

Division of Soil Conservation and Water Quality

Cover Page: Pre-Bid Minutes, Questions, Addenda

To:	All plan holders	From:	Tracy Bruun, Division
Pages:	26	Phone:	515-725-4119
Re:	Heartland East 23-24 Batch and Build Edge-of-Field Project	Date:	May 23,2024

Comments:

- Addendum No. 1 with Revised S18-T79N-R04W Saturated Buffer Plan Sheets (7 Pages)
- Pre-Bid Meeting Minutes (6 Pages)
- Pre-Bid meeting attendance list (2 pages)
- Updated plan holders list (2 pages)
- Overall Site Map and Coordinates (2 pages)
- Updated Document CC (7 pages)

- END OF COVER PAGE -

May 21, 2024



Division of Soil Conservation and Water Quality 502 East 9th Street
Des Moines, IA 50319

TO: Prospective Bidders

Subject: Addendum No. 1 to Bid Documents

Heartland East 23-24 Batch and Build Edge-of-Field Project- Bid No. EOF-24-01

Cedar, Scott, Johnson, and Muscatine County, Iowa"

This addendum forms a part of the bidding contract documents and modifies the original bidding documents dated March 2024. This addendum must be acknowledged on Page CC-2 of Document CC.—Proposal and Schedule of Prices. **FAILURE TO DO SO WILL SUBJECT BIDDER TO DISQUALIFICATON.**

Description: The purpose of this addendum is to document a change in a saturated buffer design. Specifically, ESE has changed the WCS from a standard 6 ft by 6-inch 3-chamber to a custom 6 ft by 8-inch 3-chamber with 6-inch flex couplers to fit the existing tile for the Section 18 - T79N - R04W Saturated Buffer in order to meet the future instrumentation needs of researchers at the University of Iowa. The change has been noted in yellow font on Sheet 2 as well as in red font at the top of Sheet 6 and in the "Quantities" table on Sheet 6 in the attached file titled "S18-T79N-R04W Saturated Buffer Constdocs_V2_5-21-24". This is the only file that has been modified to reflect this change.

Sincerely,

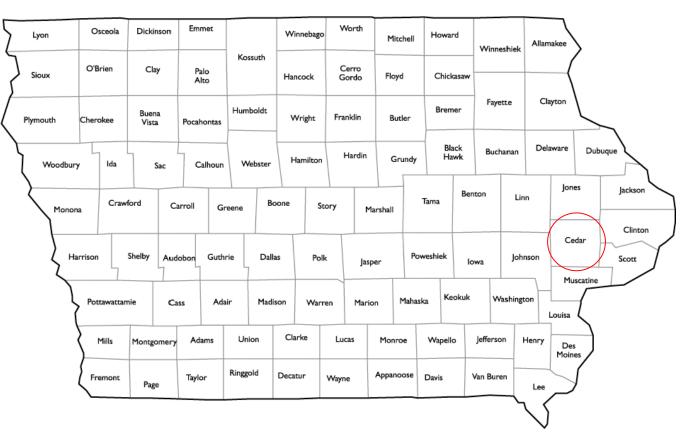
Andy Craig, P.E., T.S.P.

SATURATED BUFFER CONSTRUCTION PLANS

CEDAR CO, IOWA SECTION 18 - T79N - R4W



THE CONTRACTOR IS RESPONSIBLE FOR CALLING IOWA ONE CALL AT 1-800-292-8989 AT LEAST 48 HOURS PRIOR TO ANY CONSTRUCTION



I hereby certify that to the best of my professional knowledge, judgement and belief, these plans meet applicable NRCS conservation practice standards, that this engineering document was prepared by me or under my direct personal supervision, and that I am a duly licensed Professional Engineer under the laws of the State of lowa 6/30/2023 Andy J. Craig, P.E. License number: 20832 My license renewal date is December 31, 2025. Pages or sheets covered by this seal: All

INDEX OF SHEETS

- 1. COVER SHEET
- 2. PLAN MAP
- 3. BUFFER AND BANK CROSS SECTION
- 4. PROFILE ALONG DISTRIBUTION LINE
- 5. STRUCTURE DETAILS
- 6. CONSTRUCTION NOTES

ENGINEERING CLASS 2

DESIGNED BY

ANDREW MACKRILL

6/27/2023

DRAWN BY

ANDREW MACKRILL

6/27/2023

CHECKED BY

ANDY CRAIG, PE, TSP 6/30/2023

APPROVED BY

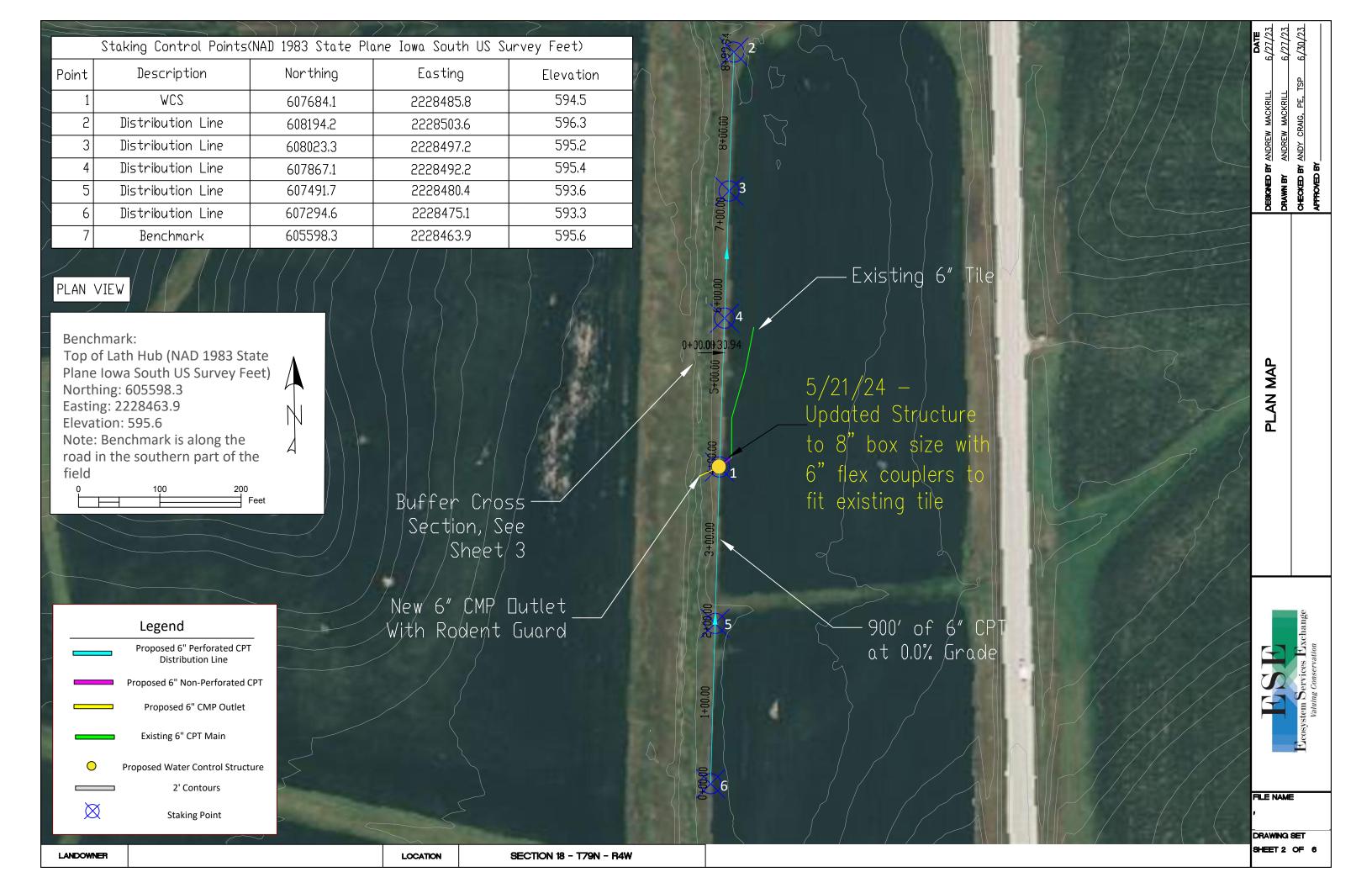


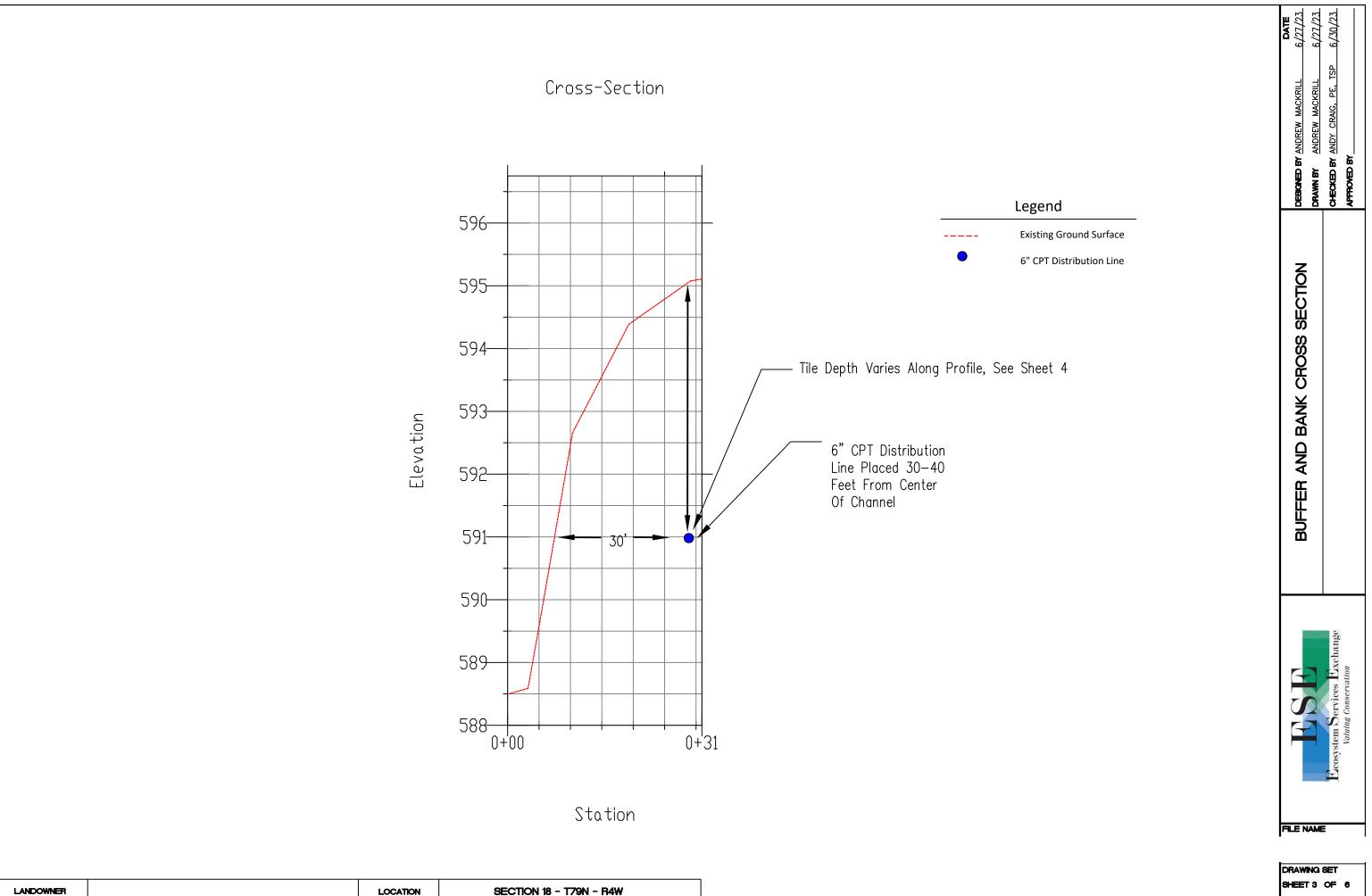
COVER SHEET

FILE NAME

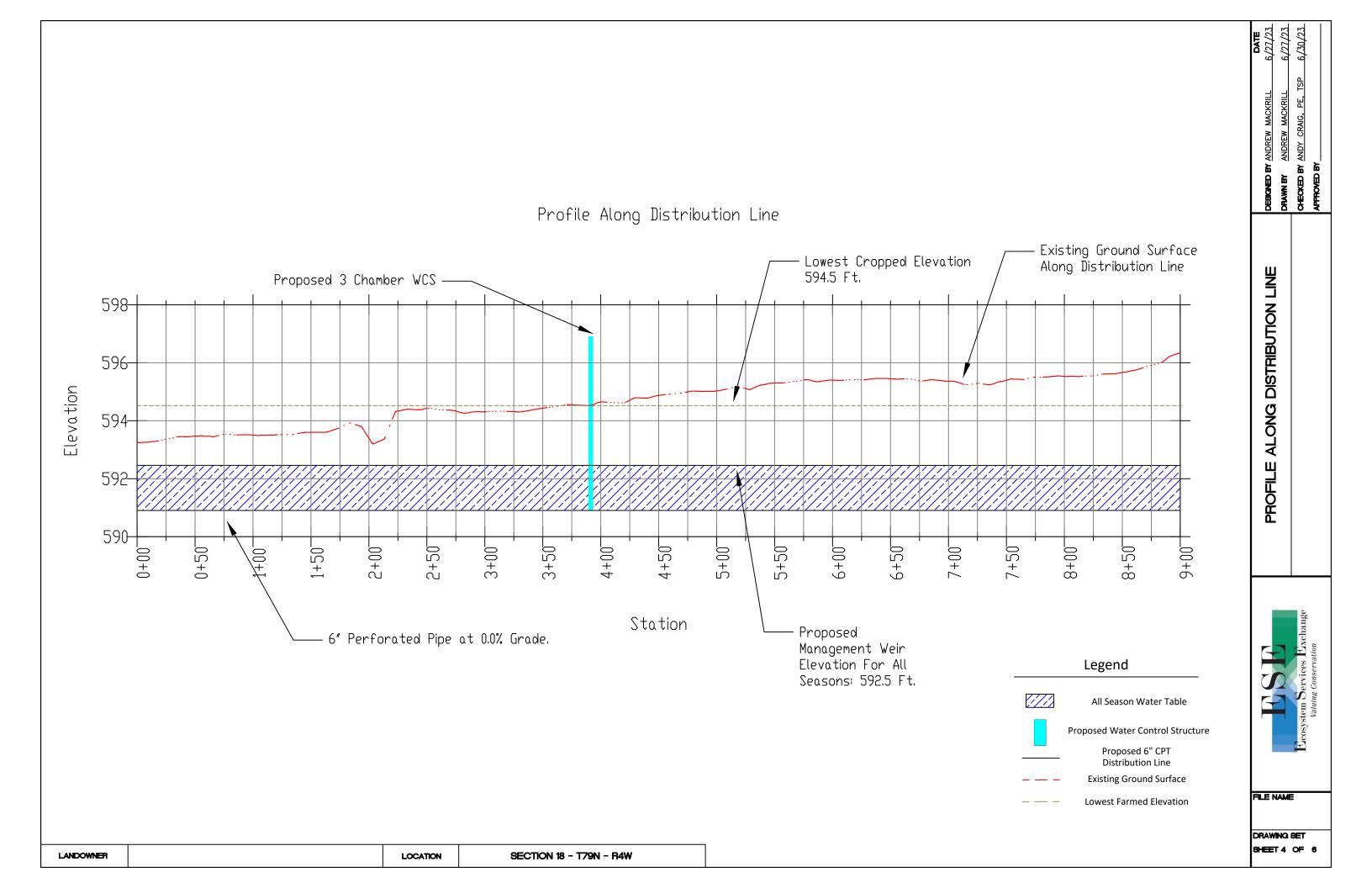
DRAWING SET

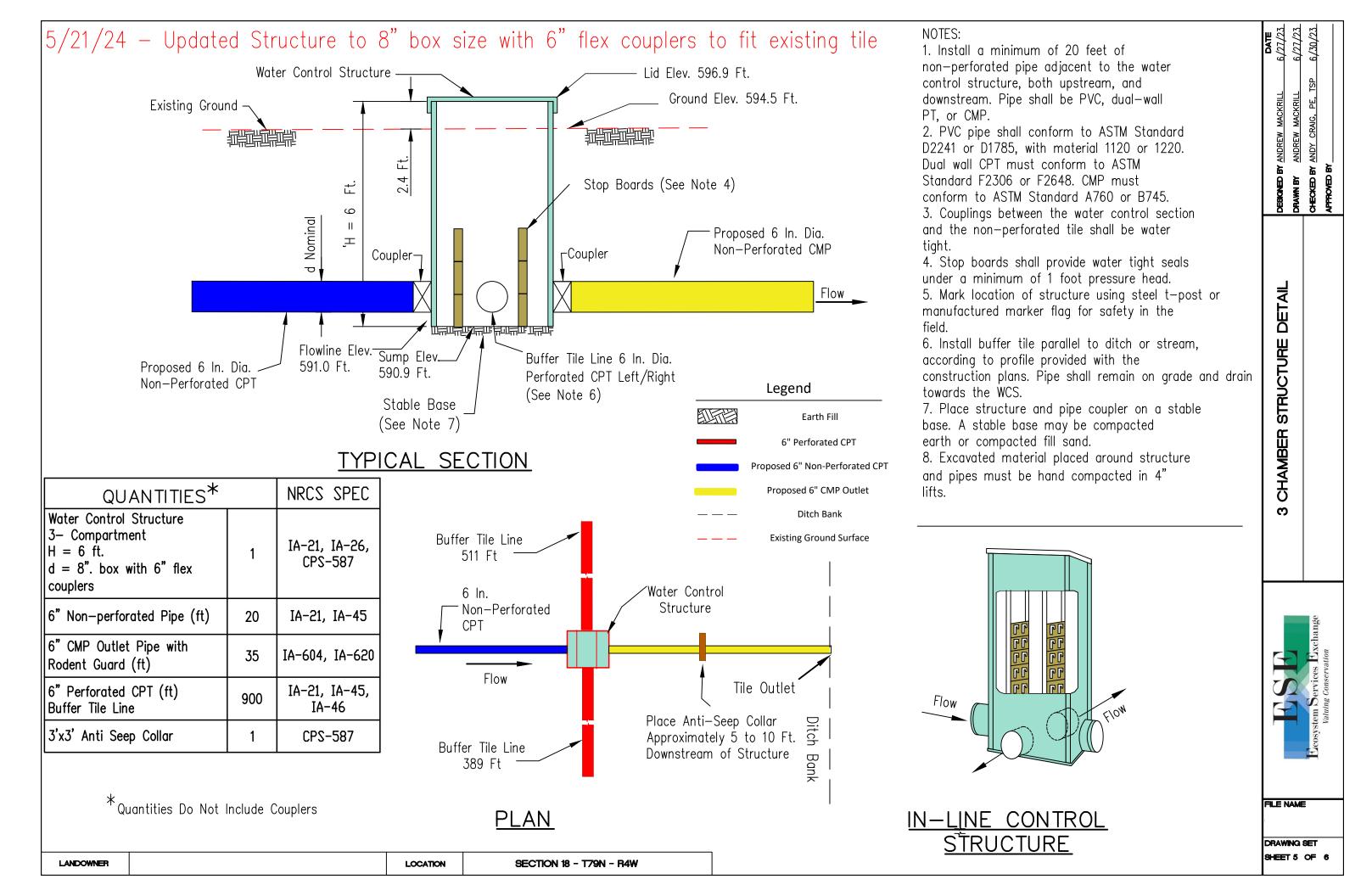
SHEET 1 OF 6





SHEET 3 OF 6





CONSTRUCTION NOTES

- 1. Tile elevations are based Maverick Tile Finder probe depths. A fiberglass cable with imbedded wire is fed into the outlet and located with a utility device.
 These values may not be exact, but are believed to be accurate. Factors such as sediment in the pipe, flowing water in the pipe, and wire location within the pipe may affect depth readings. Notify ESE at least 48 hours before conducting the investigation so that a qualified ESE representative can be onsite during the investigation.
- 2. Avoid excessive disturbance of buffers or grassed water ways during construction. If re-vegetation is needed, contact the local NRCS Field Office for guidance. All disturbed areas that will not be cropped shall be seeded according to NRCS Conservation Practice Standard 342 Critical Area Planting. Seeding adjacent to the grassed waterway shall match the waterway seeding to the closest extent practical.
- 3. Excavated material not used for backfill shall be removed from the site or spoiled in such a manner as to prevent flow disruption, channelizing, or erosion. Contact ESE for assistance with construction inspection after the following activities to ensure minimal effort is needed to correct potential errors:
 - a. After excavating the existing tile and setting WCS.
 - b. Distribution pipe has been laid and capped.
- 4. Any product planned for use in construction must be approved by ESE prior to construction. Provide documentation to ESE of all materials used in construction, including:
 - a. Tile tags, invoices, or photos detailing the product type and manufacturer, ASTM designations, and total lengths.
 - b. Photos and invoices or product information for water control structures.
- 5. Construction tolerances are +/-0.5ft on distribution line location, and +/-0.1 ft. on all elevations. If circumstances during construction change dimensions or elevations outside of these tolerances they must be approved by ESE and will be noted in the as—built plan.
- 6. When installing the distribution line, pay special attention so that other outlets in the buffer are not damaged or broken. Although an investigation of the buffer will have already been completed, not all outlets are able to be located depending on site conditions at the time. If another tile line or outlet is encountered, contact an ESE representative for consultation. They will decide if the tile line is able to be incorporated into the system, or if a section of the distribution line needs to be replaced as non-perforated pipe to prevent water loss.
- 7. Proper cultural resources documentation shall be completed by the local NRCS office prior to construction. If any cultural resources are identified during construction, work will stop immediately and the NRCS Archeologist will be notified.

lowa Construction and Practice Specifications						
Specification No. Specification Description						
IA-1	Site Preparation					
IA-5	Pollution Control					
IA-6	Seeding and Mulching for Protective Cover					
IA-604	Saturated Buffer					
IA-620	Underground Outlet					

DRAWN BY ANDREW MACKRILL

CHECKED BY ANDY CRAIG, PE, TSI
APPROVED BY CONSTRUCTION NOTES FILE NAME DRAWING SET SHEET 6 OF

LANDOWNER LOCATION SECTION 18 - T79N - R4W

Heartland East 23-24 Batch and Build Edge-of-Field Project

BID NO. EOF-24-01

PREBID MEETING

May 16, 2024 - 10:00 AM

West Branch Town Hall

115 N. 1st Street

West Branch, Iowa 52358

Introduction:

- 1. Emalyn Polz, Division of Soil Conservation and Water Quality (Division) opened the meeting and introduced:
 - Tanner Puls, with the Division
 - Tracy Bruun, with the Division
 - Jeremy Bril, with the Division
 - Emery Davis, Heartland Coop
 - Ruth McCabe, Heartland Coop
 - Ben Reinhart, Ecosystem Services Exchange
 - Andy Mackrill, Ecosystem Services Exchange
 - Ben Gleason, Iowa Seed Association
- 2. This Batch and Build Edge-of-Field project is being used to help implement the Iowa Nutrient Reduction Strategy.
- 3. There are 39 sites within this Batch and Build project. Per the Batch and Build process, all 39 sites will be bid under the Heartland East 23-24 Batch and Build Edge-of-Field Project.
- 4. Please review all documents and let us know if you have any questions.

Bidder's Qualifications:

All Bidders shall meet the following qualifications:

- 1. Contractors are required to be registered with the Iowa Division of Labor
- 2. New site for vendors working with the state of lowa: https://das.iowa.gov/how-do-business-state-iowa/procurement
- 3. Bidders shall, upon request of the Division, submit a statement of Bidder's qualifications including experience, any contracts that are in default, available equipment, personnel, and financial ability to perform the work as outlined in Section 2 of Document BB.

Method of Bidding:

This is a **unit price contract**, and bidders shall submit unit price bids as required for the work items covered by the specifications. Prices shall cover complete work and include all costs incidental thereto unless otherwise indicated. The base bid includes all items 1 through 64. A quantities list was provided in today's handouts that contains all of the items 1-64 stated in Document CC.

Any questions that should be considered as part of an addendum must be submitted to us by May 23, 2024. The Division will make every attempt to issue any necessary addenda no later than the day after the last date for questions. If an addendum is sent, please make sure to note on Page CC-2 that you have received and acknowledged the addendum.

If work is added to the contract by the Division after the contract execution which is not covered by a bid price set forth in the Proposal and Schedule of Prices (Document CC), a Change Order or Contract Amendment will be issued as required. If the additional work requires an extension of the contract completion date(s), a Contract Amendment will be issued.

Submission of Bids and Bid Security:

Bids should be submitted in two sealed envelopes. One envelope should include the Proposal and Schedule of Prices (Document CC) that must be signed by a legally authorized representative of the Bidder and notarized. All issued addendums shall be acknowledged as received by the Bidder. Do not submit Plans or Specifications with the bid. If this form is not accurately completed, this shall prevent the reading of that Bidder's bid.

A separate envelope attached (taped) to the front of the envelope containing the bid shall contain the Bid Security or bid bond, which is in the amount of ten percent (10%) of the base bid. It should be noted that the bid number, Bid No. **EOF-24-01**, and the Bidder's name and address must appear on the exterior of both envelopes. If the Bidder elects to use a bid bond, the bidder shall complete Proposal Guarantee Bond (Document EE) and include it in the smaller envelope.

SEALED bids are due no later than 3:00 PM at the Wallace State Office Building, 502 E. 9th Street, Des Moines, Iowa, Division of Soil Conservation and Water Quality on **May 29, 2024**. Please enter via the Southeast entrance of the building (the main entrance). Bids must be dated and time stamped by a representative of the Division. Bids received after this time will be rejected and returned unopened to the Bidder. Bids for EOF-24-01 will be opened beginning at 3:15 PM on that same day in the Wallace State Office Building or Call-in number: 1-877-304-9269 Access code: 519321

Bids may be mailed or hand delivered and should contact Tracy Bruun, (515) 344-6279 to be met in the lobby. We ask that you seal envelopes with tape instead of wetting the seal with saliva. If you are mailing a bid, be aware that it can take 2 days for next day deliveries.

Evaluation of Bids and Award of Construction Contract:

This Heartland East 23-24 Batch and Build Edge-of-Field Project shall be awarded to the **lowest responsible responsive bidder as determined by the Division**. In evaluating the bids, the Division

may consider such factors as alternates, bid price, experience, contracts in default, responsibility of the Bidder, and similar factors in determining which bid it deems to be in the best interest of the Division for the project. In comparing bid prices, the total bids of the various Bidders shall be determined by applying the unit prices bid for each work item against the estimated work item quantities set forth in the Proposal and Schedule of Prices (Document CC).

Bid tabulations for this Heartland East 23-24 Batch and Build Edge-of-Field Project will be prepared the week following the Bid Opening and distributed to all Bidders. Other plan holders or interested parties must request bid tabulations.

Execution of Contract:

- 1. The party to whom this Heartland East 23-24 Batch and Build Edge-of-Field Project is awarded shall be required to:
 - ✓ submit a statement of Bidder's qualifications before a Notice-of-Award will be issued
 - ✓ execute the Contract;
 - ✓ obtain the appropriate insurance coverage and Performance/Payment Bond;
 - ✓ provide their Iowa Division of Labor Public Registration Number;
 - ✓ and submit the Construction Progress Schedule (Document JJ)

within fourteen (14) calendar days from the date of receipt of the Notice-of-Award. In case of failure of the Bidder to execute the Contract, the Division may, at its option, consider the Bidder in default, in which case the bid security accompanying the bid shall become the property of the Division.

- 2. The Division, within fourteen (14) days of receipt of an acceptable and properly executed Performance/Payment Bond, certification of acceptable insurance coverage, and properly executed Contract; shall sign the Contract and return to such party an executed copy of the Contract. Should the Division not execute the Contract within such period, the Contractor may, by submitting written notice, withdraw the signed Contract. Such notice of withdrawal shall be effective upon receipt of the notice.
- 3. The Notice-to-Proceed shall be issued within five (5) days of the execution of the Contract by the Division, provided that the Construction Progress Schedule has been accepted by the Division. Should there be additional time required to make adjustments to the Construction Progress Schedule, the time to issue the Notice-to-Proceed may be extended to allow for this. If the Notice-to-Proceed has not been issued within a thirty (30) day period, or within a greater period mutually agreed upon, the Contractor may terminate the Contract without further liability on the part of either party.

Taxes:

Since this is state contract, there is no sales tax for materials purchased. We will be providing a tax exemption certificate to the awarded contractor as indicated in the last page of the appendix of construction contract documents. This should be considered when determining the unit prices submitted in the bid.

Measurement and Payment:

The specifications describing the work to be accomplished under each particular work item, also describe the method to be used in measuring and calculating the payment quantities for each work item set forth in the proposal. Payments will be made on the basis of monthly estimates in amounts equal to ninety-five percent (95%) of the value of work completed. Mobilization will be paid at a percentage of the lump sum bid amount for this item equal to the overall percent complete of the project (less retainage). In preparing monthly estimates, advancement will be made therein for ninety-five percent (95%) of the cost of materials stored on site.

Time of Completion:

The final date for completion of all work except for seeding is set for February 15, 2025. The final date for completion of seeding is May 15, 2025.

There are liquidated damages provisions on this project. This damage reflects additional administrative, design, and inspection costs, as well as continued costs to the natural environment. If all work except for seeding is not completed by February 15, 2025, absent a No-Fault Extension, the Contactor may be assessed damages in the amount of \$175 per day. If the seeding is not subsequently completed by May 15, 2025 absent a No-Fault Extension, the Contractor may be assessed damages in the amount of \$125 per day.

Questions and Addenda:

Questions concerning interpretation or intent of the Plans and Construction Specifications should be directed to: acraig@ecoexch.com with Ecosystem Service Exchange and must copy Tracy Bruun: tracy.bruun@iowaagriculture.gov with the Division. All other questions concerning the Contract Documents should be addressed to Tracy Bruun, Division: (515) 344-6279 or tracy.bruun@iowaagriculture.gov.

Any oral interpretations given shall be valid only if confirmed by written addendum. All interpretation requests should be addressed in writing and received no later than **3:00 PM May 23, 2024.**

The Division reserves the right to revise or amend the Contract Documents prior to the date set forth for receipt of bids. Such revisions and amendments, if any, shall be announced by an addendum or addenda to the Contract Documents. Copies of such addenda, as may be issued, shall be furnished to all plan holders.

Bidders are required to acknowledge receipt of any addenda by listing such addenda in the Proposal and Schedule of Prices (Document CC).

Questions and Answers:

Q: On Document CC (Proposals and Schedule of Prices) in the '23-24 Bid Book', why is the time and date for bid submission at 3:15 PM 5/29/2024? The rest of the Bid Book has 3:00 PM, May 29,2024 as the time and date for bid submission.

A: The time and date for bid submissions on Document CC is INCORRECT. The correct date and time for bid submissions is 3:00 PM, May 29,2024. Please see the attached Document CC and the submittal document for these revisions.

Q: The estimated cost range stated in the IMPACS description differs from the estimated cost range on the 'Notice to Bidders' document. Which is correct?

A: The estimated cost range on the IMPACS description is INCORRECT. The correct estimated cost range, as stated on the posted 'Notice to Bidders' document, is: \$550,000 to \$565,000.

Q: Are there hard copies available of the construction plans and specifications?

A: Hard copies of the construction plans and specifications will be given to the awarded contractor. A PDF version of these documents may be found on the IDALS webpage or in IMPACS.

Q: The Schedule of Prices calls for "rodent guards", but the spec sections call out a "flap-gate type animal guard". Will you require the RG series or the FG series?

A: The rodent guard will suffice, as it is to keep larger debris and rodents from making their way into the water control structures. Flap gates are not the same and are more like a backflow check valve. Please submit your bid to match what is stated for "rodent guards" on the 'Schedule of Prices'.

Q: How should spoils be removed while there are crops in the field?

A: Many of the landowners will want to keep the spoils and they will probably have a place where the contractor can dump it and/or they will come and haul it away themselves. There won't be much left as spoils for the bioreactors, as the bioreactor cap will require some mounding. Saturated buffers won't have much for spoils, if any. If the LO doesn't want the spoils, the contractor should figure into their bid how much it will cost them to haul it away. For bioreactors (or any project), any excess soil needs to be hauled out of the 100-year floodplain.

Q: Why are crop damages included on the bid tab?

A: If crop damage occurs, a price for the damage will need to be determined with the landowner. The contractor will be responsible for paying the cost for damage directly to the landowner, but IDALS will reimburse the contractor.

Q: What is a backflow valve?

A: This is a device to prevent water and sediment from going backward back up the tile line. This item is associated with the bioreactor sites in this project.

Q: How many trees are estimated to need removal, and where should they go once removed?

A: There are only a few trees that will need to be removed. The contractor might need to put in a change order if they encounter a site where tree removal is going to be a problem. Either way, the bid should include costs for removing and hauling trees.

Do sole proprietors need worker's comp insurance?

A: Sole proprietors must have workman's compensation insurance.

Q: Where are the projects located?

A: Each project has a specific TWP SEC R location, as seen in the 'Construction Plans' packet on the IDALS website/ IMPACS. A site overview map with a corresponding coordinates table is available and is attached to this posting. The sites in the coordinates table follow the same order as the sites in the 'Construction Plans'.

Q: Do the outlets need to be corrugated metal pipe or can they be dual wall plastic?

A: The outlets must be CMP (corrugated metal pipe), as stated in the engineering designs. They may be steel or aluminum but cannot be plastic.

Q: How set is the construction completion date?

A: The set date for construction completion is February 15, 2025. If there is additional work that requires an extension of the contract completion date(s), a Contract Amendment will be issued. Though, this may be flexible due to heavy rains. Sites that are going into CRP must follow NRCS guidelines, which state that seeding must be done by May 15, 2025.

Department Notes:

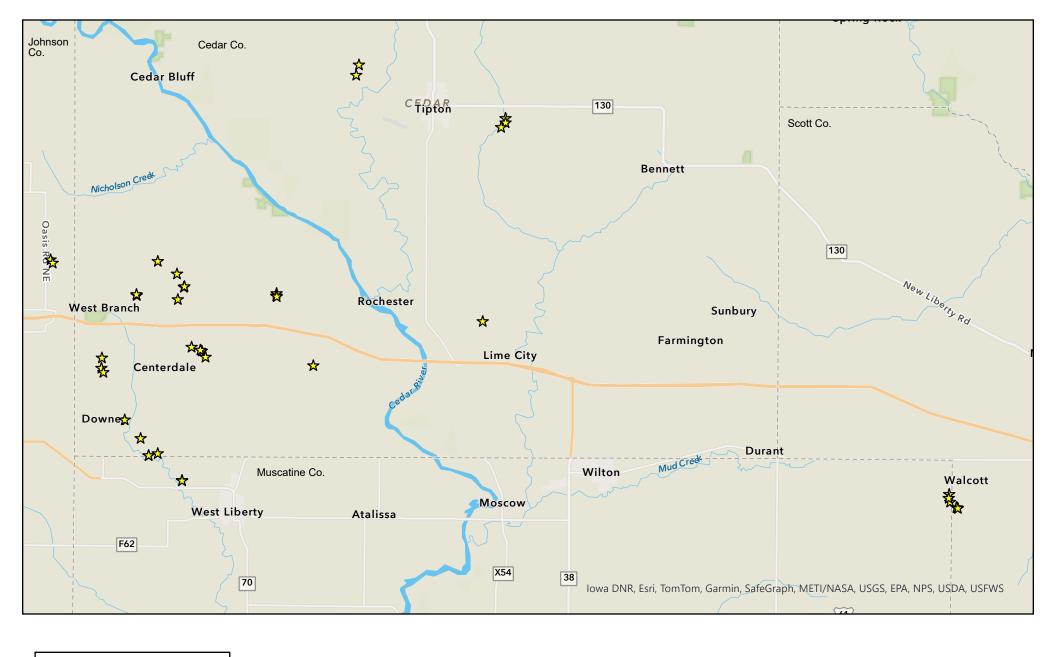
- 1. For some sites (e.g., CRP), there are limitations on when seeding of natives can occur. NRCS guidelines will need to be followed seedings cannot happen until the dormant season (November) or in the early spring, as outlined by the May 15, 2025 seed-by date.
- 2. The attached revised 'S18-T79N-R04W Saturated Buffer' construction plans should be used in place of the 'S18-T79N-R04W Saturated Buffer' original construction plans, pages 127-132 of the posted 'Heartland East Construction Plans'.
- 3. The attached Document CC reflects the changes made in the revised 'S18-T79N-R04W Saturated Buffer' construction plans.

5/8/2024		Soil Conservation and Heartland East 23-24	• •			ı		
At Pre-Bid Meeting	Name	Company	Street Address	City	State	Zip	Phone	Email
✓	Tracy Bruun	IDALS-DSC-WRB	502 E 9TH ST	Des Moines	IA	50319	515-344-6279	tracy.bruun@iowaagriculture.gov
~	Emalyn Polz	IDALS-DSC-WRB	502 E 9TH ST	Des Moines	IA	50319	515-322-9073	emalyn.polz@iowaagriculture.gov
✓	Andy Craig	ESE	PO Box 446	Adair	IA	50002	641-740-0890	acraig@ecoexch.com
✓	Emery Davis	Heartland Coop	2829 Westown Pkwy, Ste 350	West Des Moines	IA	50266	515-250-5243	edavis@heartlandcoop.com
✓	Jim Ricken	Ricken Tiling					641-751-7165	jim@rickentiling.com
~	Louis Guynn	Laser Precision					319-560-4419	GuynnLLC@hotmail.com
✓	Bruce Barnhart	Barnhart's Custom Services					319-631-1101	bbcus@Lcom.net
✓	Brad Jirp	Triple B Construction					563-732-3478	brad@triplebconstruction.com
✓	Chase Broulik	Chase Broulik Tiling					319-431-3360	chaserb20@gmail.com
✓	Phil Reiman	J. Petticord, Inc.					515-777-6230	phil@jpetticord.com
~	Shaun Yoder	Advanced Tiling and Trenching					319-721-9909	shaun@samsonti.com
~	Brandon Ricken	Ricken Excavation and Drainage					641-751-7165	drainagedonerite@gmail.com
~	Dustin Bowers	Bowers Custom Services, LLC					319-631-4878	dbowers101@outlook.com

✓	Eric	EB Drainage Inc.			319-321-2932	ebdrainage@gmail.com
	Brown					
✓	Alyson	Laser Precision			319-939-9328	Alymea87@gmail.com
	Recker					
✓	Danielle	Connolly			563-876-3225	danielleconnolly23@gmail.com
	Connolly	Construction Inc.				

5/8/2024		Division of Soil Conservation and Water Quality Plan Holder List For: EOF-24-01 Heartland East 23-24 Batch and Build Edge-of-Field Project							
At Pre-Bid Meeting	Name	Company	Street Address	City	State	Zip	Phone	Email	
~	Tracy Bruun	IDALS-DSC-WRB	502 E 9TH ST	Des Moines	IA	50319	515-344-6279	tracy.bruun@iowaagriculture.gov	
~	Emalyn Polz	IDALS-DSC-WRB	502 E 9TH ST	Des Moines	IA	50319	515-322-9073	emalyn.polz@iowaagriculture.gov	
✓	Andy Craig	ESE	PO Box 446	Adair	IA	50002	641-740-0890	acraig@ecoexch.com	
✓	Emery Davis	Heartland Coop	2829 Westown Pkwy, Ste 350	West Des Moines	IA	50266	515-250-5243	edavis@heartlandcoop.com	
	Cindy Adams	Master Builders of Iowa	4100 Westown Pkwy	West Des Moines	IA	50266	515-402-9858	Cadams@MBI.Build	
~	Jim Ricken	Ricken Tiling					641-751-7165	jim@rickentiling.com	
✓	Louis Guynn	Laser Precision					319-560-4419	GuynnLLC@hotmail.com	
✓	Bruce Barnhart	Barnhart's Custom Services					319-631-1101	bbcus@Lcom.net	
✓	Brad Jirp	Triple B Construction					563-732-3478	brad@triplebconstruction.com	
✓	Chase Broulik	Chase Broulik Tiling					319-431-3360	chaserb20@gmail.com	
✓	Phil Reiman	J. Petticord, Inc.					515-777-6230	phil@jpetticord.com	
✓	Shaun Yoder	Advanced Tiling and Trenching					319-721-9909	shaun@samsonti.com	
✓	Brandon Ricken	Ricken Excavation and Drainage					641-751-7165	drainagedonerite@gmail.com	

✓	Dustin	Bowers Custom		319-631-4878	dbowers101@outlook.com
	Bowers	Services, LLC			
✓	Eric	EB Drainage Inc.		319-321-2932	ebdrainage@gmail.com
	Brown				
✓	Alyson	Laser Precision		319-939-9328	Alymea87@gmail.com
	Recker				
✓	Danielle	Connolly		563-876-3225	danielleconnolly23@gmail.com
	Connolly	Construction Inc.			
	Lance	Hands On		515-338-2439	lancestolle@handsonexc.com
	Stolee	Excavating, LLC			





Heartland East Locations

Heartland East 23-24

Batch and Build Edge-of-Field Project

Site Location Map

0 1.25 2.5 5 Miles

PROJECT STRUCTURE COUNTY X COORDINATE Y COORDINATE Section 07-T78N-R02E Saturated Buffer Scott -90.78053896 41.57307393 Section 16-T79N-R03W Saturated Buffer Scott -90.78105528 41.57307393 Section 33-T80N-R04W Saturated Buffer Cedar -91.31107633 41.696529396 Section 29-T79N-R04W Saturated Buffer Cedar -91.3310437 41.6961056 Section 36-T80N-R05W Saturated Buffer Johnson -91.3822306 41.6961056 Section 36-T80N-R05W Saturated Buffer Johnson -91.3802838 41.6961056 Section 37-T8N-R04W Saturated Buffer Cedar -91.31112524 41.59961056 Section 12-T78N-R01E Saturated Buffer Muscatine -90.78518043 41.5777737 Section 12-T78N-R01E Saturated Buffer Muscatine -90.78526192 41.5778941 Section 04-T79N-R04W Bioreactor Cedar -91.3252609 41.67836484 Section 04-T79N-R03W Bioreactor Cedar -91.2324605 41.6780266 <th></th> <th></th> <th></th> <th></th> <th></th>					
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Section 12-T78N-R01E Saturated Buffer Muscatine -90.78526192 41.57586314 Section 04-T79N-R04W Bioreactor Cedar -91.32504413 41.67836484 Section 04-T79N-R04W Bioreactor Cedar -91.32525609 41.67887226 Section 06-T79N-R03W Bioreactor Cedar -91.23221608 41.6780703 Section 06-T79N-R03W Bioreactor Cedar -91.23226608 41.67820766 Section 03-T79N-R04W Saturated Buffer Cedar -91.29339646 41.67820766 Section 03-T78N-R04W Saturated Buffer Muscatine -91.29497803 41.58666903 Section 03-T78N-R04W Saturated Buffer Muscatine -91.29497803 41.58666903 Section 18-T79N-R04W Saturated Buffer Cedar -91.34849591 41.64234065 Section 18-T79N-R04W Saturated Buffer Cedar -91.28866099 41.65277129 Section 14-T79N-R04W Saturated Buffer Cedar -91.28186895 41.65130798 Section 14-T79N-R04W Saturated Buffer Cedar -91.282255 41.6513079	Section 12-T78N-R01E	Saturated Buffer	Muscatine	-90.78587064	41.57971737
Section 04-T79N-R04W Bioreactor Cedar -91.32504413 41.67836484 Section 04-T79N-R04W Bioreactor Cedar -91.32525609 41.67887226 Section 06-T79N-R03W Bioreactor Cedar -91.23214037 41.67780129 Section 06-T79N-R03W Bioreactor Cedar -91.23226168 41.67936703 Section 03-T79N-R04W Saturated Buffer Cedar -91.29339646 41.67820566 Section 03-T78N-R04W Saturated Buffer Muscatine -91.29502151 41.58666903 Section 03-T78N-R04W Saturated Buffer Muscatine -91.29497803 41.58666903 Section 18-T79N-R04W Saturated Buffer Cedar -91.29497803 41.58666903 Section 18-T79N-R04W Saturated Buffer Cedar -91.34849591 41.64234065 Section 18-T79N-R04W Saturated Buffer Cedar -91.2886699 41.65277129 Section 14-T79N-R04W Saturated Buffer Cedar -91.28186895 41.65085721 Section 07-T78N-R02E Saturated Buffer Cedar -91.2828255 41.65130798 </td <td>Section 12-T78E-R01E</td> <td>Saturated Buffer</td> <td>Muscatine</td> <td>-90.78618043</td> <td>41.57779841</td>	Section 12-T78E-R01E	Saturated Buffer	Muscatine	-90.78618043	41.57779841
Section 04-T79N-R04W Bioreactor Cedar -91.32525609 41.67887226 Section 06-T79N-R03W Bioreactor Cedar -91.23214037 41.67780129 Section 06-T79N-R03W Bioreactor Cedar -91.23226168 41.67936703 Section 03-T79N-R03W Bioreactor Cedar -91.23245605 41.67820566 Section 03-T79N-R04W Saturated Buffer Cedar -91.29339646 41.68280963 Section 03-T78N-R04W Saturated Buffer Muscatine -91.29497803 41.58666903 Section 18-T79N-R04W Saturated Buffer Cedar -91.34849591 41.64234065 Section 18-T79N-R04W Saturated Buffer Cedar -91.34816438 41.64741742 Section 15-T79N-R04W Bioreactor Cedar -91.28866099 41.65277129 Section 14-T79N-R04W Saturated Buffer Cedar -91.28186895 41.65085721 Section 07-T78N-R02E Saturated Buffer Cedar -91.2828255 41.65130798 Section 03-T79N-R04W Bioreactor Cedar -91.3225039 41.6824639	Section 12-T78N-R01E	Saturated Buffer	Muscatine	-90.78526192	41.57586314
Section 06-T79N-R03W Bioreactor Cedar -91.23214037 41.67780129 Section 06-T79N-R03W Bioreactor Cedar -91.23226168 41.67936703 Section 06-T79N-R03W Bioreactor Cedar -91.23245605 41.67820566 Section 03-T79N-R04W Saturated Buffer Cedar -91.29339646 41.68280963 Section 03-T78N-R04W Saturated Buffer Muscatine -91.29497803 41.58666903 Section 18-T79N-R04W Saturated Buffer Cedar -91.29497803 41.58646984 Section 18-T79N-R04W Saturated Buffer Cedar -91.34849591 41.64234065 Section 18-T79N-R04W Saturated Buffer Cedar -91.34816438 41.64741742 Section 19-T79N-R04W Bioreactor Cedar -91.28866099 41.65277129 Section 14-T79N-R04W Saturated Buffer Cedar -91.28186895 41.65085721 Section 07-T78N-R02E Saturated Buffer Cedar -91.2828255 41.65130798 Section 03-T79N-R04W Bioreactor Cedar -91.289377937 41.6824639 <	Section 04-T79N-R04W	Bioreactor	Cedar	-91.32504413	41.67836484
Section 06-T79N-R03W Bioreactor Cedar -91.23226168 41.67936703 Section 06-T79N-R03W Bioreactor Cedar -91.23245605 41.67820566 Section 03-T79N-R04W Saturated Buffer Cedar -91.29339646 41.68280963 Section 03-T78N-R04W Saturated Buffer Muscatine -91.29502151 41.58666903 Section 18-T79N-R04W Saturated Buffer Muscatine -91.29497803 41.58646984 Section 18-T79N-R04W Saturated Buffer Cedar -91.34849591 41.64234065 Section 18-T79N-R04W Saturated Buffer Cedar -91.34816438 41.64741742 Section 15-T79N-R04W Bioreactor Cedar -91.28866099 41.65277129 Section 14-T79N-R04W Saturated Buffer Cedar -91.28186895 41.65085721 Section 07-T78N-R02E Saturated Buffer Cedar -91.2828255 41.65130798 Section 03-T79N-R04W Bioreactor Cedar -91.29377937 41.6824639 Section 33-T79N-R04W Bioreactor Cedar -91.31721781 41.59893627	Section 04-T79N-R04W	Bioreactor	Cedar	-91.32525609	41.67887226
Section 06-T79N-R03W Bioreactor Cedar -91.23245605 41.67820566 Section 03-T79N-R04W Saturated Buffer Cedar -91.29339646 41.68280963 Section 03-T78N-R04W Saturated Buffer Muscatine -91.29502151 41.58666903 Section 03-T78N-R04W Saturated Buffer Muscatine -91.29497803 41.58646984 Section 18-T79N-R04W Saturated Buffer Cedar -91.34849591 41.64234065 Section 18-T79N-R04W Saturated Buffer Cedar -91.34816438 41.64741742 Section 15-T79N-R04W Bioreactor Cedar -91.28866099 41.65277129 Section 14-T79N-R04W Saturated Buffer Cedar -91.28186895 41.65085721 Section 07-T78N-R04W Saturated Buffer Cedar -91.2828255 41.65130798 Section 03-T79N-R04W Bioreactor Cedar -91.29377937 41.6824639 Section 33-T79N-R04W Bioreactor Cedar -91.3225039 41.60749844 Section 33-T79N-R04W Bioreactor Cedar -91.31721781 41.59893627	Section 06-T79N-R03W	Bioreactor	Cedar	-91.23214037	41.67780129
Section 03-T79N-R04W Saturated Buffer Cedar -91.29339646 41.68280963 Section 03-T78N-R04W Saturated Buffer Muscatine -91.29502151 41.58666903 Section 03-T78N-R04W Saturated Buffer Muscatine -91.29497803 41.58646984 Section 18-T79N-R04W Saturated Buffer Cedar -91.34849591 41.64234065 Section 18-T79N-R04W Saturated Buffer Cedar -91.34816438 41.64741742 Section 15-T79N-R04W Bioreactor Cedar -91.28866099 41.65277129 Section 14-T79N-R04W Saturated Buffer Cedar -91.28186895 41.65085721 Section 14-T79N-R04W Saturated Buffer Cedar -91.2828255 41.65130798 Section 07-T78N-R02E Saturated Buffer Scott -90.78008242 41.5727365 Section 03-T79N-R04W Bioreactor Cedar -91.29377937 41.6824639 Section 33-T79N-R04W Bioreactor Cedar -91.31721781 41.59893627 Section 33-T79N-R04W Bioreactor Cedar -91.31714716 41.59902162 <td>Section 06-T79N-R03W</td> <td>Bioreactor</td> <td>Cedar</td> <td>-91.23226168</td> <td>41.67936703</td>	Section 06-T79N-R03W	Bioreactor	Cedar	-91.23226168	41.67936703
Section 03-T78N-R04W Saturated Buffer Muscatine -91.29502151 41.58666903 Section 03-T78N-R04W Saturated Buffer Muscatine -91.29497803 41.58646984 Section 18-T79N-R04W Saturated Buffer Cedar -91.34849591 41.64234065 Section 18-T79N-R04W Saturated Buffer Cedar -91.28866099 41.65277129 Section 15-T79N-R04W Saturated Buffer Cedar -91.28186895 41.65085721 Section 14-T79N-R04W Saturated Buffer Cedar -91.2828255 41.65130798 Section 07-T78N-R02E Saturated Buffer Scott -90.78008242 41.5727365 Section 03-T79N-R04W Bioreactor Cedar -91.29377937 41.6824639 Section 33-T79N-R04W Bioreactor Cedar -91.3225039 41.60749844 Section 33-T79N-R04W Bioreactor Cedar -91.31721781 41.59893627 Section 04-T80N-R02W Bioreactor Cedar -91.31714716 41.59902162 Section 04-T80N-R02W Bioreactor Cedar -91.08033014 41.76611992	Section 06-T79N-R03W	Bioreactor	Cedar	-91.23245605	41.67820566
Section 03-T78N-R04W Saturated Buffer Muscatine -91.29497803 41.58646984 Section 18-T79N-R04W Saturated Buffer Cedar -91.34849591 41.64234065 Section 18-T79N-R04W Saturated Buffer Cedar -91.34816438 41.64741742 Section 15-T79N-R04W Bioreactor Cedar -91.28866099 41.65277129 Section 14-T79N-R04W Saturated Buffer Cedar -91.28186895 41.65085721 Section 14-T79N-R4W Saturated Buffer Cedar -91.2828255 41.65130798 Section 07-T78N-R02E Saturated Buffer Scott -90.78008242 41.5727365 Section 03-T79N-R04W Bioreactor Cedar -91.29377937 41.6824639 Section 33-T79N-R04W Bioreactor Cedar -91.3225039 41.60749844 Section 33-T79N-R04W Bioreactor Cedar -91.31721781 41.59992162 Section 04-T80N-R02W Bioreactor Cedar -91.08033014 41.76611992 Section 04-T80N-R02W Bioreactor Cedar -91.08029213 41.76165029 <	Section 03-T79N-R04W	Saturated Buffer	Cedar	-91.29339646	41.68280963
Section 18-T79N-R04W Saturated Buffer Cedar -91.34849591 41.64234065 Section 18-T79N-R04W Saturated Buffer Cedar -91.34816438 41.64741742 Section 15-T79N-R04W Bioreactor Cedar -91.28866099 41.65277129 Section 14-T79N-R04W Saturated Buffer Cedar -91.28186895 41.65085721 Section 14-T79N-R4W Saturated Buffer Cedar -91.2828255 41.65130798 Section 07-T78N-R02E Saturated Buffer Scott -90.78008242 41.5727365 Section 03-T79N-R04W Bioreactor Cedar -91.29377937 41.6824639 Section 33-T79N-R04W Bioreactor Cedar -91.3225039 41.60749844 Section 33-T79N-R04W Bioreactor Cedar -91.31721781 41.59893627 Section 04-T80N-R04W Bioreactor Cedar -91.31714716 41.59902162 Section 04-T80N-R02W Bioreactor Cedar -91.08033014 41.76611992 Section 04-T80N-R02W Bioreactor Cedar -91.08029213 41.76165029	Section 03-T78N-R04W	Saturated Buffer	Muscatine	-91.29502151	41.58666903
Section 18-T79N-R04W Saturated Buffer Cedar -91.34816438 41.64741742 Section 15-T79N-R04W Bioreactor Cedar -91.28866099 41.65277129 Section 14-T79N-R04W Saturated Buffer Cedar -91.28186895 41.65085721 Section 14-T79N-R04W Saturated Buffer Cedar -91.2828255 41.65130798 Section 07-T78N-R02E Saturated Buffer Scott -90.78008242 41.5727365 Section 03-T79N-R04W Bioreactor Cedar -91.29377937 41.6824639 Section 33-T79N-R04W Bioreactor Cedar -91.3225039 41.60749844 Section 33-T79N-R04W Bioreactor Cedar -91.31721781 41.59893627 Section 33-T79N-R04W Bioreactor Cedar -91.31714716 41.598902162 Section 04-T80N-R02W Bioreactor Cedar -91.08033014 41.76611992 Section 04-T80N-R02W Bioreactor Cedar -91.08029213 41.76165029 Section 04-T80N-R02W Bioreactor Cedar -91.08324537 41.76165029 <t< td=""><td>Section 03-T78N-R04W</td><td>Saturated Buffer</td><td>Muscatine</td><td>-91.29497803</td><td>41.58646984</td></t<>	Section 03-T78N-R04W	Saturated Buffer	Muscatine	-91.29497803	41.58646984
Section 15-T79N-R04W Bioreactor Cedar -91.28866099 41.65277129 Section 14-T79N-R04W Saturated Buffer Cedar -91.28186895 41.65085721 Section 14-T79N-R4W Saturated Buffer Cedar -91.2828255 41.65130798 Section 07-T78N-R02E Saturated Buffer Scott -90.78008242 41.5727365 Section 03-T79N-R04W Bioreactor Cedar -91.29377937 41.6824639 Section 33-T79N-R04W Bioreactor Cedar -91.3225039 41.60749844 Section 33-T79N-R04W Bioreactor Cedar -91.31721781 41.59893627 Section 33-T79N-R04W Bioreactor Cedar -91.31714716 41.59902162 Section 04-T80N-R02W Bioreactor Cedar -91.08033014 41.76611992 Section 04-T80N-R02W Bioreactor Cedar -91.08029213 41.76165029 Section 04-T80N-R02W Bioreactor Cedar -91.08324537 41.76165029 Section 08-T79N-R02W Saturated Buffer Cedar -91.09545443 41.64763756	Section 18-T79N-R04W	Saturated Buffer	Cedar	-91.34849591	41.64234065
Section 14-T79N-R04W Saturated Buffer Cedar -91.28186895 41.65085721 Section 14-T79N-R4W Saturated Buffer Cedar -91.2828255 41.65130798 Section 07-T78N-R02E Saturated Buffer Scott -90.78008242 41.5727365 Section 03-T79N-R04W Bioreactor Cedar -91.29377937 41.6824639 Section 33-T79N-R04W Bioreactor Cedar -91.3225039 41.60749844 Section 33-T79N-R04W Bioreactor Cedar -91.31721781 41.59893627 Section 33-T79N-R04W Bioreactor Cedar -91.31714716 41.59902162 Section 04-T80N-R02W Bioreactor Cedar -91.08033014 41.76611992 Section 04-T80N-R02W Bioreactor Cedar -91.08029213 41.7639377 Section 04-T80N-R02W Bioreactor Cedar -91.08324537 41.76165029 Section 08-T79N-R02W Saturated Buffer Cedar -91.09545443 41.66549667 Section 34-T80N-R04W Saturated Buffer Cedar -91.29835313 41.6478276	Section 18-T79N-R04W	Saturated Buffer	Cedar	-91.34816438	41.64741742
Section 14-T79N-R4W Saturated Buffer Cedar -91.2828255 41.65130798 Section 07-T78N-R02E Saturated Buffer Scott -90.78008242 41.5727365 Section 03-T79N-R04W Bioreactor Cedar -91.29377937 41.6824639 Section 33-T79N-R04W Bioreactor Cedar -91.3225039 41.60749844 Section 33-T79N-R04W Bioreactor Cedar -91.31721781 41.59893627 Section 33-T79N-R04W Bioreactor Cedar -91.31714716 41.59893627 Section 04-T80N-R02W Bioreactor Cedar -91.08033014 41.76611992 Section 04-T80N-R02W Bioreactor Cedar -91.08029213 41.7639377 Section 04-T80N-R02W Bioreactor Cedar -91.08324537 41.76165029 Section 08-T79N-R02W Saturated Buffer Cedar -91.09545443 41.66549667 Section 14-T79N-R04W Saturated Buffer Cedar -91.27942322 41.6478276 Section 19-T79N-R04W Saturated Buffer Cedar -91.29835313 41.64024891	Section 15-T79N-R04W	Bioreactor	Cedar	-91.28866099	41.65277129
Section 07-T78N-R02E Saturated Buffer Scott -90.78008242 41.5727365 Section 03-T79N-R04W Bioreactor Cedar -91.29377937 41.6824639 Section 33-T79N-R04W Bioreactor Cedar -91.31225039 41.60749844 Section 33-T79N-R04W Bioreactor Cedar -91.31721781 41.59893627 Section 33-T79N-R04W Bioreactor Cedar -91.31714716 41.59902162 Section 04-T80N-R02W Bioreactor Cedar -91.08033014 41.76611992 Section 04-T80N-R02W Bioreactor Cedar -91.08029213 41.7639377 Section 04-T80N-R02W Bioreactor Cedar -91.08324537 41.76165029 Section 08-T79N-R02W Saturated Buffer Cedar -91.09545443 41.66549667 Section 14-T79N-R04W Saturated Buffer Cedar -91.29835313 41.6478276 Section 19-T79N-R04W Saturated Buffer Cedar -91.34720783 41.64024891 Section 03-T79N-R04W Bioreactor Cedar -91.29777702 41.67637576	Section 14-T79N-R04W	Saturated Buffer	Cedar	-91.28186895	41.65085721
Section 03-T79N-R04W Bioreactor Cedar -91.29377937 41.6824639 Section 33-T79N-R04W Bioreactor Cedar -91.3225039 41.60749844 Section 33-T79N-R04W Bioreactor Cedar -91.31721781 41.59893627 Section 33-T79N-R04W Bioreactor Cedar -91.31714716 41.59902162 Section 04-T80N-R02W Bioreactor Cedar -91.08033014 41.76611992 Section 04-T80N-R02W Bioreactor Cedar -91.08029213 41.7639377 Section 04-T80N-R02W Bioreactor Cedar -91.08324537 41.76165029 Section 08-T79N-R02W Saturated Buffer Cedar -91.09545443 41.66549667 Section 14-T79N-R04W Saturated Buffer Cedar -91.27942322 41.6478276 Section 34-T80N-R04W Saturated Buffer Cedar -91.29835313 41.68906833 Section 19-T79N-R04W Saturated Buffer Cedar -91.34720783 41.64024891 Section 03-T79N-R04W Bioreactor Cedar -91.29777702 41.67637576	Section 14-T79N-R4W	Saturated Buffer	Cedar	-91.2828255	41.65130798
Section 33-T79N-R04W Bioreactor Cedar -91.3225039 41.60749844 Section 33-T79N-R04W Bioreactor Cedar -91.31721781 41.59893627 Section 33-T79N-R04W Bioreactor Cedar -91.31714716 41.59902162 Section 04-T80N-R02W Bioreactor Cedar -91.08033014 41.76611992 Section 04-T80N-R02W Bioreactor Cedar -91.08029213 41.7639377 Section 04-T80N-R02W Bioreactor Cedar -91.08324537 41.76165029 Section 08-T79N-R02W Saturated Buffer Cedar -91.09545443 41.66549667 Section 14-T79N-R04W Saturated Buffer Cedar -91.27942322 41.6478276 Section 34-T80N-R04W Saturated Buffer Cedar -91.29835313 41.68906833 Section 19-T79N-R04W Saturated Buffer Cedar -91.34720783 41.64024891 Section 03-T79N-R04W Bioreactor Cedar -91.29777702 41.67637576	Section 07-T78N-R02E	Saturated Buffer	Scott	-90.78008242	41.5727365
Section 33-T79N-R04W Bioreactor Cedar -91.31721781 41.59893627 Section 33-T79N-R04W Bioreactor Cedar -91.31714716 41.59902162 Section 04-T80N-R02W Bioreactor Cedar -91.08033014 41.76611992 Section 04-T80N-R02W Bioreactor Cedar -91.08029213 41.7639377 Section 04-T80N-R02W Bioreactor Cedar -91.08324537 41.76165029 Section 08-T79N-R02W Saturated Buffer Cedar -91.09545443 41.66549667 Section 14-T79N-R04W Saturated Buffer Cedar -91.27942322 41.6478276 Section 34-T80N-R04W Saturated Buffer Cedar -91.29835313 41.68906833 Section 19-T79N-R04W Saturated Buffer Cedar -91.34720783 41.64024891 Section 03-T79N-R04W Bioreactor Cedar -91.29777702 41.67637576	Section 03-T79N-R04W	Bioreactor	Cedar	-91.29377937	41.6824639
Section 33-T79N-R04W Bioreactor Cedar -91.31714716 41.59902162 Section 04-T80N-R02W Bioreactor Cedar -91.08033014 41.76611992 Section 04-T80N-R02W Bioreactor Cedar -91.08029213 41.7639377 Section 04-T80N-R02W Bioreactor Cedar -91.08324537 41.76165029 Section 08-T79N-R02W Saturated Buffer Cedar -91.09545443 41.66549667 Section 14-T79N-R04W Saturated Buffer Cedar -91.27942322 41.6478276 Section 34-T80N-R04W Saturated Buffer Cedar -91.29835313 41.68906833 Section 19-T79N-R04W Saturated Buffer Cedar -91.34720783 41.64024891 Section 03-T79N-R04W Bioreactor Cedar -91.29777702 41.67637576	Section 33-T79N-R04W	Bioreactor	Cedar	-91.3225039	41.60749844
Section 04-T80N-R02W Bioreactor Cedar -91.08033014 41.76611992 Section 04-T80N-R02W Bioreactor Cedar -91.08029213 41.7639377 Section 04-T80N-R02W Bioreactor Cedar -91.08324537 41.76165029 Section 08-T79N-R02W Saturated Buffer Cedar -91.09545443 41.66549667 Section 14-T79N-R04W Saturated Buffer Cedar -91.27942322 41.6478276 Section 34-T80N-R04W Saturated Buffer Cedar -91.29835313 41.68906833 Section 19-T79N-R04W Saturated Buffer Cedar -91.34720783 41.64024891 Section 03-T79N-R04W Bioreactor Cedar -91.29777702 41.67637576	Section 33-T79N-R04W	Bioreactor	Cedar	-91.31721781	41.59893627
Section 04-T80N-R02W Bioreactor Cedar -91.08029213 41.7639377 Section 04-T80N-R02W Bioreactor Cedar -91.08324537 41.76165029 Section 08-T79N-R02W Saturated Buffer Cedar -91.09545443 41.66549667 Section 14-T79N-R04W Saturated Buffer Cedar -91.27942322 41.6478276 Section 34-T80N-R04W Saturated Buffer Cedar -91.29835313 41.68906833 Section 19-T79N-R04W Saturated Buffer Cedar -91.34720783 41.64024891 Section 03-T79N-R04W Bioreactor Cedar -91.29777702 41.67637576	Section 33-T79N-R04W	Bioreactor	Cedar	-91.31714716	41.59902162
Section 04-T80N-R02W Bioreactor Cedar -91.08324537 41.76165029 Section 08-T79N-R02W Saturated Buffer Cedar -91.09545443 41.66549667 Section 14-T79N-R04W Saturated Buffer Cedar -91.27942322 41.6478276 Section 34-T80N-R04W Saturated Buffer Cedar -91.29835313 41.68906833 Section 19-T79N-R04W Saturated Buffer Cedar -91.34720783 41.64024891 Section 03-T79N-R04W Bioreactor Cedar -91.29777702 41.67637576	Section 04-T80N-R02W	Bioreactor	Cedar	-91.08033014	41.76611992
Section 04-T80N-R02W Bioreactor Cedar -91.08324537 41.76165029 Section 08-T79N-R02W Saturated Buffer Cedar -91.09545443 41.66549667 Section 14-T79N-R04W Saturated Buffer Cedar -91.27942322 41.6478276 Section 34-T80N-R04W Saturated Buffer Cedar -91.29835313 41.68906833 Section 19-T79N-R04W Saturated Buffer Cedar -91.34720783 41.64024891 Section 03-T79N-R04W Bioreactor Cedar -91.29777702 41.67637576	Section 04-T80N-R02W				
Section 08-T79N-R02W Saturated Buffer Cedar -91.09545443 41.66549667 Section 14-T79N-R04W Saturated Buffer Cedar -91.27942322 41.6478276 Section 34-T80N-R04W Saturated Buffer Cedar -91.29835313 41.68906833 Section 19-T79N-R04W Saturated Buffer Cedar -91.34720783 41.64024891 Section 03-T79N-R04W Bioreactor Cedar -91.29777702 41.67637576					
Section 14-T79N-R04W Saturated Buffer Cedar -91.27942322 41.6478276 Section 34-T80N-R04W Saturated Buffer Cedar -91.29835313 41.68906833 Section 19-T79N-R04W Saturated Buffer Cedar -91.34720783 41.64024891 Section 03-T79N-R04W Bioreactor Cedar -91.29777702 41.67637576			+		
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Section 19-T79N-R04W Saturated Buffer Cedar -91.34720783 41.64024891 Section 03-T79N-R04W Bioreactor Cedar -91.29777702 41.67637576					
Section 03-T79N-R04W Bioreactor Cedar -91.29777702 41.67637576					
Section 27-T81N-R03W Saturated Buffer Cedar -91.17941484 41.78748359					

Time and Date for Bid Submissions: 3:00 PM, May 29, 2024

Wallace State Office Building

502 East 9th Street

Iowa Department of Agriculture and Land Stewardship

Division of Soil Conservation and Water Quality-Water Resources

Bureau

Des Moines, Iowa 50319-0050

Time and Date of Bid Opening: 3:15 PM, May 29, 2024

Bid Opening Location: Wallace State Office Building

502 East 9th Street

Des Moines, IA 50319-0050

Bid Opening Teleconference: Call-in number: 1-877-304-9269

Access code: 519321

Project Description and Location: Heartland East 23-24 Batch and Build Edge-of-Field Project

Cedar, Scott, Johnson, and Muscatine County, Iowa

PROPOSAL AND SCHEDULE OF PRICES

Proposal of								
(Name of Bidder)								
Located at		()						
	(Address)	(Telephone Number)						
Amount of Proposal Guarantee	Description of Work	Specified Completion Date	Liquidated Damages					
100/ of Page Did	All Work Except Seeding	February 15, 2025	\$175.00 Per Day					
10% of Base Bid	Seeding	May 15, 2025	\$125.00 Per Day					

The undersigned hereby agrees, if awarded the contract, to execute the proposed contract and to furnish satisfactory Performance Bond in an amount not less than one hundred percent (100%) of the contract award within fourteen (14) days from the date when Notice-of-Award is received, and to provide all supervision, labor, materials, and equipment required to complete the project designated above, for the prices hereinafter set forth, in strict compliance with the Contract Documents prepared by the Division.

Further, the parties agree and acknowledge as follows:

• The amount of loss or damages likely to be incurred by Division are uncertain and said loss is incapable or very difficult to quantify and estimate;

- The amount specified for liquidated damages herein bear a reasonable relationship to, and are not plainly or grossly disproportionate to, the probable loss likely to be incurred by Division in connection with any delay on part of the Contractor;
- The amount of liquidated damages fixed herein bears a reasonable relationship to Division's anticipated losses and/or actual losses;
- The amount of liquidated damages herein fairly approximates Division's loss at the time of making of this Agreement;
- The amount of liquidated damages fixed herein are fair and reasonable and it approximates to the extent possible the actual loss to Division as a result of any delay on the part of Contractor; and
- Division and Contractor are sophisticated parties and negotiated this Agreement at arm's length.

Now therefore, in consideration of the mutual obligations set forth herein, the receipt and sufficiency of which is hereby acknowledged, the parties agree as follows:

- Contractor will commence the work after the Preconstruction Conference and by the Construction Start Date approved by Division in the Construction Progress Schedule.
- Contractor will complete the work within the specified time period identified in the contract, or as amended, or be responsible for liquidated damages per day as set forth in the above table.
- The liquidated damages may be withheld from payments made to the Contractor by the Division
 upon written notice that liquidated damages have begun to accrue, and such damages are in
 addition to other remedies available as provided for in this contract and applicable law.

A Proposal Guarantee in the amount stipulated herein is included with this proposal, to be forfeited to the Division, if the undersigned fails or refuses to execute the contract and furnish satisfactory Performance Bond, if awarded the contract.

	By(Signed)	
	(Title)	(Date)
In executing this proposal, Bidder acknowledges rece	eipt of Addendum Number	dated
In executing this proposal, Bidder acknowledges rece	eipt of Addendum Number	dated
In executing this proposal, Bidder acknowledges rece	eipt of Addendum Number	dated

SCHEDULE OF PRICES

Heartland East 23-24 Batch and Build Edge-of-Field Project Contract No. EOF-24-01

Cedar, Scott, Johnson, and Muscatine County, Iowa

Name of Bidder:	

	Bioreactor Installations									
Item No.	Work or Material	Spec No.	Estimated Quantity	Unit	Unit Price	Total				
1	Inlet WCS (3 Chamber, H1=8', D1= 12", D2= 6")	CPS-587, IA-605	1	EA						
2	Inlet WCS (3 Chamber, H1=6', D1=6", D2=6")	CPS-587, IA-605	2	EA						
3	Inlet WCS (3 Chamber, H1= 6', D1= 8", D2= 6")	CPS-587, IA-605	4	EA						
4	Inlet WCS (3 Chamber, H1= 6', D1= 12", D2= 6")	CPS-587, IA-605	1	EA						
5	Inlet WCS (3 Chamber, H1= 6', D1= 10", D2=6")	CPS-587, IA-605	5	EA						
6	Inlet WCS (3 Chamber, H1= 6', D1= 15", D2= 6")	CPS-587, IA-605	1	EA						
7	Outlet WCS (2 Chamber, H2= 8', D3= 8")	CPS-587, IA-605	1	EA						
8	Outlet WCS (2 Chamber, H2= 8', D3= 6")	CPS-587, IA-605	3	EA						
9	Outlet WCS (2 Chamber, H2= 6', D3= 6")	CPS-587, IA-605	11	EA						
10	6" Rodent Guard	IA-620, IA-605	2	EA						
11	8" Rodent Guard	IA-620, IA-605	4	EA						
12	10" Rodent Guard	IA-620, IA-605	4	EA						
13	12" Rodent Guard	IA-620, IA-605	1	EA						
14	6" Diameter 20' Section CMP Outlet	IA-620, IA-605	2	EA						
15	8" Diameter 20' Section CMP Outlet	IA-620, IA-605	4	EA						

16	10" Diameter 20' Section CMP Outlet	IA-620, IA-605	2	EA	
17	10" Diameter 25' Section CMP Outlet	IA-620, IA-605	1	EA	
18	10" Diameter 40' Section CMP Outlet	IA-620, IA-605	1	EA	
19	12" Diameter 20' Section CMP Outlet	IA-620, IA-605	1	EA	
20	6" Perforated CPT	IA-45, IA- 605	644	ft	
21	6" Non-perforated Pipe	IA-45, IA- 605	1640	ft	
22	8" Non-perforated Pipe	IA-45, IA- 605	250	ft	
23	10" Non-perforated Pipe	IA-45, IA- 605	200	ft	
24	12" Non-perforated Pipe	IA-45, IA- 605	80	ft	
25	15" Non-perforated Pipe	IA-45, IA- 605	40	ft	
26	6" End Cap	IA-45, IA- 605	37	EA	
27	6" Backflow Valve	IA-45, IA- 605	14	EA	
28	8" Backflow Valve	IA-45, IA- 605	1	EA	
29	Class 2 Non-Woven Geotextile Fabric	IA-95, IA- 605	2945	sq yd	
30	4 Millimeter Plastic	IA-45, IA- 605	4970	sq yd	
31	Woodchips	IA-605	4136	cu yd	
32	Clearing and Grubbing	IA-01, IA- 605	1	LS	
33	Tree Removal	IA-01, IA- 605	1	LS	
34	Seeding	IA-06, IA- 605	3.5	AC	
35	Tile Investigation	IA-09, IA- 605	14	HR	
36	Earthwork & Grading	IA-605	6876	CY	
37	Native Grass Seed	IA-06, IA- 605	0.5	AC	

38	Cool Season Grass Seed	IA-06, IA- 605	2.5	AC		
TOTAL From this Section						

	Satura	ated Buffer Installat	tions			
Item No.	Work or Material	Spec No.	Estimated Quantity	Unit	Unit Price	Total
39	WCS (3 Chamber, H=6', D=8")	CPS-587, IA-604	6	EA		
40	WCS (3 Chamber, H=6', D=10")	CPS-587, IA-604	5	EA		
41	WCS (3 Chamber, H= 6', D= 6")	CPS-587, IA-604	8	EA		
42	WCS (3 Chamber, H= 6', D= 15")	CPS-587, IA-604	1	EA		
43	WCS (3 Chamber, H= 6', D= 12")	CPS-587, IA-604	6	EA		
44	3'x3' Anti Seep Collar	CPS-587, IA-604	26	EA		
45	6" Rodent Guard	IA-620, IA-604	8	EA		
46	8" Rodent Guard	IA-620, IA-604	5	EA		
47	10" Rodent Guard	IA-620, IA-604	5	EA		
48	12" Rodent Guard	IA-620, IA-604	6	EA		
49	15" Rodent Guard	IA-620, IA-604	1	EA		
50	6" Diameter 20' Section CMP Outlet	IA-620, IA-604	7	EA		
51	6" Diameter 35' Section CMP Outlet	IA-620, IA-604	1	EA		
52	8" Diameter 20' Section CMP Outlet	IA-620, IA-604	5	EA		
53	10" Diameter 20' Section CMP Outlet	IA-620, IA-604	5	EA		
54	12" Diameter 20' Section CMP Outlet	IA-620, IA-604	6	EA		

55	15" Diameter 30' Section CMP Outlet	IA-620, IA-604	1	EA		
56	6" Perforated CPT	IA-45, IA- 604	23163	ft		
57	6" Non-perforated Pipe	IA-45, IA- 604	830	ft		
58	8" Non-perforated Pipe	IA-45, IA- 604	350	ft		
59	10" Non-perforated Pipe	IA-45, IA- 604	315	ft		
60	12" Non-perforated Pipe	IA-45, IA- 604	187	ft		
61	15" Non-perforated Pipe	IA-45, IA- 604	20	ft		
62	Native Grass Seed	IA-06, IA- 604	4	AC		
63	Cool Season Grass Seed	IA-06, IA- 604	0.6	AC		
TOTAL F	TOTAL From this Section					

Item No.	Work or Material	Spec No.	Estimated Quantity	Unit	Unit Price	Total
64	Mobilization	N/A	10	LS		
65	Crop Damages	N/A	N/A	AC	N/A	N/A

TOTAL DACE DID	l .
TOTAL BASE BID)

THE FOLLOWING AFFIDAVIT MUST BE COMPLETED AND NOTARIZED, OR THIS BID WILL BE REJECTED

AFFIDAVIT

The signatory, being duly sworn, does depose and say that the undersigned is an authorized representative of:						
(Name of Firm)						
Located at						
hereinafter referred to as "Bidder" and does hereby affirm to he thoroughly examined the Contract Documents, carefully preparchecked the same in detail before submitting; and that said Bidhave not, either directly or indirectly, entered into any agreement taken any action in restraint of free competitive bidding in contract.	red the Proposal and Schedule of Prices form, and has der, or the agents, officers, or employees thereof, ent, participated in any collusion or fraud, or otherwise					
	(Signed)					
Subscribed and sworn to before me this day						
of, 2024						
(Signed, Notary)						
My Commission Expires, 20						

END OF DOCUMENT CC