

**AGENDA
REGULAR DRAINAGE MEETING
WEDNESDAY, MAY 16, 2018
1:00 PM**

1. Open Meeting
2. Approve Agenda
3. Approve Minutes
May 2, 2018 Regular Drainage Meeting

Documents:

[5_2_2018 - DRAINAGE MINUTES.PDF](#)

4. DD H-S 58-3 Approve 2018 Assessment

Documents:

[H-S 58-3 ASSESSMENT 2018.PDF](#)

5. DD 22 - Authorize Legal Review Of Contract Documents
6. DD 22 - Discuss, With Possible Action, Updates Regarding Current Project
7. DD 72 - Approve Change Order #6 Re: Soil/Compaction

Documents:

[6833 - CONTRACTOR SIGNED CHANGE ORDER 6.PDF](#)

8. DD 95 - Discuss, With Possible Action, Landowner Request Re: Current Project
9. DD 148 - Approve Work Order Request #211

Documents:

[DD 148 WO 211 MAP.PDF](#)
[DD 148 WO 211 REQUEST.PDF](#)

10. DD 64 - Approve Drainage Utility Permit Application 2018-5 With Midland Power Coop

Documents:

[DD 64 UTILITY PERMIT 2018-5.PDF](#)

11. DD 11 & 21 - Approve Drainage Utility Permit Application 2018-6 With Iowa Regional Utilities Assoc

Documents:

[DD 11 AND 21 UTILITY PERMIT 2018-6.PDF](#)

12. DD 55 - Approve Drainage Utility Permit Application 2018-7 With Iowa Regional Utilities Association

Documents:

[DD 55 UTILITY PERMIT 2018-7.PDF](#)

13. DD 8 & 122 - Acknowledge Receipt Of Completion Report And Set Hearing Date

Documents:

[DD 8 AND 122 COMPLETION REPORT 5-7-2018.PDF](#)

14. DD 1 - Discuss, With Possible Action, Assessment Balance

15. Other Business

16. Adjourn Meeting

REGULAR DRAINAGE MEETING

5/2/2018 - Minutes

1. Open Meeting
Hardin County Board of Supervisors Chairman, BJ Hoffman, opened the meeting. Also present were Supervisors, Lance Granzow and Renee McClellan; Matt DeSchamp with MD Construction and attorney, Mike Marquess; Lee Gallentine with Clapsaddle-Garber Associates (CGA); Drainage Clerk, Tina Schlemme.
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 April 25, 2018 regular drainage meeting. All ayes. Motion carried.
4. DD 72 - Approve Change Order #5 For Time Extension
McClellan moved, Granzow seconded to approve Change Order #5 with MD Construction to extend the substantial completion date for Items 222 & 223 to June 25, 2018 and all other items to May 11, 2018. All ayes. Motion carried.
5. DD 72 - Discuss, With Possible Action, Fence Release
Gallentine presented a screenshot of a text message conversation between DeSchamp and Luke Mannerter which stated Mannerter was okay with MD Construction not reinstalling the fence. The Trustees agreed they were okay with the screenshot as an acceptable form of fence release.
6. DD 72 - Discuss, With Possible Action, Updates Regarding Project
DeSchamp stated that the last 400 feet of the project was not compacted to standards due to the high organics, peat and moisture. They feel it is compacted as good as it can be. Gallentine agreed with DeSchamp and stated he does not recommend doing anything different. If it were under a street it would be different, but for ag purposes, the compaction is acceptable.
7. DD 95 - Discuss, With Possible Action, Current Project
It was discussed that a landowner did not want rock bedding installed with the current project and Gallentine stated that is against his recommendation. Granzow moved, Hoffman seconded to notify the contractor that they must obtain legal by may 8, 2018 to produce a statement of liability or the project will proceed with the original plan of action. All ayes. Motion carried.
8. DD 167 - Approve Work Order Request #208
Granzow moved, McClellan seconded to approve Work Order Request #208 and for CGA to investigate. If a simple fix, CGA should continue with hiring a contractor through the lottery system. All ayes. Motion carried.
9. DD 25 - Approve Work Order Request #209
The Trustees agreed for CGA to research if the new blowout is a part of the current project. The road ditch concern would be forwarded to the Secondary Roads department.
10. DD 119 - Approve Work Order Request #210
No results are in yet. Tabled until next regular drainage meeting.
11. Approve Drainage Utility Permit With Iowa Regional Utilities Association
Granzow moved, McClellan seconded to approve Utility Permit #2018-1 and #2018-2 with Iowa Regional Utilities Association and Permit #2018-3 with Heart of Iowa. All ayes. Motion carried.
12. Other Business

DD 55-3 Lat 9 - Schlemme stated that a landowner called and was concerned that their private tile did not get hooked up to the district tile with the current project. The Trustees agreed that Hands On should look at.

DD 22 - Gallentine stated that Thomas will have reports ready for the Trustees at the next regular drainage meeting.

13. Adjourn Meeting

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

DRAINAGE DISTRICT SUMMER LEVY WORKSHEET

May 9, 2018

<u>DRAINAGE DISTRICT</u>	<u>CURRENT BALANCE</u>	<u>EXPECTED BILLINGS</u>	<u>NEW BALANCE</u>	<u>ORIGINAL ASSESSMENT</u>	<u>PARCELS</u>	<u>ASSESSMENT %</u>	<u>AMOUNT LEVIED</u>	<u>CARRY FORWARD</u>
1 HARDIN #58-STORY #3	3,530.62	10,000.00	(6,469.38)	61,282.21	258	19	11,643.62	5,174.24
Last levied on 07/01/2013 at 19%. Story County IRVM requests \$10,000 for spraying and cleanup.								

Levy breakdown by county (Story is control county)

Story County	56,427.57	10,721.24
Hardin County	4,854.64	922.38

Parcels are for Story County only.

Story County Trustees

Rick Sanders

Hardin County Trustees

BJ Hoffman

Marty Chitty

Lance Granzow

Lauris Olson

Renee McClellan

Change Order

No. 6

Date of Issuance: May 2, 2018

Effective Date: May 2, 2018

Project: Improvements to Main Tile Drainage District #72	Owner: Trustees of Drainage District #72	Owner's Contract No.:
Contract:		Date of Contract: September 8, 2017
Contractor: M D Construction Inc.		Engineer's Project No.:6833

The Contract Documents are modified as follows upon execution of this Change Order:

Description: Contractor encountered organic clay soils at upper end of tile installation and achievement of Trench Compaction (bid item 224) was not determined as necessary in the area of organic clay soils.

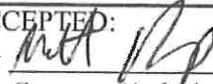
Attachments (list documents supporting change):

Test results from Contractor's subcontractor.

CHANGE IN CONTRACT PRICE:	CHANGE IN CONTRACT TIMES:
Original Contract Price: \$362,801.50	Original Contract Times: <input checked="" type="checkbox"/> Calendar days Substantial completion(date): 4-1-2018
Increase from previously approved Change Orders No. <u>1</u> to No. <u>5</u> : \$ 14,000.00	Increase from previously approved Change Orders No. <u>1</u> to No. <u>5</u> : Substantial completion for Items 222 & 223 (date): 6-15-2018 Substantial completion for all other Items (date): 5-1-2018
Contract Price prior to this Change Order: \$376,801.50	Contract Times prior to this Change Order: Substantial completion for Items 222 & 223 (date): 6-25-2018 Substantial completion for all other Items (date): 5-11-2018
Change of this Change Order: \$ 00.00	Increase of this Change Order: Substantial completion for Items 222 & 223 (date): None Substantial completion for all other Items (date): None
Contract Price incorporating this Change Order: \$376,801.50	Contract Times with all approved Change Orders: Substantial completion for Items 222 & 223 (date): 6-25-2018 Substantial completion for all other Items (date): 5-11-2018

RECOMMENDED:
By: _____
Engineer (Authorized Signature)

ACCEPTED:
By: _____
Owner (Authorized Signature)

ACCEPTED:
By: 
Contractor (Authorized Signature)

Date: _____

Date: _____

Date: 5-11-2018

Approved by Funding Agency (if applicable): _____

Date: _____

Liquid Limit, Plastic Limit & Plasticity Index of Soils

ASTM D-4318-10 Method B "Atterberg Limits"



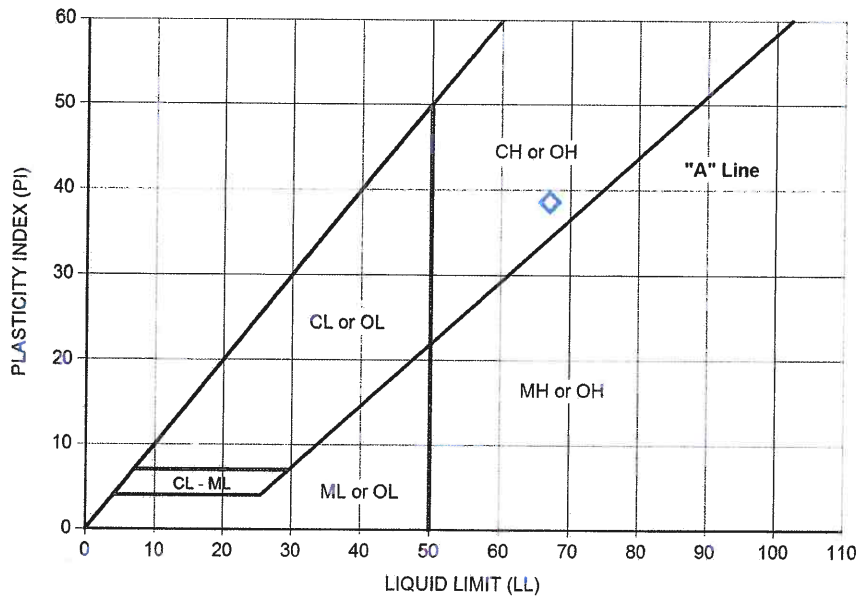
PROJECT NO: 5-1348
 PROJECT: Hardin County Main Tile Drainage District 72
 Hubbard, IA
 REPORT NO: 1-0

3424 1/2 5th Avenue South
 Fort Dodge, IA 50501
 Phone: 515-576-2098
 Fax: 515-576-1499
 www.teamservices.com
 staff@teamservices.com

SAMPLE ID: 1
 SAMPLE SOURCE: On Site West End of Project
 SAMPLE DESCRIPTION: Highly Organic Lean Clay Dark Grey (Peat)
 NOTES:

DATE RECEIVED: 2018-04-26
 DATE TESTED: 2018-04-27
 TESTED BY: MA

Wet (air-dried) Preparation. 2 Trials. Manual LL Device. Hand PL Rolling. Metal Grooving Tool



[CL] Lean Clay [CH] Fat Clay [ML] Silt [MH] Elastic Silt [OL] Organic Clay/Silt [OH] Organic Clay/Silt

LIQUID LIMIT TEST DATA

	NUMBER OF DROPS	WT. WET SOIL + TARE (g)	WT. DRY SOIL + TARE (g)	WT. TARE (g)	LIQUID LIMIT	AVG. LIQUID LIMIT (LL)
	25	89.20	84.90	78.70	69.40	67
Trial 2:	23	89.70	85.40	78.80	64.50	

PLASTIC LIMIT TEST DATA

	WT. WET SOIL + TARE (g)	WT. DRY SOIL + TARE (g)	WT. TARE (g)	PLASTIC LIMIT	AVG. PLASTIC LIMIT (LL)
	80.04	79.72	78.70	31.40	28
Trial 2:	80.08	79.82	78.80	25.50	

MATERIAL CLASSIFICATION: OH - Organic Clay

PLASTICITY INDEX (PI)

39

MOISTURE - DENSITY RELATIONSHIP REPORT



(Proctor Test)

ASTM D 698-12 Method A Standard

PROJECT: **Hardin County Main Tile Drainage District 72**
Hubbard, IA

PROJECT NO: 5-1348

REPORT NO: 2-0

PROCTOR ID: 4

DATE RECEIVED: 04/26/2018

DATE TESTED: 04/30/2018

TESTED BY: MA

TEST RESULTS

MAXIMUM DRY DENSITY (pcf)

62.0

OPTIMUM MOISTURE (%)

50.9

Natural Moisture: 66.0%

Prep Method:: dry

Rammer Type: Manual

Proctor points available upon request.

SOURCE: On Site West End of project

SAMPLE DESCRIPTION: Highly Organic Lean Clay Dark Grey (Peat)

Notes/Remarks:

APPROVED: Michael Ascherl

*Proctor reports shall not be reproduced, except in full, without our written permission.

TEAM Services, Inc.

3424 1/2 5th Avenue South

Fort Dodge, IA 50501

515-576-2098

515-576-1499

www.team-services.com

staff@team-services.com

DENSITY FIELD REPORT

PROJECT NO: 5-1348

REPORT DATE: 4/30/2018

Report No: 4-0



Hardin County Main Tile Drainage District 72, Hubbard, IA

TO: MD Construction

1322 Hwy E27

Garwin, IA 50632

Attn: Matt Deschamp

cc: Lee Gallentine, Ryken Engineering and Land Surveying

Date	Test No.	Location (Comments)	Elev. (Ft.)	Mtl. Mark	Wet Density pcf	% H2O of Dry Mass	Dry Density pcf	% Compact ASTM D6938	% H2O Var. ASTM D6938	Spec. Density %	Spec. % H2O
04-26-18	34	138+00 {Fail}	-4.00	4	94.2	64.5	57.3	92	13.6	90.0	+/- 3
04-26-18	35	138+00 {Fail}	-2.00	4	83.6	56.2	53.5	86	5.3	90.0	+/- 3
04-26-18	36	136+00 {Fail}	-2.00	4	89.9	81.2	49.6	80	30.3	90.0	+/- 3
04-26-18	37	134+00 {Fail}	-3.00	3	107.9	34.0	80.5	88	15.3	90.0	+/- 3
04-26-18	38	132+00 {Fail}	-4.00	3	118.7	26.7	93.6	103	8.0	90.0	+/- 3
04-26-18	39	132+00	-2.00	3	123.0	16.9	105.2	115	-1.8	90.0	+/- 3
04-26-18	40	130+00	-6.00	2	125.5	18.7	105.7	100	1.5	90.0	+/- 3
04-26-18	41	130+00	-4.00	2	124.3	21.3	102.4	97	4.1	90.0	+/- 3
04-26-18	42	130+00	-2.00	2	124.4	18.5	105.0	99	1.3	90.0	+/- 3
04-26-18	43	128+00	-6.00	2	126.5	20.3	105.1	99	3.1	90.0	+/- 3
04-26-18	44	128+00	-4.00	2	123.2	19.0	103.5	98	1.8	90.0	+/- 3
04-26-18	45	128+00	-2.00	2	127.2	20.1	105.8	100	2.9	90.0	+/- 3
04-26-18	46	126+00	-6.00	2	123.9	21.0	102.4	97	3.8	90.0	+/- 3
04-26-18	47	126+00	-4.00	2	123.3	18.7	103.8	98	1.5	90.0	+/- 3
04-26-18	48	126+00	-2.00	2	123.8	19.0	104.0	98	1.8	90.0	+/- 3
04-26-18	49	124+00	-6.00	2	117.2	20.4	97.4	92	3.2	90.0	+/- 3
04-26-18	50	124+00	-4.00	2	117.6	20.2	97.8	93	3.0	90.0	+/- 3
04-26-18	51	124+00	-2.00	2	123.8	19.0	104.0	98	1.8	90.0	+/- 3
04-26-18	52	122+00	-6.00	2	127.2	19.1	106.8	101	1.9	90.0	+/- 3
04-26-18	53	122+00	-4.00	2	127.2	21.0	105.1	99	3.8	90.0	+/- 3
04-26-18	54	122+00	-2.00	2	126.5	21.3	104.3	99	4.1	90.0	+/- 3
04-26-18	55	120+00	-6.00	2	114.7	21.3	94.6	89	4.1	90.0	+/- 3
04-26-18	56	120+00	-4.00	2	124.4	18.7	104.8	99	1.5	90.0	+/- 3
04-26-18	57	120+00	-2.00	2	114.7	16.9	98.1	93	-0.3	90.0	+/- 3

[Datums]: FSG: 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53, 54, 55, 56, 57

MTL. MARK	MATERIAL DESCRIPTION	MAX DRY DENS. PCF	OPT. MOISTURE	Note: Locations indicated are approximate. results represent only the locations tested at the time of testing. Values may change due to construction activity, weather, or environmental conditions. Reports shall not be reproduced, except in full, without our written permission.
2	SILT, trace sand, trace gravel, trace organic matter, li...	105.7	17.2	
3		91.2	18.7	
4	Sandy Lean CLAY, trace gravel, light-dark gray Highly Organic Lean Clay Dark Grey (Peat)	62.0	50.9	

NUCLEAR DENSITY FIELD TEST RESULTS

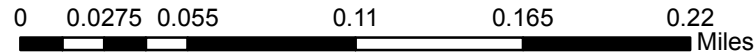
Date	Operator	Standard Counts from Calibration		Gauge ID	Make	Model	S/N	Test Mode
		Density	Moisture					
04-26-18	Ostheimer	689.0	2,001.0	2935	Troxler	3440	37719	Direct Transmission
04-26-18	Ostheimer	2,006.0	683.0	2935	Troxler	3440	37719	Direct Transmission

MTL. MARK	MATERIAL DESCRIPTION	MAX DRY DENS. PCF	OPT. MOISTURE	Note: Locations indicated are approximate. results represent only the locations tested at the time of testing. Values may change due to construction activity, weather, or environmental conditions. Reports shall not be reproduced, except in full, without our written permission.
2	SILT, trace sand, trace gravel, trace organic	105.7	17.2	
3	matter, li....	91.2	18.7	
4	Sandy Lean CLAY, trace gravel, light-dark gray Highly Organic Lean Clay Dark Grey (Peat)	62.0	50.9	

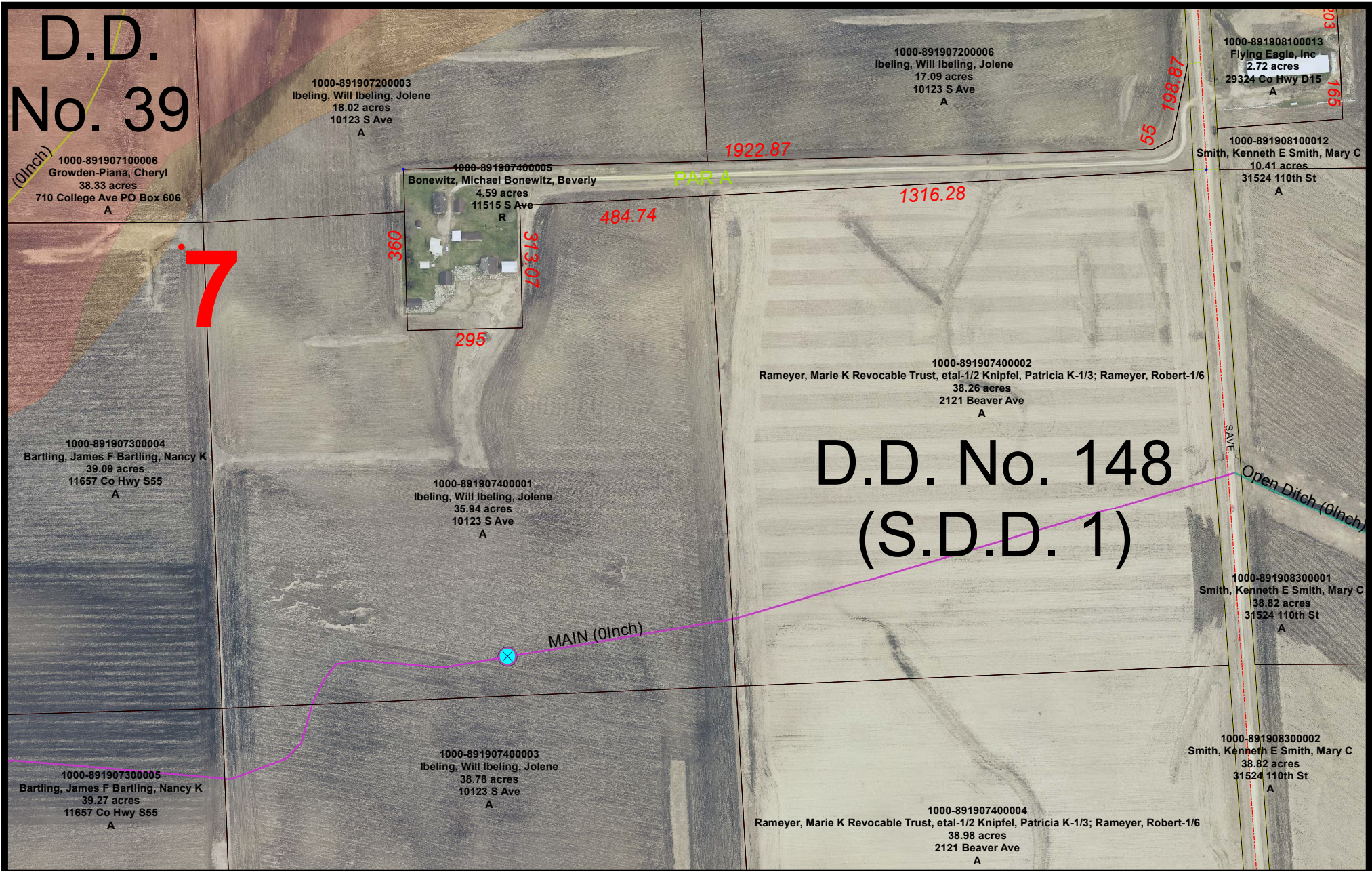
Approved:
Michael Ascherl



Hardin County Auditor's Office



Date: 5/7/2018



The Data is provided "as is" without warranty or any representation of accuracy, timeliness or completeness. The burden for determining accuracy, completeness, timeliness, merchantability and fitness for or the appropriateness for use rests solely on the requester. Hardin County makes no warranties, express or implied is to the use of the Data. There are no implied warranties of merchantability or fitness for a particular purpose. The requester acknowledges and accepts the limitations of the Data, including the fact that the Data is dynamic and is in a constant state of maintenance, correction and update. Cadastral Data represents land ownership, but does not define it. This Data does not replace a legal survey.



Drainage Work Order Request For Repair

Hardin County

Date: 5/7/2018

Work Order #: WO00000211

Drainage District: Drainage Districts \DD 148

Sec-Twp-Rge: 07-89-19 **Qtr Sec:** NW SE

Location/GIS: 89-19-07-400-001

Requested By: Bill Ibeling

Contact Phone: (641) 373-1732

Contact Email: _____

Landowner (if different): _____

Description: Intake has problems. Just south of Bonewitz house. Will be planted with beans. If can't fix right away, wait until fall to repair. Call Bill with any questions.

Repair labor, materials and equipment: _____

Repaired By: _____ **Date:** _____

Please reference work order # and send statement for services to:

Hardin County Auditor's Office
Attn: Drainage Clerk
1215 Edgington Ave, Suite 1
Eldora, IA 50627
Phone (641) 939-8111
Fax (641) 939-8245

For Office Use Only

Approved: _____ **Date:** _____



HARDIN COUNTY

1215 EDGINGTON AVE., SUITE 1
ELDORA, IA 50627
(641) 939-8108

HARDIN COUNTY DRAINAGE DISTRICT UTILITY PERMIT APPLICATION

Applicant: Midland Power Coop
Company Name

1005 E. Lincoln Way
Address

Jefferson IA 5029
City State Zip

Applicant Contact: Chad Reinhardt (515) 370-1485
Name Phone

C.reinhardt@midlandpower.coop
Email

Utility Type: Electric

Drainage District(s) Crossed: _____

Facilities Crossed (specific tile, open ditch): Open Ditch

Description of Work: Setting new poles along D 25 going west
from Hwy 65 approx 1.89 miles
(Location plan of proposed utility must be attached.)

Pursuant to Code of Iowa Section 468.186, approval is hereby requested for the right, privilege and authority to construct, operate and maintain utilities on, over, across or beneath established Hardin County Drainage Districts, subject to the attached Requirements for Construction On, Over, Across or Beneath Established Drainage District. Failure to comply with said requirements shall be ground for revocation of the permit by the Hardin County Board of Supervisors.

Chad Reinhardt
Applicant Signature

5/9/18
Date

Submit Form and Location Plan To: Hardin County Auditor's Office
Attn: Drainage Clerk
1215 Edgington Ave, Suite 1
Eldora, IA 50627
Fax (641) 939-8225
drainage@hardincountyia.gov

For Office Use Only

Application Approval:
By: _____ Date: _____
Board of Supervisor Chairman, Acting as Drainage District Trustee
APPROVED PERMIT #: _____



REQUIREMENTS FOR CONSTRUCTION ON, OVER, ACROSS OR BENEATH ESTABLISHED DRAINAGE DISTRICT

Upon issuance of a permit for utilities on, over, across or beneath established Hardin County Drainage Districts, the applicant shall be governed by these requirements and shall comply with all conditions contained herein.

1. The Applicant shall furnish the Drainage District, or its representative, plats showing the exact location of the proposed construction. If it is found that such locations are in conflict with the present or proposed facilities and that a more desirable location is possible, the Applicant shall review such possible alignment changes. **No construction is to commence with the drainage facility without an approved application.**
2. Applicant shall comply with Iowa One-Call requirements prior to commencing any work.
3. The Drainage District shall provide Applicant access to maps or other information regarding the location of all known drainage district facilities so that reasonable care may be taken by Applicant to avoid un-necessary damage to said drainage district facilities.
4. The Applicant shall hold the Drainage District harmless from any damage that may result to the Drainage District facility because of the construction or maintenance of the utility, and shall reimburse the Drainage District for any expenditures that the Drainage District may have to make on said Drainage District facilities resulting from Applicant's construction and installation of utilities, or their subsequent repair or modification.
5. The Applicant shall take all reasonable precaution during the construction of said utility to protect and safeguard the lives and property of the public and adjacent property owners and shall hold the Drainage District harmless from any damages or losses that may be sustained by adjacent property owners on account of such construction operations. Further, Applicant agrees to replace, repair or reimburse all damages to private property occasioned by Applicant's installation of subsequent modification or repairs.
6. The Drainage District assumes no responsibility for damages to the Applicants property occasioned by any construction or maintenance operation of said Drainage District facilities, subsequent to Applicants installation.
7. A copy of a certificate of insurance naming the County/Drainage District as additional insured for their permit work shall be provided to the County Auditor prior to installation. The limit of liability under the insurance policy shall not be less than \$1,000,000 per occurrence.
8. The Applicant agrees to give the Drainage District twenty-four (24) hours (Saturday and Sunday excluded) notice of its intention to commence construction on any lands within the jurisdiction of the Drainage District. Said notice shall be made in writing to the County Auditor or to the designated Drainage District representative.
9. The Applicant agrees to place permanent, visible markers or monuments at locations where utility crosses Drainage District facilities. These monuments or markers shall identify the owners name, address and phone number.
10. The Drainage District Trustees may appoint a representative to inspect and approve all construction across Drainage District facilities as part of this permit. All compensation, wages, mileage and other expenses for this representative will be paid by the Applicant. It will be the responsibility of the Applicant to make all contacts with private parties (adjacent owners/operators) to determine the location of private drainage facilities. Said representative will also inspect all crossing of Drainage District facilities and may, if required, observe the crossing of private drainage facilities, and shall have the authority to require the Applicant to excavate and expose the crossing of any Drainage District facility where the representative believes it prudent to visually examine Applicants crossing of the Drainage District facility. Further, said representative has the authority to suspend construction and installation by the Applicant within any Drainage District jurisdiction by verbal order to the contractor at the site and a telephone call to Applicants contact person listed on page 1 within six (6) hours of the verbal order.



11. The construction and maintenance of Applicants installation shall be carried on in such a manner as to not interfere with or interrupt the function of said Drainage District facilities without the express written consent of the Drainage District Representative. In the event it becomes necessary to temporarily stop the flow of water, the following shall be completed by the Applicant:
 - a. If the crossing involves a tile line, the replacement of tile with approved materials, in the manner approved by the Drainage Districts designated representative, shall be performed as rapidly as possible. If the approved method of repair is impossible and the volume of water flowing in the tile is sufficient to create the possibility of crop loss or property damage, the Contractor will be permitted to temporarily block the tile line to prevent the flow of this tile water into the pipeline, or tile line ditch. In the event this tile line is so temporarily blocked, the Contractor will be expected to provide sufficient pumping equipment to pump the impounded tile water across the construction ditch to the undisturbed tile line. Such temporary blockages of said Drainage District tile lines will be removed a rapidly as possible and any tile repairs caused by this blockage will be immediately repaired at the Applicants expense.
 - b. If the crossing involves an open ditch that is carrying sufficient flow of water to make it necessary to place a temporary dam across said open ditch, such temporary dams may be constructed only upon approval from the Drainage District designated representative. The maximum elevation of this impounded water shall be determined by the designated Drainage District representative and all excess water must be allowed to flow across the construction ditch through either a closed metal culvert pipe or by pumping. All temporary dam structures are to be removed as soon as the crossing is completed. The construction and removal of these dams shall be in such a manner that the smooth and efficient function of the drainage ditch is not impaired, with all costs and damages borne by Applicant.
12. The Applicant will at any time subsequent to the commencement of construction, and at Applicants sole expense, reconstruct or replace its installation as may be necessary to conform to new grade or alignments resulting from maintenance or construction operations by the Drainage District in connection with any of its drainage facilities. Applicant agrees to do this within forth-five (45) days of receipt of written request from the Drainage District, or such longer time period as the Drainage District may specify, without cost to the Drainage District. Such reconstruction or realignment of Applicants improvements shall be made in accordance with and approved by the Drainage District or its designated representative. If the Applicant is unable to comply within the time period specified above, the Drainage District may cause the work to be done and the Applicant will pay the cost thereof upon receipt of a statement of such costs.
13. **CROSSING OF OPEN DITCH FACILITIES.** Utility crossings shall be constructed as follows, as directed by the designated representative of the Drainage District:
 - a. Passage of installation in a horizontal plane five feet (5') below design grade of drainage ditch, as established by the Drainage District representative.
 - b. The above depth to extend to a point two (2) times the design base width of ditch either side of centerline of drainage ditch (measured along the centerline of utility) unless the existing base width is greater than the design bases width. If the existing base width is greater than the design with, the depth is to extend to a point two (2) times the existing width.
 - c. The rate of slope for transition from normal utility laying depth of crossings of drainage ditches shall not be steeper than 4:1.
 - d. If such ditch crossings occur at points of outlets of Drainage District or private tile lines or within twenty-five feet (25') of said outlets, such outlets must be relocated to a point not less than twenty-five feet (25') from such crossings. Such relocations shall be at the expense of the Applicant and as directed by the representative of the Drainage District.



14. **CROSSING OF DRAINAGE DISTRICT TILE LINES.** Utility crossings shall be constructed as follows, as directed by the designated representative of the Drainage District:
- a. All proposed installations must be placed under the existing Drainage District tile lines. These requirements may be waived only upon the review by and approval of the designated representative of the Drainage District. Such waiver must be in writing.
 - b. A minimum of one foot (1') clearance below existing Drainage District facilities must be maintained.
 - c. At all crossings of Drainage District tile lines with the proposed utility, one of the following must be used:
 - i. Replace Drainage District tile with reinforced concrete pipe of same or larger diameter than existing tile. Concrete pipe to be 2,000 D strength (Iowa Department of Transportation approved) with standard tongue and groove joints. Pipe to have a minimum of three (3) bolt-type connectors at each joint.
 - ii. Replace Drainage District tile with cathodic protected corrugated metal pipe. Diameter of corrugated metal pipe to be a minimum of two inches (2") larger than outside diameter of tile line being replaced. (Specifications regarding gage, cathodic protection and other details to be subject to review and approval.)
 - iii. Dual wall plastic with specific approval of Drainage District representative.
 - iv. Bore new utility installation; maintain existing tile in an undisturbed state.
 - d. The length of tile to be replaced by any of the above alternates is as follows:
 - i. Eight-inch (8") tile and smaller: Six feet (6') either side of centerline of proposed installation, measured at right angles to the centerline of installation.
 - ii. Ten inch (10") tile and larger: Ten feet (10') either side of centerline of proposed installation, measured at right angles to the centerline of installation.
 - e. At all crossings of Drainage District tile lines where the Drainage District and private tile lines are damaged by the construction, maintenance or repair of Applicants installation shall be repaired as directed by the Drainage Districts designated representative.
15. This permit is subject to existing regulations and statutes of the State of Iowa and future regulations, which may be promulgated or enacted.
16. This application is subject to revocation by Hardin County, if in its judgment it is necessary for legitimate purposes. In such event, written notice shall be provided to permit holder.
17. Applicant agrees to pay all other legitimate costs, fees and expenses associated with its crossing of the Drainage District facility, including but not limited to, publication costs, engineering costs and legal service costs. Said costs will be paid within thirty (30) days of the mailing of the statements to the Applicant.
18. Applicant agrees to provide a copy of as-built plan of the utility route and location, showing route changes that may have taken place during construction.
19. Applicant agrees to include a copy of these requirements to all bidding specifications; or if the construction and installation contract has been let by the time this permit is approved, Applicant agrees to provide a copy of these requirements to the contractor and to advise them that they are bound by the terms of these requirements.



HARDIN COUNTY UTILITY PERMIT APPLICATION

Permit No: _____

Underground
 Aerial

Permanent Installation
 Temporary Installation

This is a Utility Permit Application for telecommunications, electric, gas, water and sewer utilities. The applicant agrees to comply with the following permit requirements. Compliance shall be determined by the sole discretion of the County Engineer as deemed necessary to promote public health, safety, and general welfare. These requirements shall apply unless waived in writing by the County Engineer prior to installation.

APPLICANT NAME: Chad Reinholdt of Midland Power Cooperative

STREET ADDRESS: 1005 E. Lincoln Way

CITY: Jefferson STATE: IA ZIP: 50129

PHONE: 515-370-1485 FAX: _____ CONTACT PERSON: Chad Reinholdt

TYPE OF WORK: We will be Replacing poles along D25 going West from Hwy 65 approx 1.89 Mile

1. LOCATION PLAN

An applicant shall file a completed location plan as an attachment to this Utility Permit Application. The location plan shall set forth the location of the proposed line on the secondary road system and include a description of the proposed installation.

2. WRITTEN NOTICE

At least five (5) working days prior to the proposed installation, an applicant shall file with the County Engineer a written notice stating the time, date, location, and nature of the proposed installation.

3. INSPECTION

The County Engineer may provide a full-time inspector during the installation of all lines to ensure compliance with this Utility Permit. The inspector shall have the right, during reasonable hours and after showing proper identification, to enter any installation site in the discharge of the inspector's official duties, and to make any inspection or test that is reasonably necessary to protect the public health, safety, and welfare.

4. INSPECTION FEES

The applicant shall pay actual costs directly attributable to the installation inspection conducted by the County Engineer. Within thirty (30) days after completion of the installation, the County Engineer shall submit a statement for inspection services rendered. The applicant agrees to reimburse the county within thirty (30) days of billing.

5. REQUIREMENTS

The installation inspector shall assure that the following requirements have been met:

- A. Construction signing shall comply with the Manual on Uniform Traffic Control Devices
- B. Depth -- (Add additional depth if ditch has silted to the thickness of the deposited silt.) The minimum depth of cover shall be as follows:

Telecommunications.....	36"	Electric.....	48"
Gas.....	48"	Water.....	60"
Sewer.....	60"		
- C. Minimum roadway overhead clearance for utility lines shall be 20 feet.
- D. The applicant shall use reference markers in the right-of-way (ROW) boundary to locate line and changes in alignment as required by the County Engineer. A permanent warning tape shall be placed one (1) foot above all underground utility lines.
- E. All tie line locations shall be marked with references located in the ROW line.
- F. No underground utility lines shall cross over a crossroad drainage structure without approval from the County Engineer.
- G. Residents along the utility route shall have uninterrupted access to the public roads. An all weather access shall be maintained for residents adjacent to the project.
- H. After construction, granular surfacing shall be added to the road by the applicant to restore the road to its original condition. After surfacing has been applied, the road surface shall be reviewed by the County Engineer once the road has been saturated, to determine if additional surfacing on the roadway by the applicant is necessary.
- I. All damaged areas within the ROW shall be repaired and restored to at least their former condition by the applicant or the cost of any repair work caused to be performed by the county will be assessed against the applicant.
- J. Areas disturbed during construction which present an erosion problem shall be solved by the applicant in a manner approved by the County Engineer.
- K. All trenches, excavations, and utilities that are knifed shall be properly tamped.
- L. All utilities shall be located between the bottom of the backslope and the bottom of the foreslope, unless otherwise approved in writing by the County Engineer prior to installation.
- M. Road crossing shall be bored. The depth below the road surface shall match the minimum depth of cover for the respective utility.

6. NON-CONFORMING WORK

The County Engineer may halt the installation at any time if the applicant's work does not meet the requirements set forth in this Utility Permit Application.

7. COUNTY INFRACTION

Violation of this permit is a county infraction under Iowa Code Section 331.307, punishable by a civil penalty of \$100 for each violation. Each day that a violation occurs or is permitted to exist by the applicant constitutes a separate offense.

8. HOLD HARMLESS

The utility company shall save this county harmless of any damages resulting from the applicant's operations. A copy of a certificate of insurance naming this county as an additional insured for the permit work shall be filed in the County Engineer's Office prior to installation. The minimum limits of liability under the insurance policy shall be \$1,000,000.

9. PERMIT REQUIRED

No applicant shall install any lines unless such applicant has obtained a Utility Permit from the County Engineer and has agreed in writing that said installation will comply with all ordinances and requirements of the county for such work. Applicants agree to hold the county free from liability for all damage to applicant's property which occurs proximately as a result of the applicant's failure to comply with said ordinances or requirements.

10. RELOCATION

The applicant shall, at any time subsequent to installation of utility lines, at the applicant's own expense, relocate or remove such lines as may become necessary to conform to new grades, alignment or widening of ROW resulting from maintenance or construction operations for highway improvements.

DATE: 4/16/2018 COMPANY: Midland Power Cooperative

SIGNATURE: *Chad Reinholdt*

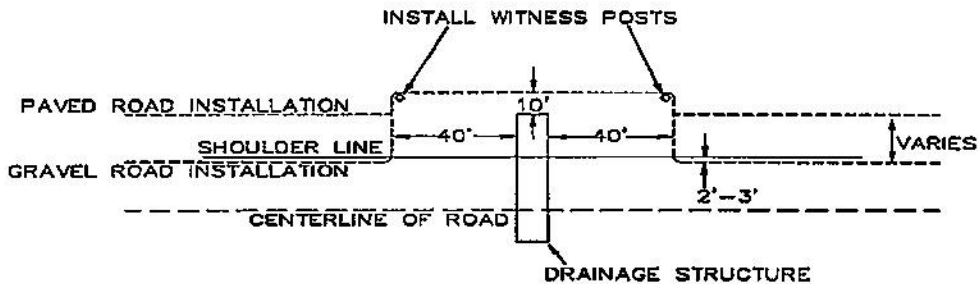
RECOMMENDED FOR APPROVAL:

DATE: _____ COUNTY ENGINEER _____

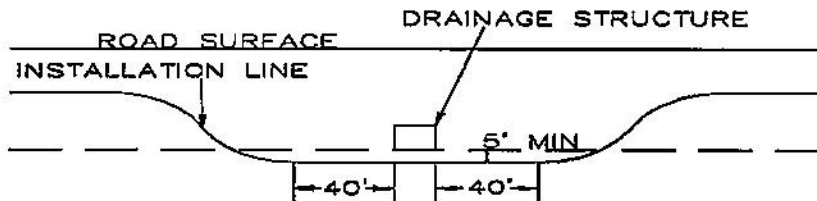
APPROVAL:

DATE: _____ CHAIRMAN, BOARD OF SUPERVISORS _____

NON-BORED INSTALLATION DETAIL



BORED INSTALLATION DETAIL



IOWA 93 MIDLAND POWER COOPERATIVE STAKING SHEET

Name: Midland Line Rebuild
 Location #: Line 1250 Rebuild
 Address: Hwy D25
 Phone #: 515-320-1485-Cord

Sub: 12
 Feeder: 50
 Phase: ABC
 Line Sec.:

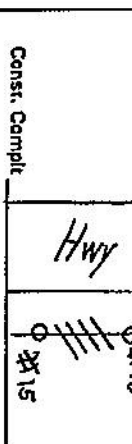
County: Hardin
 Township: Ellis
 School Dist.:

WORK ORDER CODE	
New Construction	<input checked="" type="checkbox"/>
System Improvement	<input type="checkbox"/>
Replacement	<input type="checkbox"/>
Retire No. Replaces	<input type="checkbox"/>

WORK ORDER NO. 12620
 74001 300
 Staked By: CR Date:
 Sheet No. 2 of 5
 Compiled By: Date:

SKETCH OF WORK Map Reference 74 TWP. 88N R. 2W Sec. 9, 10 Wire 4 Size 1/0 Kind ACSR

Pole No.	Pri. (Beach) Span.	Pole H & C		Pri. Unit	Line Angle	Truss - G°	Ground		GLY		SECONDARY		Misc. & Remarks	Unit	No. CONST.	No. RET.
		Misc.	Misc.				No.	Unit	Lead	Anchor Ft.	Unit No. J or K	(Beach) Span				
#23																
#22																
#21																
#20																
#19																
#18																
#17																
#16																
#15																
#23	225'	35-3		C111			5.1									
#22	225'	35-3		C111			5.1									
#21	225'	35-3		C111			5.1									
#20	225'	35-3		C111			5.1									
#19	225'	35-3		C111			5.1									
#18	225'	35-3		C111			5.1									
#17	225'	35-3		C111			5.1									
#16	225'	35-3		C111			5.1									
#15	225'	35-3		C111			5.1									
#23	223'	40-3		C111			1.1									
#22	225'	35-3		C111			5.1									
#21	225'	35-3		C111			5.1									
#20	225'	35-3		C111			5.1									
#19	225'	35-3		C111			5.1									
#18	225'	35-3		C111			5.1									
#17	225'	35-3		C111			5.1									
#16	225'	35-3		C111			5.1									
#15	223'	40-3		C111			1.1									



Const. Complt _____
 Retmt. Complt _____
 Material Ticket Complt _____
 500 BH 9-00

JOB BRIEFING

_____	Normal Voltage	_____	Top of Line Protective Dev
_____	Fault Current Available	_____	Other Utilities in Area
_____	Hazardous Induced Voltg	_____	Personel Protective Equip
_____	Presence Positive Voids	_____	Traffic Control
_____	Equipment Grounds	_____	Job Procedure
_____	Pole Condition	_____	Individual Job Duties
_____	Environmental Condition	_____	Other Hazards

Crew Initials: 1 _____ 2 _____ 3 _____ 4 _____ 5 _____ 6 _____

CONSTRUCTION

Conductor	Pil. Sec.	O.H.	URD	Pole Line Ft.	No. of Wires	Total Feet
10/35	X			1023	2	4167
TOTALS	X	X	X			

RETIREMENT

Conductor	Pil. Sec.	O.H.	URD	Pole Line Ft.	No. of Wires	Total Feet
TOTALS	X	X	X			

IOWA 93 MIDLAND POWER COOPERATIVE
STAKING SHEET

Name Midland Line Rebuild Sub 12
 Location #: Line 1250 Rebuild
 Address: Hwy D25 Feeder 50
 Phone #: 515-370-1485-Cad Phase ABC

County: Hardin
 Township: Ellis
 School Dist.: _____

WORK ORDER CODE
New Construction
System Improvement
Replacement
Relate No. Replaces

WORK ORDER NO. 12620
 740# 300
 Staked By CR Date _____
 Sheet No. 3 of 5
 Compiled By _____ Date _____

SKETCH OF WORK

Map Reference 74

Twp. 88N

R 21W

Sec. 9, 10

Wire 4

Size 1/0

Kind ACSR

Pole No.	Pole (Block) Span.	Poles H & C	Pole Unit	Line Angle	Trans. "S"	Ground "M2"	Ohm	No.	Unit	Lead	Anchor Ft.	SECONDARY		Misc. & Remarks	Unit	No.
												Unit	(Back) Span			
#24	67'	40-3	C111			1.1		1	11	14'N	1.12			P1.1	9	
#25	227'	35-3	C111			5.1		3	P1.1					P1.2	1	
#26	227'	35-3	C111			5.1								H5.1	8	
#27	227'	35-3	C111			5.1								H1.1	3	
#28	227'	35-3	C111			1.1		3	P1.1					C1.11	11	
#29	227'	35-3	C111			5.1								A5.1	1	
#30	227'	40-3	C111			5.1								40-3	3	
#31	227'	40-3	C111			5.1								35-3	8	
#32	227'	35-3	C111			1.1		3	P1.1							
#33	227'	35-3	C111			5.1										
#34	227'	35-3	C111			5.1										

D25



Constr. Compt KK
 Retmt. Compt _____
 Material Ticket Compt _____
 500 BH 9:00

JOB BRIEFING

Nominal Voltage	_____
Fault Current Available	_____
Hazardous Induced Voltag	_____
Equipment Grounds	_____
Pole Construction	_____
Environmental Condition	_____
Loc of Line Protective Dev	_____
Other Utilities in Area	_____
Perennial Protective Equip	_____
Job Procedure	_____
Individual Job Duties	_____
Other Hazards	_____

Crew Initials 1 _____ 2 _____ 3 _____ 4 _____ 5 _____ 6 _____

CONSTRUCTION

Conductor	Pole	Sec.	G.H.	UMD	Pole Line Ft.	No. of Wires	Total Feet
1/0 ACSR	X				2337	4	9629
TOTALS	X	X	X	X			

RETIREMENT

Conductor	Pole	Sec.	G.H.	UMD	Pole Line Ft.	No. of Wires	Total Feet
TOTALS	X	X	X	X			

**IOWA 93 MIDLAND POWER COOPERATIVE
STAKING SHEET**

Name: Midland Line Renewal
 Location #: Line 1250 Renewal
 Address: Hwy D25
 Phone #: 515-370-1485-Cord

Sub: 12
 Feeder: 50
 Phase: ABC
 Line Seq.:

County: Hardin
 Township: Ellis
 School Dist.:

WORK ORDER CODE	
New Construction	
System Improvement	<input checked="" type="checkbox"/>
Replacement	
Relate No. Replace	

WORK ORDER NO. 126120
 7404 300
 Staked By: CR Date: 4 of 5
 Sheet No. 4
 Compiled By: _____ Date: _____

SKETCH OF WORK

Map Reference

74

Twp. 88N

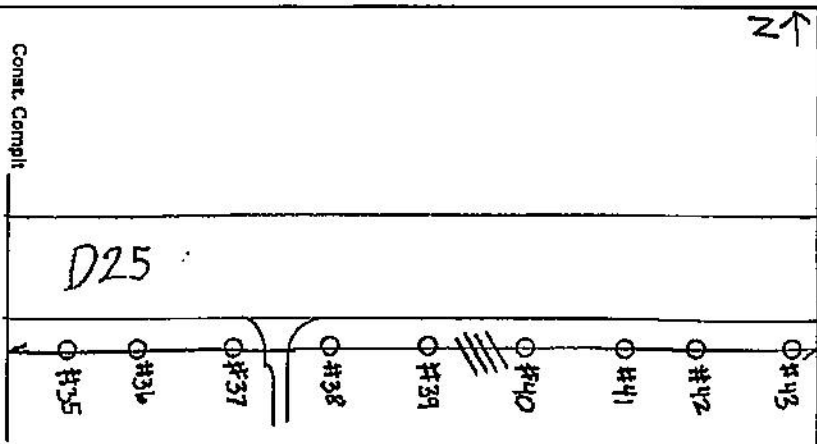
R 21W

Sec. 9, 10

Wire 4

Size 1/0

Kind KCSR



Pole No.	Pole H & C	Pt. Unit	Line Angle	Trans. °S	Ground 742° Ohm	GUY		ANCHOR		SECONDARY		Misc. & Remarks	Unit	No. CONST.	No. RET.
						No.	Unit	No. U or K	Unit (Back) Spen	Wire	Size				
#35	227'	35-3	C111	5.1									35-3	7	
#36	227'	35-3	C111	5.1		3	P1.1						40-3	2	
#37	227'	40-3	C111	5.1									C111	9	
#38	227'	40-3	C111	5.1									A5.1	7	
#39	227'	35-3	C111	5.1									H1.1	2	
#40	227'	35-3	C111	5.1		3	P1.1						P1.1	6	
#41	227'														
#42	227'	35-3	C111	5.1											
#43	227'	35-3	C111	5.1											

JOB BRIEFING
 Routing Voltage _____
 Fault Current Available _____
 Hazardous Insulated Volt _____
 Presence Protective Equip _____
 Equipment Grounds _____
 Pole Condition _____
 Environmental Condition _____

CONSTRUCTION
 Conductor P.H. Sec. O.H. U.R.D. Pole Line Ft. No. of Wires Total Feet
 1/0 MSR Y X 2043 4 8418

RETIREMENT
 Conductor P.H. Sec. O.H. U.R.D. Pole Line Ft. No. of Wires Total Feet

Const. Compl. _____
 Retmt. Compl. _____
 Material Ticket Compl. _____
 500 BH 9-00

Crew Initials 1 _____ 2 _____ 3 _____ 4 _____ 5 _____ 6 _____

TOTALS	X	X	X	X	X	X	X	X
--------	---	---	---	---	---	---	---	---

TOTALS	X	X	X	X	X	X	X	X
--------	---	---	---	---	---	---	---	---



HARDIN COUNTY

1215 EDGINGTON AVE., SUITE 1
ELDORA, IA 50627
(641) 939-8108

HARDIN COUNTY DRAINAGE DISTRICT UTILITY PERMIT APPLICATION

FILED

MAY 07 2018

HARDIN COUNTY AUDITOR

Applicant: Iowa Regional Utilities Association
Company Name

1351 Iowa Speedway Drive
Address

Newton Iowa 50208
City State Zip

Applicant Contact: Gayla E. Hannagan (641) 792 7011
Name Permit Manager Phone
ghannagan@irua.net
Email

Utility Type: Potable Water

Drainage District(s) Crossed: #11 and #21

Facilities Crossed (specific tile, open ditch): Tile

Description of Work: Installation of 3" water transmission mains.

*(Location plan of
proposed utility must
be attached.)*

Will directionally bore under all drainage district tile.

Pursuant to Code of Iowa Section 468.186, approval is hereby requested for the right, privilege and authority to construct, operate and maintain utilities on, over, across or beneath established Hardin County Drainage Districts, subject to the attached Requirements for Construction On, Over, Across or Beneath Established Drainage District. Failure to comply with said requirements shall be ground for revocation of the permit by the Hardin County Board of Supervisors.

Gayla E. Hannagan
Applicant Signature

5-1-2018
Date

Submit Form and Location Plan To: Hardin County Auditor's Office
Attn: Drainage Clerk
1215 Edgington Ave, Suite 1
Eldora, IA 50627
Fax (641) 939-8225
drainage@hardincountyia.gov

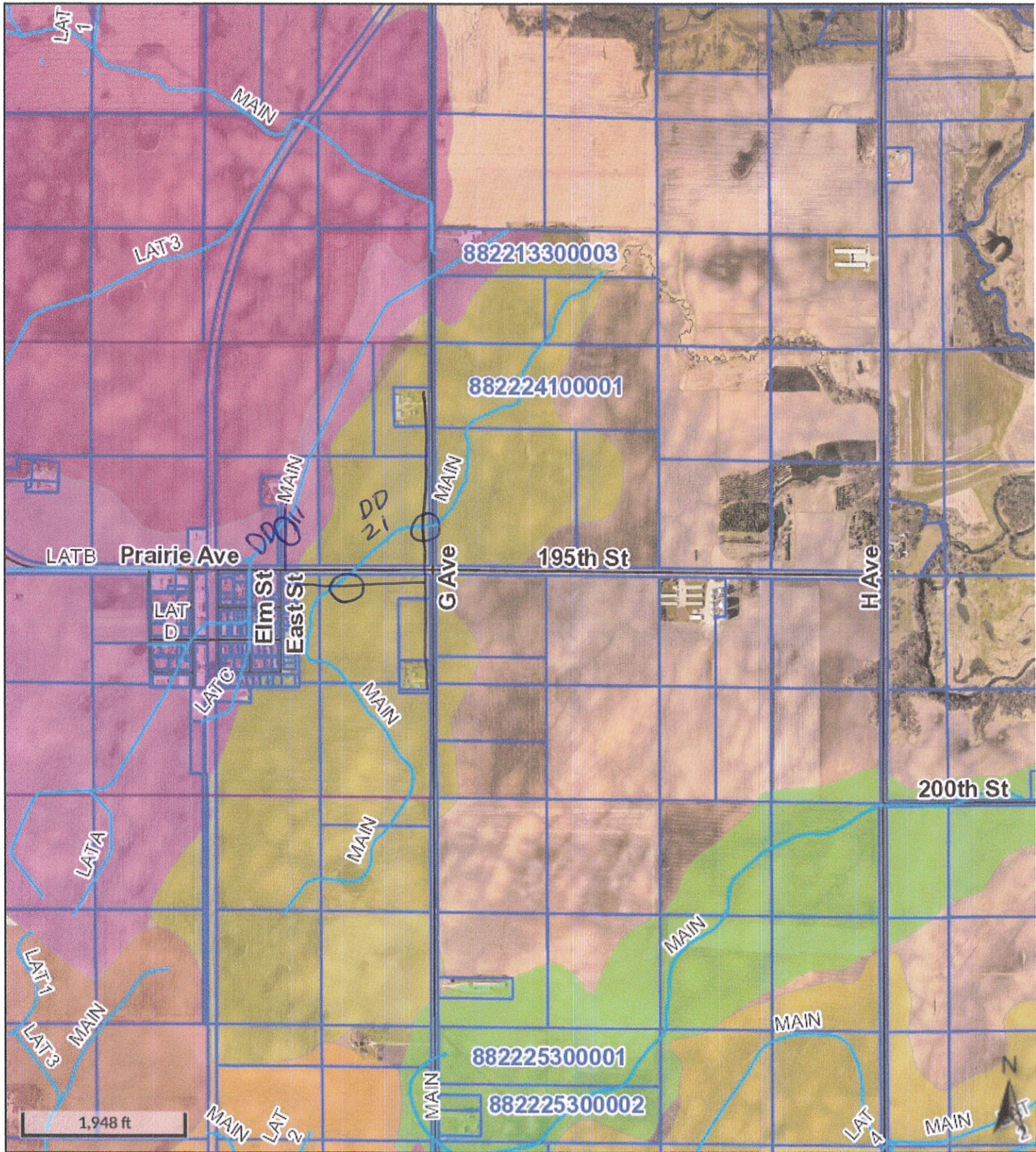
For Office Use Only

Application Approval:

By: _____ Date: _____
Board of Supervisor Chairman, Acting as Drainage District Trustee

APPROVED PERMIT #: 2018-6

 **Beacon**TM Hardin County, IA





HARDIN COUNTY

1215 EDGINGTON AVE., SUITE 1
ELDORA, IA 50627
(641) 939-8108

HARDIN COUNTY DRAINAGE DISTRICT UTILITY PERMIT APPLICATION

Applicant: Iowa Regional Utilities Association
Company Name
1351 Iowa Speedway Drive
Address
Newton Iowa 50208
City State Zip

FILED
MAY 07 2018
HARDIN COUNTY AUDITOR

Applicant Contact: Gayla E. Hannagan (641-792-7011)
Name Permit Manager Phone
ghannagan@irua.net
Email

Utility Type: Potable Water

Drainage District(s) Crossed: #55

Facilities Crossed (specific tile, open ditch): Tile

Description of Work: Installation of 3" water transmission mains.

*(Location plan of
proposed utility must
be attached.)*

Will directionally bore under all drainage district tile.

Pursuant to Code of Iowa Section 468.186, approval is hereby requested for the right, privilege and authority to construct, operate and maintain utilities on, over, across or beneath established Hardin County Drainage Districts, subject to the attached Requirements for Construction On, Over, Across or Beneath Established Drainage District. Failure to comply with said requirements shall be ground for revocation of the permit by the Hardin County Board of Supervisors.

Gayla E. Hannagan
Applicant Signature

5-1-2018
Date

Submit Form and Location Plan To: Hardin County Auditor's Office
Attn: Drainage Clerk
1215 Edgington Ave, Suite 1
Eldora, IA 50627
Fax (641) 939-8225
drainage@hardincountyia.gov

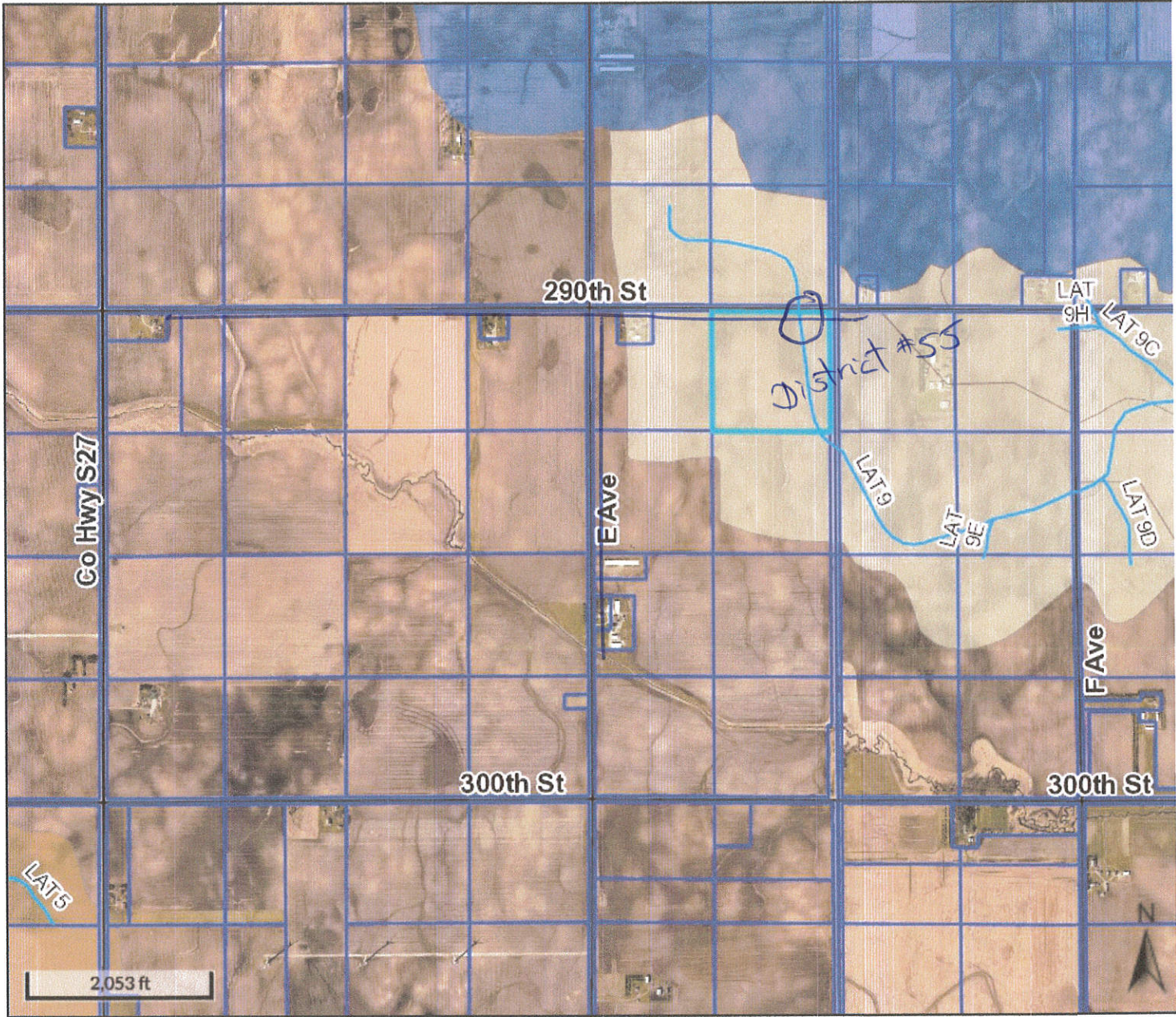
For Office Use Only

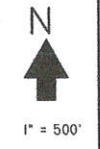
Application Approval:

By: _____ Date: _____
Board of Supervisor Chairman, Acting as Drainage District Trustee

APPROVED PERMIT #: 2018-7

 **Beacon**TM Hardin County, IA





HARDIN COUNTY

CENTRAL IOWA WATER ASSOCIATION
 3801 IOWA SPEEDWAY DRIVE, NEWTON, IOWA 50208-8245
 (641) 792-7011

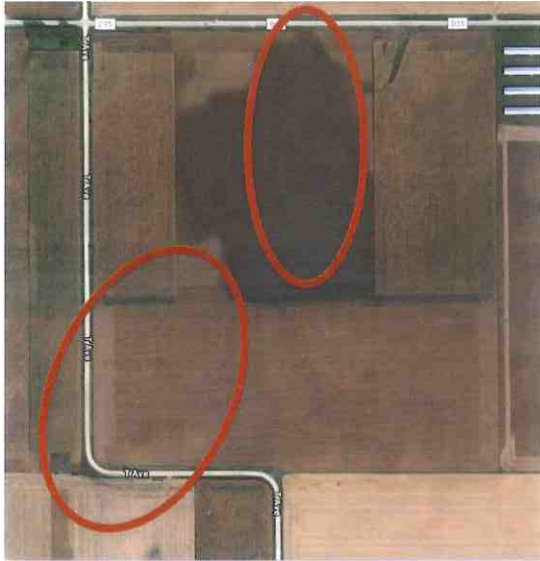
DRAWN BY
 GMK
 4/9/2018

T86N
 R22W

SHEET
 710 AND
 722
 PARTIAL

\\vrua2\drafting\Auto Cad Draw\HARDIN COUNTY\TOWNSHIPS\GRANT-CONCORD.dwg, II X 17, 4/19/2018 3:18:45 PM

TILE					
MATERIAL = CLAY UNLESS OTHERWISE NOTED. CONDITION UNLESS NOTED					
SECT	TILE #	SIZE	MATERIAL	DEPTH	CONDITION
11	1	6"	CLAY	4"	GOOD
11	2	6"	CLAY	4"	GOOD
11	3	6"	CLAY	4"	GOOD
11	4	6"	CLAY	4"	NO RUBBLE
11	5	6"	CLAY	4"	FLASHE
11	6	6"	CLAY	4"	FLASHE



**COMPLETION REPORT
ON
REPAIRS TO MAIN TILE
DRAINAGE DISTRICT NO. 122
AND LATERAL 2 TILE
DRAINAGE DISTRICT 8
HARDIN COUNTY,
IOWA**

	<p>I HEREBY CERTIFY 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 IOWA</p> <p style="text-align: center;"> _____ LEE O. GALLENTINE, P.E. </p> <p style="text-align: right;"> May 9, 2018 _____ DATE </p> <p>LICENSE NUMBER: 15745 MY LICENSE RENEWAL DATE IS DECEMBER 31, 2018 PAGES OR SHEETS COVERED BY THIS SEAL: SHOWN ON TABLE OF CONTENTS</p>
--	--



OFFICE LOCATIONS

739 Park Avenue
 Ackley, IA. 50601
 Phone: 641-847-3273
 Fax: 641-847-2303

16 East Main Street
 Marshalltown, IA 50158
 Phone: 641-752-6701
 Fax: 641-752-2849

511 Bank Street
 Webster City, IA 50595
 Phone: 515-832-1876
 Fax: 515-832-1932

**Completion Report on Repairs to
Main Tile Drainage District No. 122
and Lateral 2 Tile Drainage District 8
Hardin County, Iowa**

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Project Timeline	Pg. 2
Project Deviations	Pg. 3
Final Project Costs	Pg. 3
Pending Items	Pg. 3
Appendices	
As-Built Plans	App. A
Final Pay Estimate	App. B
Lien Waivers	App. C

**Completion Report on Repairs to
Main Tile Drainage District No. 122
and Lateral 2 Tile Drainage District 8
Hardin County, Iowa**

PROJECT TIMELINE: The Hardin County Board of Supervisors, acting as District Trustees, requested Ryken Engineering to investigate and report concerning repairs to the Main tile of Drainage District No. 122 and the Lateral 2 tile of Drainage District No. 8. As a result, Ryken Engineering generated an Engineer's Report dated September 15, 2016 summarizing past improvements and repairs, investigating the necessity and feasibility of repairs to the existing Lateral 2 tile of Drainage District No. 8, and presenting opinion of construction costs associated with said repairs. A hearing concerning said report was conducted. As a result of the hearing, the Trustees authorized Ryken Engineering to proceed with completion of project plans and specifications for the repairs to said Lateral 2 tile. For Drainage District No. 122, a landowner's meeting was held on November 9, 2016 to discuss the results of a drainage investigation on the Main tile. As a result of the meeting, the Trustees authorized Ryken Engineering to find a contractor to proceed with spot repairs to said Main tile. Due to the proximity of the projects, it was decided to combine them both into one project and proceed with a bid letting.

Ryken Engineering completed the authorized plans and specifications and a bid letting date of February 15, 2017 was set. The project was advertised, and bids were received from qualified contractors. The following bids were received:

- | | |
|--|--------------------|
| 1. Cole Excavating of Greene, Iowa | Bid = \$100,022.00 |
| 2. MORTS of Hampton, Iowa | Bid = \$115,693.23 |
| 3. Vieth Construction Corp. of Cedar Falls, Iowa | Bid = \$128,797.00 |
| 4. Farm Tile Pro of Osage, Iowa | Bid = \$130,012.00 |
| 5. Gehrke, Inc. of Eldora, Iowa | Bid = \$142,271.50 |
| 6. Groff Excavating Inc. of Toledo, Iowa | Bid = \$174,318.00 |
| 7. Hennigar Construction of Clarion, Iowa | Bid = \$254,255.00 |

The District Trustees identified Cole Excavating as the lowest responsible bidder for the repair to district facilities and awarded the project. The contract was signed on March 9, 2017. Construction activities were started on November 9, 2017. Weather and working conditions for this type of construction were favorable and the contractor worked until the Main tile and Lateral 2 tile were repaired and the only work remaining was site cleanup. This was achieved November 21, 2017 (approximately 1 week before the November 30, 2017 contract completion date).

PROJECT DEVIATIONS: - This project followed the authorized plans and specifications fairly well with only the following deviations (for reference, see as-built plans included in Appendix A):

1. During construction, contractor requested to use polypropylene instead of RCP for the spot repair on the Main tile of Drainage District No. 8. This did not result in any change in price.
2. It was anticipated that all Main tile of Drainage District 122 was 12". During construction, it was discovered that part of the Main tile was actually 15" instead of 12". This resulted in an increase of \$3,743.60.
3. There were small differences between bid quantities and actual installed quantities in some items. This resulted in a decrease of \$10,733.32.

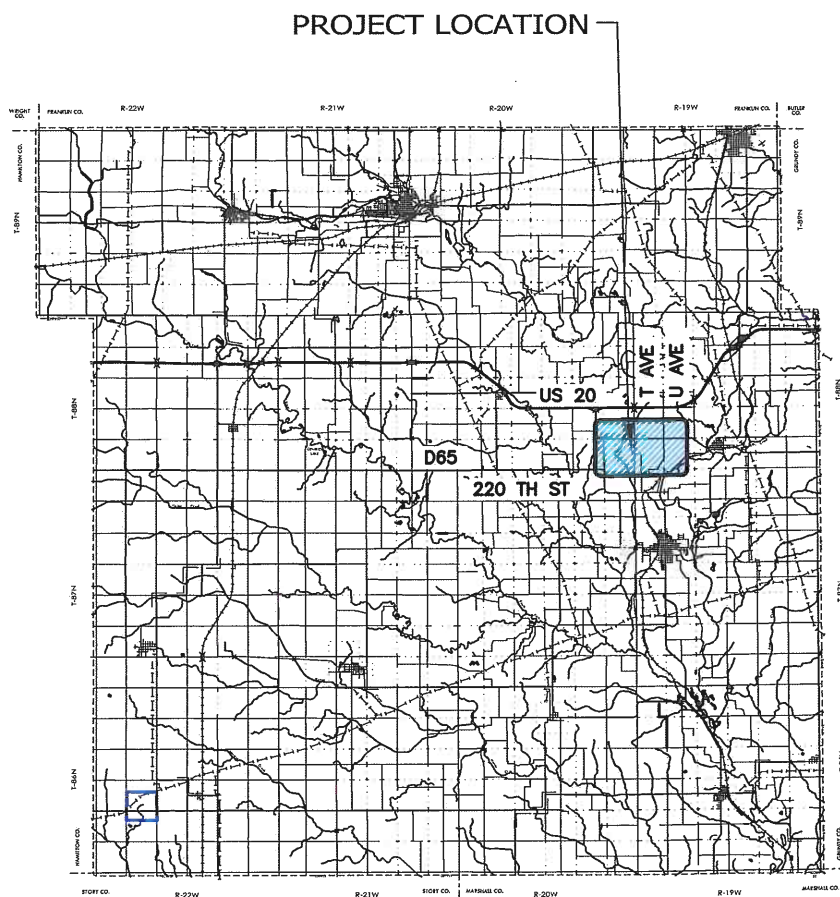
FINAL PROJECT COSTS: - The final project costs for construction (for reference, see final pay estimate included in Appendix B) and engineering (not including repair summaries or report) for both districts are estimated at \$114,495.13. Of this, the final project costs for Drainage District No. 8 are estimated at \$79,125.35 approximately \$7,000 below those presented at the above mentioned hearing. These costs may vary depending upon any damage claims brought forth at the completion hearing. Pending no claims, the costs are as detailed below:

Project Bid by Contractor	\$ 100,022.00
Change in pipe material (Item #1 above)	\$ 0.00
Difference in tile size (Item #2 above)	+\$ 3,743.60
Decreased Bid Quantities (Item #3 above)	-\$ 10,733.32
<u>Engineering</u>	<u>+\$ 22,462.85</u>
TOTAL PROJECT COST	\$ 114,495.13

The total cost for Drainage District No. 8 is below those contained in the above mentioned Engineer's Report. It should be noted that the above costs do not include any administrative costs, legal costs, interest on construction warrants, or damage claims.

PENDING ITEMS: - As of the writing of this report, this project is complete in general accordance with the authorized plans and specifications and lien waivers for suppliers and subcontractors have been submitted by the general contractor (for reference see Appendix C). After the completion hearing, final payment needs to be authorized by the Trustees as shown on the final pay estimate. It is my recommendation that the project be accepted. I also recommend that the entire project be walked and reviewed just prior to the expiration of the contract warranty period for any warranty items that may need to be remedied by the contractor. It should be noted that if the Trustees decide to exercise this recommendation, there are no engineering fees included in the above Final Project Costs to cover this service.

REPAIRS TO MAIN TILE DRAINAGE DISTRICT 122 AND LATERAL 2 TILE DRAINAGE DISTRICT 8 HARDIN COUNTY, IOWA 2017 AS BUILT



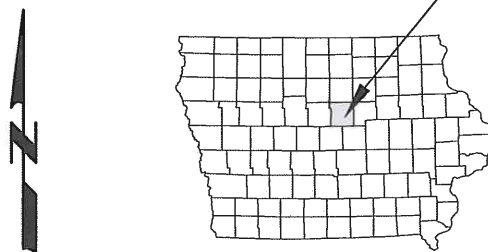
HARDIN COUNTY VICINITY MAP
NOT TO SCALE



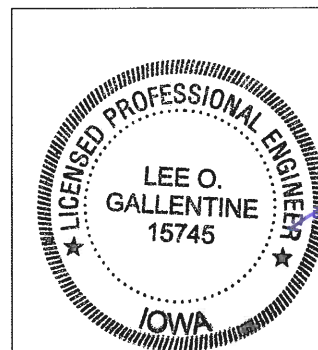
NOTES:

1. THE PLANS AND SPECIFICATIONS PREPARED BY RYKEN ENGINEERING SHALL GOVERN. ALL WORK SHALL COMPLY WITH THE DETAILS AND SPECIFICATIONS REFERENCED.
2. ALL ELEVATIONS SHOWN ON THESE PLANS ARE BASED ON 2016 SURVEY. FOR CONVERSION TO OTHER PROJECT DATUMS, SEE "BENCHMARKS" ON PAGE 9.

PROJECT LOCATION



SHEET INDEX	
SHEET NUMBER	SHEET TITLE
1	COVER
2	LEGEND NOTES ABBREVIATIONS VISUAL INDEX
DD 122 MAIN	
3	DD 122 MAIN
DD 8 LAT 2 DEMO	
4	DD 8 LAT 2 DEMO
LATERAL 2 PLAN AND PROFILE	
5	STA 0+00 - 3+80
6	STA 3+80 - 8+00
7	STA 8+00 - 11+30
8	STA 11+30 - 14+00
9	DETAILS



I HEREBY CERTIFY 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 IOWA.

Lee O. Gallentine, P.E. DATE: 1/25/2018
LEE O. GALLENTINE, P.E. DATE

P.E. LICENSE NUMBER: 15745
MY LICENSE RENEWAL DATE IS DECEMBER 31, 2018
PAGES OR SHEETS COVERED BY THIS SEAL: 1-9

DRAWN BY: MAH	APPROVED BY: LOG	REVISIONS:	
DATE: 1/7/2017	PROJ. NO.: 6666.1		
FIELD BK: -			
P:\6666.1\CADD\CDS\AS BUILT\6666_1-COVER ASBUILT.DWG; 1/25/2018			

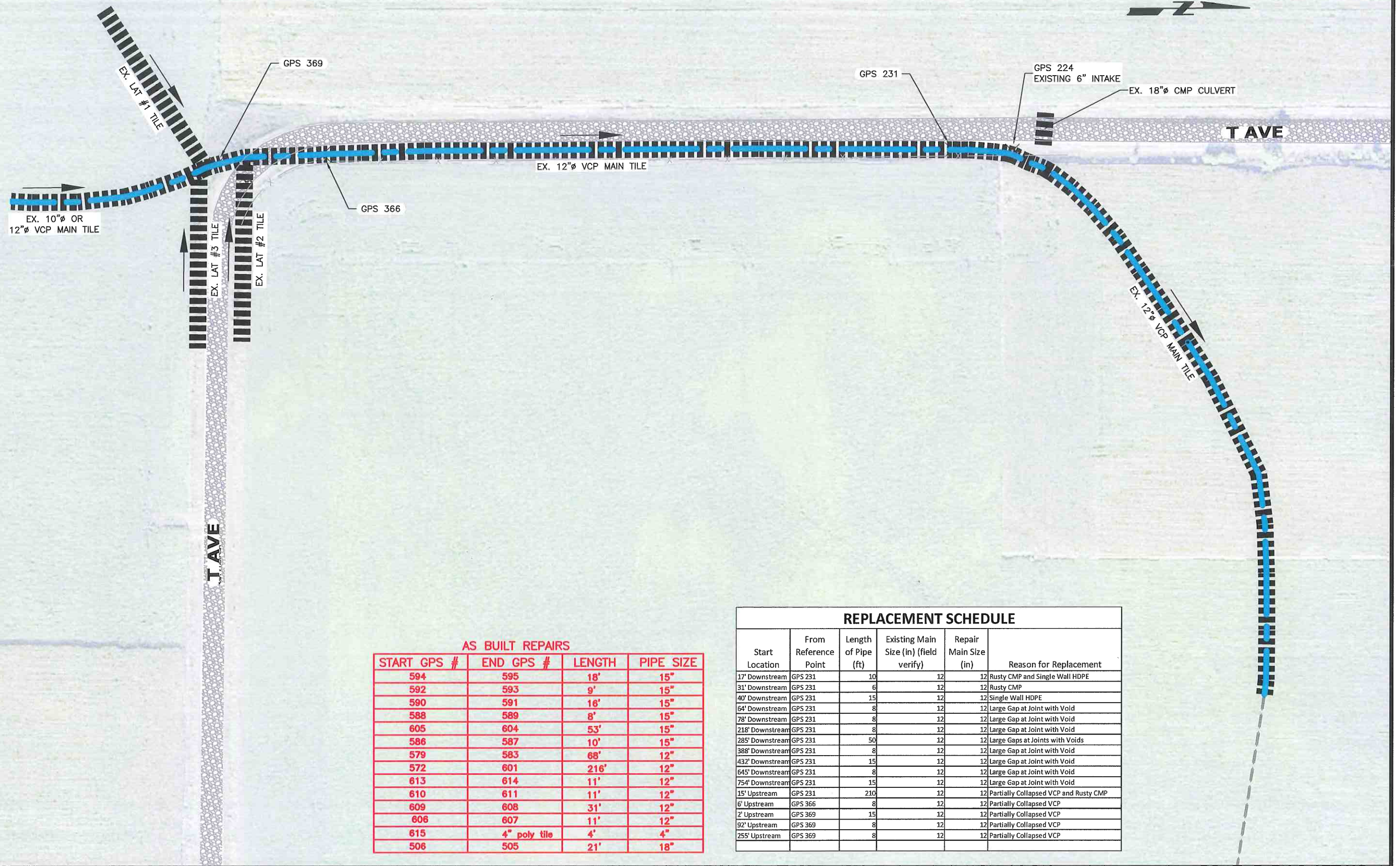
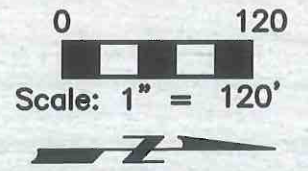


ADDRESS:
739 PARK AVENUE
ACKLEY, IOWA 50601
PH 641-847-3273 FAX 641-847-2303

PROJECT: REPAIRS TO MAIN DD 122 AND LAT 2 DD 8
HARDIN COUNTY, IOWA
2017

SHT. NAME: AS BUILT COVER

SHT. NO.: 1 of 9



AS BUILT REPAIRS

START GPS #	END GPS #	LENGTH	PIPE SIZE
594	595	18'	15"
592	593	9'	15"
590	591	16'	15"
588	589	8'	15"
605	604	53'	15"
586	587	10'	15"
579	583	68'	12"
572	601	216'	12"
613	614	11'	12"
610	611	11'	12"
609	608	31'	12"
606	607	11'	12"
615	4" poly tile	4'	4"
506	505	21'	18"

REPLACEMENT SCHEDULE

Start Location	From Reference Point	Length of Pipe (ft)	Existing Main Size (in) (field verify)	Repair Main Size (in)	Reason for Replacement
17' Downstream	GPS 231	10	10	12	Rusty CMP and Single Wall HDPE
31' Downstream	GPS 231	6	6	12	Rusty CMP
40' Downstream	GPS 231	15	15	12	Single Wall HDPE
64' Downstream	GPS 231	8	8	12	Large Gap at Joint with Void
78' Downstream	GPS 231	8	8	12	Large Gap at Joint with Void
218' Downstream	GPS 231	8	8	12	Large Gap at Joint with Void
285' Downstream	GPS 231	50	50	12	Large Gaps at Joints with Voids
388' Downstream	GPS 231	8	8	12	Large Gap at Joint with Void
432' Downstream	GPS 231	15	15	12	Large Gap at Joint with Void
645' Downstream	GPS 231	8	8	12	Large Gap at Joint with Void
754' Downstream	GPS 231	15	15	12	Large Gap at Joint with Void
15' Upstream	GPS 231	210	12	12	Partially Collapsed VCP and Rusty CMP
6' Upstream	GPS 366	8	8	12	Partially Collapsed VCP
2' Upstream	GPS 369	15	12	12	Partially Collapsed VCP
92' Upstream	GPS 369	8	8	12	Partially Collapsed VCP
255' Upstream	GPS 369	8	8	12	Partially Collapsed VCP

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 DATE: 1/7/2017 PROJ. NO.: 6666.1
 FIELD BK: -
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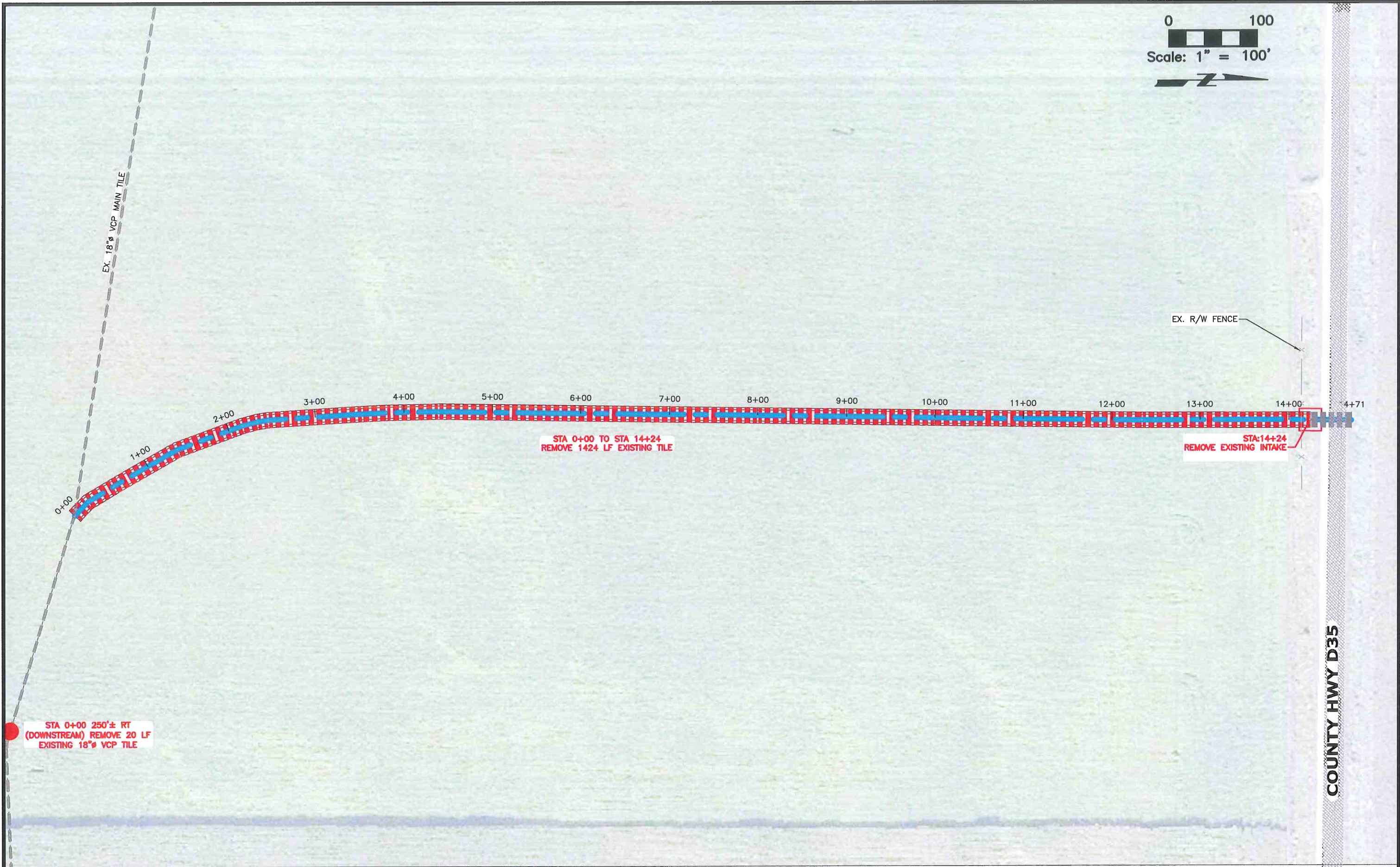
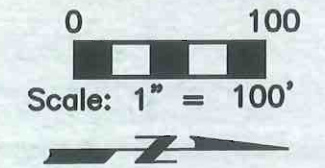


ADDRESS:
 739 PARK AVENUE
 ACKLEY, IOWA 50601
 PH 641-847-3273 FAX 641-847-2303

PROJECT:
 REPAIRS TO MAIN DD 122 AND LAT 2 DD 8
 HARDIN COUNTY, IOWA
 2017

SHT. NAME:
 AS BUILT DD 122 MAIN REPAIRS
 DD 122 MAIN

SHT. NO.:
 3 OF 9



DRAWN BY: MAH	APPROVED BY: LOG	REVISIONS:
DATE: 1/7/2017	PROJ. NO.: 6666.1	
FIELD BK: -		
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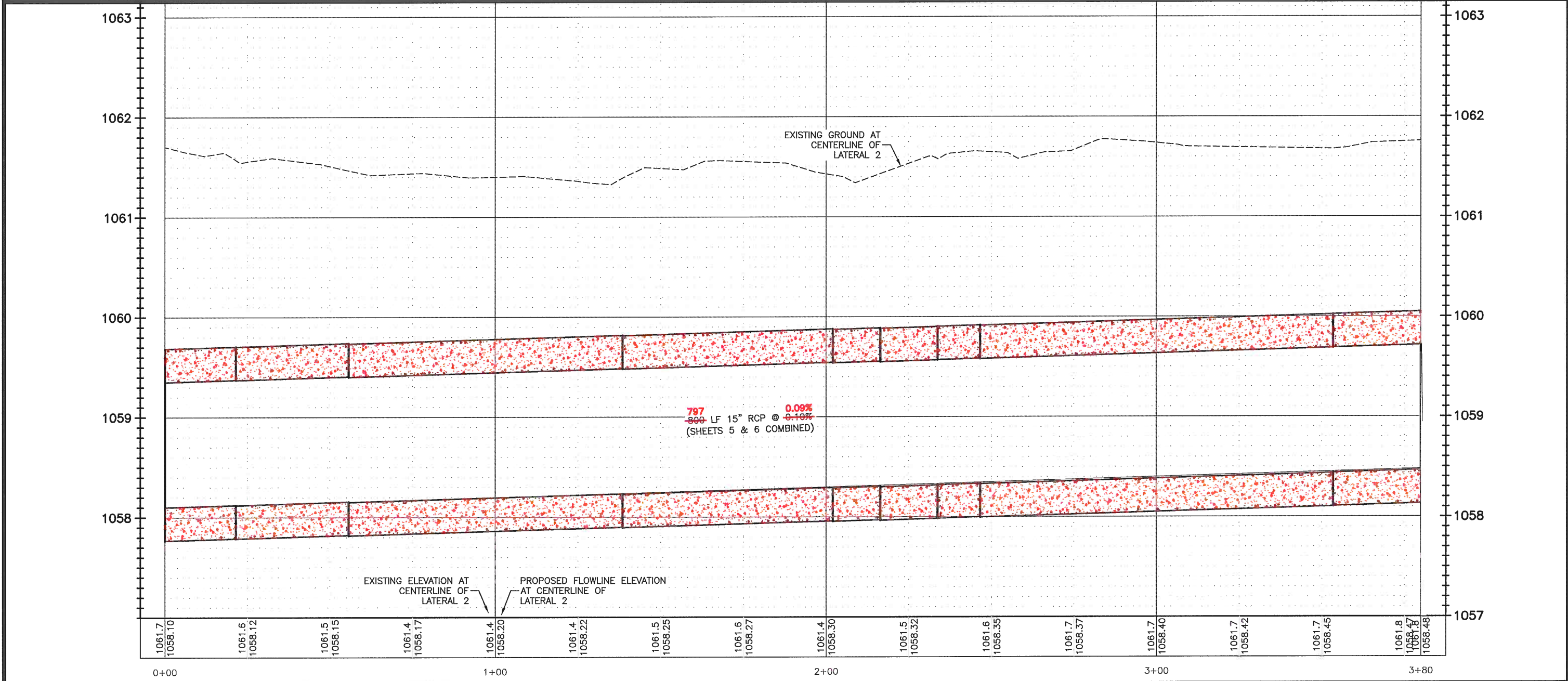
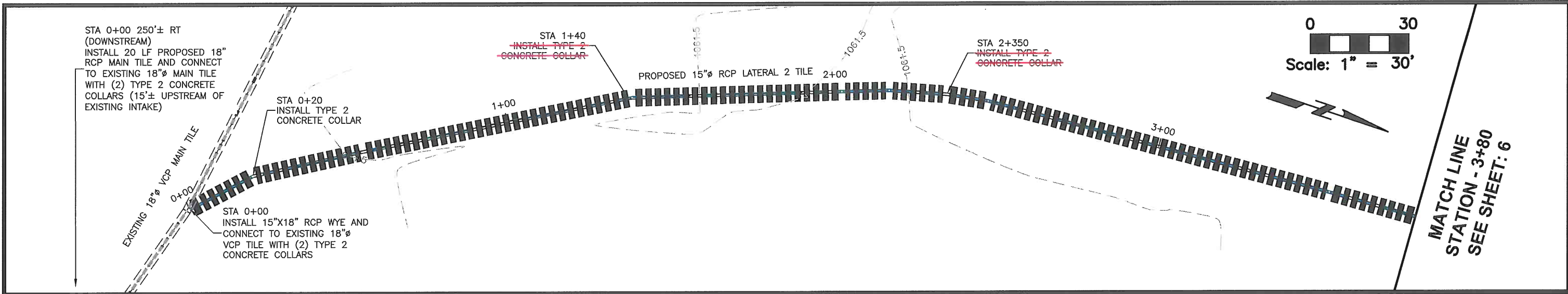


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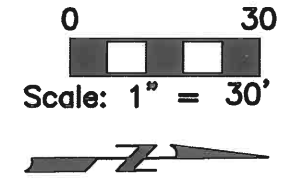
PROJECT:
REPAIRS TO MAIN DD 122 AND LAT 2 DD 8
HARDIN COUNTY, IOWA
2017

SHT. NAME:
AS BUILT DD 8 LAT 2 REPAIRS
DEMO PLAN

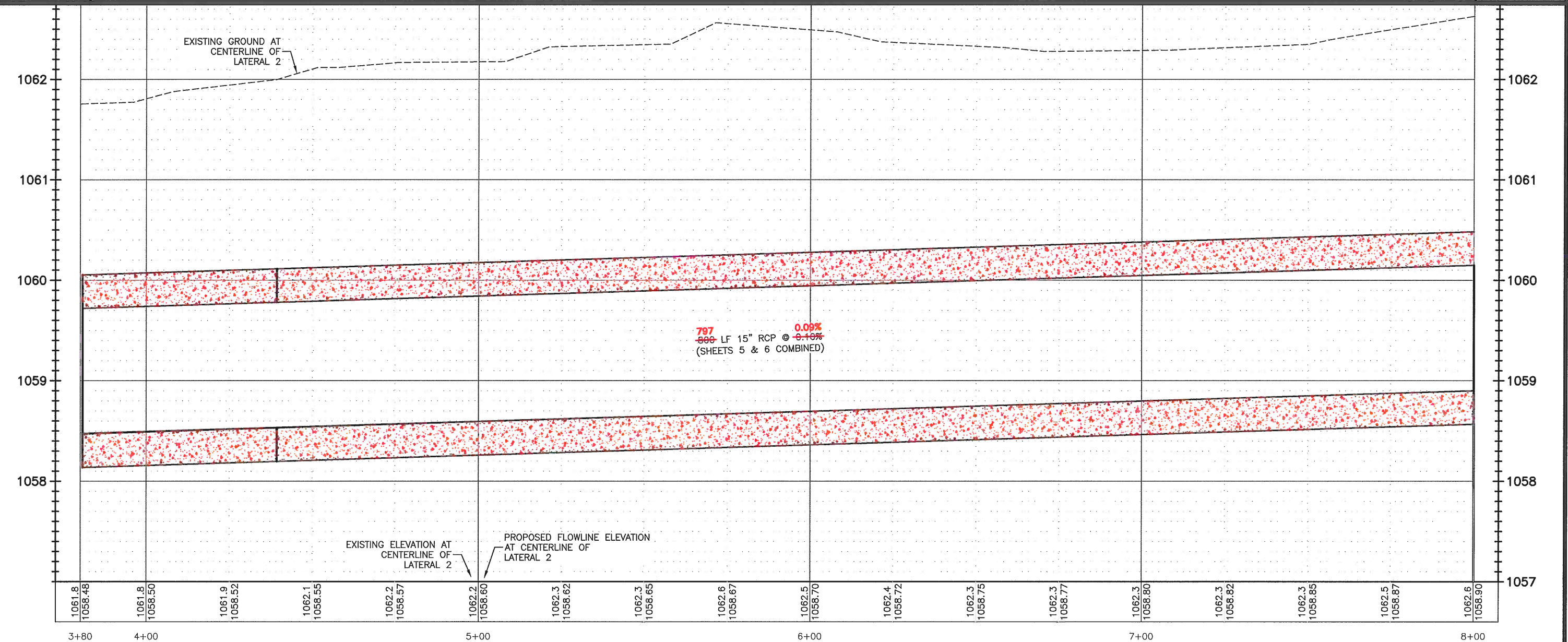
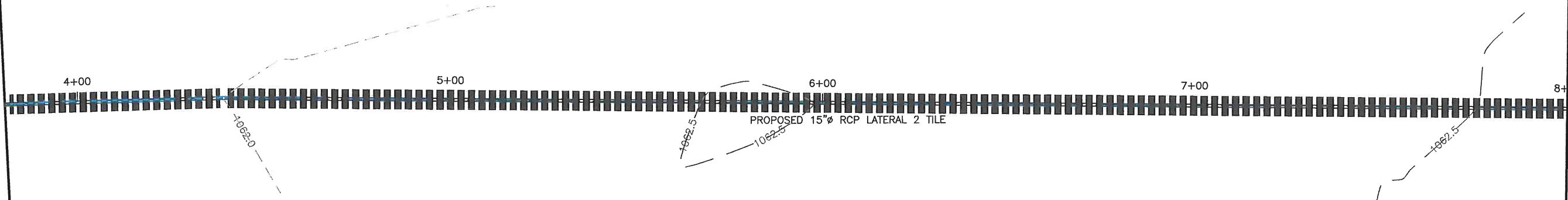
SHT. NO.:
4 of 9



MATCH LINE
STATION - 3+80
SEE SHEET: 5



MATCH LINE
STATION - 8+00
SEE SHEET: 7



DRAWN BY: MAH
DATE: 1/7/2017
FIELD BK: -
P:\6666.1\CADD\CDS\AS_BUILT\LATERAL 2 PNP ASBUILT.DWG; 1/25/2018

APPROVED BY: LOG
PROJ. NO.: 6666.1
REVISIONS:

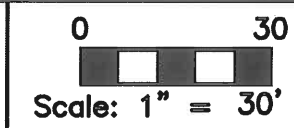


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ACKLEY, IOWA 50601
PH 641-847-3273 FAX 641-847-2303

PROJECT:
REPAIRS TO MAIN DD 122 AND LAT 2 DD 8
HARDIN COUNTY, IOWA
2017

SHT. NAME:
AS BUILT DD 8 LAT 2 PLAN AND PROFILE
STA 3+80 - 8+00

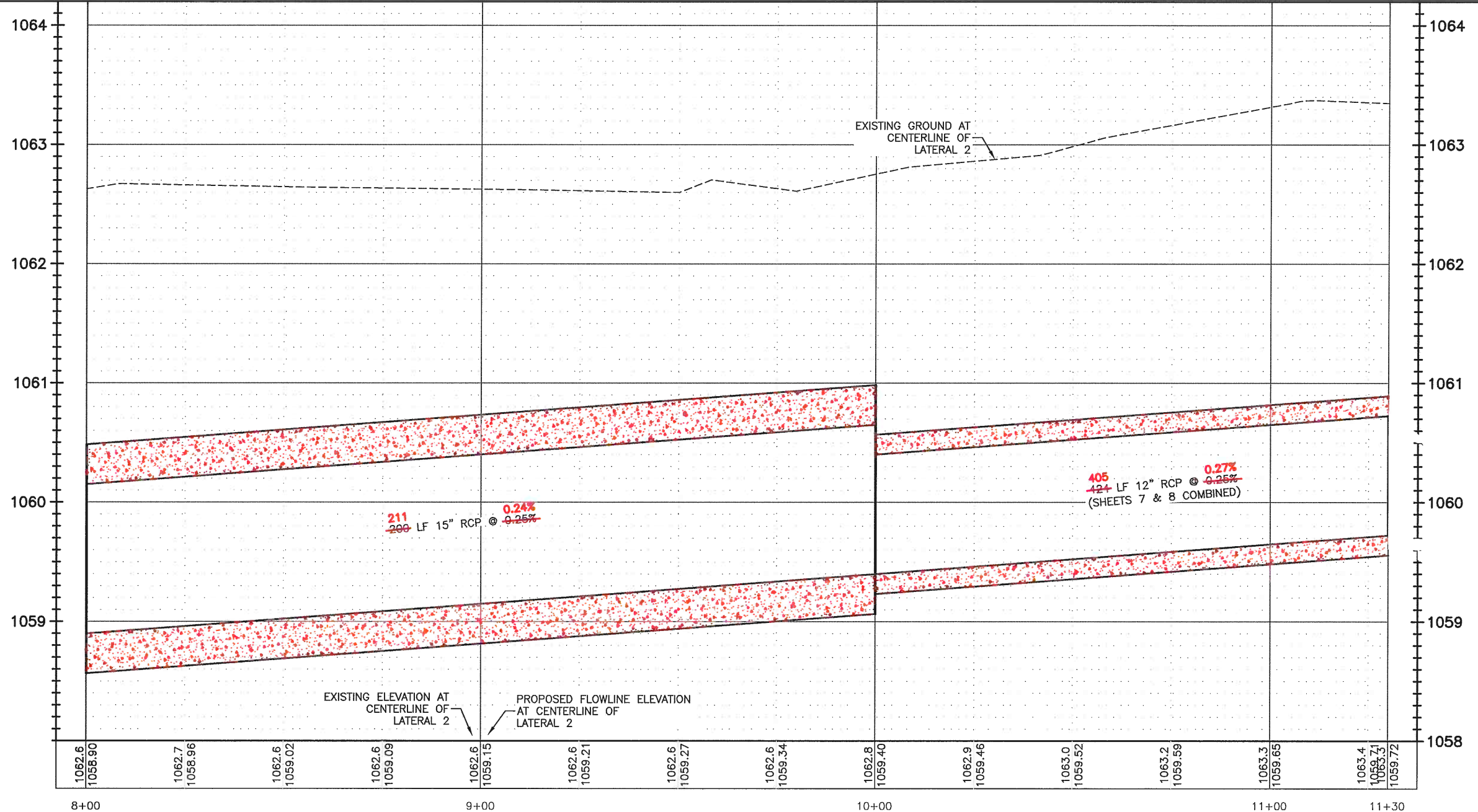
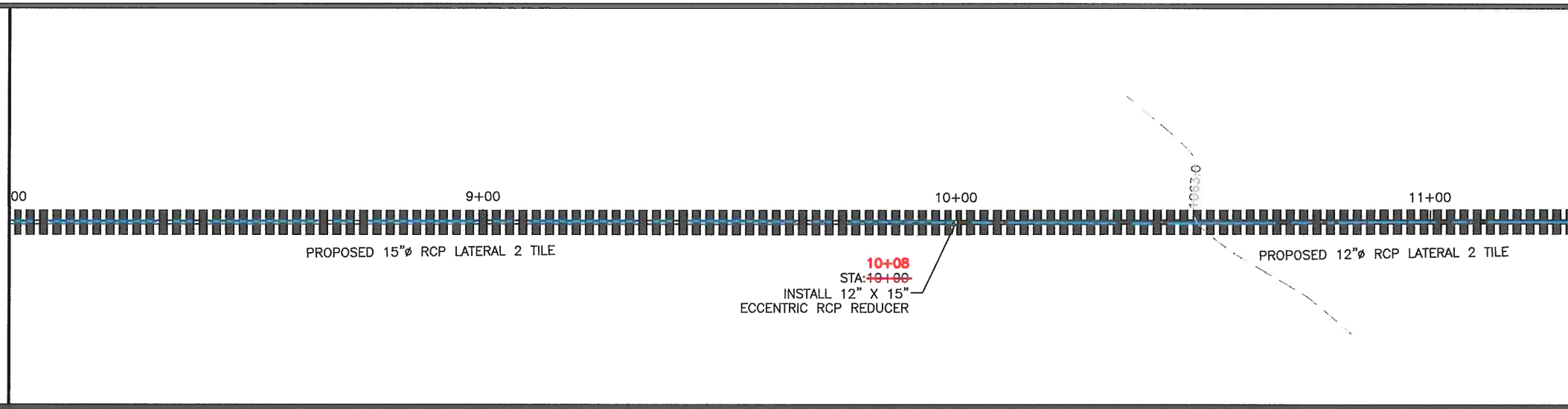
SHT. NO.:
6 OF 9



MATCH LINE
STATION - 11+30
SEE SHEET: 8



MATCH LINE
STATION - 8+00
SEE SHEET: 6



DRAWN BY: MAH	APPROVED BY: LOG	REVISIONS:
DATE: 1/7/2017	PROJ. NO.: 6666.1	
FIELD BK: -		
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RYKEN
ENGINEERING & LAND SURVEYING, INC.

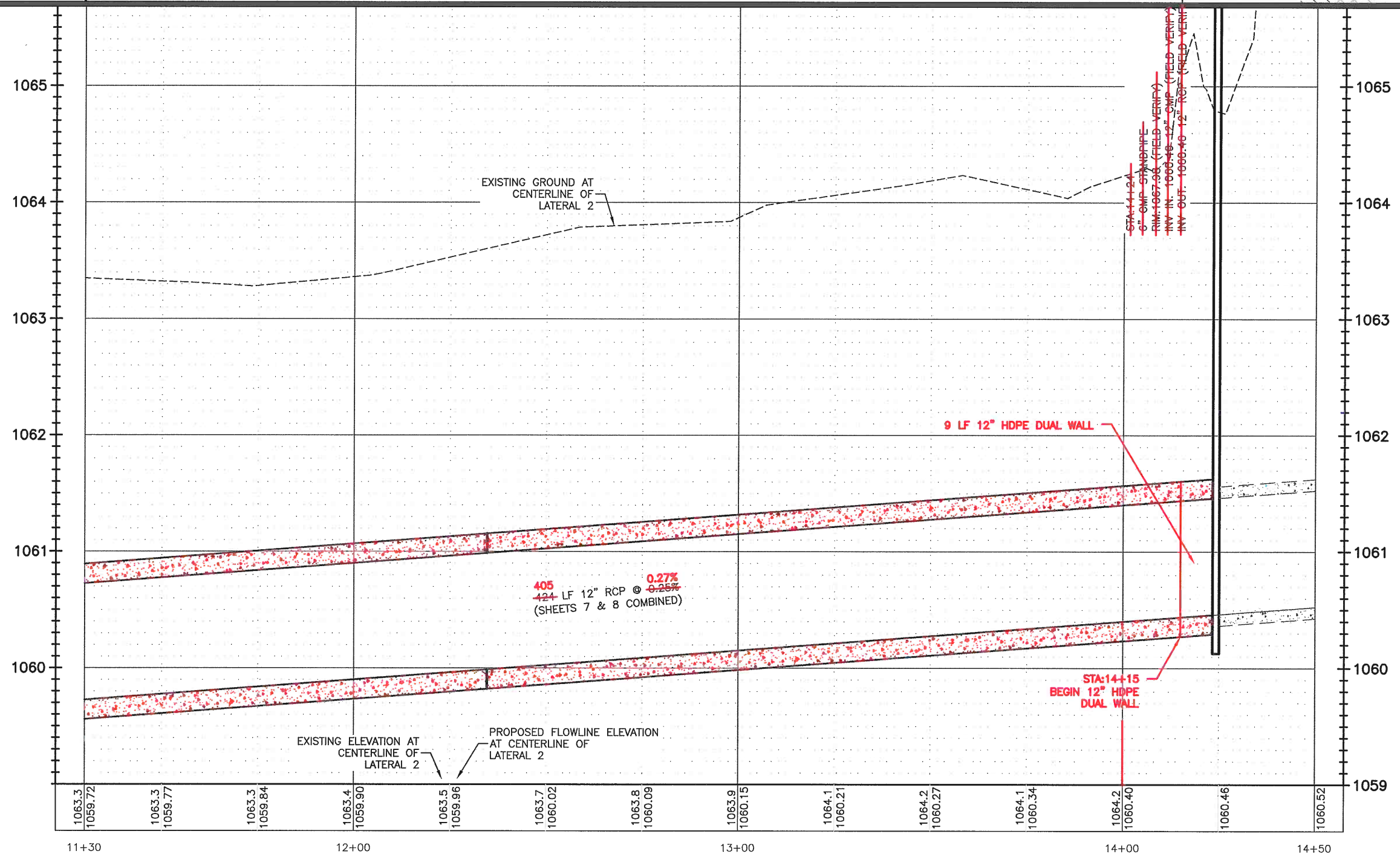
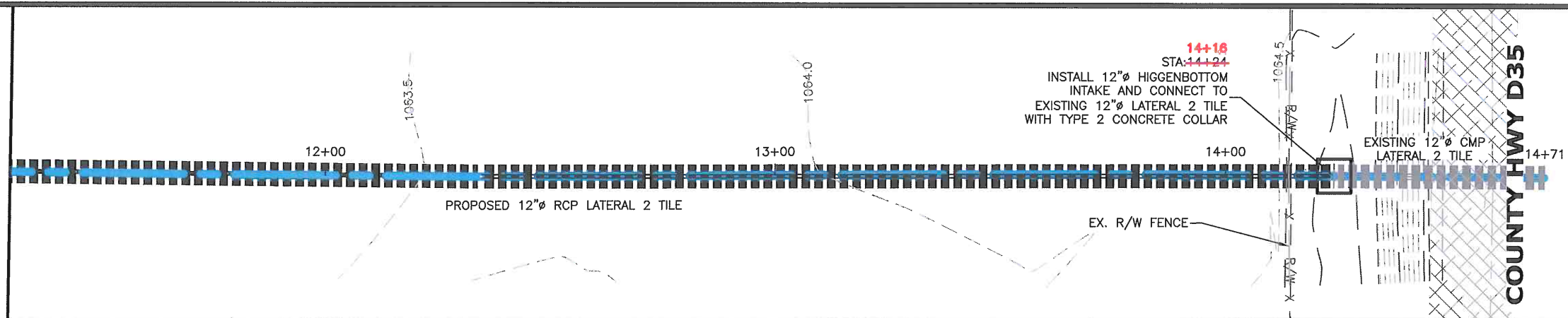
ADDRESS:
739 PARK AVENUE
ACKLEY, IOWA 50601
PH 641-847-3273 FAX 641-847-2303

PROJECT:
REPAIRS TO MAIN DD 122 AND LAT 2 DD 8
HARDIN COUNTY, IOWA
2017

SHT. NAME:
AS BUILT DD 8 LAT 2 PLAN AND PROFILE
STA 8+00 - 11+30

SHT. NO.:
7 OF 9

MATCH LINE
STATION - 11+30
SEE SHEET: 7



DRAWN BY: MAH	APPROVED BY: LOG	REVISIONS:
DATE: 1/7/2017	PROJ. NO.: 6666.1	
FIELD BK: -		
P:\6666.1\CADD\CDS\AS BUILT\LATERAL 2 PNP ASBUILT.DWG; 4/30/2018		



ADDRESS:
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PH 641-847-3273 FAX 641-847-2303

PROJECT:
REPAIRS TO MAIN DD 122 AND LAT 2 DD 8
HARDIN COUNTY, IOWA
2017

SHT. NAME:
AS BUILT DD 8 LAT 2 PLAN AND PROFILE
STA 11+30 - 14+00

SHT. NO.:
8 OF 9

PAY ESTIMATE NO. 3 (FINAL)

Drainage District No. 122 Lat. 2 and Drainage District No. 8

(Project No. 6931 & 6666.1)

DATE: May 9, 2018

CONTRACTOR

Cole Excavating
10471 Packard Ave.,
Greene, IA 50636

OWNER

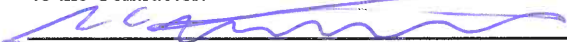
Trustees of Drainage District #122 Lat 2 & DD#8
Hardin County Courthouse
1215 Edgington Ave., Suite 1
Eldora, Iowa 50627

ENGINEER

Ryken Engineering
739 Park Avenue
Ackley, Iowa 50601

Item No.	Description	Estimated Quantity	Unit	Installed Quantity	Unit Price	Extended Price
DIVISION 122						
1*	12" Ø Polypropylene Tile	360	LF	348	\$ 25.60	\$ 8,908.80
2	Type 2 Concrete Collar	32	EA	26	\$ 350.00	\$ 9,100.00
3*	12" x 12" Polypropylene Tee	0	EA	0	\$ 250.00	\$ -
4	Private Tile Connections	3	EA	3	\$ 200.00	\$ 600.00
5	Permanent Seeding	2	AC	0.18	\$ 2,800.00	\$ 504.00
6	Seeding Warranty	1	LS	1	\$ 150.00	\$ 150.00
7*	Tile Removal	480	LF	464	\$ 4.50	\$ 2,088.00
8	Traffic Control	1	LS	1	\$ 1,500.00	\$ 1,500.00
9*	15" Ø Polypropylene Tile	120	LF	116	\$ 34.03	\$ 3,947.48
10*	15"Ø vs 12"Ø Tile Exchange	1	LS	1	\$ 1,074.00	\$ 1,074.00
DIVISION 8						
101*	18" Ø Polypropylene Tile	20	LF	20	\$ 60.00	\$ 1,200.00
102	15" Ø RCP Tile	1000	LF	968	\$ 36.25	\$ 35,090.00
103	12" Ø RCP Tile	424	LF	416	\$ 31.50	\$ 13,104.00
104	15" X 18" RCP Wye	1	EA	1	\$ 900.00	\$ 900.00
105	12" X 15" RCP Eccentric Reducer	1	EA	1	\$ 375.00	\$ 375.00
106	Type 2 Concrete Collar	7	EA	7	\$ 350.00	\$ 2,450.00
107	Private Tile Connections	9	EA	7	\$ 275.00	\$ 1,925.00
108	12" Ø Hickenbottom Intake	1	EA	1	\$ 900.00	\$ 900.00
109	Grading	1	LOC	1	\$ 1,500.00	\$ 1,500.00
110	Permanent Seeding	0.1	AC	0.03	\$ 10,000.00	\$ 300.00
111	Seeding Warranty	1	LS	1	\$ 200.00	\$ 200.00
112	Tile Removal	1444	LF	1404	\$ 4.00	\$ 5,616.00
113	Intake Removal	3	EA	1	\$ 100.00	\$ 100.00
114	Traffic Control	1	LS	1	\$ 1,500.00	\$ 1,500.00

I have reviewed the work claimed to be completed by the Contractor as reflected above and recommend payment of \$ 8,673.23 to the Contractor.


Lee Gallentine, Project Engineer

TOTAL WORK COMPLETED TO DATE	\$ 93,032.28
10% RETENTION	\$ -
AMOUNT DUE LESS RETENTION	\$ 93,032.28
PREVIOUSLY PAID	\$ 84,359.05
AMOUNT DUE AT THIS TIME	\$ 8,673.23

* - Approved as part of Change Order #1

Note: For pay estimate #1, \$20,129.40 was for DD 122 and \$59,274.00 was for DD 8.
For pay estimate #2, \$4,955.65 was for DD 122.
For pay estimate #3, \$2,787.23 was for DD 122 and \$5,886.00 was for DD 8.



WAVIER OF LIEN TO DATE

STATE OF _____
COUNTY OF _____

Whereas the undersigned has been employed by Cole Excavating
(Contractor) to furnish RCP & connecting materials for the
premises known as the Drainage District No. 122 lot 2 + DD No 8 of which
Trustees of Drainage District # 122 lot 2 is the owner.
4 DD # 8

The undersigned, for and in consideration of \$ 24,090.88 dollars, and other good and
valuable considerations, the receipt of which is hereby acknowledged, do(es) hereby waive and
release any and all lien or claim of, or right to, lien, under the statues of the state of Iowa,
relating to mechanics' liens, with respect to & on said above-described premises, and the
improvements thereon, and on the material, fixtures, apparatus or machinery furnished, and on
the moneys, funds, or other considerations due to become due from the owner, on accounts of
labor services, material, fixtures, apparatus or machinery furnished to this date, by the
undersigned for the above-described premises.

Hancock Concrete
Company Name

2-14-18
Date

Robert Schmidgal
Signature

Robert Schmidgal
Name & Title
President

WAVIER OF LIEN TO DATE

STATE OF _____
COUNTY OF _____

Whereas the undersigned has been employed by Cole Excavating
(Contractor) to furnish misc. pipe materials for the
premises known as the Drainage District No. 122 lot 2 + DD No 8 of which
Trustees of Drainage District # 122 lot 2
+ DD # 8 is the owner.

The undersigned, for and in consideration of \$ 5,435.97 dollars, and other good and
valuable considerations, the receipt of which is hereby acknowledged, do(es) hereby waive and
release any and all lien or claim of, or right to, lien, under the statues of the state of Iowa,
relating to mechanics' liens, with respect to & on said above-described premises, and the
improvements thereon, and on the material, fixtures, apparatus or machinery furnished, and on
the moneys, funds, or other considerations due to become due from the owner, on accounts of
labor services, material, fixtures, apparatus or machinery furnished to this date, by the
undersigned for the above-described premises.

Midwest Pipe Supply, Inc
Company Name

2-14-18
Date

[Signature]
Signature

Budget A Bahner
Name & Title
Office Manager

WAVIER OF LIEN TO DATE

STATE OF Iowa
COUNTY OF Polk

Whereas the undersigned has been employed by Cole Excavating
(Contractor) to furnish aggregate materials for the
premises known as the Drainage District No. 12 lat 24 D.D. No. 8 of which
Trustees of Drainage District #12 lat 24 is the owner.
7 D.D. # 8

The undersigned, for and in consideration of \$ 3775.54 dollars, and other good and
valuable considerations, the receipt of which is hereby acknowledged, do(es) hereby waive and
release any and all lien or claim of, or right to, lien, under the statutes of the state of Iowa,
relating to mechanics' liens, with respect to & on said above-described premises, and the
improvements thereon, and on the material, fixtures, apparatus or machinery furnished, and on
the moneys, funds, or other considerations due to become due from the owner, on accounts of
labor services, material, fixtures, apparatus or machinery furnished to this date, by the
undersigned for the above-described premises.

Martin Marietta
Company Name

February 14, 2018
Date

Tom McDowell
Signature

Tom McDowell - Division Credit Mgmt.
Name & Title

WARRANT OF LIEN TO DATE


STATE OF Iowa
COUNTY OF Marshall

Whereas the undersigned hereby employed by Cole Excavating
Contractor to furnish concrete for the
premises known as the Drainage District No. 122 Cat 2 + DD#8 of which
Trustees of Drainage District #122 Cat 2 + DD#8 is the owner.

The undersigned for and to the consideration of \$ 1140.50 dollars and other lawful and
vested considerations the owner of which hereby acknowledged do hereby receive and
acknowledge and affirm and agree to contribute hereunder the statutes of the State of Iowa
relating to mechanics liens with respect to & on said above described premises and the
improvement thereon and on the material fixtures apparatus or machinery furnished and on
the moneys funds or other considerations due to become due from the owner on accounts of
labor services material fixtures apparatus or machinery furnished to this date by the
undersigned for the above described premises.

Concrete Inc
Company Name

2/19/13
Date


Signature

Kim Lankelm Manager
Name & Title

WAVIER OF LIEN TO DATE

STATE OF
COUNTY OF

Whereas the undersigned has been employed by *C. H. I. Seedling*
(Contractor) to furnish *seeding* for the
premises known as the *Wetmore District #1 Road 20 Miles S* of which
Wetmore of Wetmore District #1 Road is the owner.

The undersigned, for and in consideration of \$ *1000.00* dollars, and other good and
valuable considerations, the receipt of which is hereby acknowledged, (date) hereby waive and
release any and all lien or claim of, or right to, lien, under the statutes of the state of Iowa,
relating to mechanics' liens, with respect to & on said above-described premises, and the
improvements thereon, and on the material, fixtures, apparatus or machinery furnished, and on
the moneys, funds, or other considerations due to become due from the owner, on accounts of
labor services, material, fixtures, apparatus or machinery furnished to this date, by the
undersigned for the above-described premises.

Lakeside Const Inc
Company Name

2-14-18
Date

[Signature]
Signature

Greg Huber President
Name & Title

WAVIER OF LIEN TO DATE


STATE OF _____
COUNTY OF _____

Whereas the undersigned has been employed by Cole Excavating
(Contractor) to furnish labor for the
premises known as the Drainage District No. 122 lot 2 + DD No 8 of which
Trustees of Drainage District #122 lot 2 is the owner.
+ DD #8

The undersigned, for and in consideration of \$ 47,500.00 dollars, and other good and
valuable considerations, the receipt of which is hereby acknowledged, do(es) hereby waive and
release any and all lien or claim of, or right to, lien, under the statutes of the state of Iowa,
relating to mechanics' liens, with respect to & on said above-described premises, and the
improvements thereon, and on the material, fixtures, apparatus or machinery furnished, and on
the moneys, funds, or other considerations due to become due from the owner, on accounts of
labor services, material, fixtures, apparatus or machinery furnished to this date, by the
undersigned for the above-described premises.

Brian Nettleton Exc. Inc
Company Name

2/13/18
Date


Signature

Brian E. Nettleton
Name & Title president