach to applying practices will be employed following the NRCS ACT model, which layers synergistic practices that avoid (A) exposure or application of contaminants, control (C) contaminants where they exit or are applied, and trap (T) contaminants in run-off to prevent their discharge into surface waters.

Operation and Administration

The Lower Platte North Natural Resources District will administer external grants and coordinate selection and implementation of conservation practices among available programs. The Shell Creek Watershed Improvement Group (SCWIG) will provide leadership in contacting producers and landowners and encouraging their participation in conservation programs and project activities. SCWIG

will play a key role in organizing watershed outreach activities and advising partner agencies on opportunities to work with interested stakeholders. NRCS and NDEE will administer EQIP and Section 319 programs, respectively, to support implementation of BMPs.

Agricultural Practices

The project will provide resources to address nonpoint source contamination from both crop and livestock production. NRCS will extend EQIP funding to the Shell Creek watershed through the general EQIP program and through the Source Water Protection Initiative. Participants in cost share programs for agricultural practices will be determined by a screening tool designed to target the most effective BMPs for E. coli and Atrazine management in priority sub-watersheds and the stream corridor and for nutrient and irrigation management in wellhead protection areas. The stream corridor extends 1,500 feet on both sides (total 3,000 feet) of Shell Creek and its tributaries. Priority practices are those noted by NRCS or other sources to be effective in avoiding, controlling or trapping E. coli or Atrazine.

Priority practices targeted for cropland include: crop rotation, integrated pest management, waste (manure) utilization, water and sediment control basins, wetland development and restoration, no till, field borders and buffers, riparian buffers and filter strips, grass waterways, and cover crops. Irrigation and nutrient management practices and well decommissioning are prioritized for Wellhead Protection Areas approved as Special Priority Areas in the watershed management plan. Eligible wellhead protection areas include Newman Grove, Lindsay, Platte Center, and Schuyler.

Supplemental practices, such as terraces and tile outlets, may be supported by program funds if they complement other priority practices that reduce E. coli and Atrazine runoff installed as part of the implementation contract. Upland wildlife habitat may be supported where it may reduce the congregation of wildlife near streams, or intercepts and filters E. coli and Atrazine from runoff.

A special complementary practice, Lands for Conservation, is designed to extend the construction season for installing structural practices. This practice provides a land rental payment to set aside the footprint of the construction area for structural practices. The land must be available for construction no later than August 1. It must have adequate pre-construction cover to prevent erosion and must be planted to a cover crop post construction. A complementary practice, such as continuous no till, must be applied to the field where the structural practice is installed to qualify for Land for Conservation funding.

This project will introduce and evaluate a new practice, Annual Cover Strip. This practice will be applied to drainage ways where permanent waterways may not be required. The practice consists of planting a temporary small grain cover such as wheat, rye or oats along the drainage way as an over-winter cover crop. This area may be farmed over during the cropping season. The practice also may be applied as a temporary buffer strip along stream channels. Continuous no till is required in the field where this practice is installed to be eligible for cost share.

Priority practices targeted for livestock operations include: exclusion fencing, managed grazing systems, relocation of feeding and loafing areas, composting, water diversion, water and sediment basin, wetland creation, and vegetative treatment systems. Supplemental practices include: pasture and hay planting, range planting, fencing, controlled access and controlled stream crossing. Upland wildlife habitat may be supported where it may reduce the congregation of wildlife near streams, or intercepts and filters E. coli from runoff.

Stream and Streambank Practices

Priority practices for streambed and streambank stabilization include: grade stabilization structures, channel vegetation, streambank and shoreline protection, channel stabilization, riparian buffers and filter strips, floodplain benches, meander and oxbow renovation and protection, wetland creation or enhancement, and aquatic habitat enhancement. When necessary, livestock exclusion practices also will be supported to protect treated areas. Preference will be given to applications that include suites of complementary practices and practices with greater longevity.

Streambed and streambank practices are prioritized for two Special Priority Areas identified in the management plan: the Tributary Stabilization Areas to control head cuts and the Stream Channel Renovation Areas to improve morphologic and hydrologic stability of Shell Creek. Streambank stabilization practices also will be used to protect public infrastructure within the stream corridor priority area.

Urban and Residential Practices

Urban and residential areas are broadly defined for this project as public, commercial, and private properties within municipalities as well as the residential and non-production facilities of rural properties. Practices targeted for these areas are intended to take advantage of opportunities to address a specific high profile local need or to provide opportunities to promote the project through demonstration. Septic system up-grades will be allowed throughout the watershed, but preference will be given to applications within the priority areas. Well decommissioning will be allowed throughout the watershed, but preference will be given to applications within wellhead protection areas. Urban BMPs, such as rain gardens and bio-swales will be targeted to properties within municipalities for demonstration and promotion of the watershed management plan.

Outreach

The Shell Creek project will be supported by an active outreach program to recruit participation in conservation efforts. Members of SCWIG and staff of partner agencies will work one-on-one and collectively with operators and landowners to assist them in enrolling in conservation programs and implementing BMPs. Employment of a part time Producer Liaison will enhance this effort. Information and education on nonpoint source pollution management will be disseminated through meetings, tours and demonstrations. Volunteer stream monitoring by area schools will be continued to engage students and the public in learning about and responding to water quality issues in Shell Creek.

Student Volunteer Monitoring Program

Students of Newman Grove High School have monitored six sites along Shell Creek since 2003. Samples are collected monthly from May through August and analyzed in the school laboratory as part of their science education program. This project will extend that program to additional schools, including Schuyler High School and Lakeview High School. More monitoring sites will be added and some existing sites will be relocated to provide more strategic isolation of tributaries and sub-watersheds. At least one site will be co-located with a site monitored by NDEE to provide calibration of the students' data. Students will collaborate in sharing data among the schools and will present the results of their monitoring efforts annually to SCWIG and to the NRD Board.

PRACTICES AND LOAD REDUCTIONS

The table below predicts the sediment, nitrogen, phosphorus and E. coli load reductions expected from implementing the priority BMPs for this project.

Practice	Area Controlled (ac)	<i>E. coli</i> (cfu/100ml)	Total Phosphorous (lb)	Total Nitrogen (lb)	Sediment (tons)
Streambank Stabilization ¹ (2)	140	455	1,510	873	1,820
1 Grade Control Structure (1)	120	78	---	---	1,560
Exclusion Fencing (12,000 LF)	600	1,950	3,237	1,872	3,900
Alternate Water Supply (2)	--	2	--	--	--
Livestock Waste Control Facility	---	13,000	22	13	26
Livestock Pen Relocation	---	32,500	54	31	65
Vegetative Treatment System (2)	2	13,000	53	25	52
Onsite Waste Water System (5)	--	3	13	7	0
Cover Crop	1,083	3,520	11,686	6,758	14,079
Buffer Strip	50	163	540	312	650
Grass Waterway	200	650	2,158	1,248	2,600
Annual Cover Strip ²	750	2,438	8,093	4,680	9,750
Lands for Conservation ³	100	325	1,079	624	1,300
No Till ⁴	250	813	2,698	1,560	3,250
Terrace and Tile Outlet ⁵	1,000	3,250	10,790	6,240	13,000
Total		72,147	41,933	24,243	52,052

¹The streambank stabilization sites include bio-engineering methods to capture and reduce Atrazine and E. coli. It also includes installation of a buffer strip above the stabilization site.

²An annual cover crop of small grains planted along a drainage way or along a stream bank to intercept and infiltrate water and pollutants. Must include continuous no till.

³Lands for Conservation will be eligible for funding when paired with supporting practices such as no till and/or cover crop.

⁴No Till is an effective practice to reduce the mobilization of Atrazine and E.coli in run-off. However, it will not be funded in this project with Section 319 funds, but may be funded by other partners. Non-federal funds used for no Till will be eligible for match credit.

⁵Traditional terraces and grade control structures on agricultural will not be funded in this project with Section 319 funds, but may be funded by other partners. Practice must include continuous no till to be credited as match.

EVALUATION

Progress in implementing this project will be tracked through semi-annual reports and feedback questionnaires at public meetings and events. Students from local schools will continue annual presentations of their volunteer monitoring results to project partners and the public. NDEE and the NRD will continue monitoring the ambient site near Columbus and establish a secondary monitoring site downstream near Schuyler. These two sites will bracket the priority sub-watersheds (upstream and downstream) where the majority of BMPs will be installed to better evaluate the impact of the project. *E. coli* and Atrazine samples will be collected weekly at both sites in May through June and *E. coli* will be collected from both sites in July through September. NDEE will conduct a mid-term progress and financial review.

SCHEDULE

Activity	2020			2021				2022	
	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2
Complete project approval									
Let bids for construction projects									
Construct 2 streambank stabilization sites									
Design and Engineer Future Water Quality Structures									
Implement cropland BMPs									
Implement Livestock BMPs									
Construct tributary grade stabilizations									
Field demonstration and tours									
Student Volunteer Monitoring									
SCWIG meetings and training sessions									
Performance and financial reviews									
Project Reports									
Wrap-up Open House									
Project Final Report									

PROJECT BUDGET

Item	Section 319	EQIP	NET	NRD	County	Landowner	Total
Personnel	18,980	0	11,650	8,670	0	0	39,300
NRD Staff	0	0	0	7,500	0	0	7,500
Producer Liaison	12,480	0	8,320	0	0	0	20,800
Travel/meals/lodging	500	0	300	200	0	0	1,000
Mileage	6,000	0	3,030	970	0	0	10,000
Water Quality Structures (sub-total)	144,000	0	36,000	24,000	102,000	0	306,000
Project Management	0	0	0	0	6,000	0	6,000
Site Survey	0	0	1,200	800	8,000	0	10,000
Design and Permitting	0	0	6,000	4,000	40,000	0	50,000
Construction	144,000	0	28,800	19,200	48,000	0	240,000
BMPs (sub-total)	105,220	197,486	55,350	15,160	0	95,943	469,159
Exclusion Fencing	4,800	12,000	4,800	0	0	2,400	24,000
Alternate Water Supply	400	1,000	300	0	0	300	2,000
Livestock Waste Control Facility	7,500	25,000	5,000	0	0	12,500	50,000
Vegetative Treatment System	15,000	50,000	10,000	0	0	25,000	100,000
Livestock Pen Relocation	15,000	30,000	9,000	0	0	6,000	60,000
No-Till Conversion	2,250	7,500	1,500	0	0	3,750	15,000
Terraces ¹	0	25,000	7,500	5,000	0	12,500	50,000
Cover Crop	4,875	16,250	3,250	0	0	8,125	32,500
Buffer Strips	2,145	3,236	500	80	0	1,618	7,579
Grass Waterways	6,000	20,000	4,000	0	0	10,000	40,000
Annual Cover Strip ²	2,250	7,500	1,500	0	0	3,750	15,000
Septic System Upgrade	15,000	0	0	0	0	10,000	25,000
Lands for Conservation ³	30,000	0	8,000	10,080	0	0	48,080
Outreach (sub-total)	96,800	0	1,000	600	0	0	98,400
Information/Education	1,800	0	750	450	0	0	3,000
Watershed Evaluation/Plan Revision	80,000	0	0	0	0	0	80,000
Student Volunteer Monitoring Prog.	15,000	0	250	150	0	0	15,400
Total	\$365,000	\$197,486	\$104,000	\$48,430	\$102,000	\$95,943	\$912,859

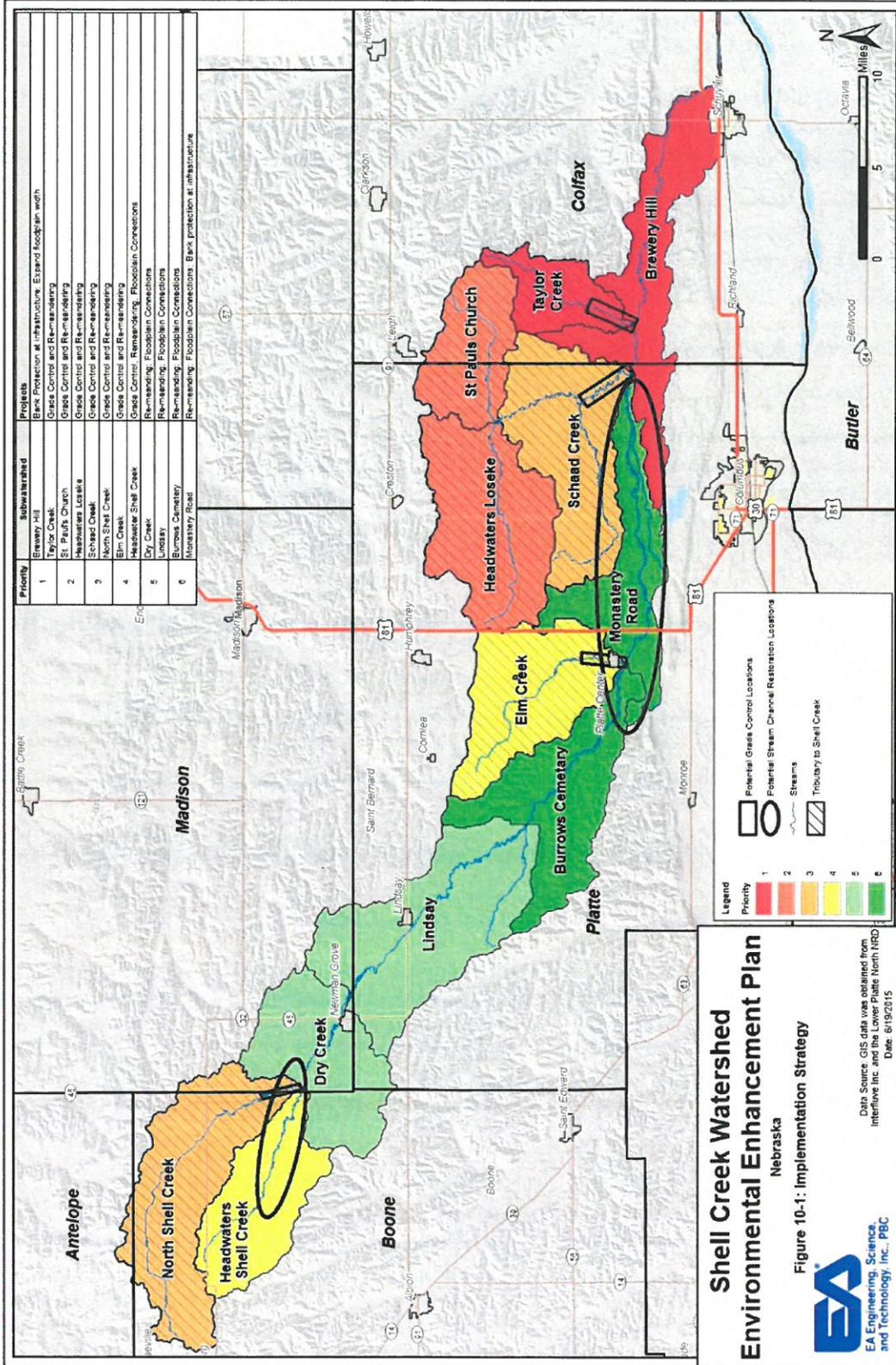
Budget Narrative

Personnel includes salaries and benefits associated with staff time for coordination and administration of the project. Materials and supplies includes costs for office products, printing, publishing and mailing fees, meeting and demonstration supplies, supplies and materials for monitoring, and similar needs. Travel includes costs associated with attending meetings, conferences, field days and producer assistance associated with conducting and promoting the project. Costs for the student volunteer monitoring program include field and laboratory supplies; instruments and equipment; transportation costs and teacher stipends. All other budget items are contractual costs associated with installing practices and implementing activities of the project.

¹Traditional terraces on ag land are generally excluded from Section 319 funding, but may be supported or credited as match provided other secondary treatments (e.g., continuous no till, pest management) reducing E. coli or Atrazine loads also are implemented on the land treated.

²Annual cover strip practice is a practice of planting a cover crop into drainage areas that otherwise might be a grassed waterway. The field must be in continuous no till to be eligible for this practice.

³Lands for Conservation requires continuous no till to be practiced on lands receiving installation of a structural practice. The treatment area must have adequate pre-construction cover and be planted to a cover crop post construction.



Clean Water Act Section 319 Program

Project Implementation Plan Review Checklist

The attached checklist is intended for EPA's use in providing consistency in the evaluation of PIPs. This checklist can also be used by states in their RFP/RFA, PIP sub-grant processes, and templates. The checklist was completed in March, 2013, as a result of EPA and state collaboration on kaizen process improvement. Checklist items link to the requirements of federal grant regulations, section 319 program guidelines, the environmental results order, and grants policy issuance.

The checklist may be revised as lessons are learned after EPA applies it to PIP reviews. A revised process chart and examples or excerpts of PIPs that meet required items will be developed to accompany the checklist.

"Standard Requirements" in the checklist include items applicable to all PIPs. "Additional Requirements for the use of Watershed Project Funds" include items applicable to PIPs that are slated for watershed project funds (known as incremental funds prior to FY 2014). Many of the checklist items for watershed project funds can be fulfilled through reference in the PIP to the current Watershed-based Plan (WBP). A pre-existing WBP should be reevaluated for necessary updates or revisions to the WBP according to a milestone/schedule in the WBP itself or according to the state's workplan. Generally, WBPs may need to be updated on a 5 year basis as appropriate and updates may include monitoring data, new TMDLs, and progress on milestones.

Clean Water Act Section 319 Program

Project Implementation Plan Review Checklist

Project Title	<u>Willow Creek Watershed Improvement PIP</u>
State	<u>NE</u>
Grant Appropriation Year	<u>2017</u>
Project Number (EPA/GRTS)	<u>5</u>
Grant Number	<u>00740326</u>
Project Start Date	<u>4/1/2020</u>
Project End Date	<u>4/1/2022</u>
319 Program Funds	<u>\$100,000</u>
319 Project Funds	<u></u>

Technical Advisor's Determination:

Accept with comments

(choose one: Accept, Accept with Comments, Needs Revision)

Technical Advisor Name (typed):

Kimberly Hill

Kimberly J. Hill

Technical Advisor Signature

4/3/2020

Date (typed)

General Comments:

12, 14 and 17 are not included in the document. Please provide this information at your earliest convenience and before the project begins.

√ = complete; I = incomplete; N/A = not applicable

Standard Requirements

- √ 1 The state identifies via transmittal letter or email, the priorities, goals, objectives, or milestones from the state's Nonpoint Source Management Program (NPSMP) that are relevant to the PIP under review.
This project will further the goals of the state program by implementing a water quality management plan to restore a water resource, reduce pollutant loads and strengthen partnerships.
- √ 2 The state identifies the grant fiscal year(s) of PIP funding.

2017
- √ 3 Project start and end dates are within the state awarded grant period.

Clean Water Act Section 319 Program

4/1/2020-4/1/2022

- N/A 4 If the PIP is implementing a subsequent phase of an ongoing project, the current status and any accomplishments of the previous project phase(s) are briefly summarized in the PIP.
N/A
- √ 5 The PIP identifies the geographical extent of the project.
Located within the LENRD in Pierce County is Willow Creek Reservoir, a 700 acre recreational/flood control reservoir.
- N/A 6 Projects whose major purpose is Information and Education clearly identify the target audience and the mechanism for evaluating the effectiveness of the activity.
While the LENRD provides cost-share opportunities for a wide array of practices, this initial project in the Willow Creek Watershed (Figure 2) will focus on the utilization of nutrient management, cover crops, crop to grass conversion (including Conservation reserve program (CRP)), field buffers (including grass waterways and filter strips), planned grazing and exclusion fencing.
- √ 7 Goals, outputs, outcomes, and measures of success are identified in the PIP.
http://www.epa.gov/region7/grants_funding/pdf/grant_work_plan_requirements_and_checklist.pdf :
- **Results of Activities (Outputs)** – the project identifies the anticipated products/results from the accomplishment of work plan activities.
 - **Projected Environmental Improvement (Outcome)** – information regarding the environmental improvement that is anticipated at the completion of the program/project. Environmental improvements are changes or benefits to the environment that are a result from the accomplishment of work plan commitments and outputs.
 - **Established Baseline for Measurement** – the PIP provides a baseline for measuring the results of the project and discusses how this baseline will be used to determine whether the project resulted in environmental improvement (i.e., current condition, new condition).
- Goals and objectives are included on page 4.
- √ 8 The PIP includes a detailed implementation schedule and milestones.
A schedule and milestones are included on page 8.
- √ 9 The budget clearly breaks out each source of funds: Section 319 and match, other EPA, other federal, state funds, state in-kind, local funds, local in-kind, landowner contributions, and other funds.
A budget is presented on page 10.

Clean Water Act Section 319 Program

- √ 10 The PIP includes a budget narrative. The narrative should describe the purpose and types of any travel, explain and justify any equipment (cost per unit \$5,000 or more), and describe any contracts, including the scope of work or services to be provided.
The budget narrative is included and is appropriate.
- √ 11 PIP budget costs are necessary, eligible, reasonable, and allocable.
Budget costs appear necessary, eligible, reasonable and allocable.

Additional Requirements for the use of Watershed Project Funding

- I 12 The PIP contains a reference to the appropriate WBP, its date(s) of completion, revision or updates, and describes what components or phases of the WBP are being implemented by the PIP.
This information is not included in the PIP. Please provide before progress continues on this project.
- √ 13 The PIP identifies its HUC-12(s) and smaller subwatersheds where implementation will occur.
HUC 10220002
- I 14 A PIP designed to protect unimpaired waters is based on either a WBP containing the nine elements, or an accepted alternative plan to guide project implementation. The PIP, implementing a WBP or an accepted alternative plan to protect unimpaired surface and/or ground water, directly addresses priorities for protection of water quality outlined in the state NPS Management Program. Surface waters addressed in the protection-based PIP are assessed and included in the State Integrated Report.
This information is not included in the PIP. Please provide this information before the project progresses.
- √ 15 The PIP identifies types of BMPs to be implemented, quantities, Section 319 cost per type, total cost per type, and the critical areas for implementation.
BMPs are included in the PIP.
- √ 16 The PIP includes estimated load reductions per each type of applicable BMP.
Load reductions are included in the PIP.
- I 17 If water quality monitoring is done by the project, the monitoring objectives, costs, time frames, and water quality parameters are clearly identified in the PIP.

Clean Water Act Section 319 Program

This information is not included in the PIP. Please provide this information before work on this project begins.

Traylor, Elbert
Mon 6/15/2020 4:22 PM

- To: McCullough, Carla
- Re: Response to EPA R7 comments for PIP (56-1884, Shell Creek Corridor project)

Project sponsors understand that construction work in-stream and within wetlands requires review and potential permits by the ACE. The pending construction site has been review by the engineering consultant and determined that excavation and stabilization work will not impinge on the stream's wetland fringe or alter the course of the stream and does not need a 404 permit. This site is an extension of an existing stabilization project completed privately that ACE waived from requiring a permit. The project will pull back the streambanks creating a floodplain bench above the existing stream channel and increasing the channel capacity to contain flood waters.

Subaward Certification

Federal Funding Accountability and Transparency Act

Contract Reference Number: 2020-102571485

DEE Program: 319H DEE Division: WATER

1. Project Name: SHELL CREEK CORRIDOR ENHANCEMENT AND CONSERVATION IMPLEMENTATION
2. Sub-recipient/Contractor: LOWER PLATTE NORTH NRD
3. Federal Grant Name: FY18 NONPOINT SOURCE PROGRAM
4. Federal Grant Number: C9-007403-27
5. Amount of Proposed Sub-Award: \$365,000.00
6. Program Agreement Number: 56-1884

To be completed by Sub-Recipient:

7. Data Universal Numbering System (DUNS) Number: 602 681 520
8. Did your organization receive 80% or more of its annual gross revenues from Federal Awards or in Federal contracts preceding the fiscal year?

Yes No

9. If you answered yes to the previous question, did your organization receive \$25,000,000 or more in annual gross revenues from Federal Awards or in Federal contracts the preceding fiscal year?

Yes No

10. If you answered yes to question 8 and 9, is information regarding compensation of top five executives publicly available?

N/A

Yes No

11. Are you owned by another entity?

Yes No

12. If yes, what is the DUNS number of the parent entity? _____

13. Location information

Address of Subawardee:

City Wahoo
 State Nebraska
 Congressional District # 1
 County Saunders
 Zip Code + 4 68066-0126

14. Primary Location of Performance Under the Award

City Schuyler
 State Nebraska
 Congressional District _____
 County Colfax - Platte Counties
 Zip Code + 4 _____

15. Are you Suspended or Debarred from participating in government contracts, subcontracts, loans, grants and other assistance programs?

Yes No

Thomas A. Wrenford
 Signature of Authorized Official

Assist. Gen
 Manager
 LADNAD

June 18, 2020
 Date

Invoice



601 P St Suite 200
PO Box 84608
Lincoln, NE 68501-4608
Tel 402.474.6311, Fax 402.474.5063

June 24, 2020
Invoice No: 360106

Tom Mountford
Assistant Manager
Lower Platte North NRD
PO Box 126
Wahoo, NE 68066-0126

Invoice Total \$12,706.55

Olsson Project # 018-3423 Lower Platte North NRD Wahoo Creek Watershed & 11 Dam Sites
Professional services rendered May 10, 2020 through June 13, 2020 for work completed in accordance with agreement.

Phase	010	Sites 26A 26B & 27 Project Management		
Labor				
			Hours	Amount
	Senior Engineer		1.00	170.94
	Totals		1.00	170.94
	Total Labor			170.94
			Total this Phase	\$170.94

Phase	020	Geotechnical Engineering		
Labor				
			Hours	Amount
	Team Leader		15.00	3,181.35
	Project Engineer		75.00	8,509.50
	Student Technician - Level 1		8.00	357.84
	Totals		98.00	12,048.69
	Total Labor			12,048.69
			Total this Phase	\$12,048.69

Phase	040	Permitting		
Labor				
			Hours	Amount
	Student Technician - Level 1		6.00	286.92
	Totals		6.00	286.92
	Total Labor			286.92

Unit Billing

Environmental Equipment-Lincoln				
4/23/2020	2 Days GPS @ \$100/Day		200.00	
	Total Units		200.00	200.00

INVOICE PAYMENT IS REQUESTED WITHIN 30 DAYS

Project	018-3423	Lower Platte North NRD Wahoo Creek Water	Invoice	360106
---------	----------	--	---------	--------

Total this Phase **\$486.92**

Billing Limits

	Current	Prior	To-Date
Total Billings	12,706.55	234,166.86	246,873.41
Limit			583,825.00
Balance Remaining			336,951.59

AMOUNT DUE THIS INVOICE **\$12,706.55**

Outstanding Invoices

Number	Date	Balance
358319	5/26/2020	19,185.48
Total		19,185.48

Email invoice to tmountford@lpnnrd.org

Authorized By: Michael Placke

Progress Report for Wahoo Creek Watershed Dams Sites



Lower Platte North NRD

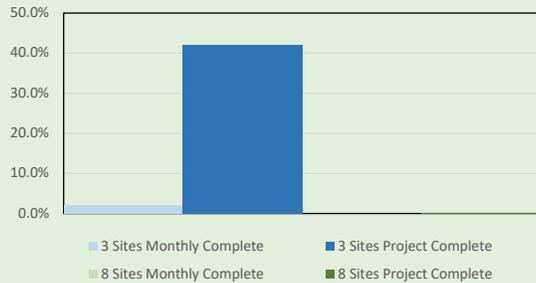
For Work Completed During The Month Of : **May, 2020**
(through 6/1/2020)

Project # 018-3423 Dam Site 26A, 26B, &27 Project Phase	Phase Budget	Billings for Month		Project Total Billings to Date	
		Current Earned/Billings	% Completed This Month	JTD Earned/Billings	% Completed Overall
010 - Project Management/Meetings	\$ 21,840	\$ 170.94	0.8%	\$ 6,483.85	29.7%
020 - Geotechnical Engineering	\$ 222,485	\$ 12,048.69	5.4%	\$ 176,101.60	79.2%
030 - Dam Design	\$ 173,160		0.0%	\$ 44,845.67	25.9%
040 - Permitting	\$ 79,960	\$ 486.92	0.6%	\$ 6,491.66	8.1%
050 - Survey and Legal Descriptions	\$ 10,780		0.0%	\$ 11,360.33	105.4%
060 - Community/Public Participation	\$ -			\$ -	
070 - Construction Services	\$ 75,600			\$ -	
				\$ -	
3 Sites Totals	\$ 583,825	\$ 12,706.55	2.2%	\$ 245,283.11	42.0%

Project # A18-3423 (separate invoice) Sites 55, 66, 77, 82, 83, 84, 85, &86 Project Phase	Phase Totals	Billings for Month		Project Total Billings to Date	
		Current Earned/Billings	% Completed This Month	JTD Earned/Billings	% Completed Overall
100 - Project Management/Meetings	\$ 62,400		0.0%	\$ -	0.0%
110 - Geotechnical Engineering	\$ 607,460		0.0%	\$ -	0.0%
120 - Dam Design	\$ 436,278		0.0%	\$ -	0.0%
130 - Permitting	\$ 251,140		0.0%	\$ -	0.0%
140 - Survey and Legal Descriptions	\$ 28,875		0.0%	\$ -	0.0%
150 - Community/Public Participation	\$ 30,000		0.0%	\$ 429.02	1.4%
160 - Other	\$ -			\$ -	
8 Sites Totals	\$ 1,416,153	\$ -	0.0%	\$ 429.02	0.0%

Billings For Month	\$ 12,706.55
Total Billings To Date	\$ 245,712.13
Project Budget	\$ 1,999,978
Budget Remaining	\$ 1,754,265.87

% Budget Spent Per Site



* As suggested by the NRCS at the 3-11-19 LPNNRD board meeting, design will be slowed down for a few weeks while the watershed plan is being completed. We will continue with the geotechnical analysis

Summary Of Work Completed This Month	
<u>Sites 26A, 26B, & 27</u>	<u>Eight Sites</u>
Toe drain sizing and writing the geotech reports. Environmental Site Visit	- No work on these sites -

Planned Work For Next Month
- Wetland site visits at sites 26A, 26B, and 27 - it is assumed that the plan will be approved, we will begin design of sites 26A, 26b, and 27.

For questions regarding billings, please contact Mike Placke at (402) 458-5957 or mplacke@olsson.com

Lierman Excavating Co. Inc

1530 County Road K
P.O. Box 265
Wahoo,NE 68066

Estimate

Date	Estimate #
2/19/2020	322

Name / Address
Mike Chvatal 1816 N Sycamore St. Wahoo,NE 68066

Project

Description	Qty	Rate	Total
Michael Chvatal Structure - Cottonwood Watershed -NRCS Project - Excavating per NRCS plans / specs.	14,187	4.25	60,294.75
Piping and installation per plans	112	35.00	3,920.00
Seeding	3.7	750.00	2,775.00
Please call with any questions or comments 402-432-9626			Total \$66,989.75

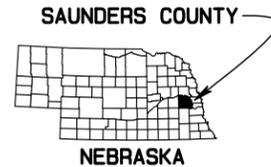
\\usda.net\NRCS\HOME\NESTA\mrcs\Rod.Angeroth\Documents\I-H-DRIVE\PROJECTS\I COUNTY PROJECTS\SAUNDERS\DAMS & GRADE-STABE\CHVATAL DAM with pipe extension.prn. pro

CONSTRUCTION DATA

Layout By:		DATE
Construction Check By:		
Contractor:		
Constructed Cost:		
Cost Share Agency:		

MICHAEL CHVATAL STRUCTURE

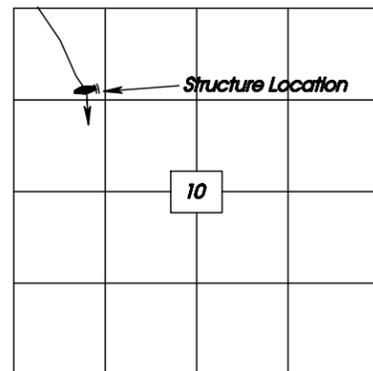
COTTONWOOD WATERSHED
SAUNDERS COUNTY, NEBRASKA



SPONSORED BY: Lower Platte North N.R.D.
DESIGNED BY: NATURAL RESOURCES CONSERVATION SERVICE
WAHOO, NEBRASKA



SITE LOCATION MAP



Sec: 10 ; T 15 N ; R 6E

ABBREVIATIONS:

- TBM = Temporary Bench Mark
- FL = Flowline
- CL = Centerline
- PS = Principal Spillway
- ES = Emergency Spillway
- TOD = Top of Dam
- PSH = Principal Spillway Hydrograph
- ESH = Emergency Spillway Hydrograph
- CP = Control Point for Survey
- DEA = Double End Area

Landowner Signature of Approval: _____

Date: _____

LEGEND AND SYMBOLS

- TBM
- PINS
- FENCE
- TO BE REMOVED
- FLOWLINE
- CENTERLINE
- POWERPOLE
- TEST HOLE

PRACTICE STANDARD	
	POND (378)
	GRADE STABILIZATION (410)
	OTHER: _____

STRUCTURE IS LOW HAZARD, CLASS A

SHEET INDEX

SHEET NO.	SHEET TITLE
1	COVER SHEET
2	DATA SHEET
3	PIPE PROFILE & DATA SHEET
4	PLAN VIEW OF STRUCTURE
5	PROFILE C/L-F/L DAM
6	LAYOUT VIEW
7	METAL PIPE REQUIREMENTS
8	DIAPHRAGMS, METAL PIPE
9	CANOPY INLET, METAL PIPE

Design By: R. Angeroth 6/2020

Checked By: M. Keebler 6/2020

SPECIFICATION AND DRAWINGS
APPROVED FOR CONSTRUCTION

Signature: _____
REVIEWED BY: _____ TITLE

Signature: Rod Angeroth Field Engineer
APPROVED BY: R. Angeroth TITLE

THIS PROJECT IS JOB CLASS II
NRCS INVENTORY SIZED STRUCTURE

SHEET NO.	1
TOTAL SHEETS	9

ROUTING METHOD USED	
<input type="checkbox"/>	MOPOND, Ver. _____
<input type="checkbox"/>	DAMS II
<input type="checkbox"/>	SITES, Ver. _____
<input type="checkbox"/>	HYDRO-YARDAGE
<input checked="" type="checkbox"/>	OTHER: <u>WinPond 1.7</u>

EARTHWORK QUANTITIES COMPUTATION METHOD	
<input type="checkbox"/>	MOPOND, Ver. _____
<input checked="" type="checkbox"/>	TERRAMODEL, Ver. <u>10.61</u>
<input type="checkbox"/>	OHIO
<input type="checkbox"/>	MANUALLY PLOTTED, DEA
<input type="checkbox"/>	OTHER: _____

RESERVOIR CAPACITY TABLE

ELEVATION	ACRES	ACRE FEET	ACCUM. ACRE FT.
1328	.56	—	—
1330	1.13	1.69	1.69
1332	1.72	2.85	4.54
1334	2.52	4.24	8.78
1336	4.27	6.79	15.57
1338	5.72	9.99	25.56
1340	7.26	12.98	38.54

CONSTRUCTION NOTES

- The contractor will inspect the construction area for the presence of utility facilities both surface and subsurface, and will notify the Nebraska One Call System (<http://www.ne-diggers.com>) before construction activities begin. The contractor will use extra safety precautions when working near or around pipelines, power lines, power poles, underground cables, or other utility installations. DIGGERS HOTLINE: 1-800-331-5666
- Clearing areas, clearing and grubbing areas, and construction work limits are generally bounded by the toes of the embankment and borrow areas. Exact location of the work limits will be staked by the NRCS before construction begins.
- Trees within the work limits will be disposed in the area(s) as staked by the NRCS inspector at the time of construction.
- Excavated material not suitable for earthfill will be spread and shaped to blend into the landscape. Exact limits of the excavation waste disposal area will be staked by the NRCS inspector at the time of construction.
- Material which is not suitable for earthfill and which can not be spread in adjacent fields (stumps, trees, fence materials, concrete blocks, rubble, etc.) will be buried. No waste material is to be placed in the pool area unless it is buried or covered. Waste material will be covered by at least 3.0 feet of earthfill and the finished surface of the burial area will blend in with the surrounding topography. Exact limits of the burial/disposal area for waste will be staked by the NRCS inspector at time of construction.
- Fences within the construction work limits will be removed by others before construction begins.
- Borrow area limits will be staked by the NRCS inspector at the time of construction. All finished borrow slopes will be a minimum of 6:1.
- Borrow material, if suitable for earthfill, shall be removed from the pond area below elevation 1331.0 and not closer than 50 feet from the upstream toe of the dam. Cutslopes around the pond borrow area will be shaped at a minimum of 4:1.
- All surfaces beneath earthfill and borrow areas will be stripped to a depth of 0.5 feet. Strippings will be stockpiled and used as topsoil on finished embankment and borrow area surfaces.
- The NRCS inspector will approve the cutoff trench excavation and stripping limits prior to backfill or earthfill operations.
- Placement of the principal spillway will occur with the NRCS inspector present.
- All necessary permits and easements will be obtained by the landowner & or contractor prior to NRCS providing construction technical services.
- The contractor will abide by current OSHA requirements where trench safety is concerned.
- The migratory bird treaty act may require that construction activities be limited or suspended during critical migratory bird nesting periods, which is generally April 1st to July 15th. The owner is responsible for arranging for the determination of whether construction activities must be limited or suspended due to presence of nesting birds during construction period. Any cost incurred for this determination will be the responsibility of the owner. If work is required to be limited or suspended, no adjustment will be made to the contract for payments.

HYDROLOGIC DATA

DRAINAGE AREA, Acres	134
WATERSHED SLOPE, %	7.7
WATERSHED LENGTH, Feet	3,200
RCN	77
TIME OF CONCENTRATION, Hr.	0.53

STORM DATA

	PSH	ESH
STORM FREQUENCY, Years	5	25
RAINFALL DISTRIBUTION, TYPE	MSE3	MSE3
RAINFALL DURATION, Hours	24	24
RAINFALL, Inches	3.7	5.3
RUNOFF, Inches	1.6	2.9
PEAK FLOW, CFS	8.13	8.60

ROUTING SUMMARY

	ELEV.	STORAGE (Ac-Ft)	PS OUTFLOW (CFS) *	ES OUTFLOW (CFS)
DRAWDOWN	—	—	-----	-----
PS CREST	1331.0	2.97	-----	-----
ES CREST	1336.1	16.00	9.10	0
MAXIMUM WATER	1337.6	23.39	9.51	39.66
TOD, Settled	1338.7	29.75	-----	-----
TOD, Constr.	1339.5	-----	-----	-----
Sediment: <u>25</u> Years	-----	-----	* Full Pipe Flow conditions assumed	
Submerged	-----	2.55		
Aerated	-----	0.42		

Check Box if designed without an ES

ES DATA

WIDTH, Feet	26'
LENGTH, Feet	25'
INLET SLOPE, %	2.5%
OUTLET SLOPE, %	4.0%
SIDESLOPES, X: 1	4:1
FLOW DEPTH, Feet	1.51
OUTLET VELOCITY, FPS	5.0

PS DATA

MAIN BARREL DIAM., Inches	12"
INLET TYPE (HOOD, CANOPY, DROP)	CANOPY
PIPE MATERIAL (CMP, PVC, PE, RCP)	CMP
RISER DIAM., Inches	—

CONSTRUCTION SPECIFICATIONS

Nebraska Construction and Materials Specifications	
NE- Series, Check the ones that apply	
<input checked="" type="checkbox"/>	1 Site Preparation & Structure Removal
<input checked="" type="checkbox"/>	6 Seeding and Mulching for Protective Cover
<input checked="" type="checkbox"/>	10 Water Applied
<input checked="" type="checkbox"/>	11 Removal of Water
<input checked="" type="checkbox"/>	21 Excavation
<input checked="" type="checkbox"/>	23 Earthfill
<input type="checkbox"/>	24 Drainfill
<input type="checkbox"/>	32 Concrete for Minor Structures
<input checked="" type="checkbox"/>	51 Corrugated Metal Pipe Structures
<input checked="" type="checkbox"/>	81 Metal Fabrication and Installation
<input type="checkbox"/>	83 Timber Fabrication and Installation
<input type="checkbox"/>	92 Fencing
<input type="checkbox"/>	208 Water Control Valves
<input type="checkbox"/>	214 Cathodic Protection
<input type="checkbox"/>	220 Plastic Pipe Conduits

SURVEY REFERENCE DATA

COORDINATE SYSTEM INFO:

PROJECTION = UTM ZONE 14
 DATUM = NAD83 (2011)
 GEOID = G2012 AU2
 NON-OPUS

- 500: #4 rebar flush with ground, no plastic NRCS cap, located approx. 12' West & 2' South of PP #5188
- 501: #4 rebar flush with ground, w/red plastic NRCS cap, located approx. 30' South of 3' diam Chinese Elm along western N-S Property Line, approx 300' NW of CL dam
- 502: #4 rebar flush with ground, w/red plastic NRCS cap, located 2' S of inlet of field entrance 18" culvert coordinates and descriptions

Date	Designed	Drawn	Checked	Approved
6/2020	R. Angerth	R. Angerth	M. Keebler	R. Angerth
6/2020				
6/2020				
6/2020				

DATA SHEET
 MICHAEL CHVATAL
 SAUNDERS COUNTY, NEBRASKA

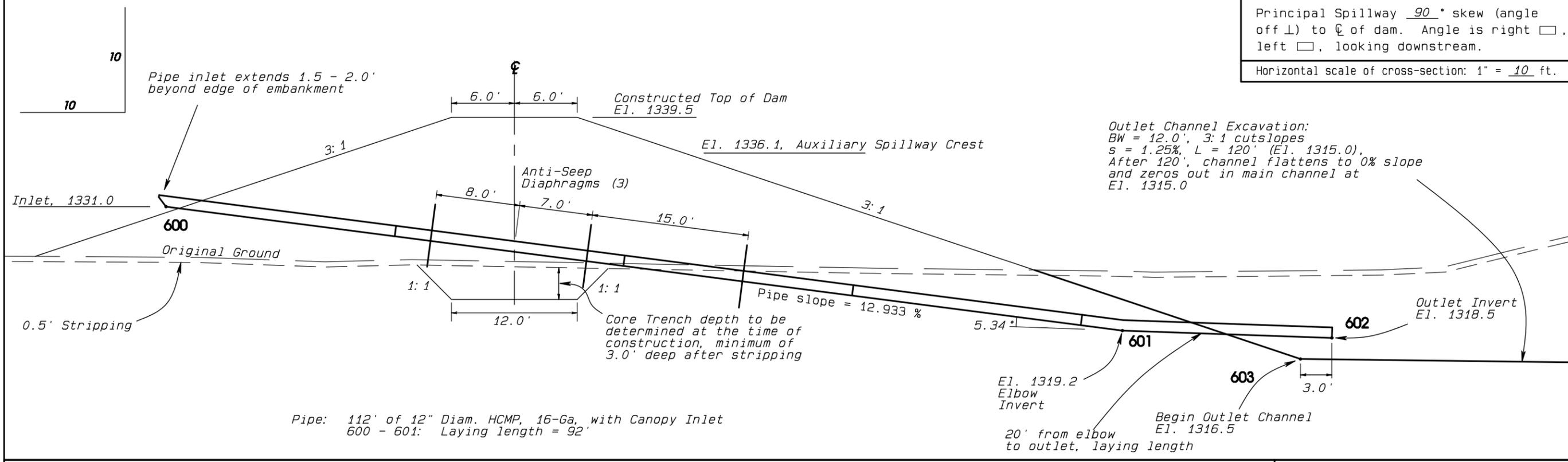


NB-ENG-41
 Rev. 11-03
 Stanton Engineering

DATA SHEET
 FOR DAMS

Principal Spillway 90° skew (angle off ⊥) to C of dam. Angle is right , left , looking downstream.
 Horizontal scale of cross-section: 1" = 10 ft.

Date 6/2020
 Designed: R. Angeroth 6/2020
 Drawn: R. Angeroth 6/2020
 Checked: M. Keebler 6/2020
 Approved: R. Angeroth 6/2020



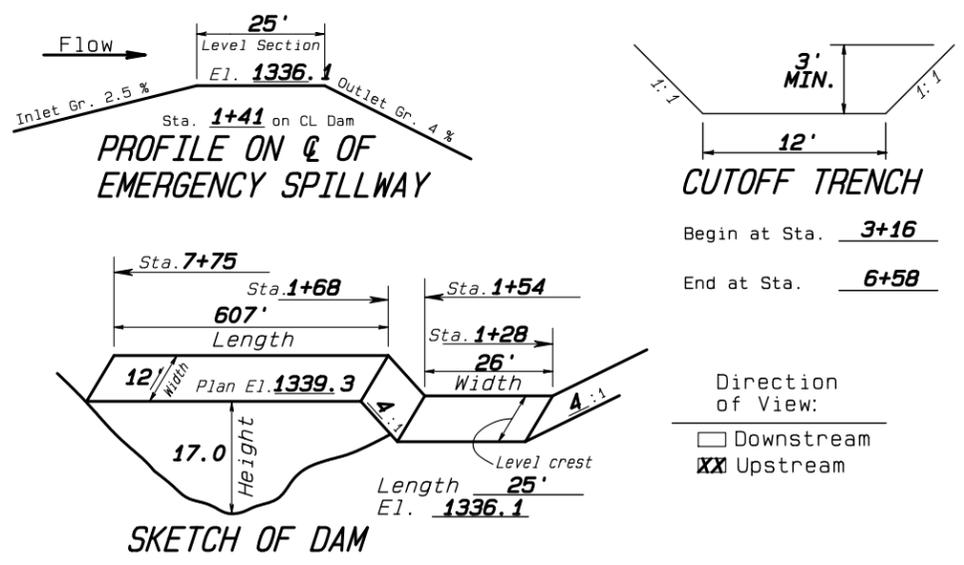
Outlet Channel Excavation:
 BW = 12.0', 3:1 cutslopes
 s = 1.25%, L = 120' (El. 1315.0).
 After 120', channel flattens to 0% slope
 and zeros out in main channel at
 El. 1315.0

CROSS SECTION OF DAM ON C OF PRINCIPAL SPILLWAY AT STATION 5 + 00

B.M. El. _____
 B.M. Description: _____

ESTIMATED TABLE OF QUANTITIES

ITEM	UNIT	TOTAL QUANTITY		AS-BUILT QUANT.
		DESIGN QUANT.	WEIGHT LBS.	
Excavation: Stripping <u>750</u> Cutoff Trench <u>570</u> Pipe Outlet Channel <u>1,233</u>	Cu. Yds.	<u>4,063</u>		
Stripping, Borrow Area _____ (other than flood pool) Auxiliary Spillway <u>1,510</u>				
Earthfill, Class C: Stripping <u>750</u> Cutoff Trench <u>570</u> Main Embankment <u>8,804</u>	Cu. Yds.	<u>10,124</u>		
Wing Dike for E.S. _____ Stream Channel Cleanout _____				
C.M. Pipe Riser: _____ inch diam., _____ ga. _____ ft. length, with _____ in. diam. tee welded _____ in. from bottom of riser	Each			
C.M. Pipe Barrel: <u>12</u> in. diam., <u>16</u> ga. (Includes tee for drop inlet/riser), Helical	Lin. Ft.	<u>112</u>		
Drawdown Pipe, _____ in. diam.: <input type="checkbox"/> C.M., _____ ga., Corrugation type: <input type="checkbox"/> Annular, <input type="checkbox"/> Helical <input type="checkbox"/> PVC, Rating _____	Lin. Ft.			
Plastic Pipe: _____ in. diam., <input type="checkbox"/> PVC, <input type="checkbox"/> PE, Pipe Rating: <input type="checkbox"/> SDR _____, <input type="checkbox"/> PSI _____, <input type="checkbox"/> SCHEDULE _____	Lin. Ft.			
C.M. Coupling Bands: <u>XXX</u> Annular Corrugations: <u>12</u> in. diam., <u>24</u> in. wide, <u>16</u> ga., <input type="checkbox"/> Hugger Type	Each	<u>*** 4</u>		
Pipe Elbow, Deflection Angle = 5.34°, Located <u>20</u> Feet from end of pipe	Each			
Pipe Diaphragms: <u>12</u> in. diam., Size <u>72</u> in. x <u>72</u> in., <u>XXX</u> C.M. <u>16</u> ga., <input type="checkbox"/> Polyethylene, <input type="checkbox"/> Butyl	Each	<u>3</u>		
Rods and Lugs: <u>12</u> in. diam. pipe, <u>4</u> per band, <u>2</u> per Diaphragm	Each			
Concrete: <input type="checkbox"/> C.M.P. Riser Base, <input type="checkbox"/> Pipe Support	Cu. Yds.			
Reinforcing Bars: 1/2" diam. <input type="checkbox"/> C.M.P. Riser Base, <input type="checkbox"/> Pipe Support	Lin. Ft.			
Metal Base for C.M.P. Riser _____ in. x _____ in.	Each			
Trash Rack: <input type="checkbox"/> Conical, <input type="checkbox"/> Rectangular	Each			
Anti-Vortex Device: <input type="checkbox"/> Splitter, <input type="checkbox"/> Hood Inlet, <u>XXX</u> Canopy	Each	<u>1</u>		
Pipe Support: <input type="checkbox"/> Steel, <input type="checkbox"/> Concrete, <input type="checkbox"/> Steel with Concrete Base, <input type="checkbox"/> Treated Lumber _____ B.F.	Each			
Fence: <input type="checkbox"/> 3 wire, <input type="checkbox"/> 4 wire, Maximum spacing of posts _____ ft., or type _____ fence	Rods			
Tree Removal: <input type="checkbox"/> Number of trees <input type="checkbox"/> Acres of trees <input type="checkbox"/> Lump Sum	Ea., Ac., LS			
Foundation drains, sand and gravel:	Cu. Yds.			
Riprap:	Cy. Yds.			
Perforated pipe for foundation drains: _____ in. diam., <input type="checkbox"/> A.C.M.P., <input type="checkbox"/> H.C.M.P., _____ ga. <input type="checkbox"/> PVC <input type="checkbox"/> PE Pipe Rating: <input type="checkbox"/> SDR _____, <input type="checkbox"/> PSI _____, <input type="checkbox"/> SCHEDULE _____	Lin. Ft.			
Seeding: <u>XXX</u> SEED 3.7 ACRES, STRUCTURE EMBANKMENT AND DISTURBED AREAS OUTSIDE OF WATER STORAGE ELEVATION EL.1331.0, Refer to CPA-8 in the seeding specifications for details	Ac. Lbs.	<u>3.7</u>		
*** Number of Coupling Band dependent upon length of pipe sections!				



Direction of View:
 Downstream
 Upstream

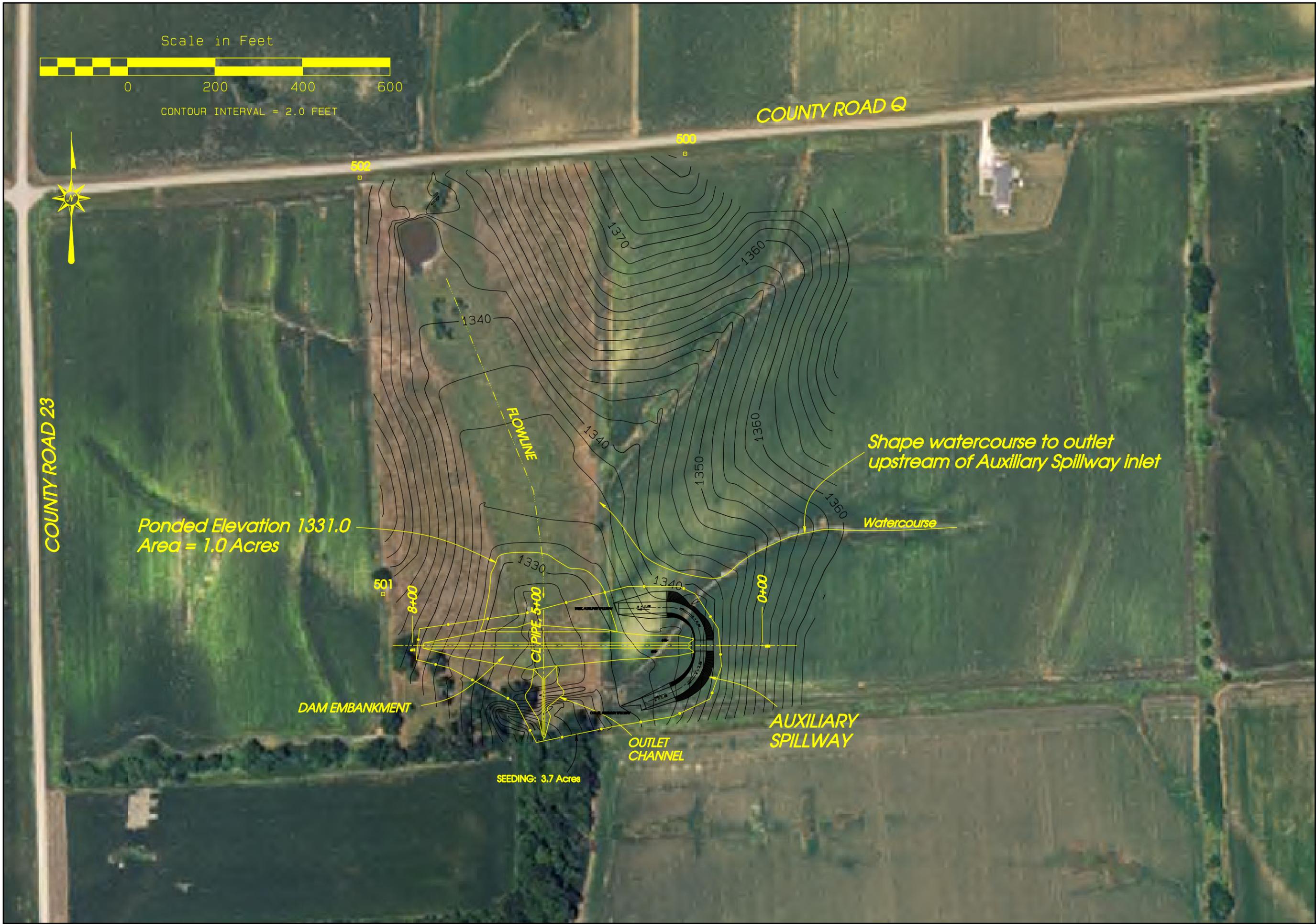
PIPE PROFILE & QUANTITIES
 MICHAEL CHVATAL
 SAUNDERS COUNTY, NEBRASKA



NB-ENG-42
 Rev. 11-03
 Stanton Engineering

DATA SHEET FOR DAMS

For Corrugated Metal Pipe, refer to base drawings for details of corrugations and coatings



Scale in Feet



CONTOUR INTERVAL = 2.0 FEET



COUNTY ROAD 23

COUNTY ROAD Q

Poned Elevation 1331.0
Area = 1.0 Acres

Shape watercourse to outlet
upstream of Auxillary Spillway inlet

DAM EMBANKMENT

SEEDING: 3.7 Acres

OUTLET CHANNEL

AUXILIARY SPILLWAY

Watercourse

PLAN VIEW
MICHAEL CHVATAL
SAUNDERS COUNTY, NEBRASKA

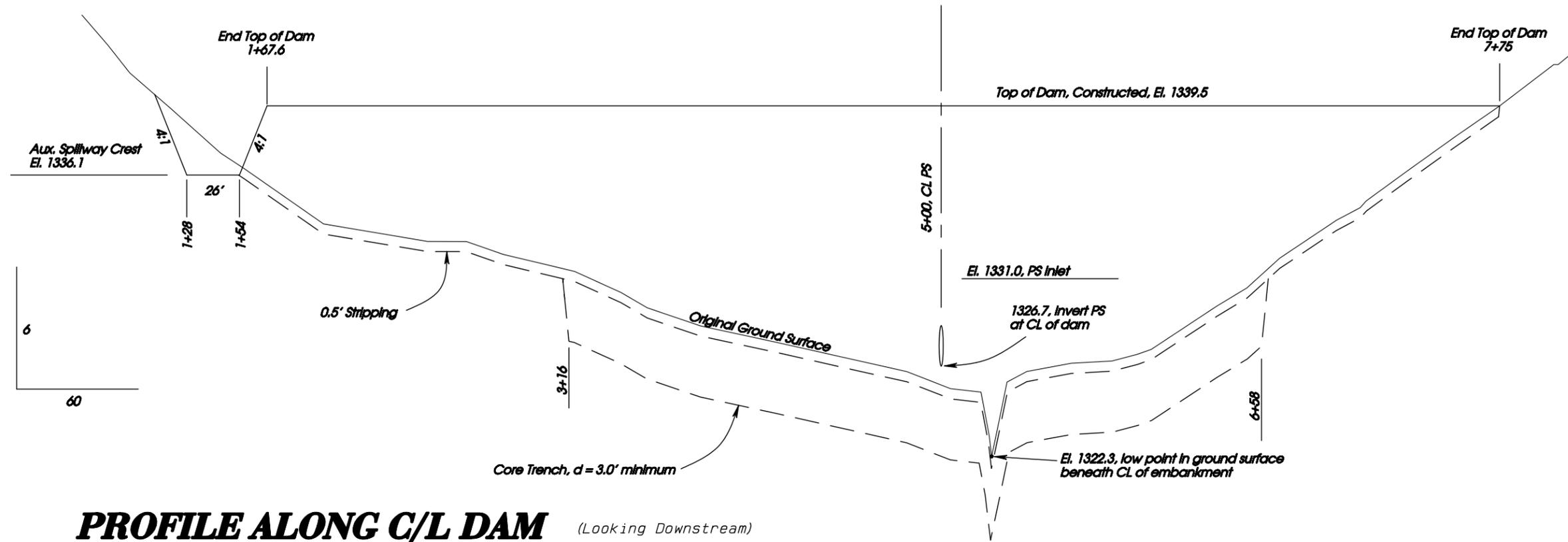


Designed	_____	R. Angerth	6/2020
Drawn	_____	R. Angerth	6/2020
Checked	_____	M. Keebler	6/2020
Approved	_____	R. Angerth	6/2020

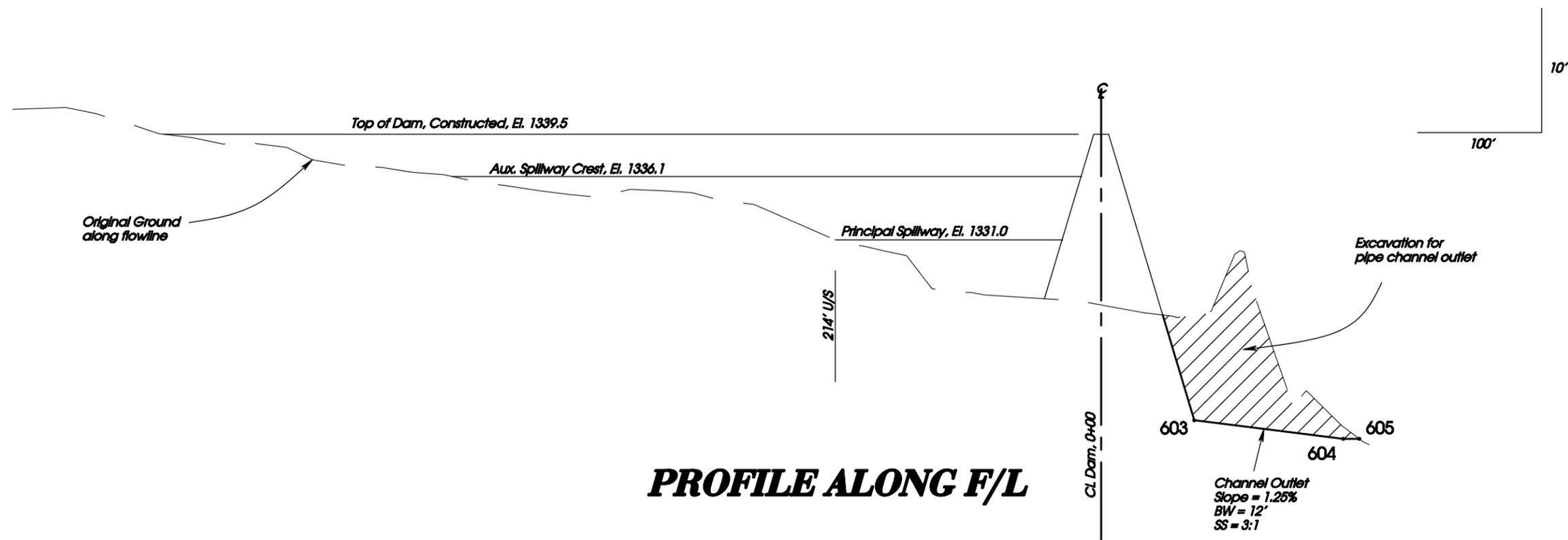
File No.

Drawing No.

Sheet 4 of 9



PROFILE ALONG C/L DAM (Looking Downstream)



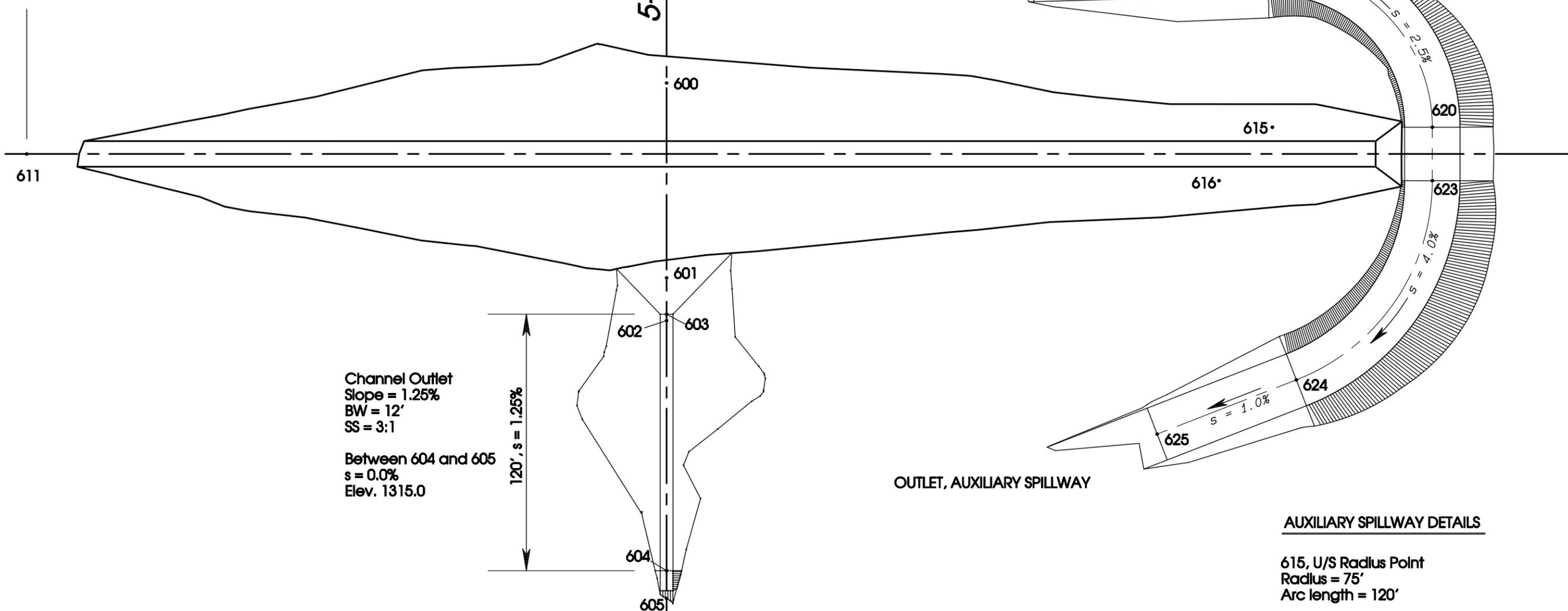
PROFILE ALONG F/L

Designed	R. Angerth	Date	6/2020
Drawn	R. Angerth		
Checked	M. Keebler		
Approved	R. Angerth		

PROFILE; C/L DAM, C/L FL
 MICHAEL CHVATAL
 SAUNDERS COUNTY, NEBRASKA



8+00



Channel Outlet
Slope = 1.25%
BW = 12'
SS = 3:1

Between 604 and 605
s = 0.0%
Elev. 1315.0

AUXILIARY SPILLWAY DETAILS

615, U/S Radius Point
Radius = 75'
Arc length = 120'

616, D/S Radius Point
Radius = 100'
Arc length = 120'

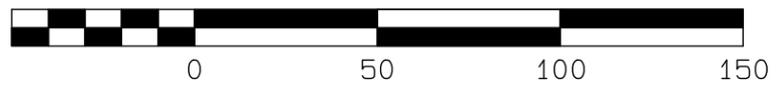
BW = 26'
Crest length = 25'
SS = 4:1

Inlet slope = 2.5%
Outlet slope = 4.0%

Coordinate Table				
Pt #	Northing	Easting	Elevation	Descriptor
600	15004622.29	2263124.61	1331.00	CL Pipe, Inlet, Invert
601	15004531.05	2263124.61	1319.20	CL Pipe, Elbow, Invert
602	15004511.06	2263124.61	1318.50	CL Pipe, Outlet, Invert
603	15004514.06	2263124.61	1316.50	CL Channel Outlet
604	15004394.06	2263124.61	1315.00	CL Channel Outlet
605	15004381.02	2263124.61	1315.00	CL Channel Outlet
610	15004589.06	2263624.61	-----	CL Dam, Sta. 0+00
611	15004589.06	2262824.61	-----	CL Dam, Sta. 8+00
615	15004601.56	2263408.61	-----	AS, U/S RP
616	15004576.56	2263383.61	-----	AS, D/S RP
620	15004601.56	2263483.61	1336.10	CL AS U/S
621	15004676.53	2263406.42	1333.10	CL AS U/S
622	15004673.32	2263296.47	1332.00	CL AS U/S
623	15004576.56	2263483.61	1336.10	CL AS D/S
624	15004483.36	2263419.85	1331.30	CL AS D/S
625	15004457.99	2263354.60	1330.60	CL AS D/S
500	15005710.94	2263448.10	1383.08	PIN, CONTROL POINT
501	15004706.29	2262757.44	1347.79	PIN, CONTROL POINT
502	15005656.14	2262704.08	1351.76	PIN, CONTROL POINT

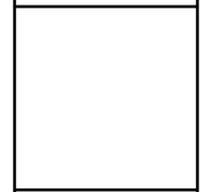


Scale in Feet

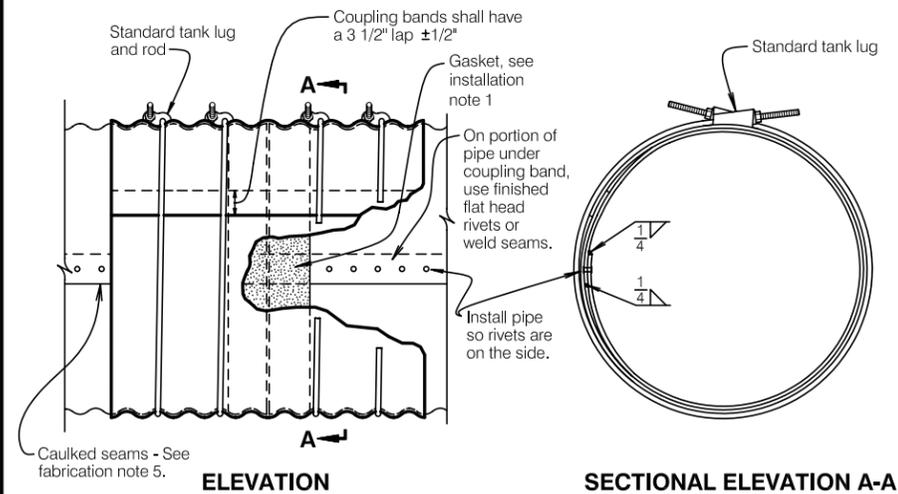


Date	Designed	Drawn	Checked	Approved
6/2020	R. Angerth	R. Angerth	M. Keebler	R. Angerth
6/2020				
6/2020				
6/2020				

LAYOUT VIEW
MICHAEL CHVATAL
SAUNDERS COUNTY, NEBRASKA



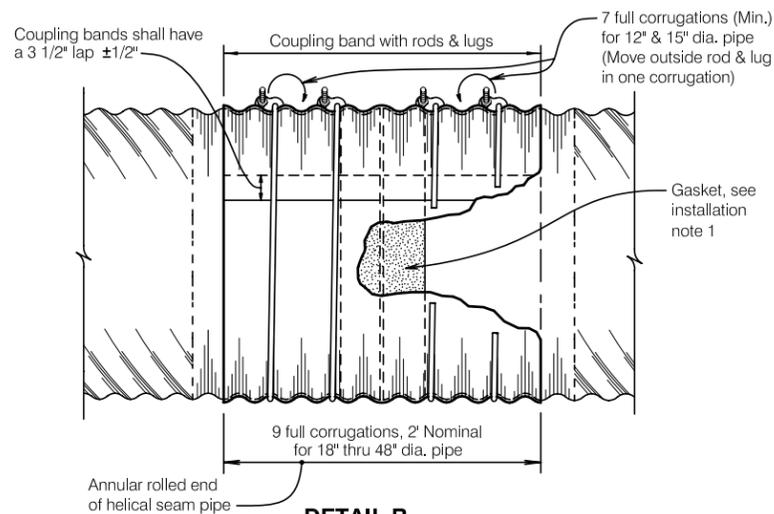
File No.
Drawing No.
Sheet 6 of 9



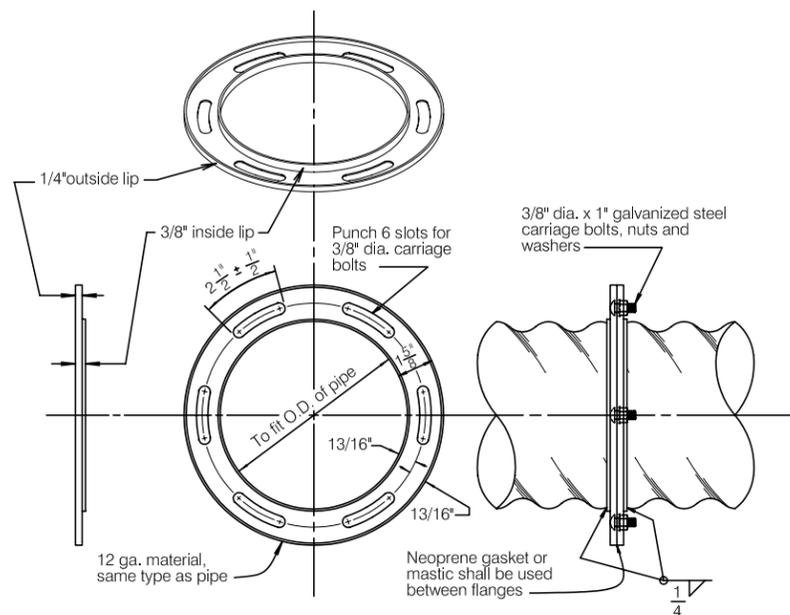
ELEVATION

SECTIONAL ELEVATION A-A

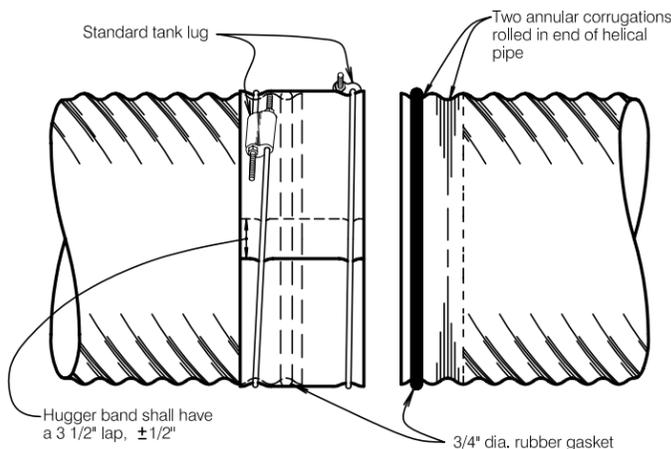
**DETAIL A
WATER TIGHT COUPLING BAND FOR ANNULAR PIPE**



**DETAIL B
WATER TIGHT COUPLING BAND FOR HELICAL PIPE**



**DETAIL C
FLANGE COUPLING FOR 8" & 10" DIA. PIPE**



**DETAIL D
WATER TIGHT HUGGER TYPE COUPLING BAND**

FABRICATION NOTES

1. WHEN SEVERAL DIFFERENT COATINGS OR CORRUGATIONS ARE CHECKED IN THE COLUMN BOXES, EACH TYPE IS ACCEPTABLE, BUT ONLY ONE TYPE SHALL BE USED IN EACH INSTALLATION.
2. COUPLING BANDS PER DETAILS "A" AND "B" SHALL HAVE THE SAME CORRUGATION REQUIREMENT AND THE SAME COATING AS THE DESIGNATED PIPE.
3. ALL WELDS AND ALL HEAT AFFECTED AREAS ON COATED STEEL SHALL BE THOROUGHLY CLEANED AND TREATED IN ACCORDANCE WITH ASTM'S.
4. ROD SIZE FOR 8" THRU 15" DIAMETER PIPE SHALL BE 3/8" DIAMETER. FOR PIPE LARGER THAN 15" DIAMETER THE ROD SHALL BE 1/2" DIAMETER. DIAMETER OF HOLES IN THE LUGS SHALL BE 1/8" LARGER THAN THE DIAMETER OF THE ROD USED.
5. DURING FABRICATION, WHEN ASPHALT COATING IS NOT USED, RIVETED SEAMS SHALL BE CAULKED WITH AN ASPHALT OR TAR BASED MATERIAL MEETING ASTM A849 TO PROVIDE A WATERTIGHT SEAM. ALL CIRCUMFERENTIAL AND LONGITUDINAL SEAMS SHALL BE CAULKED BEFORE RIVETING. THIS SHALL BE ACCOMPLISHED BY APPLYING A UNIFORM BEAD OF THE ASPHALT OR TAR BASED COMPOUND TO THE INNER LAP SURFACE BEFORE RIVETING SUCH THAT WHEN THE RIVETS ARE IN PLACE, ALL VOIDS ARE FILLED.
6. CLOSE RIVETED PIPE SHALL BE FABRICATED SO THAT THE RIVET SPACING IN THE CIRCUMFERENTIAL SEAMS SHALL NOT EXCEED 3 INCHES, EXCEPT THAT 12 RIVETS SHALL BE SUFFICIENT ON 12" DIA. PIPE.

INSTALLATION NOTES

1. THE SLEEVE TYPE NEOPRENE GASKET SIZE SHALL BE 3/8" THICK WITH A MINIMUM WIDTH OF 7" CENTERED ON THE PIPE JOINT AND FASTENED AT ENDS TO FORM A FULL CIRCLE. IN LIEU OF A NEOPRENE GASKET, ASPHALT OR TAR BASED MASTIC MAY BE USED FOR DETAIL "A" AND "B". (SEE NOTE 5)
2. IN CONNECTING THE PIPE SECTIONS, THE COUPLING BANDS WILL BE CENTERED ON THE PIPE JOINT AND ALIGNED FOR COMPLETE AND TIGHT NESTING OF CORRUGATIONS BETWEEN COUPLING BAND AND EACH PIPE SECTION. RODS AND LUGS ON COUPLING BANDS WILL BE INSTALLED ACCORDING TO THE DRAWINGS. THE NUTS ON THE RODS WILL BE TIGHTENED WITHOUT OVER STRESS AND WILL BE RETIGHTENED AT LEAST TWICE AFTER INITIAL INSTALLATION, AT INTERVALS OF APPROXIMATELY 1/2 HOUR. THE FINAL TENSION ON THE RODS SHALL BE DETERMINED BY THE ENGINEER. BACKFILLING AROUND THE PIPE, EXCEPT AT COUPLING BANDS, MAY PROCEED DURING THE INTERVALS REQUIRED FOR TIGHTENING BANDS.
3. BEFORE COUPLING BANDS ARE INSTALLED ON RIVETED PIPE, THE PIPE SECTIONS THAT ARE TO BE CONNECTED SHALL BE ROTATED SO RIVETS OF PIPE ARE ON THE SIDE OF THE PIPE (SEE DETAIL "A") AND THE INSIDE LAPS ARE POINTED DOWNSTREAM.
4. ON BITUMINOUS COATED PIPE, REMOVE EXCESS BITUMINOUS COATING FROM CORRUGATIONS WHERE BANDS AND PIPE JOIN.
5. THE ENDS OF THE TWO PIPE SECTIONS AND LAP SEAM WILL BE COATED WITH 1/4" OF ASPHALT OR TAR BASED MASTIC (ASTM A849, TROWEL GRADE) FOR DETAIL "A" AND "B" COUPLING BANDS. THE MASTIC COATED AREAS SHOULD BE KEPT FREE OF ALL DIRT, GRAVEL, AND OTHER FOREIGN MATERIAL UNTIL BANDS ARE IN PLACE AND TIGHTENED. WHEN AIR TEMPERATURE IS 50° F, OR LOWER, HEAT WILL BE APPLIED TO SOFTEN, BUT NOT BURN OR MELT, THE MASTIC.
6. FLANGE COUPLING BANDS SHALL BE ALIGNED WITH MATCHING SLOTS, AND NUTS ON THE BOLTS TIGHTENED SECURELY. NEOPRENE GASKET OR MASTIC SHALL BE USED BETWEEN FLANGES, AND NUTS WILL BE RETIGHTENED AFTER COMPLETE ASSEMBLY.

METAL PIPE REQUIREMENTS

NOTE:

THE FOLLOWING DESIGNATIONS FOR PIPE CLASSIFICATIONS, CORRUGATIONS AND COATINGS WHEN REFERRED TO ON THE DRAWINGS ARE IN ACCORDANCE WITH CURRENT ASTM'S:

- A760 STANDARD SPECIFICATION FOR CORRUGATED STEEL PIPE, METALLIC-COATED FOR SEWERS AND DRAINS.
- A761 STANDARD SPECIFICATION FOR CORRUGATED STEEL STRUCTURAL PLATE, ZINC-COATED, FOR FIELD BOLTED PIPE, PIPE ARCHES, AND ARCHES.
- A762 STANDARD SPECIFICATION FOR CORRUGATED STEEL PIPE, POLYMER PRECOATED FOR SEWERS AND DRAINS.
- A849 STANDARD SPECIFICATION FOR POST-APPLIED COATINGS, PAVINGS, AND LININGS FOR CORRUGATED STEEL SEWER AND DRAINAGE PIPE.
- A885 STANDARD SPECIFICATION FOR STEEL SHEET, ZINC AND ARAMID FIBER COMPOSITE-COATED FOR CORRUGATED STEEL SEWER, CULVERT AND UNDERDRAIN PIPE.

PIPE CLASSIFICATION

- TYPE I FULL CIRCULAR CROSS-SECTION
- TYPE II, THIS IS TYPE I PIPE WHICH HAS BEEN REFORMED INTO A PIPE ARCH HAVING APPROXIMATELY A FLAT BOTTOM

CORRUGATION REQUIREMENTS FOR TYPE I AND II PIPE

NOMINAL SIZE (INCH)

- 1 1/2 x 1/4 (AVAILABLE ONLY IN HELICALLY CORRUGATED PIPE)
- 2 2/3 x 1/2 (STANDARD CORRUGATIONS)
- 3 x 1

COATINGS - SEE FABRICATION NOTE NO. 1

- ALUMINUM COATED STEEL - SEE FABRICATION NOTE NO. 5
- ZINC COATED STEEL - SEE FABRICATION NOTE NO. 5
- POLYMER PRECOATED - SEE FABRICATION NOTE NO. 5
- ARAMID FIBER COMPOSITE, BITUMINOUS COATED
- FULLY BITUMINOUS COATED

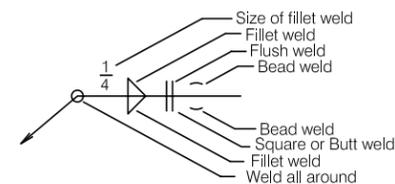
CORRUGATION TYPES - SEE FABRICATION NOTE NO. 1

- ANNULAR, CLOSE RIVETED
- HELICAL

COUPLING BAND REQUIREMENTS

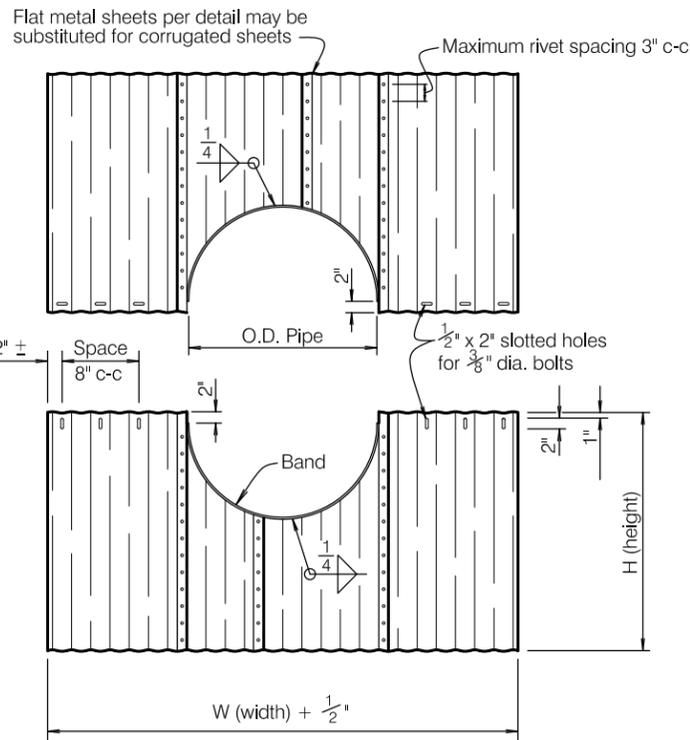
GAGE	BAND TYPE AND NUMBER OF RODS REQUIRED	NUMBER BANDS REQUIRED	SEE DETAIL
	<input type="checkbox"/> 2 FT. WITH 4 RODS FOR ___" DIA. PIPE		<input type="checkbox"/> A <input type="checkbox"/> B
	<input type="checkbox"/> 4 FT. WITH 6 RODS FOR ___" DIA. PIPE		<input type="checkbox"/> A <input type="checkbox"/> B
12	<input type="checkbox"/> FLANGE FOR 8" AND 10" PIPE ___" DIA. PIPE		<input type="checkbox"/> C
	<input type="checkbox"/> HUGGER WITH 2 RODS FOR ___" DIA. PIPE		<input type="checkbox"/> D

WELD SYMBOLS

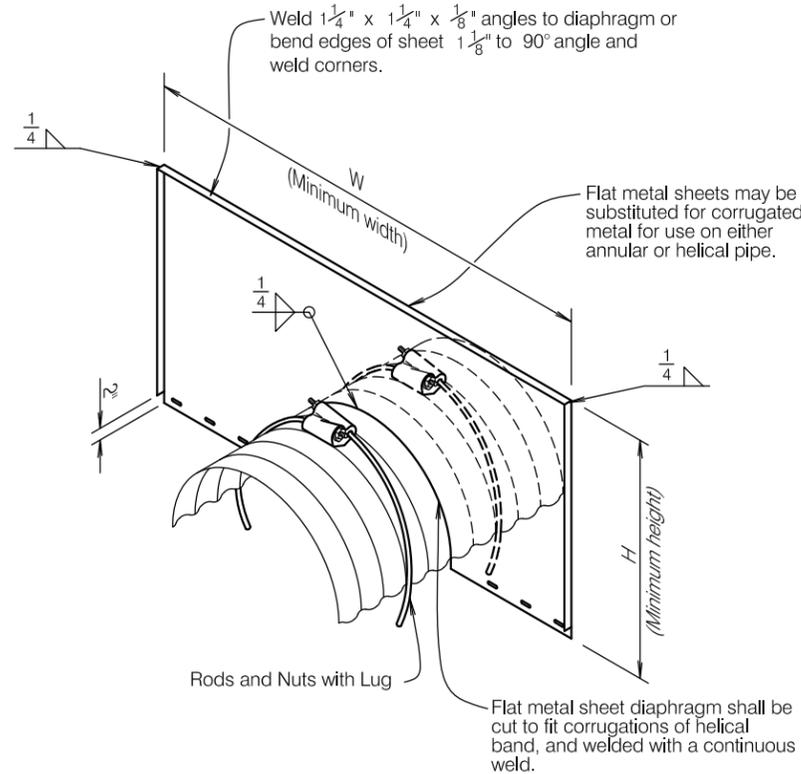


Note:
Weld symbol above line indicates weld is on opposite side of joint to which arrow points.
Weld symbol below line indicates weld is on side of joint to which arrow points.

**METAL PIPE REQUIREMENTS
AND COUPLING BANDS**



ELEVATION OF UNASSEMBLED DIAPHRAGM



NOTE:

THE FOLLOWING DESIGNATIONS FOR PIPE CLASSIFICATIONS, CORRUGATIONS AND COATINGS WHEN REFERRED TO ON THE DRAWINGS ARE IN ACCORDANCE WITH CURRENT ASTM'S:

A760 STANDARD SPECIFICATION FOR CORRUGATED STEEL PIPE, METALLIC-COATED FOR SEWERS AND DRAINS.

A761 STANDARD SPECIFICATION FOR STEEL STRUCTURAL PLATE, ZINC-COATED, FOR FIELD-BOLTED PIPE, PIPE-ARCHES, AND ARCHES.

A762 STANDARD SPECIFICATION FOR CORRUGATED STEEL PIPE, POLYMER PRECOATED FOR SEWERS AND DRAINS.

A849 STANDARD SPECIFICATION FOR POST-APPLIED COATINGS, PAVINGS, AND LININGS FOR CORRUGATED STEEL SEWER AND DRAINAGE PIPE.

FABRICATION NOTES:

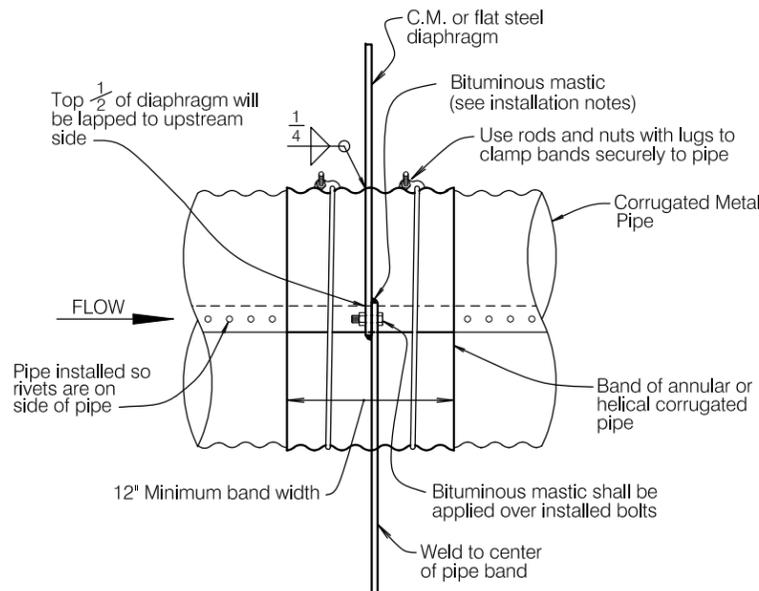
- ALL WELDS AND ALL HEAT AFFECTED AREAS ON ZINC COATED METAL SHALL BE THOROUGHLY CLEANED AND TREATED IN ACCORDANCE WITH SPECIFICATIONS.
- UNASSEMBLED DIAPHRAGMS SHALL BE MARKED BY PAINTING OR TAGGING WHEN NECESSARY TO IDENTIFY MATCHING PAIRS TO SECURE A PROPER INSTALLATION.
- EACH DIAPHRAGM SHALL BE FURNISHED WITH TWO RODS AND NUTS AND TWO STANDARD TANK LUGS FOR SECURING DIAPHRAGMS TO PIPE.
- RODS FOR DIAPHRAGMS FOR 6" THRU 15" DIA. PIPE SHALL BE 3/8" DIA. AND FOR PIPE LARGER THAN 15" DIA. THE RODS SHALL BE 1/2" DIA.
- DIAPHRAGMS SHALL HAVE THE SAME COATING AS SPECIFIED FOR THE PIPE BEING USED. BANDS FOR DIAPHRAGMS SHALL BE THE SAME AS THE PRINCIPAL SPILLWAY CONDUIT.
- WHEN MORE THAN ONE COATING IS CHECKED IN THE COLUMN BOXES EACH TYPE IS ACCEPTABLE BUT ONLY ONE TYPE OF COATING SHALL BE USED IN EACH INSTALLATION.
- FOR FABRICATION OF DIAPHRAGMS ON HELICAL PIPE A FILLER STRIP MAY BE USED TO INSURE A WATERTIGHT CONNECTION BETWEEN THE HELICAL BAND AND THE FLAT METAL SHEET.

8. WELDED SEAM DIAPHRAGMS MAY BE SUBSTITUTED FOR RIVETED SEAM DIAPHRAGMS. THE WELDED SEAM WILL BE CONTINUOUS ON THE UPSTREAM SIDE OF THE DIAPHRAGM AND SPOT WELDED AT A MAXIMUM SPACING OF 3 INCHES, CENTER TO CENTER, ON THE DOWNSTREAM SIDE OF THE DIAPHRAGM.

9. DURING FABRICATION, WHEN ASPHALT COATING IS NOT USED, RIVETED SEAMS SHALL BE CAULKED WITH AN ASPHALT-MASTIC MATERIAL MEETING THE REQUIREMENTS OF ASTM A849 TO PROVIDE A WATERTIGHT SEAM. THIS SHALL BE ACCOMPLISHED BY APPLYING A UNIFORM BEAD OF THE ASPHALT OR TAR-BASED COMPOUND TO THE INNER LAP SURFACE BEFORE RIVETING SUCH THAT WHEN THE RIVETS ARE IN PLACE, ALL VOIDS ARE FILLED.

INSTALLATION NOTES:

- REMOVE EXCESS BITUMINOUS COATING FROM CORRUGATIONS WHERE DIAPHRAGM SHEETS WILL JOIN AND WHERE BANDS AND PIPE WILL JOIN.
- THE BAND OF THE DIAPHRAGMS WILL BE COATED WITH 1/4" OF ASPHALT-MASTIC MATERIAL MEETING THE REQUIREMENTS OF ASTM A849. THE ASPHALT-MASTIC COATED AREAS SHOULD BE KEPT FREE OF DIRT, GRAVEL, AND OTHER FOREIGN MATERIAL UNTIL BANDS ARE IN PLACE AND TIGHTENED. WHEN THE AIR TEMPERATURE IS 50° F. OR LOWER, HEAT WILL BE APPLIED TO SOFTEN, BUT NOT BURN OR MELT, THE BITUMINOUS MASTIC.
- WHEN A NEOPRENE GASKET IS USED IN LIEU OF BITUMINOUS MASTIC, THE GASKET SIZE SHALL BE 3/8" THICK WITH A MINIMUM WIDTH OF 7" CENTERED ON THE DIAPHRAGM LOCATION AND FASTENED AT ENDS TO FORM A FULL CIRCLE.
- THE DIAPHRAGM SECTIONS WILL BE CENTERED ON THE DIAPHRAGM LOCATION AND THE CORRUGATIONS ALIGNED FOR COMPLETE AND TIGHT NESTING OF CORRUGATIONS. THE NUTS ON THE RODS WILL BE TIGHTENED WITHOUT OVERSTRESS AND WILL BE RETIGHTENED AT LEAST TWICE AFTER INITIAL INSTALLATION AT INTERVALS OF APPROXIMATELY 1/2 HOUR. THE FINAL TENSION ON THE RODS SHALL BE AS DETERMINED BY THE ENGINEER. BACKFILLING AROUND THE PIPE, EXCEPT AT DIAPHRAGM BANDS, MAY PROCEED DURING THE INTERVAL REQUIRED FOR TIGHTENING BANDS.



DIAPHRAGM INSTALLATION DETAIL

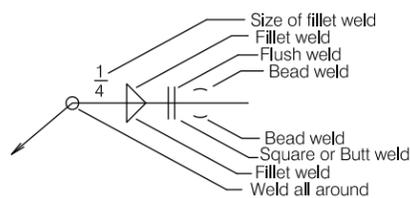
FABRICATION TABLE FOR DIAPHRAGMS

PIPE DIA. INCHES	GAGE	MINIMUM DIAPHRAGM SIZE INCHES	FABRICATION DIMENSIONS INCHES	
			W(WIDTH)	H(HEIGHT)
8	16	58 x 58	58 1/2	30 1/2
8	16	68 x 68	70	36 1/2
10	16	58 x 58	58 1/2	30 1/2
10	16	70 x 70	72	37 1/2
12	16	60 x 60	64	32 1/2
12	16	72 x 72	72	38 1/2
15	16	63 x 63	68	34
15	16	75 x 75	75	41
18	16	66 x 66	69 1/4	35 1/2
18	16	78 x 78	77 1/4	41 1/2
21	16	69 x 69	72	37
21	16	81 x 81	82	42 1/2
24	16	72 x 72	72	38 1/2
24	16	84 x 84	88	44 1/2
30	14	78 x 78	82 1/2	41 1/2
30	14	90 x 90	93 1/4	47 1/2
36	14	84 x 84	88	44 1/2
36	14	96 x 96	96	50 1/2
42	14	90 x 90	93 1/4	47 1/2
42	14	102 x 102	101 1/4	53 1/2
48	14	96 x 96	96	50 1/2
48	14	108 x 108	112	56 1/2
54	14	102 x 102	101 1/4	53 1/2
54	14	114 x 114	120	59 1/2

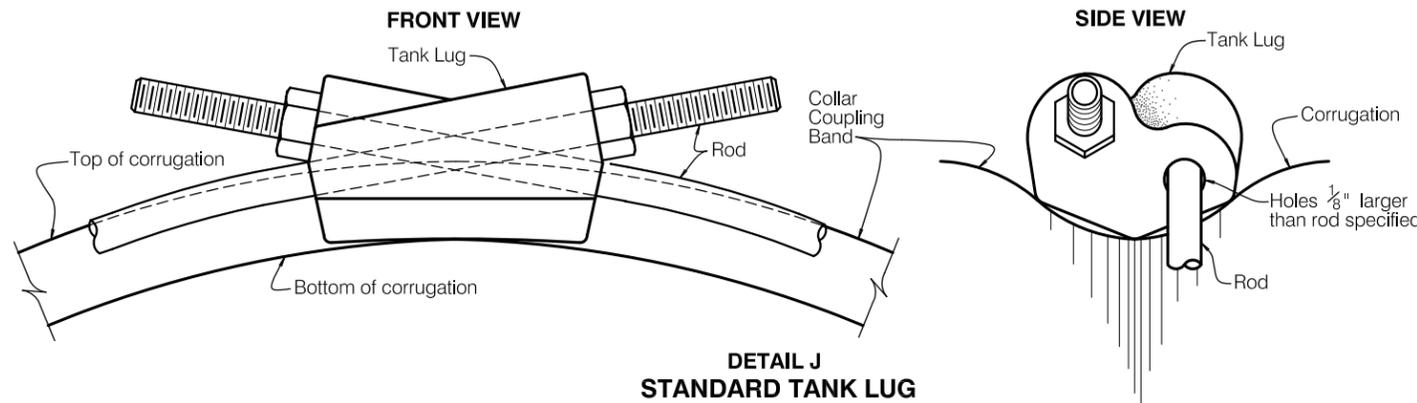
REQUIREMENT TABLE

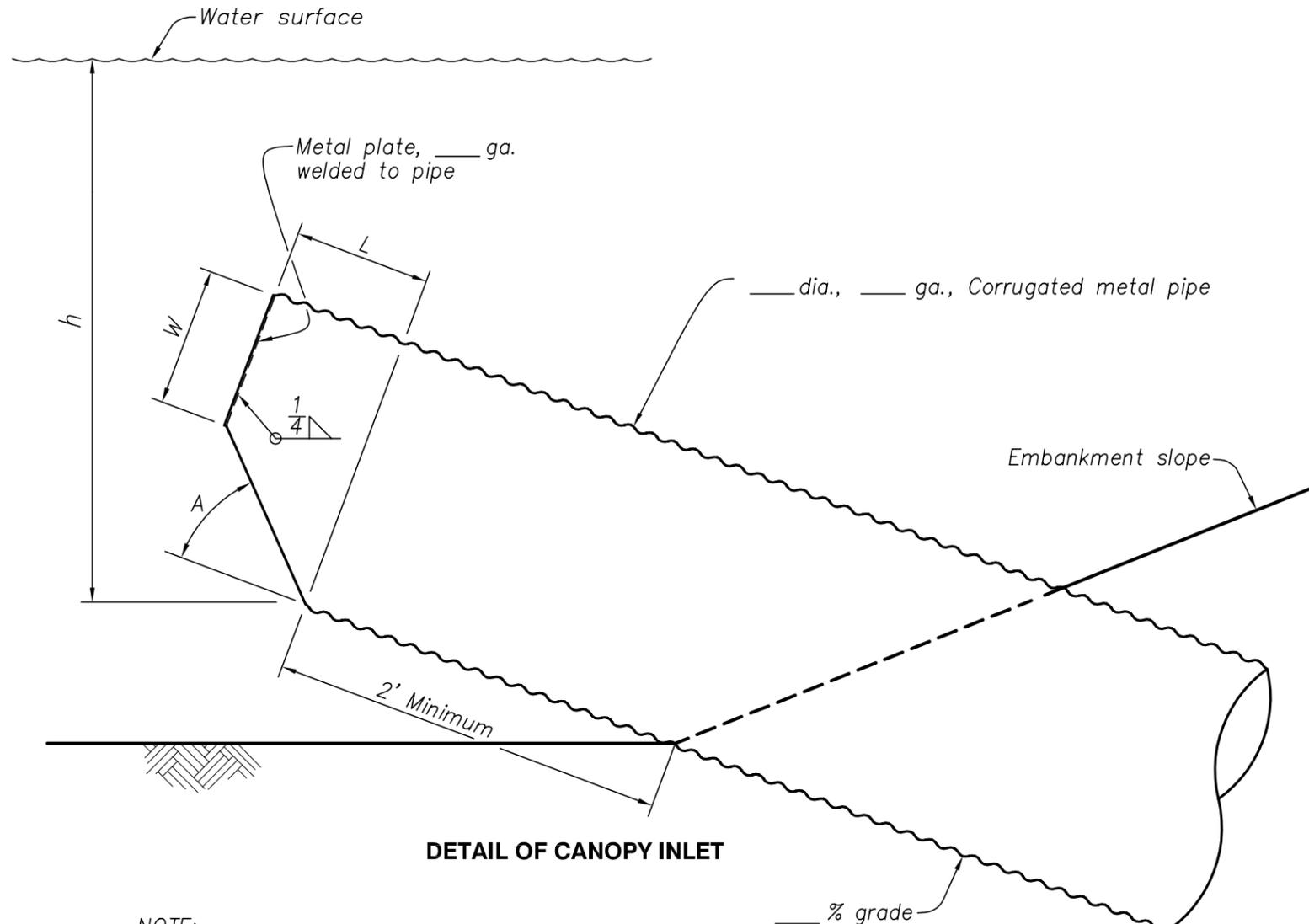
X IN BOX INDICATES DIAPHRAGM REQUIREMENTS FOR STRUCTURE	
DIAPHRAGMS, ZINC COATED STEEL (CORRUGATED OR FLAT SHEET PER DETAIL)	<input type="checkbox"/>
_____ GAGE _____" x _____" DIAPHRAGMS FOR _____" DIA. PIPE	<input type="checkbox"/>
COATINGS - ZINC COATED STEEL	
FULLY BITUMINOUS COATED, TYPE A-1	<input type="checkbox"/>
ARAMID FIBER COMPOSITE, BITUMINOUS COATED	<input type="checkbox"/>
POLYMER PRECOATED, GRADE 10/10	<input type="checkbox"/>
NONE REQUIRED	<input type="checkbox"/>

WELD SYMBOLS



Note:
Weld symbol above line indicates weld is on opposite side of joint to which arrow points.
Weld symbol below line indicates weld is on side of joint to which arrow points.

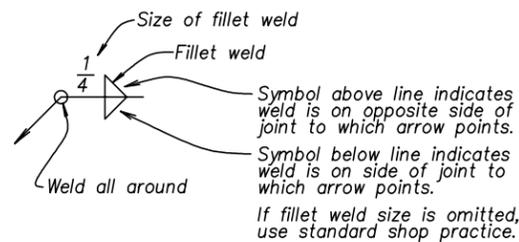




DETAIL OF CANOPY INLET

NOTE:
ALL SEAMS CUT, DUE TO FABRICATION IN HELICAL PIPE, SHALL BE WELDED FOR A LENGTH OF 1" FROM THE EDGE OF THE CUT AND TREATED ACCORDING TO SPECIFICATIONS.

WELD SYMBOLS



NOTE:
ALL WELDS AND HEAT AFFECTED AREAS TO BE TREATED IN ACCORDANCE WITH SPECIFICATIONS.
MATERIALS NOT COATED OR GALVANIZED SHALL BE PAINTED ACCORDING TO PAINT SYSTEM "C" OF PAINT SPECIFICATIONS.

DIMENSIONS FOR CANOPY

PIPE DIA. INCHES	GRADE %	W INCHES	L INCHES	A DEGREES	*h FEET
8	0-5	1 1/2	4 1/4	57	0.93
	6-15	1 5/8	6 3/8	45	1.00
	16-25	2 1/8	8 7/8	33	1.07
	26-32	2 7/8	10 3/8	26	1.13
10	0-5	1 7/8	5 3/8	56	1.17
	6-15	2	8	45	1.25
	16-25	2 3/4	11	33	1.33
	26-32	3 1/2	13	27	1.42
12	0-5	2 1/4	6 1/2	56	1.40
	6-15	2 3/8	9 5/8	45	1.50
	16-25	3 1/4	13 1/4	33	1.60
	26-32	4 1/4	15 5/8	26	1.70
15	0-5	2 7/8	8 1/8	56	1.75
	6-15	3	12	45	1.88
	16-25	4	16 1/2	33	2.00
	26-32	5 1/4	19 1/2	27	2.13

*MINIMUM "h" FOR FULL PIPE FLOW

REQUIREMENT TABLE

X IN BOX INDICATES ANTI-VORTEX CANOPY HOOD INLET REQUIREMENT
___GA. PLATE AND CANOPY INLET FOR ___DIA., ___GA. PIPE AT ___% GRADE WITH THE FOLLOWING PIPE REQUIREMENTS:
PIPE CLASSIFICATION TYPE I FULL CIRCULAR CROSS-SECTION FABRICATED WITH: <input type="checkbox"/> ANNULAR CORRUGATIONS <input type="checkbox"/> CLOSE RIVETED OR <input type="checkbox"/> STANDARD RIVETED <input type="checkbox"/> HELICAL CORRUGATIONS
CORRUGATION REQUIREMENTS NOMINAL SIZE (INCH) <input type="checkbox"/> 1 1/2 x 1/4 (AVAILABLE ONLY IN HELICALLY CORRUGATED PIPE) <input type="checkbox"/> 2 2/3 x 1/2 <input type="checkbox"/> 3 x 1
COATINGS AND FABRICATION SEE METAL PIPE REQUIREMENTS AND COUPLING BAND SHEET

NOTE:

THE FOLLOWING DESIGNATIONS FOR PIPE CLASSIFICATIONS, CORRUGATIONS AND COATINGS WHEN REFERRED TO ON THE DRAWINGS ARE IN ACCORDANCE WITH CURRENT ASTM'S:

- A760 STANDARD SPECIFICATION FOR CORRUGATED STEEL PIPE, METALLIC-COATED FOR SEWERS AND DRAINS.
- A761 STANDARD SPECIFICATION FOR CORRUGATED STEEL STRUCTURAL PLATE, ZINC-COATED, FOR FIELD BOLTED PIPE, PIPE ARCHES, AND ARCHES.
- A762 STANDARD SPECIFICATION FOR CORRUGATED STEEL PIPE, POLYMER PRECOATED FOR SEWERS AND DRAINS.
- A849 STANDARD SPECIFICATION FOR POST-APPLIED COATINGS, PAVINGS, AND LININGS FOR CORRUGATED STEEL SEWER AND DRAINAGE PIPE.
- A885 STANDARD SPECIFICATION FOR STEEL SHEET, ZINC AND ARAMID FIBER COMPOSITE-COATED FOR CORRUGATED STEEL SEWER, CULVERT AND UNDERDRAIN PIPE.

**INTERLOCAL COOPERATION ACT AGREEMENT
PLATTE RIVER CAMERAS/SENSORS
FOR
LOWER PLATTE NORTH NATURAL RESOURCES DISTRICT
PAPIO-MISSOURI RIVER NATURAL RESOURCES DISTRICT
DODGE COUNTY
AND
CITY OF FREMONT**

This Agreement (hereinafter named “Agreement”) is made by and among the following Parties (all are political subdivisions of the State of Nebraska):

Lower Platte North Natural Resources District (LPNNRD)
Papio-Missouri River Natural Resources District (PMRNRD)
Dodge County (County)
City of Fremont (CITY)

The parties hereinafter being referred to individually as “Partner” and collectively as “Partners”.

WHEREAS:

Flooding and resulting damages from winter ice jams and seasonal rainstorms frequently occur along the Lower Platte River corridor.

The Partners work closely with the National Weather Service, the Nebraska Emergency Management Agency and the Nebraska Department of Natural Resources to monitor winter ice/ice-out and flood stage conditions along the Lower Platte River corridor and take necessary actions to alert the public of resulting flood hazards.

The Partners desire to increase awareness of potential flood threats due to winter ice/ice-out conditions and other significant seasonal rainstorm events, by establishing cameras and additional water monitoring sensors at mutually agreed upon locations along the Lower Platte River corridor.

The Partners desire to enter into an Interlocal Agreement for purchasing cameras, additional water monitoring sensors and other supporting equipment, for placement along the Lower Platte River corridor and for the future operation and maintenance of that equipment.

Dodge County Emergency Management has applied for FEMA/NEMA Hazard Mitigation grant assistance, up to \$20,250 (75%), to potentially assist the Partners with the purchase and placement of ten (10) cameras, three (3) additional water monitoring sensors and other supporting equipment, at an estimated total project cost of \$27,000.

THEREFORE, in consideration of the foregoing recitals and their mutual covenants hereinafter expressed, the Partners agree as follows:

1. Authority:

The Partners desire to work together for purchasing and establishing cameras and water monitoring sensors and supporting equipment, at mutually agreed upon Lower Platte River locations and to make the most efficient use of their respective powers by cooperating on a basis of mutual advantage under the auspices of the Interlocal Cooperation Act (Neb. Rev. Stat. §§ 13-801 to 13-827). In furtherance of this cooperative effort the Parties desire to enter into this Interlocal Agreement with one another for joint and cooperative action for any power or powers, privileges or authorities exercised or capable of exercise individually by them as public agencies under the Interlocal Cooperation Act.

2. Funding for Cameras, Water Sensors & Supporting Equipment Purchase:

The Partners agree to equally share the maximum local costs estimated at \$27,000 (\$6,750 each), for purchasing/placing up to ten cameras and three water sensors and supporting equipment.

It is anticipated that the Partners may receive NEMA/FEMA grant assistance, reimbursable up to \$20,250 (75%), based on the total maximum estimated project costs. Should grant funds be approved, the Partners actual total local share will be adjusted accordingly, up to \$6,750 (\$1,687.50 each). The County will be the subgrantee and fiscal agent for the NEMA/FEMA grant.

LPNNRD will purchase and take the lead for placing all cameras, sensors and supporting equipment and bill each Partner for their equal share. If the NEMA/FEMA grant is approved, LPNNRD will submit expenses to the County for 75% reimbursement and bill each Partner for their equal monetary share of the remaining 25%, minus contributed in-kind credit.

3. Camera/Equipment Operation, Maintenance and Data Subscription Expense:

The Partners agree to equally share on-going annual camera/sensor equipment operation, maintenance, and data subscription expense at an annual total cost not to exceed \$10,000, or \$2,500 maximum annual cost for each Partner. On behalf of the Partners, LPNNRD will enter into a contract for operation, maintenance and subscription services and annually bill each Partner for their equal share.

4. Effective Date:

This Agreement becomes effective upon execution by all Partners. The original copy of this Agreement will be maintained as part of the records of LPNNRD, with a copy being provided to each of the Partners. The Agreement may be signed in counterparts, as necessary.

5. Duration of Agreement:

This Agreement shall extend from the date of execution by all Partners and will remain in effect, unless mutually or individually terminated by one or more of the Partners upon an advance 90 day written notice.

6. Amendments and Addendums of Agreement:

This Agreement may be amended, or Addendums added, subject to approval by all Partners.

7. Indemnification:

The Partners assume no liability under this Agreement unless expressly accepted herein. Each party agrees to defend the other from and against all liabilities, obligations, losses, damages, claims, and demands arising from the acts of its respective officers, agents, or employees.

IN WITNESS WHEREOF, each Partner has caused this Agreement to be executed by its duly authorized officer as of the date and year.

Lower Platte North Natural Resources District

By: _____
Board Chairperson

Date: _____

Papio-Missouri River Natural Resources District

By: _____
John Winkler, General Manager

Date: _____

Dodge County

By: _____
Chairman, Board of Supervisors

Date: _____

City of Fremont

By: _____
Scott Getzschman, Mayor

Date: _____

July 13, 2020

Nebraska Emergency Management Agency
2433 NW 24th Street
Lincoln NE 68524

RE: Dodge County HMGP Property Platte River Monitoring Project

To Whom it May Concern,

Dodge County is requesting financial assistance through FEMA's Hazard Mitigation Grant Program, to install river gauges and cameras along the Platte River increasing situational awareness and enhancing public warning. The Lower Platte North Natural Resources District has agreed to partner with the County to complete this project and provide a portion of the local share funding.

The NRD Board approved this agreement on July 13, 2020 and is committed to funding a portion of the local share of this project. These funds will be available for the duration of this project.

If you have any questions please call me, at 402-443-4675.

Thank you.

Sincerely,

Tom Mountford
Assistant General Manager
Lower Platte North NRD

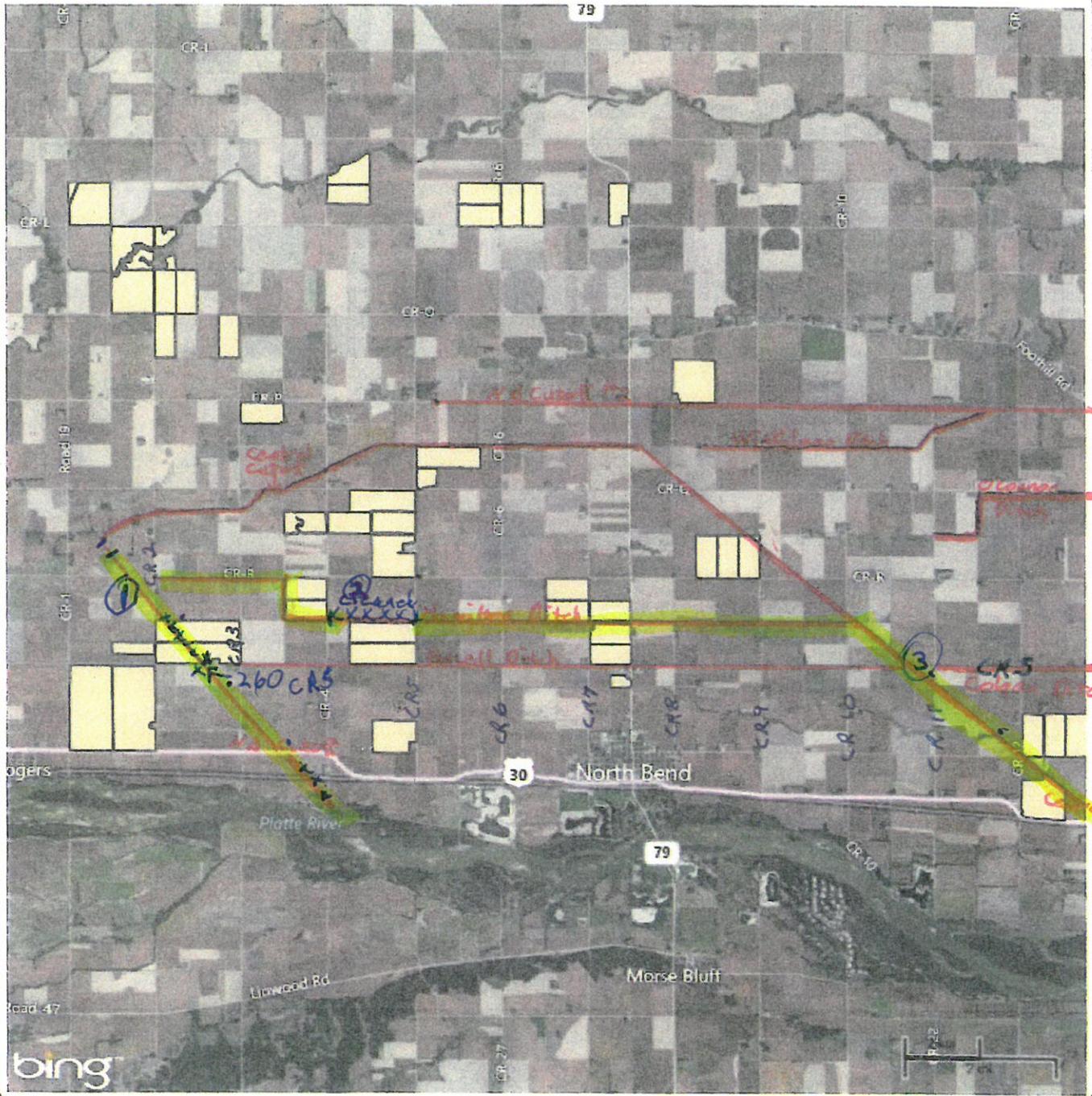


PIONEER FIELD 360

Current Map



Portion NB Drainage District



Location:

County: Dodge, NE
Twp Rng Sec:

Directions:



Townships - 4

14700 - 14 sections

14700 - 14 sections

14700 - 14 sections

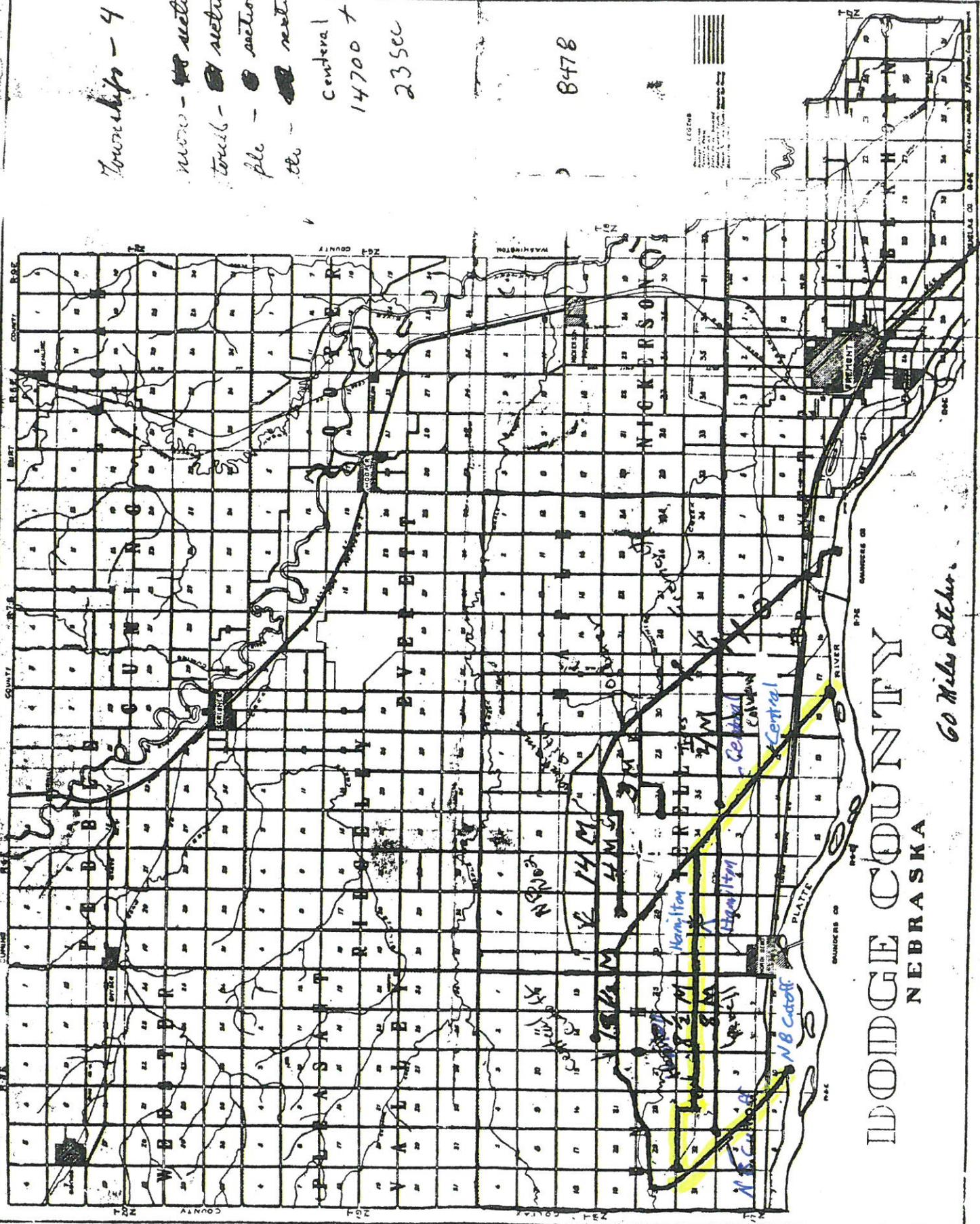
14700 - 14 sections

Central

14700 +

23 Sec

8478



IDDODGE COUNTY NEBRASKA

60 Miles Ditch

Repairs from Flood

- ① Clean or remove dirt and silt from NB Cutoff. Placing what is removed from ditch on East Side of ditch to replace dirt that was washed away when water went over ditch bank. Approx. $3\frac{1}{2}$ to $3\frac{3}{4}$ miles long.

Repair washouts with dirt and concrete. Definitely at 260 County Road 5 as in Sam. And probably at least 4 or 5 more spots on ditch.

- ② Clean Hamilton ditch for same reasons as above. We did 1 mile of this ditch between County Road 4 and 5. It was an emergency situation for keeping the water flowing. Approx. 7 miles. Not many washouts.

- ③ Clean Central Cutoff Approx 6 miles. Repair at least 6 washouts.

**INTERLOCAL COOPERATION ACT AGREEMENT
PLATTE RIVER BREACH REPAIR PROJECT
DODGE COUNTY**

This Interlocal Cooperation Act Agreement hereinafter called “Agreement” entered into between the hereinafter , in reference the Platte River Breach Repair Project, Dodge County, Nebraska, hereinafter referred to as the “Project”, is made and entered into by the following political subdivisions of the State of Nebraska, hereinafter, hereinafter referred to individually as “Partner” and collectively as “Partners”, to wit:

City of Fremont (City)
Dodge County (County)
Lower Platte North Natural Resources District (LPNNRD)

Whereas, the Partners are political subdivisions of the State of Nebraska.

Whereas, 2019 flood events along the Lower Platte River caused a substantial breach in the embankment on the west end of Fremont Rod & Gun Club property, resulting in substantial damage to private property and public infrastructure.

Whereas, the Partners assisted with emergency repair in early 2020, to divert Platte Water flood flows from reentering the breach opening on the west end of Fremont Rod & Gun Club property until more substantial repair can occur.

Whereas, as a result of dredging activities planned at Lake Ventura in 2020, there is an opportunity to engineer, shape and stabilize resulting dredge material for placement in the breach area opening, at a total estimated Project cost of \$612,380.

Whereas, the County will act as the fiscal agent for the repair and has applied for a \$450,000 Economic Development Assistance Grant through the Nebraska Department of Economic Development to assist with the Project.

Whereas, the Fremont Rod & Gun Club has provided approximately \$20,000 in the project area and will provide up to an additional \$12,380 toward the local share of the Project.

Whereas, the Partners desire to assist with the remaining local share of Project expense, up to \$50,000 each, totaling \$150,000.

Whereas, the City will obtain and hold all necessary public easements for the Project from the Fremont Rod & Gun Club and be the public entity applicant for future disaster assistance.

Whereas, the Partners will enter into a future agreement with the Fremont Rod & Gun Club addressing Project operation and maintenance responsibilities.

Therefore, in consideration of the foregoing recitals and their mutual covenants hereinafter expressed, the Partners agree as follows:

- 1. Authority:** This Agreement is made pursuant to authority provided in the Nebraska Interlocal Cooperation Act (Neb. Rev. Stat. 13-801, R.R.S., 1943, et seq.), without a

separate entity being created, and whenever possible, this Agreement shall be construed in conformity therewith.

2. **Purposes:** The purpose of this Agreement is to define the Partners responsibilities for financial assistance and future operation and maintenance of the completed Project.
3. **Securing Project Easements:** The City agrees to secure all needed Project easements from the Fremont Rod & Gun Club, hold the easements for public benefit and file them with the Dodge County Register of Deeds.
4. **Project Funding Assistance:** The Partners agree to each provide up to \$50,0000 financing toward the completed Project.
5. **Project Operation and Maintenance:** As a requirement for participation with the Project, the Partners will enter into a separate agreement with the Fremont Rod & Gun Club, to identify operation and maintenance responsibilities of the completed Project and to indemnify, protect and hold the Partners harmless from all claims directly and indirectly related to the Project.
6. **Effective Date of Agreement:** This Agreement becomes effective upon final execution by the Partners. The original copy of this Agreement will be maintained as part of the public records of City, with a copy being provided to the Partners. The Agreement may be signed in counterparts, as necessary.
7. **Duration of Agreement:** This Agreement shall extend from the date of execution by both Partners and will remain in effect unless all Partners mutually agree to amend, addend, or terminate the Agreement

IN WITNESS WHEREOF,

This Interlocal Cooperation Act for Platte River Breach Repair Project, is executed by the City of Fremont on this _____ day of _____, 2020.

City of Fremont

By: _____

Scott Getzschman

Title: Mayor _____

IN WITNESS WHEREOF,

This Interlocal Cooperation Act for the Platte River Breach Repair Project,
is executed by Dodge County on this _____ day of _____, 2020.

Dodge County

By: _____
Bob Missel

Title: Chairman _____

IN WITNESS WHEREOF,

This Interlocal Cooperation Act for the Platte River Breach Repair Project, is executed by the Lower Platte North Natural Resources District on this _____ day of _____, 2020.

Lower Platte North Natural Resources District

By: _____
Gene Ruzicka

Title: Chairman



June 30, 2019

Bob Missel, Chairperson
Dodge County
Board of Supervisors
435 N Park
Fremont, NE 68025

RE: Community Development Block Grant (CDBG) Application #19EM005 / Dodge County
Notice of Approval: CDBG RLF Emergent Threat (EM) Category
[Federal Agency: US Dept of Housing and Urban Development/ CFDA#: 14.228]
[CFDA Title: Community Development Block Grant (CDBG)] Dodge County DUNS # 782196059
State of Nebraska CDBG Revolving Loan Program Fund

Dear Chairperson Missel:

On behalf of Anthony L. Goins, Director of the Nebraska Department of Economic Development, it is a pleasure to inform you that Dodge County awarded a Community Development Block Grant (CDBG) grant up to the amount of \$485,000. The awarded amount used for drainage and flood control activities that include the reconstruction of Breach Levee, Fremont Rod and Gun Club, breached by the March 2019 Midwest Floods.

The project will fulfill a National Objective by benefiting low and moderate-income (LMI) persons in the affected service area within Dodge County. According to Census /American Community Survey (ACS), data meets the LMI benefit test at 67.54% population. The households affected by the 2019 Platte River flooding lie within the Census tracts for Inglewood and Fremont. The Breach Levee serves as an integral component of the flood protection system along the Platte River protecting Fremont and Inglewood. The flooding damaged several homes. The residents remain at risk based on existing damage to the levee systems and the inability to serve as a flood protection system. Dodge County Emergency Management and local governments coordinating the funding and project development. The March 2019 disaster of recent origin and critical need for resolution, which includes multiple financing sources for project implementation. The County unable to fund the gap or secure other funding sources that meet implementation costs.

Four project partners will fund levee reconstruction costs that exceed the CDBG funds awarded. The partnership, established by an Interlocal agreement, includes the Fremont Rod and Gun club, Dodge County, City of Fremont, and Lower Platte Natural Resources District. The Sanitary and Improvement District No. 3 (SID) of Dodge County with the Fremont Rod and Gun Club will also execute a cooperative agreement for levee materials. The Levee reconstruction professionally engineered to meet permit requirements of the US Army Corps of Engineers.

At this time, only a very limited number of costs may be incurred prior to receiving a Notice of Release of Funds. Only costs associated with the general administration of the grant are allowable such as contracting for administrative services or hiring staff to administer the grant. Administrative costs include those necessary for completing the Special Conditions requirements including the environmental review. The Department may reimburse these costs if all costs are incurred in full conformity and compliance with the terms and conditions of the Contract, Code of Federal Regulations 2 CFR Part 200, and all applicable federal and state laws, regulations and requirements. All subcontracts must be for services to undertake approved administrative activities and conform to procurement procedures outlined in 2 CFR 200.317.

Do not proceed with your project. CDBG requirements cover a number of start-up activities, such as procurement, acquisition and construction standards. Under no circumstances will you be reimbursed for non-administrative costs incurred prior to receiving the Notice of Release of Funds and Environmental Clearance.

To assist you in satisfying the Special Conditions of the Contract, forms, instructions, and the CDBG Administration Manual are available on our website: <https://opportunity.nebraska.gov/program/community-development-block-grant/#administrators>. Prior to implementation of the funded project, it is necessary to satisfy the Special Conditions for Release of Funds. Included under Special Conditions is the completion of an environmental review record; instructions for completing the statutory checklist can be found on the Department's website. **Please note: documentation sources and/or correspondence are required for each field within the statutory checklist, including those determined "not applicable" to the project and project activities.**

The environmental review documents for the project are located on the Department's website. In order to complete, the environmental review for your project activities you must submit the Determination of Level of Review Form, and all other applicable forms and source documentation, which serve as the Environmental Review Record (ERR). All forms must be dated and completed with original signatures by the Responsible Entity Certifying Officer, which is the Chief-Elected Official, and the Preparer when required. See also Chapter 6 of the CDBG Administrative Manual for more information.

In the event you withdraw from this Award prior to receiving a written Notice of Release of Funds Letter, the Department reserves, the right to determine the amount of funds that may require reimbursement to your community or that require recapture from the community for any incurred eligible administrative costs.

If you have questions regarding this information, contact your Program Representative Steve Charleston by email at steve.charleston@nebraska.gov. The principal contact for all grant related matters is your Program Representative. Individuals who are hearing and/or speech impaired and have a TTY, may contact the Department through the Statewide Relay System by calling (711) INSTATE (800) 833-7352 (TTY) or (800) 833-0920 (voice). The relay operator should be asked to call DED at (800) 426-6505 or (402) 471-3111. Additional information is at the Nebraska Relay website <http://www.nebraskarelay.com/>. Nebraska Relay offers Spanish relay service for our Spanish-speaking customers. Spanish-to-Spanish (711) or 1-888-272-5528/ Spanish-to-English (711) or 1-877-564-3503. Nebraska le ofrece el servicio de relevo a nuestros clientes en español. Los consumidores de TTY pueden escribir por máquina en español y las conversaciones serán retransmitidas en español y inglés.

We congratulate the community on successfully obtaining CDBG funds. We look forward to actively working with you in carrying out your CDBG development program.

Sincerely,



Steve Charleston
CDBG Program Manager
Housing and Community Development Division

Copies (as an email attachment): Fred Mytty, Local Contact; Lowell Schroeder, NENEDD

The actual federal grant number serving as the source of funding for this CDBG award will be dependent upon whether funding from previous grant years is available for distribution. As an example, if the Department continues to have funding available from prior federal fiscal years, it may be distributed prior to the Department distributing funding from the State of Nebraska CDBG RLF Program.

Hazard Mitigation Plan Project Update

Becky Appleford and Lalit Jha
July 2, 2020



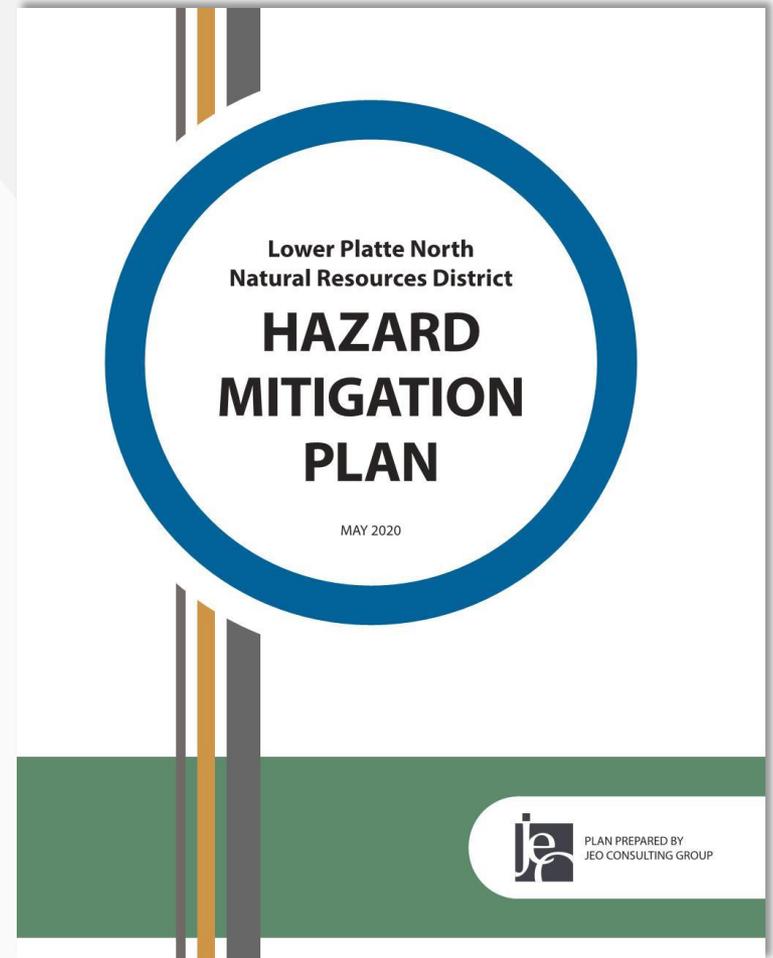


HMP Project Status

- ✓ Hazard Mitigation Plan submitted to NEMA/FEMA on May 14, 2020
 - Thank you for your review and comments!

- ✓ Both agencies combined allowed up to 90 days for review

- ✓ However, NEMA indicated they were fast-tracking the review process
 - To ensure HMGP funding availability for mitigation projects





HMP Project Status

- ✓ Project fee of \$22,000 remains
 - \$16,500 reimbursed through FEMA grant
- ✓ Met with NRD Staff last month to discuss options
- ✓ Three possibilities:
 1. Saunders County (and affected communities) Zoning Dam Breach Overlay District Updates
 2. Dam Breach Inundation Mapping
 3. Levee or Dam Failure Tabletop Exercise



Zoning Dam Breach Overlay District Updates

- ✓ Up to 15 dam overlays in Saunders County
 - 8 JEO breach maps
 - 7 USACE breach maps
- ✓ Zoning overlay updates would cover:
 - Saunders County
 - Prague
 - Wahoo
 - Yutan
- ✓ Assumptions:
 - GIS breach layers available
 - 7 USACE breach maps only affect the County
- ✓ Benefits:
 - Limit future development in inundation area
 - Maintain dam classification



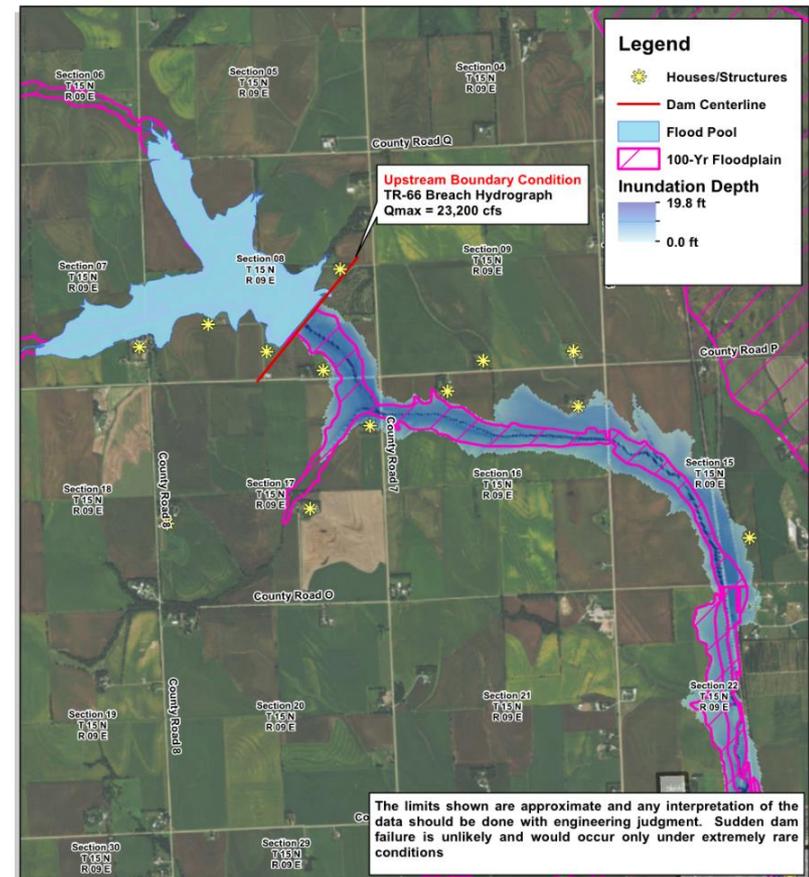
Zoning Dam Breach Overlay District Updates

- ✓ Cost includes:
 - Saunders County (map only)
 - Wahoo (map only)
 - Prague (zoning & map)
 - Yutan (zoning & map)
- ✓ 10 different public meetings
 - 2 Open Houses (Prague and Yutan)
 - 4 Planning Commission Public Hearings
 - 4 Government Body Public Hearings
- ✓ Cost: \$8,100



Dam Breach Inundation Mapping

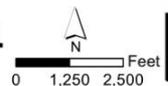
- ✓ As discussed with NRD staff, priority 1 dam breach mapping completed
- ✓ 9 dams left to complete breach mapping
- ✓ Benefits:
 - Limit future development in inundation area
 - Maintain dam classification
 - Emergency response and planning
- ✓ Cost: \$2,200/dam



Created by: FRH
Date: 12/28/2015
Revised: 3/16/2016
Software: ArcGIS 10.2
File: ClearCreek7A_BreachMap.mxd
This map was prepared using information from record drawings prepared by JED Consulting, Inc. for the county, resident, or public or private entity. JED does not warrant the accuracy of the map or the information used to prepare this map. This is not a scaled plot.

Clear Creek 7A

Breach Inundation Map 1 of 2

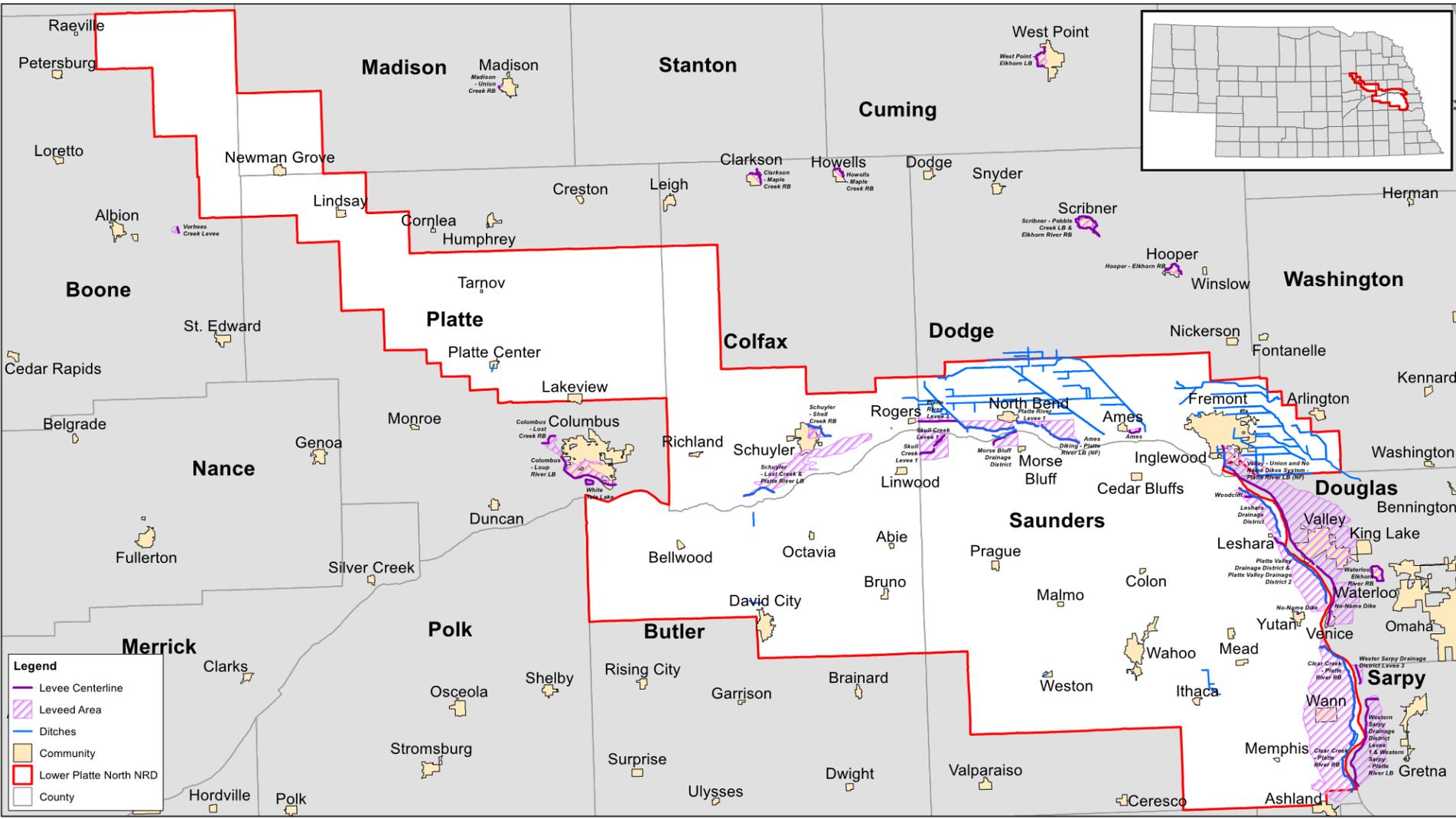




Levee (or Dam) Failure Tabletop Exercise

- ✓ Run through a failure scenario, increasing in complexity
- ✓ Attendees include:
 - Levee (or dam) owners
 - NRD staff
 - USACE
 - NWS
 - County Emergency Management
 - Law Enforcement (local, county, and state)
 - Roads/Streets/Public Works Depts
 - Others
- ✓ Meeting type: Virtual, in-person, or combination





Legend

- Levee Centerline
- Leveed Area
- Ditches
- Community
- Lower Platte North NRD
- County

Created By: EH
 Date: 4/10/2019
 Software: ArcGIS 10.4.1
 File: LPN_LeveedArea.mxd

"Leveed Areas" are approximations. This map was prepared using information from record drawings supplied by JEO and/or other applicable city, county, federal, or public or private entities. JEO does not guarantee the accuracy of this map or the information used to prepare this map. This is not a scaled plot.

Leveed Areas and Ditches

Lower Platte North Natural Resources District

N

S

0 5 10

Mile



Levee (or Dam) Failure Tabletop Exercise

Appendix A: Improvement Matrix and Core Capabilities Discussion

Table 2: EPP Improvement Actions

Capability	Exercise Objective	Resource Element	Observation	Corrective Action	Responsible Agency/Entity
Community Resilience	Objective 2.1	Community Preparedness & Participation	Agencies were able to articulate a response strategy for each prompt presented.	Continue to conduct emergency exercises utilizing varies scenarios to ensure a consistent response regardless of event	LPS NRD, L/LC EMA
	Objective 2.2	Community Preparedness & Participation	Participating agencies share differing levels of awareness related to the Salt Creek Levees	Continue to develop and facilitate emergency exercises specific to the levees	LPS NRD, L/LC EMA
	Objective 1.1	Community Preparedness & Participation	Participating agencies have a history of collaboration during both exercises and actual event response.	Continue to participate in local exercises (levee-related and other)	All agencies
	Objective 1.1	Community Preparedness & Participation	Participating agencies were able to identify available resources outside of their organization. Specifically, the participation of the USGS was beneficial to the group.	Invite a wide range of stakeholders to participate in future exercises	LPS NRD, L/LC EMA
	Objective 1.2	Community Preparedness & Participation	The exercise involved a wide range of stakeholders. There were some entities that were unable to attend, which would improve future exercise events.	Future levee-related exercises should include all participants in attendance as well as: NEMA, Red Cross, and City of Lincoln Engineering	All agencies

- After-Action Report
 - Major Strengths
 - Improvement Matrix
 - Exercise Design, Structure, & Participants
- Benefits:
 - Significant stakeholder engagement (local, state, & federal agencies)
 - Identify areas for improvement
 - Builds resiliency and preparedness
- Cost: \$13,500

<u>Structure</u>	<u>Watershed</u>	<u>Location</u>	<u>County</u>	<u>Ac.Ft. Prin. Sp.</u>	<u>Ac.Ft. @ EM.</u>	<u>Drain. Acres</u>
Trouble Creek Dam	Trouble Creek	29-18-8	Dodge	1500	1987	4480
CC 7-A	Clear Creek	Sec. 8-15-7	Saunders	536.8	2003.9	6040
CCW 22-A	Cottonwood	Sec. 13-15-6	Saunders	72.25	1254.9	3200
CW 41-A	Cottonwood	Sec. 7-15-6	Saunders	150.2	194.7	426
BW 3-B	Bellwood	Sec. 3-15-1	Butler	191.3	817.9	3732
BW 5-H	Bellwood	Sec.10-15-2	Butler	143.2	842.7	2196
BW 6-F	Bellwood	Sec. 32-16-2	Butler	104.4	235.7	794
BW 3-C	Bellwood	Sec. 33-16-1	Butler	109	192	570
BW 3-A	Bellwood	Sec. 32-16-2	Butler	12.3	138.9	479
BW 6-G	Bellwood	Sec. 6-15-2	Butler	25	52.6	164
Loseke-Frese	Loseke	Sec. 1-18-1	Platte	114.9	696.8	3243
CW 6-B	Cottonwood	Sec. 34-15-5	Saunders	551.3	1107.4	2115
CW 6-C	Cottonwood	Sec 4-15-15	Saunders	199.1	413	851
CW 6-D	Cottonwood	Sec. 5-15-5	Saunders	299.9	368.8	697
CW 6-E	Cottonwood	Sec. 32-16-5	Saunders	156.8	202.9	450
SC 55 (Homestead)	Skull	Sec. 3-15-4	Butler	218.1	889.5	2650
BW 4-L	Bellwood	Sec. 36-16-2	Butler	64.8	174.5	627
BW 6-E	Bellwood	Sec. 6-15-2	Butler	39.5	83.6	296
BW 4-K	Bellwood	Sec. 35-16-2	Butler	39.8	78.9	256
CW 8-D	Cottonwood	Sec. 20-15-7	Saunders	186.39	444.07	1184
SB 2B-1	Swedeburg	Sec. 27-14-7	Saunders	112.86	240.4	933
SB B-3	Swedeburg	Sec. 22-14-7	Saunders	9.6	197.6	1544
Hollman	Loseke	Sec. 25-19-1	Platte	29.9	104.5 (top)	526
CW 23-A	Cottonwood	Sec. 26-15-6	Saunders	34.03	196.1	491
CW 42-A	Cottonwood	Sec. 8-15-6	Saunders	142.7	188.6	488
CW 32-A	Cottonwood	Sec.15-15-6	Saunders	135	182.7	453
BW 5-G	Bellwood	Sec. 33-16-2	Butler	150.5	361	954
BW 5-K	Bellwood	Sec. 34-16-2	Butler	120.8	251.5	697
BW 5-J	Bellwood	Sec. 33-15-2	Butler	46.2	89.1	256
	#1 Priority	# 2 Priority	#3 Priority	# 4 Priority		
Breach Inundation Mapping Cost for #1 & #2 Structure Priorities = 20 Structures X \$2,000 X 25% (75% NEMA) = \$10,000						
Breach Inundation Mapping Cost for #3 & #4 Structure Priorities = 9 Structures X \$2,000 = \$18,000						



Invoice

June 25, 2020
Project No: R170337.00
Invoice No: 117665
Invoice Amount: 1,386.48

Tom Mountford
Lower Platte North NRD
511 Commercial Park Road
PO Box 126
Wahoo, NE 68066

Project Manager Rebecca Appleford

Project R170337.00 Lower Platte North NRD Hazard Mitigation Plan 2020 Update
Professional Services through June 19, 2020

	Contract Amount	Percent Complete	Billed-to-Date	Previous Billing	Current Billing
Lump Sum Phase(s)					
Project Management	\$9,750.00	99 %	\$9,652.50	\$9,457.50	\$195.00
Public and Stakeholder Engagement	\$30,005.00	100 %	\$30,005.00	\$30,005.00	0.00
Data Collection	\$7,500.00	100 %	\$7,500.00	\$7,500.00	0.00
Develop Mitigation Plan	\$41,495.00	98 %	\$40,665.10	\$40,665.10	0.00
Submission and Adoption of the HMP	\$4,250.00	74 %	\$3,145.00	\$3,145.00	0.00
Parcel-Level Flood Risk Assessment - Fremont	\$62,500.00	98 %	\$61,455.00	\$60,859.26	\$595.74
Parcel-Level Flood Risk Assessment - Schuyler	\$62,500.00	96 %	\$60,263.52	\$59,667.78	\$595.74
Project Screening and Additional Project Tasks	\$32,000.00	31 %	\$10,000.00	\$10,000.00	0.00
Total	\$250,000.00		\$222,686.12	\$221,299.64	\$1,386.48
Total Amount Due Upon Receipt					\$1,386.48

Email invoice to: Tom Mountford; tmountford@lpnrd.org & Jill Breunig; jbreunig@lpnrd.org



MONTHLY PROGRESS REPORT
Lower Platte North NRD Hazard Mitigation Plan Update

JEO PROJECT NO. 170337.00
Project Contact: Becky Appleford, 402.392.9915

Through the Period of June 19, 2020

-
- 1. Overall Project and Budget Status:**
 - Project Completion: 99% Budget: 99%

 - 2. Work completed during current period (thru June 19, 2020)**
 - a. Hazard Mitigation Plan Update**
 - Meet with NRD to discuss remaining budget use:
 - Dam Inundation Mapping and zoning overlays
 - Levee Failure Tabletop Exercise
 - Dam Failure Tabletop Exercise
 - Submitted HMP to NEMA/FEMA for review on May 14, 2020
 - b. Fremont/Schuyler Parcel Level Assessment**
 - Completed draft story maps of parcel level assessments

 - 3. Planned accomplishment for next period (June 22 – July 24, 2020):**
 - a. Hazard Mitigation Plan Update**
 - Attend NRD committee meeting on July 2nd to present potential projects for remaining budget
 - Revise HMP as required by NEMA/FEMA, if needed
 - Provide notice of approval and adoption resolutions post plan approval
 - Provide information to the NRD and other stakeholders as requested
 - b. Schuyler Parcel Level Assessment**
 - Finalize story map

 - 4. Action items:**
 - Present at NRD meeting July 2nd
 - Provide correspondence as needed

 - 5. Project schedule:**
 - On schedule

 - 6. Information from NRD or Planning Team:**
 - None

 - 7. Next Meeting Dates and Times:**
 - NRD committee meeting July 2nd