


**HARDIN COUNTY, IOWA**

**2022**



**COMPLETION  
REPORT  
FOR  
UPPER MAIN TILE  
DIVERSION  
DRAINAGE DISTRICT 56,  
HARDIN COUNTY  
(PROJECT NO. 6830.4)**

	<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><i>Lee O. Gallentine</i>, PE Sept 8, 2022 LEE O. GALLENTINE, P.E. DATE</p> <p>LICENSE NUMBER: 15745 MY LICENSE RENEWAL DATE IS DECEMBER 31, 2022 PAGES OR SHEETS COVERED BY THIS SEAL: SHOWN ON TABLE OF CONTENTS</p>
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**CLAPSADDLE-GARBER ASSOCIATES OFFICE LOCATIONS**

16 East Main Street, PO Box 754 | Marshalltown, IA 50158  
1523 S. Bell Avenue, Suite 101 | Ames, IA 50010  
5106 Nordic Drive | Cedar Falls, IA 50613  
739 Park Avenue | Ackley, IA 50601  
511 Bank Street | Webster City, IA 50595

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

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## Project Timeline

The Hardin County Board of Supervisors, acting as District Trustees, requested Clapsaddle-Garber Associates to investigate and report concerning improvements to the Main tile, Drainage District No. 56. As a result, Clapsaddle-Garber Associates generated an Engineer's Report dated February 8, 2019 and a Supplement to Engineer's Report dated March 13, 2019 summarizing past improvements and repairs, investigating the necessity and feasibility of improvements to the Main tile, and presenting opinions of construction costs associated with said improvements. The Engineer's Report was presented and discussed at several hearings and landowner meetings concerning said report. As a result, at the July 8, 2020 meeting the Trustees authorized Clapsaddle-Garber Associates to proceed with completion of project plans and specifications for the Upper Main Tile Diversion portion as discussed at said hearings/meetings and proceed with a bid letting.

Clapsaddle-Garber Associates completed the authorized plans and specifications and a bid letting date of March 10, 2021 was set. The project was advertised, and bids were received from qualified contractors. The following bids for said Main tile outlet were received:

	<b>Contractor</b>	<b>Bid Amount</b>
<b>1.</b>	Gehrke, Inc (RCP)	\$ 881,175.00
<b>2.</b>	Gehrke, Inc (Polypropylene)	\$ 919,345.00
<b>3.</b>	Brian Nettleton Excavating, Inc (RCP)	\$ 959,380.00
<b>4.</b>	Holland Contracting Corp (RCP)	\$1,117,116.00
<b>6.</b>	Weidemann, Inc (RCP)	\$1,281,981.50

The District Trustees identified Gehrke, Inc for the RCP bid option as the lowest responsible bidder for the project and awarded the project to them. The contract was signed on September 20, 2021 after negotiations of easements with landowners. Construction activities for the entire contract were started the week of February 14, 2022. During the construction period, the weather was favorable for construction, but some change orders were required for project completion. Substantial completion for the entire contract was achieved the week of June 20, 2022 (approximately one week before the contract completion date).

## Project Deviations

This project followed the authorized plans and specifications, with the following deviations (for reference see as-built plan sheets included in Appendix V):

1. When the contract was awarded, the District Trustees determined that the Add Alternate should also be awarded. This resulted in an increase of \$75,414.00 and no change to the substantial completion date.
2. During the time between the bid letting and construction started (while easements were being negotiated), fuel, labor, and materials had increased. In addition, the landowners had requested that intake on the north side of 230<sup>th</sup> Street and its connection to the diverted main tile be enlarged to at least 24" and that trench compaction along with CCTV be removed from the contract. This resulted in an increase of \$49,626.40 and a change of the substantial completion date to June 30, 2022.
3. The supplier requested the use of Class III over Class IV pipe for the 48" RCP in the shallower portions of the project, the landowner of the pasture at the north end of the project requested Super Grazing Mix from Albert Lea Seed along with erosion control devices (contractor suggested 9" straw waddles) to be installed to prevent erosion prior to seed establishment, and contractor verified that bid item 5 could be used for either connecting private tile to the proposed 48" RCP or reconnecting private tile to itself across the trench for the proposed 48" RCP as long as the length of private tile used didn't exceed 20'. This resulted in a decrease of \$3,000.00 and no change to the substantial completion date.
4. During construction a clay private tile was encountered that ran parallel with the upper main diversion tile. As such, several hundred feet of it were removed during construction and it was replaced. Contractor proposed to plow in a single wall HDPE tile of similar size. This resulted in an increase of \$3,440.00 and no change to the substantial completion date.
5. During construction, there were differences in quantities between plans, change orders and actual installation. This resulted in a decrease of \$20,935.89 and no change to the substantial completion date.

## Final Project Costs

The final project costs for construction (for reference see the final pay estimate included in Appendix W) and engineering (not including reports or reclassification) are estimated at \$1,100,719.51, which is approximately \$250,719.51 more than the “rough” cost of \$850,000 discussed the July 8, 2020 hearing, but \$118,679.89 less than the refined cost of \$1,219,399.40 discussed at the December 8, 2021 landowner meeting. These costs may vary depending upon any damage claims brought forth at the completion hearing. Pending no claims, the costs are as detailed below:

<b>Main tile</b>	<b>Project as bid by Contractor</b>	
		\$881,175.00
	Item #1 (above)	(+) \$75,414.00
	Item #2 (above)	(+) \$49,626.40
	Item #3 (above)	(-) \$3,000.00
	Item #4 (above)	(+) \$3,440.00
	Item #5 (above)	(-) \$20,935.89
	<b>Engineering</b>	(+) \$115,000.00
	<b>TOTAL PROJECT COST</b>	<b>\$1,100,719.51</b>

The total project cost is above the “rough” cost discussed in 2020, but less than the refined cost discussed in 2021. However, the scope of work was the same as discussed in 2020 and 2021. It should be noted that the above costs do not include any administrative costs, legal costs, interest on construction warrants, easements, or damage claims.

## Damages / Right of Way

Damages were paid as part of the right of way acquisition process. The total amount spent on right of way and damages along with right of way and damage negotiations are as follows:

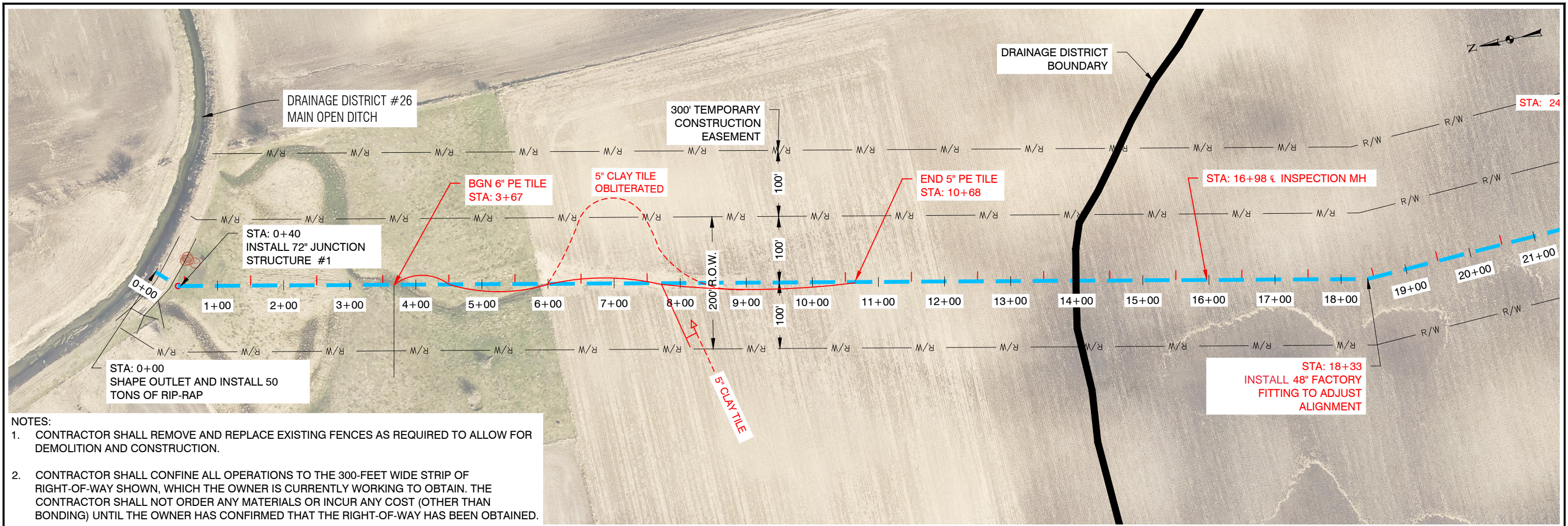
Category	Corn Damage (Acres)
Right of Way	\$82,992.55
Damages	\$36,135.05
Right of Way and Damage Negotiations	\$29,148.87

It is our recommendation that if landowners or their tenants file any other damage claims, those should be evaluated on an individual basis by the District Trustees.

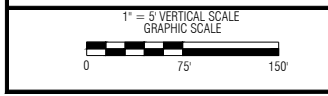
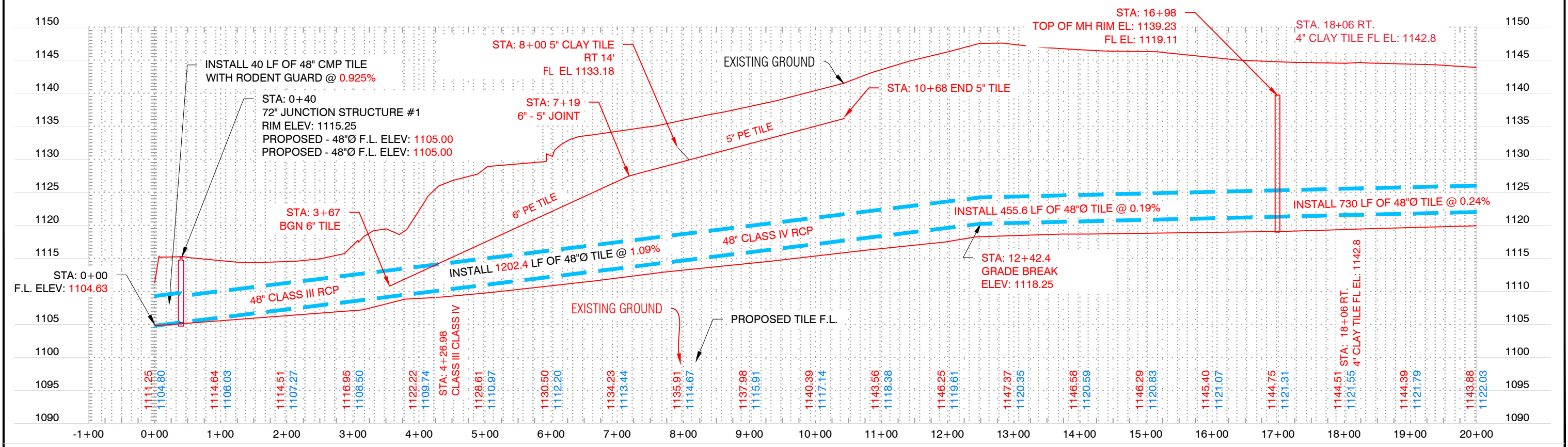
## Pending Items

As of the writing of this report, this project is complete (including punchlist items) in general accordance with the authorized plans and specifications, except that reseeding, fine grading, or removal of bedding rock may be necessary in some locations if desired by applicable landowners. Lien waivers for subcontractors and suppliers have been submitted by the general contractor (for reference see Appendix X). After the completion hearing, final payment of \$101,955.95 needs to be authorized by the Trustees as shown in yellow highlight on the Final Pay Estimate included in Appendix W. It is our recommendation that the project be accepted. We 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 have Clapsaddle-Garber Associates exercise this recommendation, there are no engineering fees included in the above Final Project Costs to cover this service.





- NOTES:**
- CONTRACTOR SHALL REMOVE AND REPLACE EXISTING FENCES AS REQUIRED TO ALLOW FOR DEMOLITION AND CONSTRUCTION.
  - CONTRACTOR SHALL CONFINE ALL OPERATIONS TO THE 300-FOOT WIDE STRIP OF RIGHT-OF-WAY SHOWN, WHICH THE OWNER IS CURRENTLY WORKING TO OBTAIN. THE CONTRACTOR SHALL NOT ORDER ANY MATERIALS OR INCUR ANY COST (OTHER THAN BONDING) UNTIL THE OWNER HAS CONFIRMED THAT THE RIGHT-OF-WAY HAS BEEN OBTAINED.



NO.	REVISION	BY	DATE	NO.	REVISION	BY	DATE

**CGA** Clapsaddle-Garber Associates, Inc.  
 738 Park Avenue  
 Ackley, Iowa 50901  
 Ph 641-847-3279  
 www.cgaconsultants.com

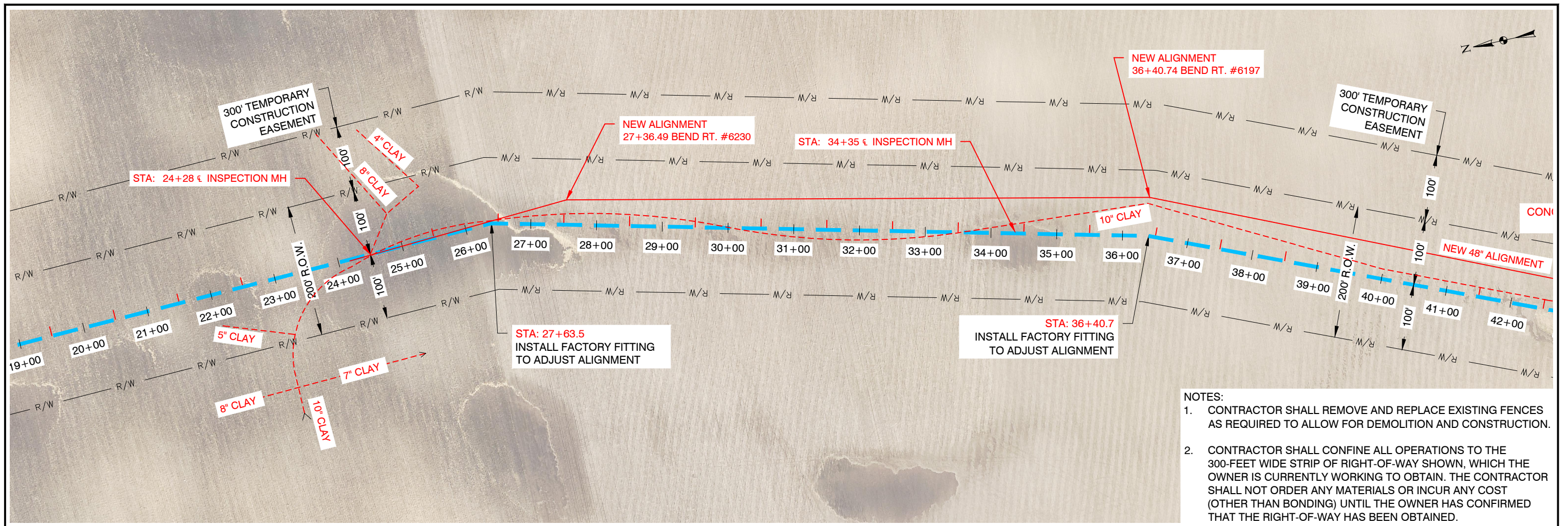
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**DRAINAGE DISTRICT 56**  
 HARDIN CO, IOWA

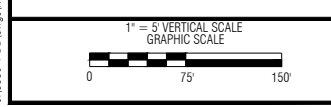
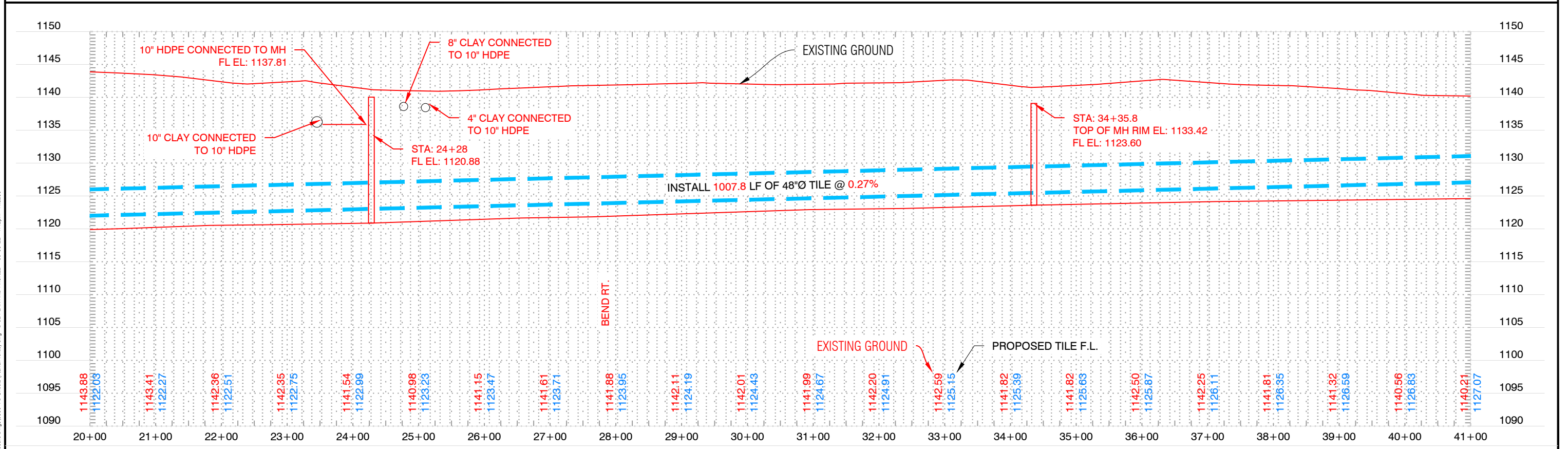
**AS-BUILT PLAN AND PROFILE**

PROJECT NO. 6830.4  
 SHEET NO. D.01





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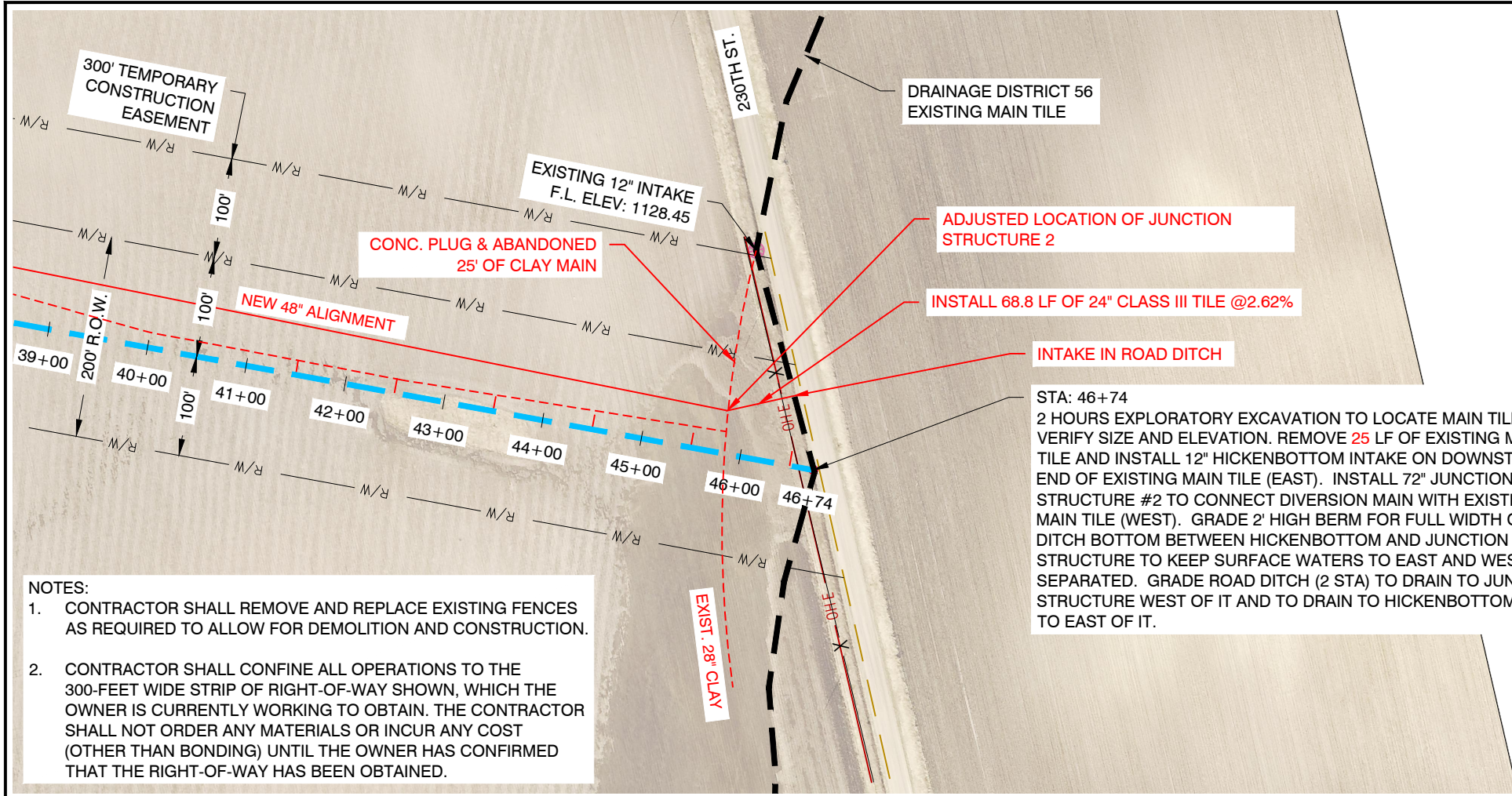
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 APPROVED: LOG DATE: ---

**DRAINAGE DISTRICT 56**  
 HARDIN CO, IOWA

**AS-BUILT PLAN AND PROFILE**

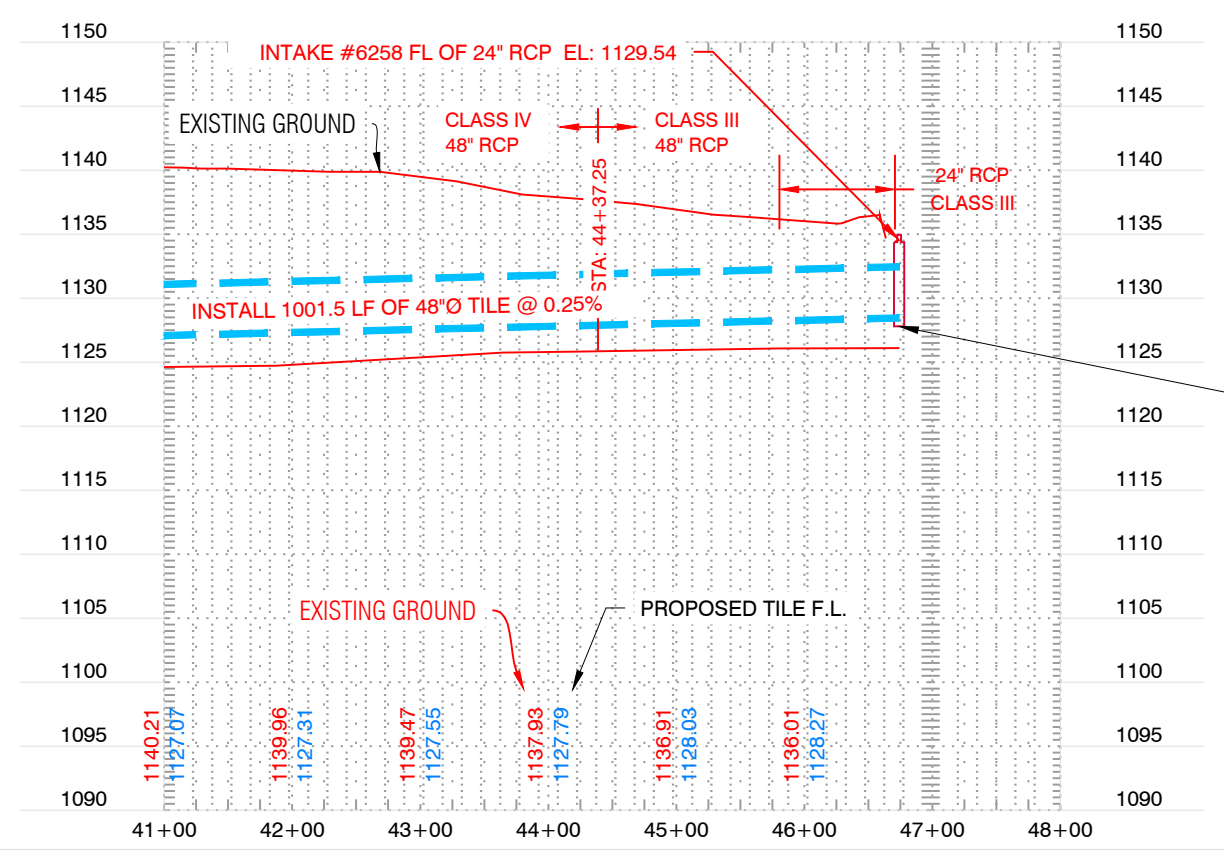
PROJECT NO. 6830.4  
 SHEET NO. D.02





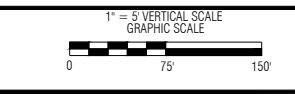
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STA: 46+74  
 2 HOURS EXPLORATORY EXCAVATION TO LOCATE MAIN TILE AND VERIFY SIZE AND ELEVATION. REMOVE 25 LF OF EXISTING MAIN TILE AND INSTALL 12" HICKENBOTTOM INTAKE ON DOWNSTREAM END OF EXISTING MAIN TILE (EAST). INSTALL 72" JUNCTION STRUCTURE #2 TO CONNECT DIVERSION MAIN WITH EXISTING MAIN TILE (WEST). GRADE 2' HIGH BERM FOR FULL WIDTH OF DITCH BOTTOM BETWEEN HICKENBOTTOM AND JUNCTION STRUCTURE TO KEEP SURFACE WATERS TO EAST AND WEST SEPARATED. GRADE ROAD DITCH (2 STA) TO DRAIN TO JUNCTION STRUCTURE WEST OF IT AND TO DRAIN TO HICKENBOTTOM INTAKE TO EAST OF IT.



STA: 46+74  
 72" JUNCTION STRUCTURE #2 RIM ELEV: 1135.00  
 PROPOSED - 48"Ø F.L. ELEV: 1126.09  
 EXISTING MAIN - 28"Ø F.L. ELEV: 1128.18

J:\6830-DWG\Record Dwg\6830.4 D Sheets (Plan&Profile).img - 03 PLAN AND PROFILE - 09-08-21 - 1:42pm - ne286



NO.	REVISION	BY	DATE	NO.	REVISION	BY	DATE

**CGA**  
 Clapsaddle-Garber Associates, Inc.  
 739 Park Avenue  
 Ackley, Iowa 50801  
 Ph 641-847-3273  
 www.cgaconsultants.com

DESIGNED: ZJS	DATE: ---
DRAWN: KMN	DATE: ---
CHECKED: ZJS	DATE: ---
APPROVED: LOG	DATE: ---

**DRAINAGE DISTRICT 56**  
 HARDIN CO, IOWA

**AS-BUILT PLAN AND PROFILE**

PROJECT NO. 6830.4
SHEET NO. D.03

**PAY ESTIMATE NO. 5 (FINAL)**  
**UPPER MAIN TILE DIVERSION DD 56**  
**HARDIN COUNTY**  
**PROJECT NUMBER 6830.4**  
**DATE: 8-11-22**

**CONTRACTOR**  
Gehrke Inc.  
1405 21st Ave  
Eldora, IA 50627

**OWNER**  
Hardin County Trustees  
1215 Edgington Ave., Ste 1  
Eldora, Iowa 50627

**ENGINEER**  
Clapsaddle-Garber Associates  
739 Park Avenue  
Ackley, Iowa 50601

**DD 56 BASE BID**

Item No.	Description	Estimated Quantity	Unit	Installed Quantity	Unit Price	Extended Price
1* **	48" Ø RCP Tile (Class IV)	3,534	LF	4011.7	\$193.50	\$ 776,263.95
2*	48" Ø CMP Tile Outlet	40	LF	40	\$196.00	\$ 7,840.00
3*	72" Junction Structure	2	EA	2	\$7,790.00	\$ 15,580.00
4* **	Concrete Collar or Factory Fitting	3	EA	3	\$350.00	\$ 1,050.00
5* **	Private Tile Connection (up to 20' of tile each)	10	EA	6	\$535.00	\$ 3,210.00
6*	12" Ø Hickenbottom Intake	0	EA	0	\$1,500.00	\$ -
7*	Rip-Rap	50	TN	50.02	\$41.00	\$ 2,050.82
8*	Tile Removal	30	LF	25	\$11.00	\$ 275.00
9*	Fences	1	LS	0	\$1,300.00	\$ -
10*	Road Ditch Grading	2	STA	1	\$725.00	\$ 725.00
11*	Outlet Shaping	1	LS	1	\$725.00	\$ 725.00
12*	Dewatering	1	LS	1	\$22,000.00	\$ 22,000.00
13*	Exploratory Excavation	2	HR	6	\$585.00	\$ 3,510.00
14*	Bonding	0	LS	0	\$8,000.00	\$ -
15**	Seeding	1	LS	1	\$7,000.00	\$ 7,000.00
16	Seeding Warranty	1	LS	1	\$1,000.00	\$ 1,000.00
17*	36" Ø SW-512 Concrete Intake w/ Type 5 Casting	1	EA	1	\$2,550.00	\$ 2,550.00
18*	24" Ø RCP Tile	100	LF	68	\$95.00	\$ 6,460.00
19**	48" Ø RCP Tile (Class III)	1,100	LF	560.1	\$187.50	\$ 105,018.75
20**	9" Straw Waddle (installation and removal)	600	LF	300	\$6.00	\$ 1,800.00
21^	5" or 6" HDPE Single Wall Private Tile (removal and replacement)	800	LF	1037.91	\$4.30	\$ 4,463.01

**REVISED DD 56 BASE BID TOTAL (BID ITEMS 1 THROUGH 21) \$ 961,521.53**

**DD 56 ADD ALTERNATE BID**

2ADD*	CCTV Inspection of Tile	0	LF	0	\$5.00	\$ -
3ADD*	Trench Compaction	0	STA	0	\$500.00	\$ -
4ADD*	Mandrel and CCTV Access Point	4	EA	3	\$6,375.00	\$ 19,125.00
5ADD*	Additional 2' of Installation Depth	4,674	LF	4611.8	\$1.10	\$ 5,072.98

**DD 56 ADD ALTERNATE TOTAL (BID ITEMS 1ADD THROUGH 5ADD) \$ 24,197.98**

I have reviewed the work claimed to be completed by the Contractor as reflected above and recommend payment of **\$ 101,955.95** to the Contractor.

*Lee Gallentine*  
Lee Gallentine, Project Engineer

**TOTAL WORK COMPLETED TO DATE \$ 985,719.51**  
**10% RETENTION \$ -**  
**AMOUNT DUE LESS RETENTION \$ 985,719.51**  
**PREVIOUSLY PAID \$ 883,763.56**  
**AMOUNT DUE AT THIS TIME \$ 101,955.95**

\* - Approved as part of Change Order #1  
\*\* - Approved as part of Change Order #2  
^ - Approved as part of Change Order #3

*Jeremy Maas / Ginder Inc.*  
Contractor





**WAIVER OF LIEN**

State of Iowa

Date: 7-21-22

I/We, the undersigned, have been employed by Gehrke Inc. P.O. Box 228, Eldora, Iowa 50627 to furnish labor and/or materials as described below for the construction, repair or reconstruction of the property or improvements to the property known as DD 56 Upper Main Tile Diversion, in Hardin County, State of Iowa.

Description of work or materials provided: Rip Rap

Amount \$ 1,414.80 to date shown above. Final  Partial

For and in consideration of my/our employment to furnish said labor and/or materials. I/We do hereby waive and release any and all my/our rights, or claim of rights, to file and establish a mechanics lien against the above mentioned property, and improvements to the property, given to me/us under the provisions of the statutes and laws of the State of Iowa, relating to mechanic's liens on account of labor or materials, or both furnished, or which may be furnished by me/us for, and on, the above mentioned property and improvements to the same.

Executed at Eldora, Iowa, this 21 day of July 2022.

Gehrke Inc. Quarries  
Company Name

Lami Maas  
By

**WAIVER OF LIEN**

State of Iowa

Date: 7-21-22

I/We, the undersigned, have been employed by Gehrke Inc. P.O. Box 228, Eldora, Iowa 50627 to furnish labor and/or materials as described below for the construction, repair or reconstruction of the property or improvements to the property known as DD 56 Upper Main Tile Diversion, in Hardin County, State of Iowa.

Description of work or materials provided: Pipe Bedding

Amount \$ 38,302.47 to date shown above. Final  Partial

For and in consideration of my/our employment to furnish said labor and/or materials. I/We do hereby waive and release any and all my/our rights, or claim of rights, to file and establish a mechanics lien against the above mentioned property, and improvements to the property, given to me/us under the provisions of the statutes and laws of the State of Iowa, relating to mechanic's liens on account of labor or materials, or both furnished, or which may be furnished by me/us for, and on, the above mentioned property and improvements to the same.

Executed at West Chester Ohio, this 22 day of July 2022

Martin Marietta  
Company Name

Tom Lowry  
BY  
Sr. Project Rep

Tom Lowry - Tom.Lowry@martinmarietta.com



CTI Ready mix

**WAIVER OF LIEN**

State of Iowa

Date: 7-21-22

I/We, the undersigned, have been employed by Gehrke Inc. P.O. Box 228, Eldora, Iowa 50627 to furnish labor and/or materials as described below for the construction, repair or reconstruction of the property or improvements to the property known as DD 56 Upper Main Tile Diversion, in Hardin County, State of Iowa.

Description of work or materials provided: Concrete

Amount \$ 2,892.74 to date shown above. Final  Partial

For and in consideration of my/our employment to furnish said labor and/or materials. I/We do hereby waive and release any and all my/our rights, or claim of rights, to file and establish a mechanics lien against the above mentioned property, and improvements to the property, given to me/us under the provisions of the statutes and laws of the State of Iowa, relating to mechanic's liens on account of labor or materials, or both furnished, or which may be furnished by me/us for, and on, the above mentioned property and improvements to the same.

Executed at Grimes, Iowa, this 22 day of July 2022.

CTI Ready Mix Inc  
Company Name

[Signature]  
By

**WAIVER OF LIEN**

State of Iowa

Date: 7-21-22

I/We, the undersigned, have been employed by Gehrke Inc. P.O. Box 228, Eldora, Iowa 50627 to furnish labor and/or materials as described below for the construction, repair or reconstruction of the property or improvements to the property known as DD 56 Upper Main Tile Diversion, in Hardin County, State of Iowa.

Description of work or materials provided: CMP Pipe

Amount \$ 5,187.05 to date shown above. Final  Partial

For and in consideration of my/our employment to furnish said labor and/or materials. I/We do hereby waive and release any and all my/our rights, or claim of rights, to file and establish a mechanics lien against the above mentioned property, and improvements to the property, given to me/us under the provisions of the statutes and laws of the State of Iowa, relating to mechanic's liens on account of labor or materials, or both furnished, or which may be furnished by me/us for, and on, the above mentioned property and improvements to the same.

Executed at Cedar Falls, Iowa, this 25 day of July 2022

Northern IA Const Products  
Company Name

Kyle Niemann  
By

Kyle Niemann



**WAIVER OF LIEN**

State of Iowa

Date: 7-21-22

I/We, the undersigned, have been employed by Gehrke Inc. P.O. Box 228, Eldora, Iowa 50627 to furnish labor and/or materials as described below for the construction, repair or reconstruction of the property or improvements to the property known as DD 56 Upper Main Tile Diversion, in Hardin County, State of Iowa.

Description of work or materials provided: RCP, Structures

Amount \$ 459,173.69 to date shown above. Final  Partial

For and in consideration of my/our employment to furnish said labor and/or materials. I/We do hereby waive and release any and all my/our rights, or claim of rights, to file and establish a mechanics lien against the above mentioned property, and improvements to the property, given to me/us under the provisions of the statutes and laws of the State of Iowa, relating to mechanic's liens on account of labor or materials, or both furnished, or which may be furnished by me/us for, and on, the above mentioned property and improvements to the same.

Executed at Humboldt, Iowa, this 25th day of July 20 22.

Forterra Pipe and Precast  
**Company Name**

Jim Sweeney - Sales Manager  
**By**