

**AGENDA  
REGULAR DRAINAGE MEETING  
MARCH 7, 2018**

1. Open Meeting
2. Approve Agenda
3. Approve Minutes  
February 14, 2018 Regular Meeting  
  
Documents:  
  
2\_14\_2018 - DRAINAGE MINUTES.PDF
4. Approve Minutes  
February 14, 2018 DD 98 Public Hearing  
  
Documents:  
  
DD 98 COMPLETION HEARING 2\_14\_2018 - MINUTES.PDF
5. Approve Minutes  
February 14, 2018 DD 143 Public Hearing  
  
Documents:  
  
DD 143 COMPLETION HRG 2\_14\_2018 - MINUTES.PDF
6. DD 22 - Approve Minutes Of March 2, 2018 Landowner Meeting  
  
Documents:  
  
DD 22 LANDOWNER MTG 3\_2\_2018 - MINUTES.PDF
7. DD 34 - Discuss, With Possible Action, Culvert Installation  
  
Documents:  
  
6428 - CULVERT AND TILE.PDF
8. DD 98 - Discuss, With Possible Action, Petition Filed  
  
Documents:  
  
DRAINAGE\_20180223\_094806.PDF
9. DD Big 4, 41, 77, 123, 128 & 143 - Acknowledge Receipt Of Plans & Specifications And Set Bid Letting Date
10. DD 25 - Discuss, With Possible Action, Updates On Project  
  
Documents:

1\_10\_2018 - DRAINAGE MINUTES.PDF

11. DD 56 - Discuss, With Possible Action, Improvement Request  
Work Order #204

Documents:

DD 56 WO 204 WORK ORDER REQUEST.PDF  
DD 56 WO 204 MAP ZOOMED IN.PDF  
DD 56 WO 204 MAP ZOOMED OUT.PDF

12. DD 86 - Discuss, With Possible Action, Repair Summary For Work Order #172

Documents:

DD 86 WO 172 PROJ 6789.1 REPAIR SUMMARY.PDF

13. Other Business
14. Adjourn Meeting

# REGULAR DRAINAGE MEETING

2/14/2018 - Minutes

## 1. Open Meeting

Hardin County Board of Supervisors Chairman, BJ Hoffman, opened the meeting. Also present was Hardin County Supervisor, Lance Granzow; Lee Gallentine with Clapsaddle-Garber Associates (CGA); Attorney, Mike Marquess; Drainage Clerk, Tina Schlemme. Absent: Renee McClellan.

## 2. Approve Agenda

Granzow moved, Hoffman seconded to approve the agenda as presented. All ayes. Motion carried.

## 3. Approve Minutes

Granzow moved, Hoffman seconded to approve the minutes of the January 24, 2018 regular drainage meeting. All ayes. Motion carried.

## 4. Approve Claims For Payment

Granzow moved, Hoffman seconded to approve the claims for payment with pay date of Friday, February 16, 2018. All ayes. Motion carried.

Clapsaddle-Garber Assoc	DD 1	3141.40
Clapsaddle-Garber Assoc	DD 8	1072.25
Clapsaddle-Garber Assoc	DD 14	276.00
Clapsaddle-Garber Assoc	DD 22	2153.00
Clapsaddle-Garber Assoc	DD 25	1997.60
Clapsaddle-Garber Assoc	DD 41	3976.20
Clapsaddle-Garber Assoc	DD 72	6100.65
Clapsaddle-Garber Assoc	DD 77	2812.20
Clapsaddle-Garber Assoc	DD 86	1565.20
Clapsaddle-Garber Assoc	DD 122	1574.75
Cole Excavating	DD 122	4955.65
Clapsaddle-Garber Assoc	DD 123 Main	1597.80
Clapsaddle-Garber Assoc	DD 131	450.70
Clapsaddle-Garber Assoc	DD 133	137.00
Clapsaddle-Garber Assoc	DD 136	1307.30
Clapsaddle-Garber Assoc	DD 143	1436.95
Clapsaddle-Garber Assoc	DD 55 Div 3 Lat 9A	2404.70
Clapsaddle-Garber Assoc	DD 55 Div 3 Lat 9C	1381.90

## 5. DD 72 - Discuss, With Possible Action, Contractor Updates

Gallentine presented a few change order requests from contractor, Matt DeSchamp.

1. DeSchamp would like to change the grated lids at CCTV access points with solid lids to help keep the new tile clear of debris. The Trustees agreed that Gallentine should contact each landowner at the access points and obtain their preference.

2. DeSchamp wants to add a 12" or 18" tile to the top of the intake at the outlet end so sediment does not get into the tile. The Trustees agreed to trust the Engineer's plans and to not change anything unless a problem arises.

3. DeSchamp requests straw wattles added to each intake and test port to keep sediment out. The Trustees agreed that this has never been a problem before, but it is the contractor's choice if he would like to add it, but it would be at his cost.

DeSchamp attorney, Mike Marquess, addressed a few concerns of M & D Constructions.

1. The extension of time was addressed again. The Trustees and Gallentine agreed that the extension should be looked at closer to the deadline. Gallentine stated that seeding and testing is not included in the substantial completion date of April 15. The Trustees agreed they will re-look at the extension at their March 28 regular drainage meeting.

2. It appears the approximate 3,000' of tile installed has passed the mandrel testing but televising testing is yet to be determined. DeSchamp is requesting an acknowledgement from the district of these findings. The Trustees agreed that the results show the mandrel testing is okay and is shown in the districts records. They confirmed that the test will not need to be completed again if it has already passed once.

3. The increase in tile installation costs because of sand pockets was discussed. The Trustees agreed they would like to hear landowner input on this subject. They agreed it will be revisited at the reclassification hearing on March 7. Schlemme is to put it on the agenda before the hearing portion begins.

6. DD 78 - Approve Claim For Damages #13 For Robert McCollom

Granzow moved, Hoffman seconded to approve Claim for Damages #13 with Robert McCollom in the amount of \$1,212.29. It was discussed that both Schlemme and Gallentine will try to inform landowners better at the beginning of each project to notify them that they must submit a claim to receive payment, that the district doesn't automatically send payment without a claim. All ayes. Motion carried.

7. DD 22 - Discuss Current Projects And Set Landowner Meeting

Granzow moved, Hoffman seconded to schedule a landowners meeting for Friday, March 2, 2018 at 9:00 a.m. to discuss the additional options of repair presented by Engineer, Heather Thomas. All ayes. Motion carried.

8. DD 22 - Discuss, With Possible Action, Updates Regarding Work Order #198

Gallentine updated the Trustees that he had spoken with landowner, Randy Madden. Madden stated that he had private tile connected before the project and believes that during construction some of those private tile had been disconnected. He fears that if the tile is severed too far south, that he will not drain. Granzow moved, Hoffman seconded to sever the district tile at the fence where landowner, Randy Madden, has requested. Schlemme is to remind the Trustees to work on annexing Madden's area into the district at a later date. All ayes. Motion carried.

9. DD 143 - Discuss, With Possible Action, Road Crossing Authority

Gallentine addressed the golf course project where tile was replaced about 1/2 way through the road intersection. Schlemme had questioned if this expense should be the district's expense or the secondary roads expense. The Trustees agreed that the expense should be roads and not the districts. Gallentine stated he would produce a new final pay estimate stating what portion is to be invoiced to the county.

10. Discuss, With Possible Action, Reclassification Commission Rates

Gallentine stated the the reclassification commission rates haven't been reviewed for several years. They are currently paid \$30/hour with \$0.60/mile. The Trustees agreed to leave the hourly rate as is but to adjust the mileage rate to the current county rate of \$0.42/mile. Gallentine is to send the updated information to County Attorney, Rick Dunn, to establish a formal policy.

11. Acknowledge Receipt Of CGA 2018 Rate Schedule

Granzow moved, Hoffman seconded to acknowledge receipt of the CGA 2018 Rate Schedule. All ayes. Motion carried.

12. Other Business

DD Big 4 Main, 41, 77, 123, 128 & 143 - Gallentine asked the Trustees when they would like to schedule a bid letting for the multiple districts as one project. The Trustees agreed for Wednesday, March 28, 2018 at 9:00 a.m. The Trustees will formally approve the date and time at their next regular meeting when the plans and specifications are received.

DD 3 - Schlemme asked for guidance regarding a landowner question that was received. Currently DD 3 has several subdistricts, but the Trustees of DD 3 do not own land in some of those subs. The Trustees agreed that Schlemme should ask DD 3's chairman, Gary Rabe, to obtain legal input.

Granzow stated the landowner, Bobby Smuck, was legally successful that railroads are obtained by easements and therefore do not have the authority to allow or disallow easements from utilities. The Trustees agreed that Gallentine should contact Smuck and research this further.

13. Adjourn Meeting

Granzow moved, Hoffman seconded to adjourn the meeting. All ayes. Motion carried.

**PUBLIC HEARING ON COMPLETION OF CONTRACT  
DRAINAGE DISTRICT 98 REPAIR TO EXISTING MAIN TILE, HARDIN COUNTY**

2/14/2018 - Minutes

1. Open Meeting

Hardin County Board of Supervisors Chairman, BJ Hoffman, opened the meeting. Also present was Hardin County Supervisor, Lance Granzow; Landowners, Julie Duhn, Kathy Stockdale, Raymond Stockdale, Cory Hadwiger, Toni Moore, Dale Hadwiger, Betty Hadwiger and Kurtis Stockdale; Lee Gallentine with Clapsaddle-Garber Associates (CGA); Hardin County Auditor, Jessica Lara; Drainage Clerk, Tina Schlemme. Absent: Renee McClellan.

2. Approve Agenda

Granzow moved, Hoffman seconded to approve the agenda as presented. All ayes. Motion carried.

3. Introductions/Attendance

Introductions were made and attendance verified.

4. Open Public Hearing

Hoffman opened the public hearing.

5. Verify Publication

The notice of publication was verified as being published in the Iowa Falls Times Citizen on February 3, 2018.

6. Explanation Of Project

The project was turned over to Gallentine who explained the project. After reports concerning repairs and improvements, an Engineer's Report was completed dated October 6, 2015. At a hearing on the Engineer's Report, the Trustees authorized to proceed with project plans and specifications for repairs. A bid letting was held on April 20, 2016 in which four (4) bids were received for polypropylene tile. Hands On Excavating was the lowest responsible bidder in the amount of \$52,694 and a contract was signed on May 12, 2016. Construction began the week of August 11, 2016 and substantial completion was achieved the week of October 11, 2016 (approximately 1.5 months before the December 1, 2016 contract completion date).

Gallentine further explained the deviations that occurred during the project.

1. There were small differences between bid quantities and installed quantities resulting in an increase of \$2,022.40.

2. It was anticipated that an utility adjustment would be required, but was actually not needed, which resulted in a decrease of \$500.00.

3. It was believed that permanent seeding would be needed, but the landowners requested no seeding be performed, which decreased the project \$600.00.

4. During construction it was discovered that solidified mortar was obstructing flow in the tile under County Highway D15, which increased the project \$797.50.

5. Erosion repair was performed at the end of the waterway before entering a box culvert under County Highway D15 which resulted in an increase of \$240.00.

6. Additional time was required during construction to locate tile in the field which increased the price by \$438.75.

Gallentine estimated the final project costs to be \$80,924.15. This price does not include any administrative or legal costs incurred or any work or televising performed prior to the beginning of the contracted project. This amount is approximately \$16,000 higher than the estimated price at the original hearing.

7. Written Or Verbal Comments/Discussion

Schlemme verified that no formal written comments were submitted. Landowners asked about assessment costs for the project, in which Schlemme displayed the assessment amounts on the SmartBoard. The district was assessed in 2017 for \$100,000 and will be assessed again in 2018 for approximately \$10,000.

8. Damage Claims

Schlemme stated no damage claims had been submitted.

9. Close Public Hearing

Granzow moved, Hoffman seconded to close the public hearing. All ayes. Motion carried.

10. Possible Action

Granzow moved, Hoffman seconded to approve the completion of the project. All ayes. Motion carried.

Granzow moved, Hoffman seconded to approve the final pay estimate of \$5,509.26 to Hands On Excavating. All ayes. Motion carried.

Granzow moved, Hoffman seconded to acknowledge receipt of the submitted petition to change the district to a landowner trustee district. The petition will need verified and if verified, the Trustees will set an election date at their March 7, 2018 meeting. All ayes. Motion carried.

11. Adjourn Meeting

Granzow moved, Hoffman seconded to adjourn the meeting. All ayes. Motion carried.

**PUBLIC HEARING ON COMPLETION OF CONTRACT  
DRAINAGE DISTRICT 143 REPAIRS TO MAIN TILE, HARDIN COUNTY**

2/14/2018 - Minutes

1. Open Meeting  
Hardin County Board of Supervisors Chairman, BJ Hoffman, opened the meeting. Also present was Hardin County Supervisor, Lance Granzow; Lee Gallentine with Clapsaddle-Garber Associates (CGA); Hardin County Auditor, Jessica Lara. Absent: Renee McClellan.
2. Approve Agenda  
Granzow moved, Hoffman seconded to approve the agenda as presented. All ayes. Motion carried.
3. Introductions/Attendance  
Introductions were not needed as not landowners were in attendance.
4. Open Public Hearing  
Hoffman opened the public hearing.
5. Verify Publication  
The notice of publication was verified as being published in the Eldora Herald Index on February 2, 2018.

6. Explanation Of Project

The meeting was turned over to Gallentine who explained the project. After reports concerning repairs and improvements, an Engineer's Report dated February 15, 2016 and supplements dated February 29, 2016 and April 19, 2016 were submitted. After multiple hearings, the Trustees authorized to proceed with plans and specifications for repair. A bid letting was held on August 3, 2016 in which five (5) bids were received. McDowell & Sons Contractors was the lowest responsible bidder in the amount of \$198,775 and a contract was signed on August 19, 2016. Construction began on September 15, 2016 and was completed on November 7, 2016 (approximately 4 days before the November 15, 2016 contract completion date).

Gallentine further explained there were several deviations that occurred, resulting in a total of \$26,186.60 increase to the project. He estimated the final project cost to be \$265,150.10. This amount does not include interest, damage claims, administrative or legal costs incurred or any work or televising performed prior to the beginning of the contracted project. This amount is approximately \$8,000 higher than the estimated price at the original hearings.

7. Written Or Verbal Comments/Discussion  
No written or verbal comments were received by the Auditor's Office.
8. Damage Claims  
No claims for damages had been submitted.
9. Close Public Hearing  
Granzow moved, Hoffman seconded to close the public hearing. All ayes. Motion carried.
10. Possible Action  
  
Granzow moved, Hoffman seconded to approve the completion of the project. All ayes. Motion carried.  
  
Granzow moved, Hoffman seconded to approve the final pay estimate in the amount of \$22,496.16 to McDowell & Sons Contractors. All ayes. Motion carried.
11. Adjourn Meeting  
Granzow moved, Hoffman seconded to adjourn the meeting. All ayes. Motion carried.

## DD 22 LANDOWNER MEETING

3/2/2018 - Minutes

### 1. Open Meeting

Hardin County Board of Supervisor Co-Chairman, Renee McClellan, opened the meeting. Also present was Hardin County Supervisor, Lance Granzow; Landowners, Randy Silvest, Donald Peterson, Jim Vierkandt, Brad Fjelland, Randy Madden and John Liittschwager; Heather Thomas and Lee Gallentine with Clapsaddle-Garber Associates (CGA); Drainage Clerk, Tina Schlemme. Absent: BJ Hoffman.

### 2. Approve Agenda

Granzow moved, McClellan seconded to approve the agenda. All ayes. Motion carried.

### 3. Attendance/Introductions

Introductions were made and attendance verified.

### 4. Discuss Project Modifications

Thomas explained and visually presented the options for moving forward. Plans and specifications were in the process of being prepared to replace the tile east of C Ave with 30" tile, but a new blowout appeared on the old clay tile just west of Randy Silvest. The Trustees had then agreed that CGA should produce more options including the new repair. The original plan to replace just the tile east of C Avenue was estimated at \$599,386. Thomas presented Modification A, which would replace both the supplemental 30" tile east of C Ave and upsize the original clay tile that would follow the old route. This option is estimated at \$1,390,099. Modification B was explained which would replace the supplemental 30" tile on the 2011 alignment and replace the original clay with 24" in the old route. This estimate is \$1,034,969. Modification C would install an open ditch to the south side of Silvest and upstream would still include the 30" supplemental tile with the 2011 alignment and tie into the original main with 24" tile, at an estimated cost of \$803,173. The last option, Modification D, was explained as an open ditch replacing the 30" and connecting to the original mail with 18" tile. This estimated cost is \$780,620.

### 5. Comments/Discussion

It was discussed that none of the options include any repairs to the rest of the existing clay lateral tiles, which is estimated to cost about \$150,000 - \$250,000, depending on which option is selected. Vierkandt asked what would happen to the old 30" tile if abandoned, in which Thomas stated they would not removed, but crush it so no further sinkholes would appear. It was discussed if an open ditch would be considered, if the project would be an improvement. If considered an improvement, would new hearings need to occur and would the district need to be reclassified. Silvest stated he did not want an open ditch near his home. Landowners then presented a new hybrid option of installing an open ditch from the waterway north to 200th Street and then follow Modification A plan for tile going north. Landowners stated that Sweeney, who was not present, may not like the idea of an open ditch in her property. Landowners agreed they would like to see the old 16" tile east of C Avenue replaced during this project as well.

### 6. Possible Action

The Trustees agreed that Thomas should produce a new plan sheet with the modification discussed and give to Schlemme to distribute to landowners. Thomas stated that it should be done in roughly a week, which would give landowners who were not present time to view the meeting video and provide input.

The Trustees also directed CGA to order televising on the old 16" tile east of the road. Thomas stated that they will do calculations to figure what size is needed. Madden asked that they add the option to install a lateral parallel from the manhole so they would have two tile taking water south. This would be beneficial if the 2011 tile that veers west would ever go bad.

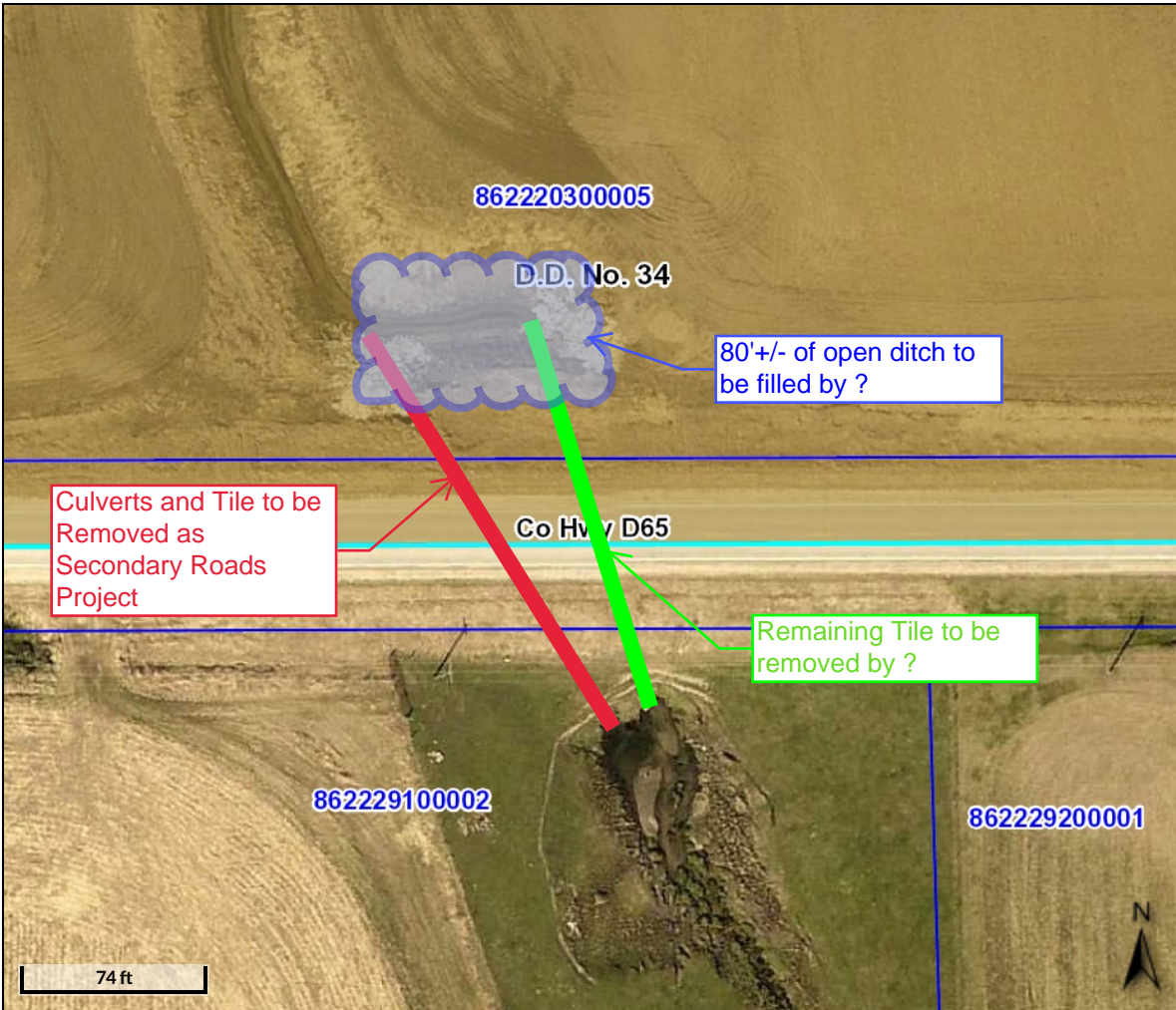
### 7. Other Business

None.

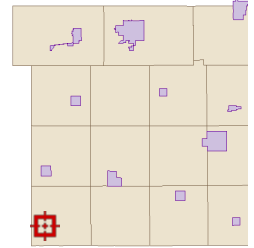
### 8. Adjourn Meeting

Granzow moved, McClellan seconded to adjourn the meeting. All ayes. Motion carried.





**Overview**



**Legend**

- Corporate Limits
- Political Township
- Roads**
  - County Road
  - Federal Highway
  - Local Road
  - State Highway
  - Town Road
- Parcels
- Drainage Districts**
  - <all other values>
  - Big Four
  - D.D. No. 1
  - D.D. No. 10
  - D.D. No. 100
  - D.D. No. 101
  - D.D. No. 102
  - D.D. No. 103
  - D.D. No. 106
  - D.D. No. 108
  - D.D. No. 109
  - D.D. No. 11
  - D.D. No. 110
  - D.D. No. 111
  - D.D. No. 113
  - D.D. No. 114 Ex. of :
  - D.D. No. 116
  - D.D. No. 118-232
  - D.D. No. 119
  - D.D. No. 12
  - D.D. No. 120
  - D.D. No. 121
  - D.D. No. 122
  - D.D. No. 123
  - D.D. No. 124
  - D.D. No. 125
  - D.D. No. 127
  - D.D. No. 128

DISTRICT	PRIMARY NAME 1	PRIMARY NAME 2
98	Chicago Central & Pacific	
98	Hardin County Roads	
98	Hardin Township Roads	
98	Beasley, Wade	Beasley, Brad
98	Chaplin, Merle W	Chaplin, Theola
98	Dague, Daniel J	
98	Hadwiger, Dale E	Hadwiger, Elizabeth Ann
98	Hansen, Debra L - Trust	
98	Hensing, Arthur J	Hensing, Patricia A
98	Koenigsfeld, Aaron	Koenigsfeld, Jenna
98	Lyman, Kirk P	Lyman, Wendy L
98	Muller, Harold J	
98	Muller, Debra L	Muller, Harold J
98	Osterman, Jody Ann	
98	Picht Farms, Inc	
98	Picht, Jenna	Picht, Jordan & Jillian
98	Picht, Kent D	
98	Picht, Rhonda E	Picht, Kent D
98	Roske, Harold	
98	Stalzer, Dean A Revocable Trust	Stalzer, Cynthia S Revocable Trust
98	Stockdale, Raymond T	
98	Vegh, Cathleen Jean	Campbell, Jeffrey Dean

= 22 owners

\* Need 12 or more to sign petition

Harold Roske  
 Harold & Muller  
 Raymond T. Stockdale  
 Dean A. Stalzer  
 Merle Chaplin

Jillian Picht  
 Art Hensing

Debra Hadwin  
 Kirk Lyman  
 Rhonda E. Picht  
 Kent D. Picht  
 Picht Farms by Kent Picht, Pres.  
 Jordan Picht

# REGULAR DRAINAGE MEETING

1/10/2018 - Minutes

1. Open Meeting

Hardin County Board of Supervisor Vice-Chairperson, Renee McClellan, opened the meeting. Also present was Hardin County Supervisor, Lance Granzow; Resident, Curt Groen; Lee Gallentine and James Sweeney with Clapsaddle-Garber Associates (CGA); Hardin County Engineer, Taylor Roll; Drainage Clerk, Tina Schlemme. Absent: BJ Hoffman.

2. Approve Agenda

Granzow moved, McClellan seconded to approve the agenda as presented. All ayes. Motion carried.

3. Approve Minutes Of January 2, 2018 Regular Drainage Meeting

Granzow moved, McClellan seconded to approve the minutes of the January 2, 2018 regular drainage meeting. All ayes. Motion carried.

4. DD 22 - Discuss, With Possible Action, Repair Summary For Work Order #198

It was discussed that the district boundaries dip south where the tile crosses 180th Street. Therefore, even severing the tile in the south road ditch would be outside the district. Granzow moved, McClellan seconded to sever the tile no less than 40' and up to 100' south of the road right of way. CGA is to consult with the landowner and if they request anything outside that limit, they must sign a statement indicating their request. All ayes. Motion carried.

5. DD 25 - Discuss, With Possible Action, Updates Regarding Work Order #48

It was discussed that the farm manager had indicated concern that the blowout still remains on the main tile and no work is scheduled to begin because of the lack of approval from the railroad. It was mentioned that crop damages would be cheaper to pay than installing a temporary fix just for the tile to be removed and replaced when the project moves forward. Granzow moved, McClellan seconded to table any action until the first meeting in March to allow time for the engineer to work more with the railroad. If nothing seems to be progressing yet at that point, then work on the main tile may need to proceed separately than the lateral tile work. All ayes. Motion carried.

6. DD 98 - Acknowledge Completion Report And Set Hearing Date

Granzow moved, McClellan seconded to acknowledge receipt of the Completion Report on Repair to Existing Main Tile dated January 2, 2018 and to set the hearing date as Wednesday, February 14, 2018 at 9:30 a.m. All ayes. Motion carried.

7. Other Business

DD 22 - Gallentine presented documents from Heather Thomas showing an estimated cost of \$1,110,000 to replace the tile on west side of C Avenue with 24" tile and that on the east of C Avenue with 30" tile. Another estimate of \$1,410,000 was presented for replacing all the tile with larger sizes and the newer tile lying east of C Avenue would be plugged and not replaced. Gallentine asked the Trustees their opinion of adding an option of an open ditch which would allow for enough capacity and cheaper prices per foot. The Trustees agreed to add the open ditch option with an estimate and then another landowner's meeting would be scheduled.

Discussion was had regarding the duties of the drainage clerk and the position changing to strictly full-time drainage. It was determined that a meeting will need scheduled with all interested parties to discuss the duties of the position and how to move forward.

8. Adjourn Meeting

Granzow moved, McClellan seconded to adjourn the meeting. All ayes. Motion carried.



# Drainage Work Order Request For Repair

## Hardin County

Date 3/1/2018 Work Order # 204  
District # 56 Lateral \_\_\_\_\_ Fund # 51087  
Township Sherman Section 9 Twp 87 Rge 22 Qtr Sec NW1/4

Repair Requested By Lynn Holechek  
Address lynn.holechek@gmail.com Phone (515) 460-1425

Landowner same  
Address \_\_\_\_\_ Phone \_\_\_\_\_

Request Taken By Tina Schlemme

Available for Repair Now?  Yes Date Available \_\_\_\_\_

Problem Description Lynn would like more drg capacity for his land. Sheldahl Bros believe it best to sever the tile west of E Ave & annex into DD 26 to drain to Tipton Creek. The land east of E Ave, that's flat, would benefit from not taking all the water from the west.


Repair labor, materials and equipment \_\_\_\_\_

Potential Wetlands?  Yes-Repair existing tile only  No-Repair and maintain tile

Repaired By: \_\_\_\_\_

Date: \_\_\_\_\_

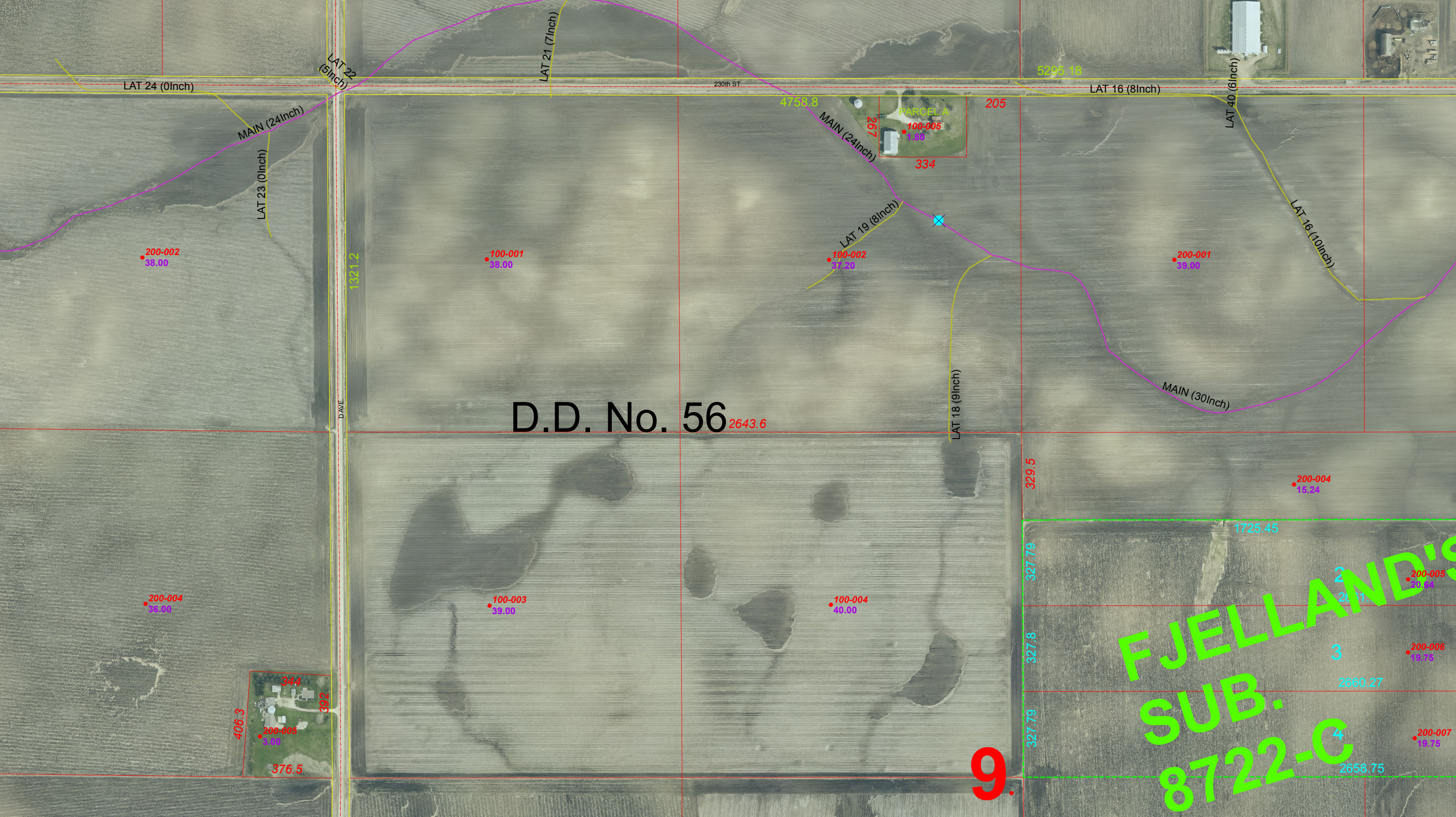
Please send statement for services to:

Phone (641) 939-8111  
Fax (641) 939-8245

Hardin County Auditor's Office  
Attn: Tina Schlemme  
1215 Edgington Ave, Suite 1  
Eldora, IA 50627

For Office Use Only

Approved: \_\_\_\_\_ Date: \_\_\_\_\_



LAT 24 (0Inch)

LAT 22 (5Inch)

LAT 21 (7Inch)

230th ST

5295.18

LAT 16 (8Inch)

LAT 40 (6Inch)

MAIN (24Inch)

LAT 23 (0Inch)

4758.8

MAIN (24Inch)

205



334

LAT 16 (10Inch)

200-002  
38.00

100-001  
38.00

100-002  
37.20

200-001  
39.00

1321.2

DAVE

D.D. No. 56 2643.6

LAT 18 (9Inch)

MAIN (30Inch)

329.5

200-004  
15.24

1725.45

200-004  
36.00

100-003  
39.00

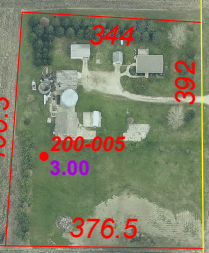
100-004  
40.00

327.79

2

200-005  
20.24

406.3



200-005  
3.00

376.5

327.8

3

200-006  
19.75

2680.27

9

327.79

4

200-007  
19.75

2658.75

FJELLAND'S  
SUB.  
8722-C

D.D. No. 123  
(D.D. 26)

Tipton Creek

Tipton Creek

D.D. No. 26

5

4

3

D.D. No. 56

FJELLAND'S  
SUB.  
8722-C

D.D.  
No.  
55: Div #2

D.D. No. 152

D.D. No. 152

D.D. No.  
55: Div #2

8

9

10





# Drainage Work Order Request For Repair

## Hardin County

Date 2/27/2017 Work Order # 172  
District # 86 Lateral Main Fund # 51114  
Township Hardin Section 24 Twp 89 Rge 21 Qtr Sec NW1/4

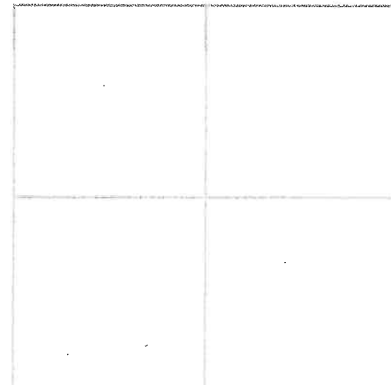
Repair Requested By Randy Harman  
Address 1725 Georgetown-Iowa Falls Phone (641) 373-7402

Landowner Randy Harman  
Address \_\_\_\_\_ Phone \_\_\_\_\_

Request Taken By Tina Schlemme

Available for Repair Now?  Yes Date Available \_\_\_\_\_

Problem Description Tile area has progressively turned into a stream and causing flooding.  
GIS 596-892124100002



Repair labor, materials and equipment \_\_\_\_\_

Potential Wetlands?  Yes-Repair existing tile only  No-Repair and maintain tile

Repaired By: \_\_\_\_\_

Date: \_\_\_\_\_

Please send statement for services to:

Phone (641) 939-8111  
Fax (641) 939-8245

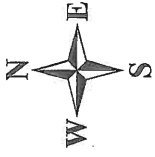
Hardin County Auditor's Office  
Attn: Tina Schlemme  
1215 Edgington Ave, Suite 1  
Eldora, IA 50627

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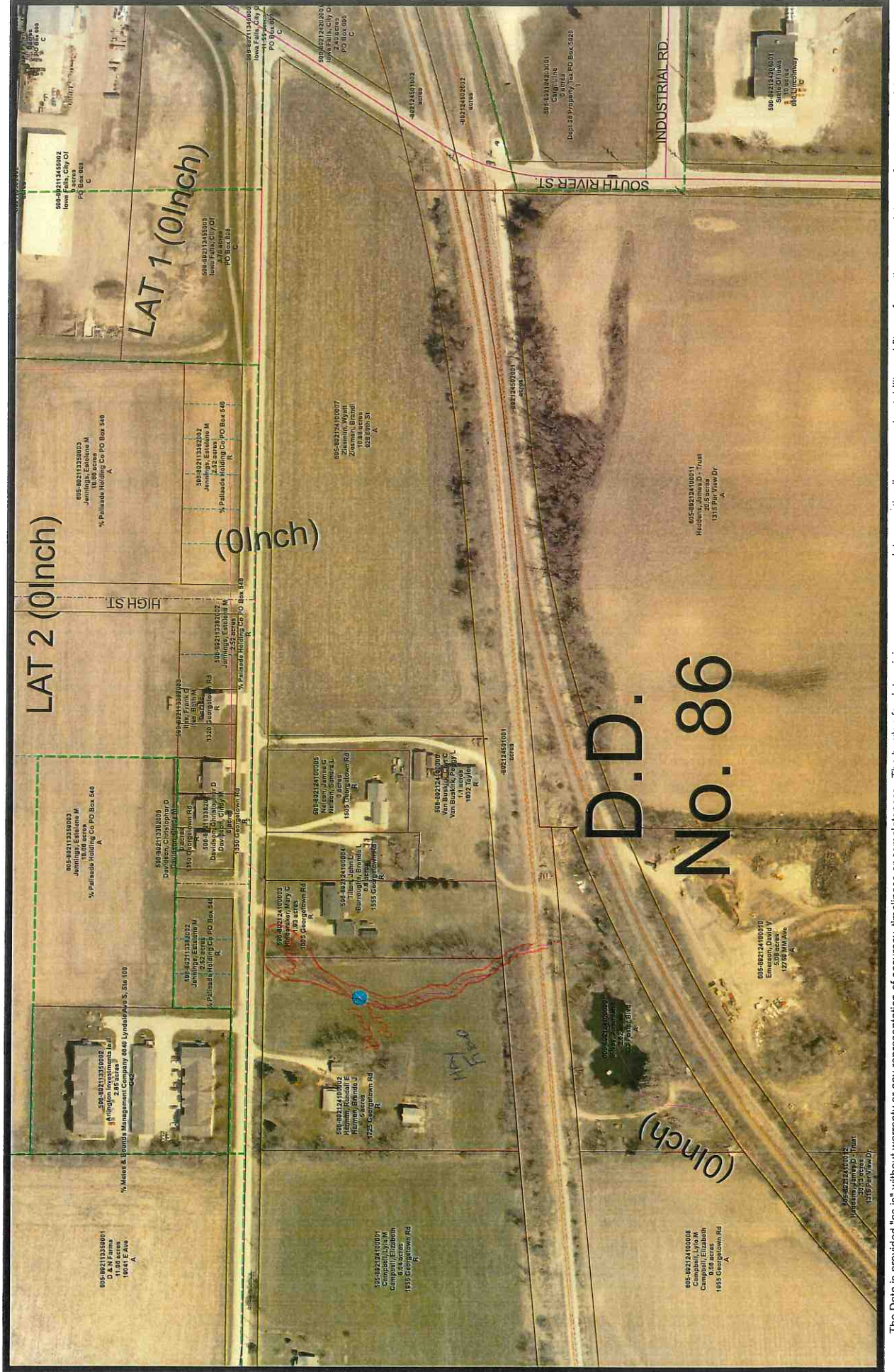
Approved: \_\_\_\_\_ Date: \_\_\_\_\_



# Hardin County Auditor's Office



Date: 2/27/2017



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## Drainage District:

#86

### Repair Summary:

- Landowner in Section 24, Township 89 North, Range 21 West reported blowout in main tile with large amount of overland flow of water.
- Visual observation found significant overland flow of water originating from Monarch Pond, traveling north under the railroad through culvert where it was intercepted by a CMP tile inlet on the south side of Georgetown Road. Found 3'± diameter blowout in field between railroad and Georgetown Road and clay tile shards on north side of railroad where overland flow exited railroad culvert.
- Began CCTV inspection by excavating 16" VCP Main tile at location of blowout in hay field, but was hampered by large rock in flowline. Removed rock and continued inspection to north and south of excavation. CCTV was stopped on south end by roots and on north end by intruding private PVC pipe. Tabulated defects are on attached spreadsheet, see daily report for more detailed account.
- Excavated tile immediately north of railroad ROW where woody vegetation was found by CCTV to be restricting flow and removed roots from flowline by hand as well as with jet cleaner. Cut down and removed offending trees (with verbal permission of landowner) and chemically treated remaining stumps to prevent return of problematic roots.
- At south end of repair, private 15" dual wall HDPE tile (ethanol plant) was encountered during excavation. Private 15" HDPE was repaired with perforated 15" dual wall HDPE and HDPE bands on each end.
- CCTV inspection was conducted on the Main tile upstream of repair area, traveling south beneath the railroad and towards Monarch Pond. Extensive tree root infiltration was encountered on the south side of railroad and CCTV was unable to continue.
- Repaired Main tile north of railroad with 18" non-perforated dual wall HDPE tile and rock bedding and backfill. Connected HDPE tile to existing 16" VCP with concrete collars. Installed 24"X12" saddle tap on south end of repair and installed 12" Hickenbottom intake. Filled excavation with rock backfill and on-site soil that was bucket compacted.
- From tile intake at Monarch pond, jet cleaned downstream with pieces of tree roots coming from an area 55'± downstream of intake. CCTV inspection found heavy roots and broken tile at said location, with CCTV unable to continue.
- Excavated tile in area of concern identified above and removed roots and broken tile. Cut down and removed two of three offending trees.
- Repaired damaged Main tile identified above with 18" non-perforated dual wall HDPE tile and rock bedding and backfill. Connected HDPE tile to existing 16" VCP with concrete collars. Filled excavation with rock backfill and on-site soil that was bucket compacted.

### Contractor Time and Materials (spent while CGA was on-site):

See attached Tabulated Contractor Time and Materials Sheet.

### Additional Actions Recommended:

- Either remove remaining tree south of railroad or reach a signed agreement with landowner stating future financial responsibility for maintenance of the Main tile.
- Cleanup and seed any disturbed areas in the spring (if needed).
- Spot repair location of partially collapsed Main tile near Georgetown Road.
- Modify intrusive private PVC pipe connection to Main tile so that it doesn't intrude.

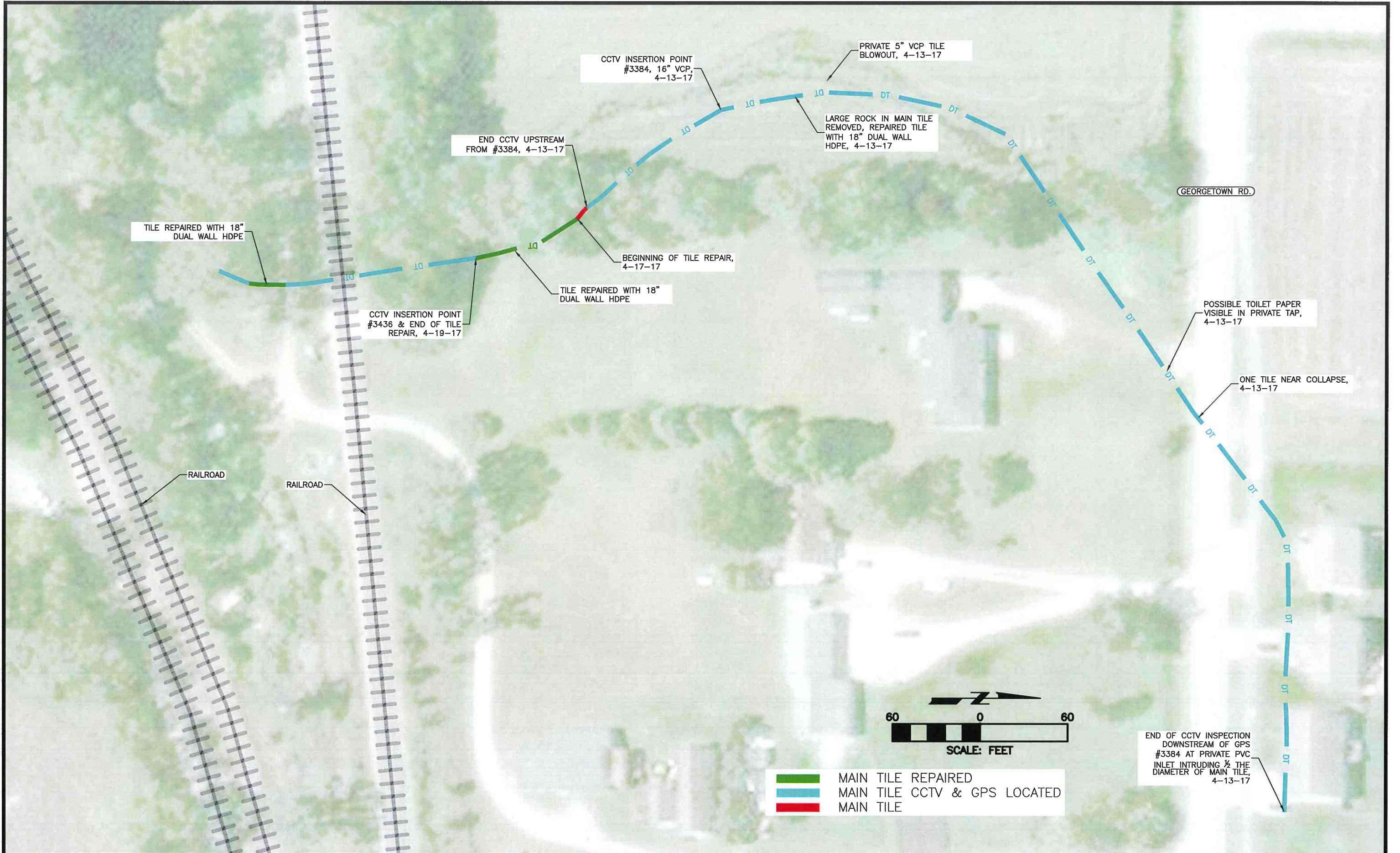


## Tabulated Contractor Time and Materials

Date	Totals	4/13/2017	4/14/2017	4/17/2017	4/18/2017	4/19/2017	10/3/2017	12/6/2017	12/7/2017
Workman (hrs)	154	36	15	25.5	12	31.5	19.9	6.5	7.5
Backhoe (hrs)	56	9	5	8.5	4	12	7.75	3.25	6.5
Mini Excavator (hrs)	25			8.5	4	12			
Jet Truck (hrs)	17	9					7.75		
CCTV Truck (hrs)	14	9				3	2.2		
CCTV Length (ft.)	1000	841				137	22.2		
18" Non-Perf Dual Wall HDPE (ft.)	81			40		15.4			25.2
Dump Truck (hrs.)	13				4			2.5	6.5
Truck & Dump Trailer (hrs.)	7				4	2.5			
Skid Loader (hrs.)	10							3.25	
15" HDPE Band (#)	1					1			
24"x12" HDPE Saddle Tap (#)	1					1			
15" Non-Perf Dual Wall HDPE (ft.)	6					6.3			
Concrete for Collars (lbs.)	3250			650		1400			1200
1" Clean Rock (loads)	4			2				1	1

# Tabulated Defects

	Total	GPS #3384 UPSTREAM	GPS #3384 DOWNSTREAM	GPS #3436 UPSTREAM
Total Length Televised (ft)	978	114	727	137
Date:		4/13/2017	4/13/2017	4/19/2017
Top crack (ft)	354	8	332	14
Side crack (ft)	31	0	31	0
Bottom crack (ft)	0	0	0	0
Partial or imminent collapse (#)	2	0	2	0
Full collapse (#)	0	0	0	0
Debris (ft)	121	24	0	97
Offset Joint (#)	32	3	23	6
Soil/voids visible in offset joint (#)	9	0	7	2
Single Wall HDPE (deformed) (ft)	16	0	2	14
Dual Wall HDPE (ft)	18	0	18	0
CMP (rusty) (ft)	12	0	12	0
Holes (non-fixed) (#)	0	0	0	0
Holes (fixed) (#)	3	0	1	2
Heavy Roots (ft)	104	0	36	68
Potential Septic Outlet (#)	1	0	1	0
Lateral Infiltrating Flowline (#)	2	0	2	0



DRAWN BY: JVS	APPROVED BY: LOG	REVISIONS:
DATE: 01-25-2018	PROJ. NO.: 6789.1	
FIELD BKC:		
P:\6789.1\CADD\6789.1 - DRAINAGE REPAIR.DWG; 3/1/2018		

**CGA**  
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PROJECT:  
MAIN TILE REPAIRS DD 86  
HARDIN COUNTY, IOWA  
2018

SHT. NAME:  
CCTV AND REPAIR LOCATIONS