



Date: October 26, 2020

To: Contractors

From: City of Ida Grove

Re: Flood Damage Bid Invitation

Hello, we invite you to bid on the enclosed repair bids for flood damage repair. There are three damaged site #'s. Bidders may bid on all three of the damaged sites however, you must bid all projects listed on each sheet. For example, damaged sites #589 you must supply a bid 1-4 and cannot bid 1-3.

The successful bidder must provide a Certificate of Liability Insurance before beginning work.

Each bidder must complete the enclosed form in ink or typed, and send or deliver it sealed to the following address no later than **Monday, November 23, 2020 at 4:00 p.m.** The address is:

**City of Ida Grove
Attn: Flood Repair Bid
PO Box 236
Ida Grove, IA 51445**

Bids will be opened on Tuesday, November 24, 2020 at 12:00 p.m. during a special City Council meeting in the community hall located at 301 Main Street.

The City of Ida Grove reserves the right to reject any, any part, or all bids.

If you have further questions, please contact City Hall at 712-364-2428.

Sincerely,

City of Ida Grove

Castletown
USA



Repair Bid

Date: _____ Contractor: _____

Phone: _____ Email: _____

Address: _____

Damaged Sites #608

- | | |
|--|----------|
| 1. Odebolt Creek and Badger Creek Debris | \$ _____ |
| 2. Levee | \$ _____ |
| 3. Odebolt Creek | \$ _____ |
| 4. Badger Creek | \$ _____ |

TOTAL OF ALL PROJECTS

\$ _____

- Work to be completed by March 15, 2021.
- Bid due date and time: 4:00 pm on Monday, November 23, 2020
- Bid must be in ink or typed and mailed or delivered sealed to:

City of Ida Grove
Attn: Flood Repair Bid
403 3rd Street
P.O. Box 236
Ida Grove, IA 51445

- Bid consideration is Tuesday, November 24, 2020 at 12:00 pm during a special Ida Grove City Council meeting.

The Disaster #4421DR, which occurred between 3/12/2019 and 6/15/2019, caused:

- **Damage #297601; Odebolt Creek and Badger Creek Debris**

- **General Facility Information:**

- **Facility Type:** Drainage Channels
 - **Facility:** Odebolt Creek and Badger Creek
 - **Facility Description:** District Drainage Systems, consisting of ditches
 - **Approx. Year Built:** 1969
 - **GPS Latitude/Longitude:** 42.34577, -95.48376
 - **Purpose:** Flood Control
 - **Shape:** Trapezoidal
 - **Dimensions (top) Width (ft):** 115
 - **Dimensions (top) Depth (ft):** 25
 - **Quantity of Material Deposited by Incident:** N/A

- **General Damage Information:**

- **Date Damaged:** 3/13/2019
 - **Cause of Damage:** Surface water flooding, causing sediment to sit on top of banks once water receded.

- **Facility Damage:**

- Embankment, 280 CY of sediment/ sand buildup along the bank., 360 FT long x 21 FT wide x 1 FT deep, Surface water flooding leaving sediment/ sand on bank once waters receded. , 0% work completed.

- **Damage #297609; Levee**

- **General Facility Information:**

- **Facility Type:** Drainage Channels
 - **Facility:** Hwy 59 Levee
 - **Facility Description:** Drainage ditch connecting from the levee to creek
 - **Year Built:** 1969
 - **GPS Latitude/Longitude:** 42.35259, -95.47440
 - **Purpose:** Flood Control
 - **Shape:** V Ditch
 - **Dimensions (top) Width (ft):** 14
 - **Dimensions (top) Depth (ft):** 2
 - **Quantity of Material Deposited by Incident:** 6 inch

- **General Damage Information:**

- **Date Damaged:** 3/13/2019
 - **Cause of Damage:** Surface water flooding

- **Facility Damage:**

- Embankment, 37.037 CY of Compactable fill , 25 FT long x 10 FT wide x 4 FT deep, High volume of flood water causing bank erosion at the bottom of the levee near a culvert., 0% work completed.
 - Silt / Sediment , 25.9259 CY of Silt and sediment bulid up in ditch connecting to levee., 100 FT long x 14 FT wide x 6 IN deep, surface flood water pushing sediments and silt from nearby field and from eroding bank, into the ditch., 0% work completed.

- **Damage #297610; Odebolt Creek**

- **General Facility Information:**

- **Facility Type:** Drainage Channels
 - **Facility:** Odebolt Creek
 - **Facility Description:** Creek connecting to Maple River.
 - **Approx. Year Built:** 1968
 - **GPS Latitude/Longitude:** 42.34990, -95.47644
 - **Purpose:** Flood Control
 - **Shape:** Trapezoidal
 - **Dimensions (top) Width (ft):** 50
 - **Dimensions (top) Depth (ft):** 25
 - **Quantity of Material Deposited by Incident:** N/A

- **General Damage Information:**

- **Date Damaged:** 3/13/2019
 - **Cause of Damage:** Surface water flooding.

- **Facility Damage:**

- **Site #1:**
 - Embankment, 2,024.5556 CY of Grass-stabilized earth embankment , 137 FT long x 19 FT wide x 21 FT deep, Embankment failure on both banks due to highly saturated soils and heavy channel flows., 0% work completed.
 - Seeding/ Grass stabilization , 2,603 SF of Grass-seeding, 137 FT long x 19 FT wide, Embankment failure on both banks due to highly saturated soils and heavy channel flows., 0% work completed.
 - **Site #2:**
 - Embankment, 2,165.3333 CY of Grass-stabilized earth embankment , 116 FT long x 24 FT wide x 21 FT deep, Embankment failure on both banks due to highly saturated soils and heavy channel flows., 0% work completed.
 - Seeding/ Grass stabilization , 2,784 SF of Grass-seeding, 116 FT long x 24 FT wide, Embankment failure on both banks due to highly saturated soils and heavy channel flows., 0% work completed.
 - **Site #3:**
 - Embankment, 4,200 CY of Grass-stabilized earth embankment , 135 FT long x 40 FT wide x 21 FT deep, Embankment failure on both banks due to highly saturated soils and heavy channel flows., 0% work completed.
 - Seeding/ Grass stabilization , 5,400 SF of Grass-seeding, 135 FT long x 40 FT wide, Embankment failure on both banks due to highly saturated soils and heavy channel flows., 0% work completed.
 - **Site #4:**
 - Embankment, 65.1852 CY of Grass-stabilized earth embankment , 20 FT long x 11 FT wide x 8 FT deep, Embankment failure on

both banks due to highly saturated soils and heavy channel flows., 0% work completed.

- Seeding/ Grass stabilization , 220 SF of Grass-seeding, 20 FT Long x 11 FT wide, Embankment failure on both banks due to highly saturated soils and heavy channel flows., 0% work completed.
- Site #5:
 - Embankment, 350.3704 CY of Grass-stabilized earth embankment , 86 FT long x 10 FT wide x 11 FT deep, Embankment failure on both banks due to highly saturated soils and heavy channel flows., 0% work completed.
 - Seeding/ Grass stabilization , 860 SF of Grass-seeding, 86 FT Long x 10 FT wide, Embankment failure on both banks due to highly saturated soils and heavy channel flows., 0% work completed.
- Site #6:
 - Embankment, 2,108.3333 CY of Grass-stabilized earth embankment , 207 FT long x 25 FT wide x 11 FT deep, Embankment failure on both banks due to highly saturated soils and heavy channel flows., 0% work completed.
 - Seeding/ Grass stabilization , 5,175 SF of Grass-seeding, 207 FT long x 25 FT wide, Embankment failure on both banks due to highly saturated soils and heavy channel flows., 0% work completed.
- Site #7:
 - Embankment, 342.2222 CY of Grass-stabilized earth embankment , 70 FT long x 12 FT wide x 11 FT deep, Embankment failure on both banks due to highly saturated soils and heavy channel flows., 0% work completed.
 - Seeding/ Grass stabilization , 840 SF of Grass-seeding, 70 FT long x 12 FT wide, Embankment failure on both banks due to highly saturated soils and heavy channel flows., 0% work completed.

- **Damage #297611; Badger Creek**

- **General Facility Information:**

- **Facility Type:** Drainage Channels
 - **Facility:** Badger Creek
 - **Facility Description:** Creek connecting to Maple River
 - **Approx. Year Built:** 1969
 - **GPS Latitude/Longitude:** 42.33571, -95.46967
 - **Purpose:** Flood Control
 - **Shape:** Trapezoidal
 - **Dimensions (top) Width (ft):** 40
 - **Dimensions (top) Depth (ft):** 15
 - **Quantity of Material Deposited by Incident:** N/A

- **General Damage Information:**

- **Date Damaged:** 3/13/2019
 - **Cause of Damage:** Surface water flooding

○ **Facility Damage:**

- Site #1:
 - Embankment, 19.5556 CY of Grass-stabilized earth embankment, 8 FT long x 6 FT wide x 11 FT deep, Highly saturated soils and heavy channel flows causing bank failure., 0% work completed.
 - Sediment, 2.8889 CY of sediment in the bottom of the creek from the embankment failure., 13 FT long x 6 FT wide x 1 FT deep, Highly saturated soils and heavy channel flows causing bank failure., 0% work completed.
 - Seeding/ Grass Stabilization, 48 SF of Grass-seeding, 8 FT long x 6 FT wide, Highly saturated soils and heavy channel flows causing bank failure., 0% work completed.
 - Sediment, 3.3333 CY of sediment in the bottom of the creek from the embankment failure., 15 FT long x 6 FT wide x 1 FT deep, Highly saturated soils and heavy channel flows causing bank failure., 0% work completed.
- Site #10:
 - Embankment, 155.5556 CY of Grass-stabilized earth embankment, 50 FT long x 7 FT wide x 12 FT deep, Highly saturated soils and heavy channel flows causing bank failure., 0% work completed.
 - Seeding/ Grass Stabilization, 350 SF of Grass-seeding, 50 FT long x 7 FT wide, Highly saturated soils and heavy channel flows causing bank failure., 0% work completed.
- Site #11:
 - Embankment, 1,393.3333 CY of Grass-stabilized earth embankment, 95 FT long x 18 FT wide x 22 FT deep, Highly saturated soils and heavy channel flows causing bank failure., 0% work completed.
 - Seeding/ Grass Stabilization, 2,090 SF of Grass-seeding, 95 FT long x 22 FT wide, Highly saturated soils and heavy channel flows causing bank failure., 0% work completed.
- Site #2:
 - Embankment, 156.8519 CY of Grass-stabilized earth embankment, 55 FT long x 7 FT wide x 11 FT deep, Highly saturated soils and heavy channel flows causing bank failure., 0% work completed.
 - Seeding/ Grass Stabilization, 385 SF of Grass-seeding, 55 FT long x 7 FT wide, Highly saturated soils and heavy channel flows causing bank failure., 0% work completed.
- Site #3:
 - Embankment, 158.8889 CY of Grass-stabilized earth embankment, 55 FT long x 6 FT wide x 13 FT deep, Highly saturated soils and heavy channel flows causing bank failure., 0% work completed.
 - Seeding/ Grass Stabilization, 330 SF of Grass-seeding, 55 FT long x 6 FT wide, Highly saturated soils and heavy channel flows causing bank failure., 0% work completed.
- Site #4:

- Embankment, 146.6667 CY of Grass-stabilized earth embankment , 60 FT long x 6 FT wide x 11 FT deep, Highly saturated soils and heavy channel flows causing bank failure., 0% work completed.
- Seeding/ Grass Stabilization, 360 SF of Grass-seeding, 60 FT long x 6 FT wide, Highly saturated soils and heavy channel flows causing bank failure., 0% work completed.
- Sediment , 1.8519 CY of sediment in the bottom of the creek from the embankment failure., 10 FT long x 5 FT wide x 1 FT deep, Highly saturated soils and heavy channel flows causing bank failure., 0% work completed.
- Site #5:
 - Embankment, 308.1481 CY of Grass-stabilized earth embankment , 80 FT long x 8 FT wide x 13 FT deep, Highly saturated soils and heavy channel flows causing bank failure., 0% work completed.
 - Seeding/ Grass Stabilization, 640 SF of Grass-seeding, 80 FT long x 8 FT wide, Highly saturated soils and heavy channel flows causing bank failure., 0% work completed.
 - Sediment , 3.7037 CY of sediment in the bottom of the creek from the embankment failure., 20 FT long x 5 FT wide x 1 FT deep, Highly saturated soils and heavy channel flows causing bank failure., 0% work completed.
- Site #6:
 - Embankment, 158.8889 CY of Grass-stabilized earth embankment , 65 FT long x 6 FT wide x 11 FT deep, Highly saturated soils and heavy channel flows causing bank failure., 0% work completed.
 - Seeding/ Grass Stabilization, 390 SF of Grass-seeding, 65 FT long x 6 FT wide, Highly saturated soils and heavy channel flows causing bank failure., 0% work completed.
- Site #7:
 - Embankment, 160 CY of Grass-stabilized earth embankment , 60 FT long x 6 FT wide x 12 FT deep, Highly saturated soils and heavy channel flows causing bank failure., 0% work completed.
 - Seeding/ Grass Stabilization, 360 SF of Grass-seeding, 60 FT long x 6 FT wide, Highly saturated soils and heavy channel flows causing bank failure., 0% work completed.
- Site #8:
 - Embankment, 431.1111 CY of Grass-stabilized earth embankment , 97 FT long x 8 FT wide x 15 FT deep, Highly saturated soils and heavy channel flows causing bank failure., 0% work completed.
 - Seeding/ Grass Stabilization, 776 SF of Grass-seeding, 97 FT long x 8 FT wide, Highly saturated soils and heavy channel flows causing bank failure., 0% work completed.
- Site #9:
 - Embankment, 396.6667 CY of Grass-stabilized earth embankment , 119 FT long x 6 FT wide x 15 FT deep, Highly saturated soils

and heavy channel flows causing bank failure., 0% work completed.

- Seeding/ Grass Stabilization, 714 SF of Grass-seeding, 119 FT long x 6 FT wide, Highly saturated soils and heavy channel flows causing bank failure., 0% work completed.

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Repair Bid

Date: _____

Contractor: _____

Phone: _____

Email: _____

Address: _____

Damaged Sites #589

- | | |
|---------------------------------------|----------|
| 1. Walk Trail Bridge Over Maple River | \$ _____ |
| 2. Well Site Fence | \$ _____ |
| 3. Pleasant Valley Walking Trail | \$ _____ |
| 4. Herman Jensen Walk Bridge | \$ _____ |

TOTAL OF ALL PROJECTS

\$ _____

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Facilities

Damage 297612; Walk Trail Bridge over Maple River

% Work Complete 0.00 %

Location

Address 1

City

State

Zip

Latitude 42.349452

Longitude -95.480553

Damage Description and Dimensions**Damage #297612; Walk Trail Bridge over Maple River****General Facility Information:**

- **Facility Type:** Bridges
- **Facility:** Maple River Walking Bridge
- **Facility Description:** Walking trail that crosses over Maple River.
- **Approx. Year Built:** 2005
- **GPS Latitude/Longitude:** 42.34934, -95.48042
- **Bridge Span Type:** Simple
- **Number of Spans:** 2
- **Type of Decking:** Concrete
- **Length (ft):** 100
- **Width (ft):** 14
- **Height (ft):** 24
- **Number of Lanes:** 1

General Damage Information:

- **Date Damaged:** 3/13/2019
- **Cause of Damage:** High velocity flood waters.

Bridge Damage:

- Embankment, 111.1111 CY of Embankment underneath bridge near pile., 40 FT long x 15 FT wide x 5 FT deep, High velocity flood waters from the river, causing erosion around the pile., 0% work completed.

Project DDD

No Project DDD provided

Scope of Work**297612 Walk Trail Bridge over Maple River****Work to be Completed**

The applicant will utilize contract for repairs to Walk Trail Bridge over Maple River to restore this facility back to its pre-disaster design, function and capacity (in-kind) within the existing footprint.

- A. Replace 111.1111 CY of embankment fill

Project Notes:

1. All site estimates for work to be completed were generated using Iowa Weighted Averages, Internet Sources, & RS Means. See attachment labeled *ST - 100352 Cost Estimate.xlsx*
2. All borrow or fill material must come from pre-existing stockpiles, material reclaimed from maintained roadside ditches (provided the designed width or depth of the ditch is not increased), or commercially procured material from a source existing prior to the event. For any FEMA-funded project requiring the use of a non-commercial source or a commercial source that was not permitted to operate prior to the event (e.g. a new pit, agricultural fields, road ROWs, etc.) in whole or in part, regardless of cost, the Applicant must notify FEMA and the Recipient prior to extracting material. FEMA must review the source for compliance with all applicable federal environmental planning and historic preservation laws and executive orders prior to a subrecipient or their contractor commencing borrow extraction. Consultation and regulatory permitting may be required. Non-compliance with this requirement may jeopardize receipt of federal funding. Documentation of borrow sources utilized is required at closeout.

Project Scope

No Project Scope provided

Damage 311115; Well Site Fence

% Work Complete 0.00 %

Location

Address 1

City

State

Zip

Latitude 42.360153

Longitude -95.462546

Damage Description and Dimensions

Damage #311115; Well Site Fence

General Facility Information:

- **Facility Type:** Other
- **Facility:** City Well Site
- **Facility Description:** Well used for the city of Ida Grove.
- **Approx. Year Built:** 2007
- **GPS Latitude/Longitude:** 43.36018, -95.46411

General Damage Information:

- **Date Damaged:** 3/13/2019
- **Cause of Damage:** Surface water flooding

Facility Damage:

- Fencing post, 30 each of Fiber glass fencing post that holds wire used to set boundaries around well site., 4 FT long, Flood waters pushing debris and lifting fence, removing it from its location., 0% work completed.
- Fencing wire, High tensile fencing wire that's used to set boundaries around well site., 538 LF long, Flood waters pushing debris and lifting fence, removing it from its location., 0% work completed.
- Fencing Clips, 90 each of "U" Clips used to hold wire in place on fence post., Flood waters pushing debris and lifting fence, removing it from its location., 0% work completed.
- Fence end post, 1 each of A 6x8 wooden post used on the end of the fence as support., 4 FT long, Flood waters pushing debris and lifting fence, removing it from its location., 0% work completed.

- Fence Brace, 1 each of A wooden post used to brace the fence as support, 8 FT long, Flood waters pushing debris and lifting fence, removing it from its location., 0% work completed.
- Fence end post, 1 each of A 4x8 wooden post used on the end of the fence as support., 4 FT long, Flood waters pushing debris and lifting fence, removing it from its location., 0% work completed.

Project DDD

No Project DDD provided

Scope of Work

311115 Well Site Fence

Work to be Completed

The applicant will utilize contract for repairs to Well Site Fence to restore this facility back to its pre-disaster design, function and capacity (in-kind) within the existing footprint.

- A. Remove and replace 30 EA of 4 LF fiber glass fencing post
- B. Remove and replace 538 LF of high tensile fencing wire
- C. Remove and replace 90 EA of "U" Clips
- D. Remove and replace 1 EA of 4 LF wooden post (6 IN x 8 IN)
- E. Remove and replace 1 EA of 8 LF wooden post (6 IN x 8 IN)
- F. Remove and replace 1 EA of 4 LF wooden post (4 IN x 8 IN)

Scope Note:

1. The GPS coordinates in the DDD need to be updated to 42.360177, -95.464110

Project Scope

No Project Scope provided

Damage 311127; Pleasant Valley Walking Trail

% Work Complete 0.00 %

Location

Address 1
City
State
Zip
Latitude 42.350979
Longitude -95.479792

Damage Description and Dimensions

Damage #311127; Pleasant Valley Walking Trail

General Facility Information:

- Facility Type: Parks, Cemeteries, and Recreational Facilities
- Facility: Pleasant Valley Walking Trail
- Facility Description: walking trail underneath Maple River bridge
- Approx. Year Built: 2000
- GPS Latitude/Longitude: 42.35108, -95.47970

General Damage Information:

- **Date Damaged:** 3/13/2019
- **Cause of Damage:** Surface water flooding

Facility Damage:

- Walking Trail, 65.7778 CY of Base (compactable fill) , 37 FT long x 24 FT wide x 2 FT deep, Surface water flooding causing base underneath concrete slab to wash out. , 0% work completed.
- Walking Trail, 3.8519 CY of Concrete slab, 39 FT long x 8 FT wide x 4 IN deep, Surface water flooding causing base underneath concrete slab to wash out. , 0% work completed.

Project DDD

No Project DDD provided

Scope of Work

311127 Pleasant Valley Walking Trail

Work to be Completed

The applicant will utilize contract for repairs to Pleasant Valley Walking Trail to restore this facility back to its pre-disaster design, function and capacity (in-kind) within the existing footprint.

- A. Replace 65.7778 CY of compacted base fill
- B. Remove and replace 3.8519 CY of concrete

Project Scope

No Project Scope provided

Damage 316104; Herman Jensen Walk Bridge

% Work Complete 0.00 %

Location

Address 1

City

State

Zip

Latitude 42.343622

Longitude -95.471064

Damage Description and Dimensions

Damage #316104; Herman Jensen Walk Bridge

General Facility Information:

- Facility Type: Bridges
- Facility: Herman Jensen Walk Bridge
- Facility Description: Small wooden bridge on a walking trail
- Approx. Year Built: 1997
- GPS Latitude/Longitude: 42.33773, -95.46710
- Bridge Span Type: Simple
- Number of Spans: 1
- Type of Decking: Wood
- Length (ft): 40
- Width (ft): 8
- Height (ft): 4
- Number of Lanes: 1

General Damage Information:

- Date Damaged: 3/13/2019
- Cause of Damage: Surface water flooding and ice

Bridge Damage:

- Approaches, 2.0741 CY of Concrete slab, (east side of bridge), 21 FT long x 8 FT wide x 4 IN deep, Surface water flooding causing cracking in concrete slab., 0% work completed.
- Approaches, 0.7901 CY of Concrete slab, (west side of bridge), 8 FT long x 8 FT wide x 4 IN deep, Surface water flooding causing cracking in concrete slab., 0% work completed.
- Support Post, 1 each of 4x6 wooden post at the end of the bridge used as support., 8 FT long, Surface water flooding causing wooden post to crack., 0% work completed.
- Base, 1.1852 CY of Gravel base underneath the walking bridge, 8 FT long x 8 FT wide x 6 IN deep, Surface water flooding causing cracking in concrete slab., 0% work completed.

Project DDD

No Project DDD provided

Scope of Work

316104 Herman Jensen Walk Bridge

Work to be Completed

The applicant will utilize contract for repairs to Herman Jensen Walk Bridge to restore this facility back to its pre-disaster design, function and capacity (in-kind) within the existing footprint.

- A. Remove and replace 2.0741 CY of concrete
- B. Remove and replace 0.7901 CY of concrete
- C. Remove and replace 1 EA of 8 LF wooden post (6 IN x 4 IN)
- D. Replace 1.1852 CY of compacted gravel base fill

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Repair Bid

Date: _____

Contractor: _____

Phone: _____

Email: _____

Address: _____

Damaged Sites #742

1. Washington Street Bridge	\$ _____
2. Washington Street Culvert	\$ _____
3. South Main Street Bridge Culvert, NE Side	\$ _____
4. Badger Creek Drive Culvert	\$ _____
5. South Main Street Bridge Culvert, SE Side	\$ _____
6. South Main Street Bridge	\$ _____
7. Green Street Culvert	\$ _____
8. Ellen Street Culvert	\$ _____
TOTAL OF ALL PROJECTS	\$ _____

- Work to be completed by March 15, 2021
- Bid due date and time: 4:00 pm on Monday, November 23, 2020
- Bid must be in ink or typed and mailed or delivered sealed to:

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Attn: Flood Repair Bid
403 3rd Street
P.O. Box 236
Ida Grove, IA 51445

- Bid consideration is Tuesday, November 24, 2020 at 12:00pm during a special Ida Grove City Council meeting.

The Disaster #4421DR, which occurred between 3/12/2019 and 6/15/2019, caused:

- **Damage #297605; Washington Street Bridge**
 - **General Facility Information:**
 - **Facility Type:** Bridges
 - **Facility:** Washington Street Bridge
 - **Facility Description:** Two lane bridge
 - **Approx. Year Built:** 1960
 - **GPS Latitude/Longitude:** 42.34650, -95.46730
 - **Bridge Span Type:** Simple
 - **Number of Spans:** 2
 - **Type of Decking:** Concrete
 - **Length (ft):** 179
 - **Width (ft):** 30
 - **Height (ft):** 20
 - **Number of Lanes:** 2
 - **General Damage Information:**
 - **Date Damaged:** 3/13/2019
 - **Cause of Damage:** Surface water flooding and heavy channel flows.
 - **Bridge Damage:**
 - Embankment, 155 CY of Compactable fill , 30 FT long x 31 FT wide x 4.5 FT deep, Erosion on bank due to highly saturated soils and heavy channel flows from flooding., 0% work completed.
- **Damage #297606; Washington Street Culvert**
 - **General Facility Information:**
 - **Facility Type:** Culverts
 - **Facility:** Washington Street Culvert
 - **Facility Description:** Single, metal culvert
 - **Approx. Year Built:** 1960
 - **GPS Latitude/Longitude:** 42.34649, -95.46712
 - **Shape:** Circular
 - **Material:** Corrugated Metal/Steel
 - **Dimensions Description:** 48 inch diameter
 - **Number:** Single
 - **General Damage Information:**
 - **Date Damaged:** 3/13/2019
 - **Cause of Damage:** Surface water flooding
 - **Culvert Damage:**
 - Embankment, 134.8148 CY of Grass-stabilized earth embankment to left bank., 65 FT long x 8 FT wide x 7 FT deep, Highly saturated soils and heavy channel flows , 0% work completed.

- Re-seeding, 520 SF of Grass-stabilization to left bank., 65 FT long x 8 FT wide, Highly saturated soils and heavy channel flows , 0% work completed.
- **Damage #311209; South Main Street Bridge Culvert, NE Side**
 - **General Facility Information:**
 - **Facility Type:** Culverts
 - **Facility:** South Main Street Bridge Culvert, NE Side
 - **Facility Description:** Corrugated Metal Pipe
 - **Approx. Year Built:** 1969
 - **GPS Latitude/Longitude:** 42.33741, -95.47104
 - **Shape:** Circular
 - **Material:** Corrugated Metal/Steel
 - **Dimensions Description:** 48 inch diameter
 - **Number:** Single
 - **General Damage Information:**
 - **Date Damaged:** 3/13/2019
 - **Cause of Damage:** Surface water flooding causing erosion.
 - **Culvert Damage:**
 - Embankment, 11.4352 CY of Grass-stabilized earth embankment , 13 FT long x 9.5 FT wide x 2.5 FT deep, Surface water flooding causing erosion along the bank in front of the culvert., 0% work completed.
 - Grass Stabilization , 123.5 SF of Grass-seeding , 13 FT long x 9.5 FT wide, Surface water flooding causing erosion along the bank in front of the culvert., 0% work completed.
- **Damage #311210; Badger Creek Drive Culvert**
 - **General Facility Information:**
 - **Facility Type:** Culverts
 - **Facility:** Badger Creek Drive Culvert
 - **Facility Description:** Single culvert
 - **Approx. Year Built:** 1969
 - **GPS Latitude/Longitude:** 42.33746, -95.47149
 - **Shape:** Circular
 - **Material:** Corrugated Metal/Steel
 - **Dimensions Description:** 18 inch diameter
 - **Number:** Single
 - **General Damage Information:**
 - **Date Damaged:** 3/13/2019
 - **Cause of Damage:** Surface water flooding
 - **Culvert Damage:**
 - Culvert, 1 each of Corrugated metal pipe, 30 FT long x 18 FT in diameter, High velocity water causing pipe to buckle and fail, 0% work completed.
 - Backfill, 46 CY of Compactable fill , 23 FT long x 9 FT wide x 6 FT deep, High level flood waters causing scouring and erosion around the culvert., 0% work completed.

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- **Damage #311211; South Main Street Bridge Culvert, SE Side**

- **General Facility Information:**

- **Facility Type:** Culverts
 - **Facility:** South Main Street Bridge Culvert,
 - **Facility Description:** Single CMP Culvert
 - **Approx. Year Built:** 1970
 - **GPS Latitude/Longitude:** 42.33714, -95.47094
 - **Shape:** Circular
 - **Material:** Corrugated Metal/Steel
 - **Dimensions Description:** 30 inch diameter
 - **Number:** Single

- **General Damage Information:**

- **Date Damaged:** 3/13/2019
 - **Cause of Damage:** Surface water flooding at high velocity causing bank failure.

- **Culvert Damage:**

- Embankment, 7.3333 CY of Grass-stabilized earth embankment , 22 FT long x 3 FT wide x 3 FT deep, Highly saturated soils and heavy channel flows causing bank to fail., 0% work completed.
 - Grass Stabilization, 66 SF of Grass seeding, 22 FT long x 3 FT wide, Highly saturated soils and heavy channel flows causing bank to fail., 0% work completed.

- **Damage #311213; South Main Street Bridge**

- **General Facility Information:**

- **Facility Type:** Bridges
 - **Facility:** South Main Street Bridge
 - **Facility Description:** Bridge used to cross over creek
 - **Year Built:** 1968
 - **GPS Latitude/Longitude:** 42.33740, -95.47136
 - **Bridge Span Type:** Simple
 - **Number of Spans:** 2
 - **Type of Decking:** Concrete
 - **Length (ft):** 100
 - **Width (ft):** 22
 - **Height (ft):** 20
 - **Number of Lanes:** 2

- **General Damage Information:**

- **Date Damaged:** 3/13/2019
 - **Cause of Damage:** Heavy channel flow created by surface water flooding causing erosion.

- **Bridge Damage:**

- Embankment, 25.3333 CY of Earth embankment underneath bridge (South Side) , 19 FT long x 12 FT wide x 3 FT deep, Heavy channel flows created by flooding, causing erosion to the bank., 0% work completed.

- Embankment, 19.4444 CY of Earth embankment underneath bridge (North Side) , 20 FT long x 7.5 FT wide x 3.5 FT deep, Heavy channel flows created by flooding, causing erosion to the bank., 0% work completed.

- **Damage #311214; Green Street Culvert**

- **General Facility Information:**

- **Facility Type:** Culverts
 - **Facility:** Green Street Culvert
 - **Facility Description:** 24 inch diameter culvert
 - **Approx. Year Built:** 1968
 - **GPS Latitude/Longitude:** 42.34345, -95.47658
 - **Shape:** Circular
 - **Material:** Corrugated Metal/Steel
 - **Dimensions Description:** 24 inch diameter
 - **Number:** Single

- **General Damage Information:**

- **Date Damaged:** 3/13/2019
 - **Cause of Damage:** Surface water flooding causing erosion.

- **Culvert Damage:**

- Embankment, 32 CY of Grass-stabilized earth embankment , 24 FT long x 6 FT wide x 6 FT deep, High flood water levels and heavy flow caused erosion along the bank., 0% work completed.
 - Grass Stabilization, 144 SF of Grass-seeding , 24 FT long x 6 FT wide , High flood water levels and heavy flow caused erosion along the bank., 0% work completed.

- **Damage #316918; Ellen Street Culvert**

- **General Facility Information:**

- **Facility Type:** Culverts
 - **Facility:** Ellen Street Culvert
 - **Facility Description:** Culvert made up of 2 pipes, one clay and another corrugated metal.
 - **Approx. Year Built:** 1960
 - **GPS Latitude/Longitude:** 42.33779, -95.47074
 - **Shape:** Circular
 - **Material:** Corrugated Metal/Steel
 - **Dimensions Description:** 12 inch diameter pipe
 - **Number:** Single

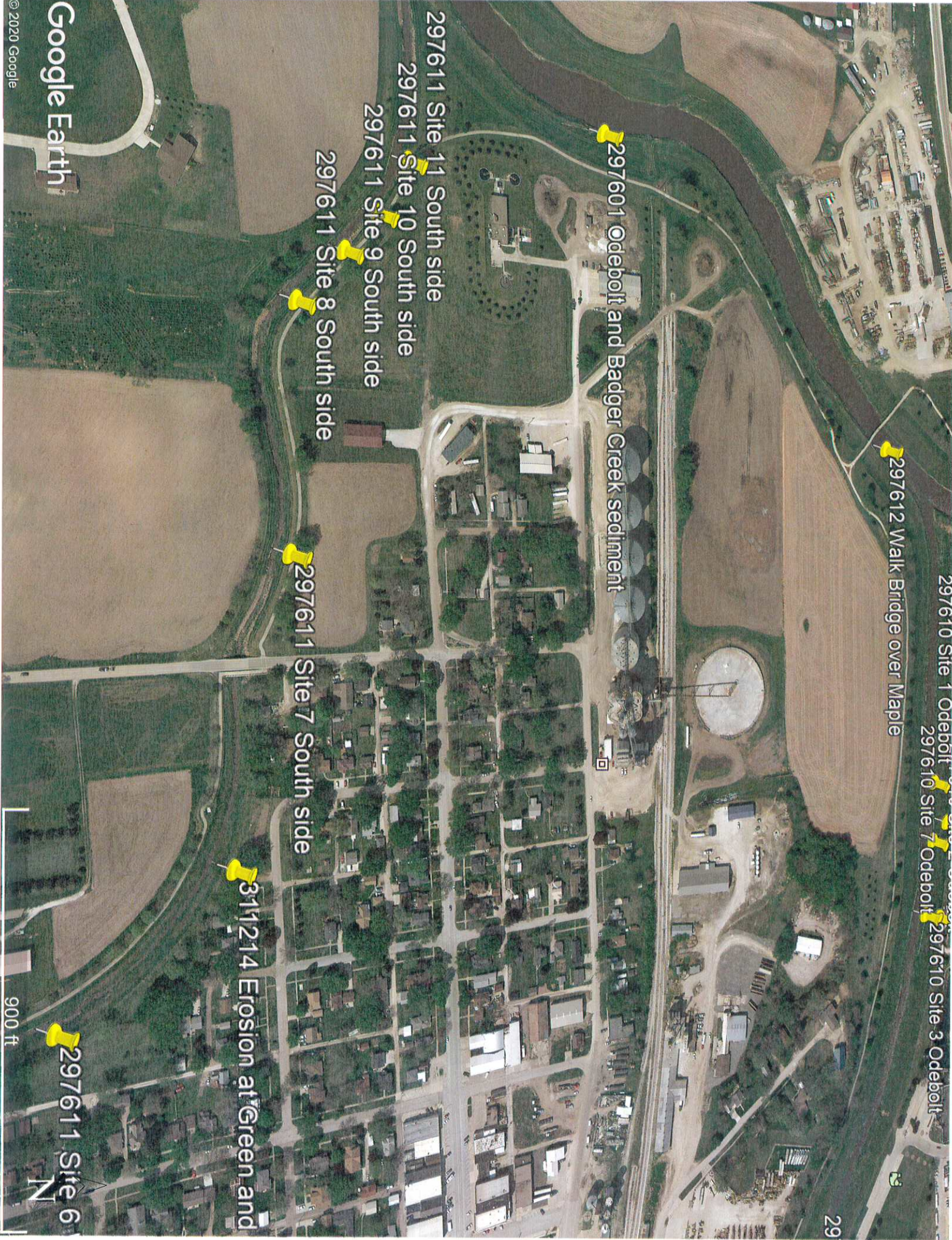
- **General Damage Information:**

- **Date Damaged:** 3/13/2019
 - **Cause of Damage:** Surface water flooding

- **Culvert Damage:**

- Culvert, 1 each of Corrugated metal pipe , 54 FT long x 12 IN in diameter, Flood waters causing end of culvert bend and collapse. , 0% work completed.

- Culvert, 1 each of Clay , 6 FT long x 12 IN in diameter, Flood waters causing end of culvert bend and collapse. , 0% work completed.
- Embankment , 12.963 CY of Grass-stabilized earth embankment , 35 FT long x 5 FT wide x 2 FT deep, Highly saturated soils and heavy channel flow caused bank failure., 0% work completed.
- Grass-stabilization, 175 SF of Grass-seeding, 35 FT long x 5 FT wide, Highly saturated soils and heavy channel flow caused bank failure., 0% work completed.



- Legend**
- 297611 Site
 - 297611 Site
 - Farmers Cooperative Co
 - Flower & Design By Carol Ann
 - Ida County Courier-Reminder
 - Ida Grove
 - Ida Grove Pharmacy
 - Remer Realty and Appraisal

297609 Levee

311127 Pleasant Valley trail

297610 Site 7 Odebolt

297610 Site 1 Odebolt

297610 Site 3 Odebolt

297610 Site 2 Odebolt

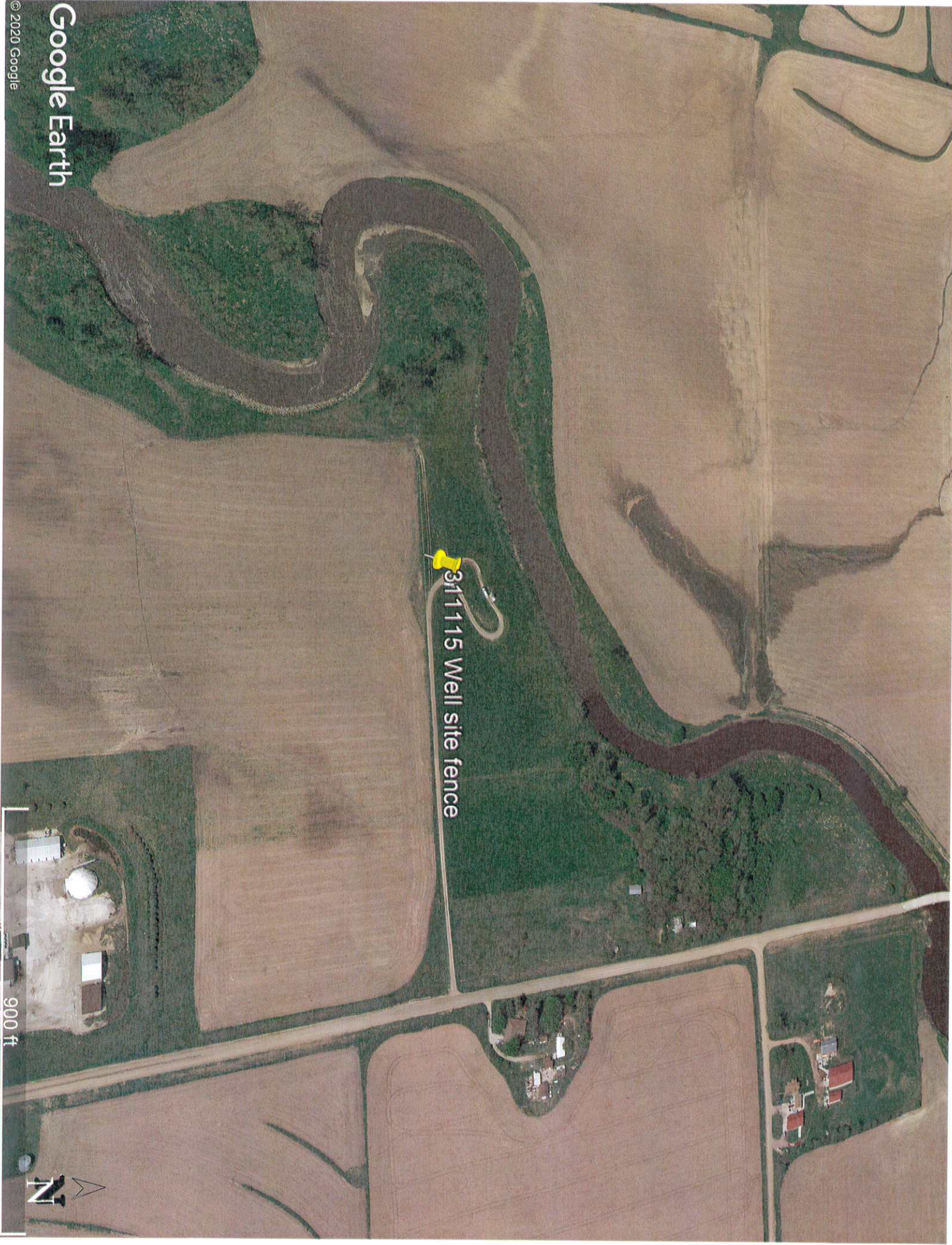
297610 Site 6 Odebolt

297612 Walk Bridge over Maple

Google Earth

311115 Well site fence

900 ft



Badger Creek

FEMA repair map

297610 Site 5 Odebolt

297610 Site 4 Odebolt

297605 Washington St Bridge

297606 Washington St Culvert



297611 Site 5 West side

316104

316918 Ellen St Culvert

311213 Main St Bridge

311210 Culvert SW side of Main St Bridge

311211 Culvert SE side of Main St Bridge

311209 Culvert NE side of Main St Bridge

297611 Site 2

297611 Site 3

297611 Site 1

Google Earth

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297611 Site 4

600 ft



FEMA DAMAGE SITES

297610	42.346328 – 95.483500 to 42.346776 – 95.483452
297612	42.349336 – 95.480452 to 42.349403 – 95.480318
297609	42.352562 – 95.474408 to 42.352674 – 95.474736
311127	42.350994 – 95.479752 to 42.351084 – 95.479720
311115	42.360076 – 95.461688 to 42.360088 – 95.463675
316104	42.337753 – 95.467110
311209	42.337449 – 95.470981
316918	42.337945 – 95.470650 to 42.337787 – 95.470697
311211	42.337190 – 95.471040
311213	42.337583 – 95.471319
311210	42.337435 – 95.471448
311214	42.343545 – 95.476513
297606	42.346492 – 95.467178
297605	42.346669 – 95.467251

297610

- **Site 1** 42.349808 – 95476.563 to 42349809 – 95.476022
 - **Site 2** 42.349813 – 95.475822 to 42.349722 – 95.475331
 - **Site 3** 42.349715 – 95.475105 to 42.349634 – 95.474563
 - **Site 4** 42.34808 – 954707 to 42.34797 – 95.47058
 - **Site 5** 42.34826 – 95.470725 to 42.34812 – 95.47049
 - **Site 6** 42.34995 – 95.47505 to 42.34979 – 95.4743
 - **Site 7** 42.35002 – 95.47578 to 42.35002-95.47601
-

297611

- **Site 1 (N.S.)** 42.33589 – 9546965 to 4233579 – 95.46963
 - **Site 2 (South Side Creek)** 42.33682 -9547037 to 4233689 – 9547046
 - **Site 3 (South Side)** 42.33628 – 9546984 to 42.33639 – 95.46986
 - **Site 4 (S.S.)** 42.33546 – 95.46963 to 42.3353 – 95.46959
 - **Site 5** 42.3399 – 95.47537 to 42.34012 – 95.47537
 - **Site 6** 42.34225 – 95.47545 to 42.34243 – 95.4755
 - **Site 7** 42.34392 – 95.4792 to 42.34395 – 95.47937
 - **Site 8** 42.34396 – 95.4814 to 42.34416 – 9548168
 - **Site 9** 42.34453 – 95.48219 to 423443 – 95.48186
 - **Site 10** 42.34475 – 95.48243 to 42.3446 – 95.48231
 - **Site 11** 42.34496 – 95.48309 to 42.34488 – 95.48272
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