

AGENDA
REGULAR DRAINAGE MEETING
Wednesday, August 5, 2020 9:30 AM
Large Conference Room

Due to Covid-19 health concerns, this meeting is open to the public via conference call only. The meeting date and time will remain the same. You may call at that time to access the meeting by following the instructions below:

To access the meeting call: 1-(312)-626-6799, when prompted enter meeting ID code: 820 7567 2007

You can also access the meeting online at:

<https://us02web.zoom.us/j/82075672007>

1. Open Meeting
2. Approve Agenda
3. Approve Minutes

Documents:

[DD 56 LANDOWNER MTG MINUTES 07_08_20.PDF](#)
[07_29_20 - DRAINAGE MINUTES.PDF](#)

4. DD 52 WO 215 - Discuss W Possible Action - Crop Damage Claim 2020-4
Shaun Piel would like to discuss results of work done on WO 215 and Crop Damage Claim 2020-4 with the Trustees.

Documents:

[CROP DAMAGE CLAIM 2020-4 - TRACEY BELOW W REVISED QUOTE - TRUSTEE SIGNED.PDF](#)

5. DD 128 WO 279 - Discuss W Possible Action - Contractor Update

Documents:

[DD128 WO279-INVESTIGATION SUMMARY 05_19_20.PDF](#)

6. Discuss W Possible Action - IRUA Service Request

Documents:

[IRUA REQUESTED SERVICE LOCATION DD 55-2.PDF](#)

7. DD 25 - WO 1 - Discuss W Possible Action - Change Order No. 6

Documents:

[DD 25 - 6501-ENGR AND CONTRACTOR SIGNED CHANGE ORDER 6.PDF](#)

8. DD 56 - Discuss W Possible Action - NRCS Wetland Determination

9. DD 48 - WO 237 - Discuss W/ Possible Action - Repair Summary

Documents:

[DD 48 WO 237 - 6486.4 - REPAIR SUMMARY - 08_03_20.PDF](#)

10. DD 121 WO 295 - Discuss W Possible Action - Investigation Summary / Landowner Meeting

Documents:

[DD 26 WO 266 - REPAIR SUMMARY 07_22_20.PDF](#)

11. DD 120 WO 298 - Discuss W Possible Action - Investigation Summary

Documents:

[DD 120 WO 298.PDF](#)

[DD 120 WO 298 - 6927 - INVESTIGATION SUMMARY - 08_03_2020.PDF](#)

12. DD Big 4 Lat 4 - WO 195 - Discuss W Possible Action - Repair Summary

Documents:

[DD BIG 4 LAT 4 - WO 195 - 5585.1 - REPAIR SUMMARY - 08_03_2020.PDF](#)

13. DD Big 4 Main - WO 247 - Discuss W Possible Action - Repair Summary

Documents:

[DD BIG 4 MAIN - 5734.1 - REPAIR SUMMARY - 08_03_2020.PDF](#)

14. JDD H-H 118-232 WO 281 - Discuss W Possible Action - Repair Summary
Repair Summary for Joint Drainage District 118-232 Work Order 281.

Documents:

[DD H-H 118-232 - 8778.1 - REPAIR SUMMARY - 08_03_2020.PDF](#)

15. DD 22 - WO 176 & 192 Comb. - Discuss W Possible Action - Claim For Crop Damages - Vierkandt

Documents:

[CROP DAMAGE CLAIM 2020-6 - DD 22 -JAMES VIERKANDT .PDF](#)

16. Other Business

17. Adjourn Meeting

DD 56 LANDOWNERS MEETING

Wednesday, July 8, 2020 10:00 AM

Emergency Operations Center

This meeting was held in person and electronically due to Covid-19 concerns.

7/8/2020 - Minutes

1. Open Meeting

Hardin County Drainage District Chairperson Lance Granzow opened the meeting. Also present were Trustee BJ Hoffman; Trustee Renee McClellan; Landowners Matt Topp; Carole Topp; Sharon Larson; Greg Larson; Sue Armstrong; Rose Topp; Brad Fjelland; Jack Runge; Mike McCartney; Mike Bostrum; Kevin Sheldahl; Brian Krause; Dan Kumrow; John Kuhfus; Terry Swenson; Les Meier; Brian Appelgate; Lynn Holecheck; Marjorie Krause; Kathy Kolden; Mike Fjelland; Michael Pearce, Network Specialist, and Denise Smith, Drainage Clerk.

2. Approve Agenda

Motion by McClellan to approve the agenda. Second by Hoffman. All ayes. Motion carried.

3. Introductions/Attendance

Introductions were made and attendance verified.

4. DD 56 - Discuss Improvement Options & Reclassification

Granzow stated we are here to discuss improvement options and reclassification, we have been through all the options at the previous meeting, Granzow turned the discussion over to Gallentine. Gallentine asked if we would like to discuss all the options we have been over previously, or are there options we can pull off the table. Granzow stated we could skip the things that have been pulled off the table and start with a brief explanation.

Gallentine discussed the original Engineer's Report, there was a request for improved drainage in DD 56 that dated back to spring of 2018, CGA was requested to go out and do some investigation to see what can be done to improve the drainage of DD 56. Gallentine stated we looked at the entire length of the system all the way from the outlet at the open ditch of DD 26 all the way to the upper end. Gallentine stated the district was established from about 1914 to 1918, it is notable there was some repairs early on in the 1920's, 30's and 40's, which isn't necessarily typical of these districts, many had a period after installation where repair didn't happen right away, so that is unusual for this district. Other than that not much has been done with the tile in this district, as it was constructed originally. All totalled there were over 100 repairs in the last 90 years, and those started in the 10-15 years following construction. Gallentine continued, in addition CGA did calculations on the drainage coefficient this tile, if all the water that fell in this district was forced to go through the tile, and there wasn't any surface drainage, the drainage coefficient varies from .03" per day to .22" per day, so at .22" that is about a 1/4" of drainage per day, if a 1" rain fell in the district and all the water went through this tile, it would take 4 days to drain.

Gallentine stated obviously the tile supplements surface drainage, but when we do private tile now we talk about a 1/2" coefficient or a 1" coefficient, but this district's main tile gives you a .03" to .022" coefficient. Based off the history of repairs and small drainage capacity CGA is in agreement and feels if you want more capacity and better drainage, there is room for improvement. The original Engineer's Report lists 7 different improvement options. One is we essentially take the main tile and sever it, splitting the district into two in the middle and we run a separate outlet to the the main channel on DD 26, the cut gets a little deep to do that but with modern machinery it can be done. CGA also ran an option of putting in a single new tile, large enough with a drainage coefficient of 1/2" to 1", and we remove the old tile. CGA did an option that puts in 2 new tile, pull out the old tile to get the 1/2" to 1" coefficient. CGA also ran an option of adding a new tile next to the old tile where both tile would work together, but then you still have to do repairs on the old tile. Gallentine stated the last option they considered was to take out the old main tile and put in an open ditch, once we get to a certain pipe size, it gets cheaper to move dirt than it is to put in pipe, obviously the open ditch option has implications for farming and land use too.

Gallentine stated costs were all over the board for these options, some were very high and probably very unrealistic for what landowners can afford financially, but it is what we would expect to see based off different bid lettings. Gallentine stated from the initial hearings the costs ranged anywhere from a little over \$1,000,000 for the bypass or cut off up to about \$10,000,000, so there is a wide range, from what Gallentine recalls of the original hearing there was not much of an appetite for the higher cost options, which is totally understandable. Gallentine stated it did appear that people were still interested in cutting the district into two pieces, especially if we relocated where the cutoff was and we head a little farther east based on the lay of the land, and shifted it slightly west based on Kevin Sheldahl's experience in tile repairs in the area. Sheldahl helped come up with some options in

the supplemental report which has some different options than the original report. Gallentine stated he briefly went over the original report quickly as some people have heard this info several times now, and asked if there were any questions on the original report.

It was asked if the repairs made early on were because the tile was installed wrong. Gallentine stated the records don't really say, the early records are more of a bill with a dollar amount, it is probably due to incorrect installation or inferior products. Gallentine asked for other questions on the original report, no additional questions were presented.

Gallentine went on to discuss the Supplemental Report, which seemed to have more interest, every option in the Supplemental Report involves splitting the district into two districts, the original report had that only as one option, the supplemental report has that on all three options. The Supplemental Report divides this into three improvement options, and is a bit more refined. The first option we suggested was an Upper Main Outlet with Single Tile Up-sizing, this would cut the district in half and install a new outlet for the upper half of the district. Gallentine referenced the map (which is the same for all three options) which shows the blue line which goes up is the main open ditch that exists for DD 26, the red line is the bypass suggested by Sheldahl, the green line would be an improvement to the existing tile. There are two parts to these options outlined in the report, one is installing the cut off the second is also improving the tile upstream, we didn't go far upstream as the entire tile goes, because as Sheldahl noted, this is one of there as that seems to be the worst, and where the capacity seems to be the worst and where main issues are.

Gallentine stated for the first option we would install the cut off which is the red, for the green area, Single Tile Up-sizing, we would pull out the existing tile and put in one tile of a larger size. For the second option, Dual Tile Up-sizing, we pull out the existing main tile and put in two tile to give you the the equivalent capacity, the advantage of that is you get more soil coverage. The last option we would still install the cut off and with Parallel Tile Up-sizing we would install the new tile next to the old tile that when combined together would give you the drainage capacity, it is possibly cheaper initially but in the long run you will be faced with higher maintenance costs because you still have the new tile coupled with a 100 year old system you still have to maintain. Gallentine stated these were the three options listed in the supplemental report that people seemed possibly more interested in seeing. Granzow asked if there are any questions. It was asked if there was an option where we just installed the red line cutoff and we don't do the green line as an option. Gallentine stated that is not officially in the report although we discussed it.

It was stated by a landowner that if the west side is split, the east district would see some benefit by losing some of the load on the main tile, and people in the south eastern part of the west district would gain some performance by the supplemental, the people in the west half who will pay for 70% of the cost will really have no improvement, perhaps we can just put the outlet in as the first project, and come back at a second stage and upgrade the entire western district. Gallentine stated could we install the red line as a second outlet, split the district in half see how that performs and then eventually put in the green tile or the whole main new, we don't have that as an option in the supplemental report, but there was interest in that and Gallentine did run a cost for this. Gallentine stated if that is what people want to do, and the Trustees want to consider that, we can do that since it is a paired back version of these, you can always just do a portion or less than the report says. Gallentine stated you can read through the options but one thing he wanted to stress was jurisdictional wetlands, historically the improved drainage will impact jurisdictional wetlands, the NRCS treats jurisdictional wetlands just like confidential medical records, CGA can not access them, the Trustees can not access them, the only people that can get copies of jurisdictional wetland records are the landowner or the tenant. Gallentine highly recommends if the project moves forward, go to the NRCS and get your wetland determination, send a copy to the district so we know where they are at, and we can work around them with any potential designs, otherwise you violate improving drainage in a wetland, it can endanger your farm benefits not only for this district but every farm you farm on, Gallentine stated it is a very serious thing and he can't emphasize that enough, talk to your NRCS representative if the project moves forward.

Gallentine stated we have each of these options of different construction methods, and for each option we also have a 1/2" and 1" coefficient. Gallentine reviewed the costs of each option. If we install the cutoff and put in one single tile in the area that is green, with a 1/2" coefficient the cost is \$1,367,445 for the district costs, the road crossing which is payed for by Secondary Roads the cost is \$54,697. These are costs we would expect to see based on previous lettings, Gallentine is not the contractor, so this is not a guarantee by any means. If you do the same design for a 1" coefficient, you are \$1,872,642 for district costs and road crossing costs are \$64,041. If you go with the cutoff with two new parallel tile with a 1/2" coefficient costs are at \$1,894,818, road crossing \$64,975. If you go with the 1" coefficient for this option costs are \$2,433,147, road crossing costs are \$75,253. If we do the cutoff and leave the old tile in place and put a new on next to it so we combine their two coefficients, a 1/2" coefficient is \$1,281,077, road crossing is \$46,288. For a 1" coefficient on this option costs are \$1,800,735 and road crossing is \$59,369.

Gallentine stated there has been interest in just doing the bypass, and nothing else, a rough cost for that would be about \$850,000, this would include the engineering fee, the construction observation, the bid letting, the design,

the contractor, the materials. What these costs don't include is interest, legal fees, county admin fees, crop damages, other damages, previous repairs, engineering fees to date, wetland mitigation fees, right of way acquisition, reclassification fees, if the project moves forward it would cover the engineering and contractors. Gallentine stated there are a lot of numbers here, and he understands the current economic climate, and asked if there were questions on the different options or costs.

It was asked by a landowner what type of tile would be used. Gallentine stated what we based our estimates on was a polypropylene, it is not dual wall, it is triple wall when you get that big, with rock bedding. Gallentine stated he bid it low, because sometimes you will get a sales guy that wants to be competitive and concrete can sometime still beat plastic, so he would bid both to see what they come in at.

It was asked by a landowner, if the surface water would keep coming the way it is, or if something would be done with the surface water to make it go north. Gallentine stated we would not do anything with the surface water itself, this would solely be subsurface water. A landowner asked if an intake would be placed in the road ditch so it would take some of the surface water, Gallentine stated if we put an intake in, the water can go into the intake where it can but we will not manipulate the ground to direct water to the intake. Gallentine stated typically most intakes have a 2' great in town, but you can go as big as you want, if for some reason we put an intake in the road ditch, we can size it rather large, but we will not go out and try to cut off any surface water and push it that way.

Granzow stated we are looking at the three options, and \$850,000 for the outlet only. It was asked what kind of coefficient was on the outlet only option. Gallentine stated at this point we would have to look at it, you could probably achieve either coefficient, depending on the grade it was installed at, it would be the same size pipe, we would just adjust the grade. It was asked by a landowner if the \$850,000 would be a 1/2" coefficient or a 1" coefficient. Gallentine stated it was probably closer to either, we could make the grade steeper to achieve the higher coefficient. Kumrow asked if the \$1,071,000 that we talked about that in the last meeting was for the cutoff option. Gallentine stated yes, and that is why he ran through the options on the original report quickly, as some of the options are so expensive, it seemed there was little interest in them. Granzow asked if we are going forward, keep in mind, water is flowing currently. Gallentine stated, yes water is flowing, it is just draining at a capacity that it was designed for, which is a .03" to .22" per day. Hoffman stated we don't have to do anything by code as water is still running, Hoffman wants to make sure for everyone here and the record, that he knows commodity prices are bad, cattle prices are bad, Hoffman does not want to spend your money unless he absolutely has to, and there is nothing saying we have to pull the trigger on this tomorrow. Hoffman asked if this report was good for 10 years. Gallentine stated that the report is good for 10 years, if 5 years from now you want to move forward with this, we would just have to look at the report and freshen up some costs. Hoffman wanted to make it clear, that he did not want to spend anyone's money today, because legally if it is flowing that is all the Trustees have to make sure of, now if there is a consensus among the landowners we can do that. Hoffman stated, he has worked with some of you before, and we have done balloting and acted on the popular vote of the landowners, it is important for everyone to understand that Hoffman does not want to spend anyone's money in a poor agricultural climate.

It was asked how many years payments could be spread over and at what interest rate they would be charged. Smith stated you can spread you payments out with a waiver over 10 years with a 5% interest rate, or the Trustees could opt to go longer. Smith stated once we have narrowed down some options, she can put together a spreadsheet for what numbers would look like for landowners. Smith stated the letter that was sent out included options from the original and supplemental reports and there are so many options it its difficult to break them down in an easy to read format, if you are interested in a particular option you can see Smith after the meeting and she can provide you with that information. Granzow stated he was not in favor of paralleling an old tile unless the landowners are interested in this option, as the old tile will fail eventually, Hoffman and McClellan concurred.

It was asked by a landowner if we parallel the old tile, and issues arose, would we keep fixing it and kicking the can down the road until someone decides to address this later. Gallentine stated there are two types of projects, repairs and improvements, repairs keep the same type of drainage capacity. An improvement increases the drainage capacity. There is always the option to do nothing as long as the water is still flowing, and this is solely an improvement as we are trying to increase capacity. Sheldahl asked at what point is the pressure on that line going to start creating problems. Gallentine stated if we keep paying repair costs, they will keep going up, at some point down the line we will have spent more in repairs than the cost here today, we just don't know when that will be, it might be 5 years from now or 10 years from now but eventually we will spend more in repairs. It was asked by McCartney, that this drainage district was designed with just .03" to .22" coefficient. Gallentine stated that was the capacity it was designed for, Gallentine stated he does not know the motivation of some of the old engineers, but based on reports Gallentine has read from that time, a lot of the drainage systems were installed for the public health, which meant draining standing water to prevent mosquitos, malaria, and cholera issues, not necessarily crop production year after year, and so if it drained out in 10 days, that is all they really cared about, they didn't really envision pattern tiling as we know it today, as ever occurring, they may have run an intake over to a pond, but that was it, it was a whole different mindset. Gallentine stated that was what the old reports talked a lot about, the public health, general benefit, general welfare, that kind of thing. McCartney stated you have to realize back

then land use was a lot different, if you had a perpetual pond you would put it in pasture and put some cows on it, now we are trying to row crop it all.

Granzow asked if there were any questions at this point. No questions were presented.

Gallentine stated we had also generated a Reclassification Report, which talks about if a project moves ahead and we split the district into two, and what that would look like. Gallentine stated we can talk about that but if no one wants to do any projects, it is a moot point. Hoffman asked if we would like a show of hands. Granzow stated we can. Hoffman stated he would let Gallentine explain the percent of benefit. It was asked if the vote was based on land ownership. Gallentine stated the only decision that really matters is the Trustees, they are the initial voting body, if they poll the landowners it is still up to the Trustees to vote. Hoffman asked if they were talking about an apportioned vote, is it a vote per acre or does a person have the same power for 40 acres as they would for one acre. Granzow stated if there were any remonstrances that would break out the number of land acres, as we look at it we still need to make a decision, if the landowners vote it is still just a consensus.

Larson asked if there is no appetite for a project, is the question just do we want to do nothing, or do we want to split the district then flush out the options for the split district. Hoffman stated the algorithm looks like do something or do nothing, if there is an overwhelming majority that want to do something, then we go into the weeds and determine the options. Granzow stated no, we can not split the district out until the district is already split, and we put the pipe in and everybody would pay on that split, we can't split the district prior, you are one district. Gallentine stated these numbers are what they would be like the preliminary version until the tile is in the ground, it really doesn't matter until assessments come out. Sheldahl stated if we split it before then the other half would have to pay for all of it and that would not be right. Gallentine stated no that is not how the assessment came out. Granzow stated you have to put the tile in before you split it, and your assessment would go to two parties and now you have two different districts. Gallentine stated it is one of those things that came up, the district was established before the tile went in the ground yet there wasn't any district facility yet, Gallentine thinks you couldn't split the district until the tile is in the ground and the assessment is ready to go out, so you would have two districts paying on the project. Sheldahl stated that way everyone in both districts would pay for it. Gallentine stated that is correct. Granzow stated why would I split it if the west side got a new outlet and the east side needs built again, they would have that argument that we still have a 100 year old tile, and we just paid for a new tile for everyone else. Gallentine stated the east side would be paying for relief of pressure, because you have now moved your upper end where there is no load. Granzow stated if we split it, it is 100% for the people on the east side for what is remaining, Gallentine stated that would be true of the west side as well. Granzow stated we can do it, and asked how people are comfortable with voting. Hoffman stated he would be comfortable with more dialogue. Granzow stated we can ask for a show of hands, who is comfortable doing an improvement. Six people raised their hands as interested in an improvement, seven people raised their hand for leaving it the same. Granzow stated we have a lot of people here that don't feel comfortable expressing how they feel, Gallentine stated we could consider land area. Hoffman stated that would be difficult with an excel spreadsheet. Gallentine stated that you may have an acreage owner push it one way or another, versus someone who has 400 acres. It was discussed that it was too late for a remonstrance to move forward as that would have had to be filed before the last hearing. Gallentine stated a remonstrance is where you have landowners who own 70% or more of the land in a district state they are against the project, if filed before the hearing, the remonstrance would have been read, and the project would die and nothing would move forward, we have had a few of those in the past. Gallentine stated it is not easy to get a remonstrance to get landowners who own 70% or more of the ground in the district to agree on anything.

Granzow stated he is open for more dialogue if we have only 14 people of the 24 gathered here saying anything one way or the other. Larson stated we looked at all the options, the best option for them based on cost seemed to be splitting the district, Larson asked for Gallentine's thoughts. Gallentine stated long term on this is subjective, it is different if you are 80 years old and own some ground rather than if you are 30 years old and own some ground, if you are 30 there is probably a decent chance that you can pay for the repair and still see some of the benefit, if you are 80 you might see some benefit on the back end, but Gallentine was unsure of how many years that would be, long term is subjective to each landowner. A landowner commented that your land value is going to increase if this moves forward. Gallentine stated it should, but by the time the 80 year old sells it, their kids will care more than them, that person's family will benefit, which is common in drainage, a landowner may say that they want their grandkids to have better drainage than they did. Larson asked if the drainage district is more manageable in it is current state as DD 56, or is it more manageable splitting it into two smaller districts. Gallentine stated his opinion is if you can take any pressure off that overloaded tile, you are going to have less repairs, notwithstanding that is still 100 year old tile, so there is no knowing how long this 100 year old tile will last, but if you take the pressure off that will help.

Kuhfus stated there are 6 people here who voted for doing nothing, so there are some landowners here who voted no as a family. Kolden stated we as a family all individually own land, so we each individually have a vote. Discussion became heated between landowners, and Granzow stated right now we are at a consensus, we are not here to have an argument, and if this discourse can not remain civil, Granzow will adjourn the meeting.

Granzow stated water is flowing, and we are here for the landowners benefit, not the Trustees. Granzow stated we the Trustees are her because you the landowners choose not to represent your own districts. Granzow stated yes we do check into the questions you do have, and Granzow stated lets get back to civility and move forward. It was stated by a landowner that this was not something that can be created, there has to be some kind of rule on how we move forward. Gallentine stated he had explained the rule - that the District Trustees are the deciding party, they are the ones to make a decision, so whether it is these three Trustees or landowners who have been elected, that is who makes the decision, they can choose to poll you, they do not have to do that, so in absence of a rule, they are doing something they don't have to. a Landowner stated in absence of a rule there needs to be some kind of continuity in the process. Hoffman stated he loved the newspaper, and read where the Des Moines Public School Board decided to spend \$19,000,000 on a soccer complex and not let any Des Moines School District taxpayers vote on that, Hoffman thinks that is horrible, and does not want to treat landowners the way the Des Moines School Board treats their constituents, so Hoffman believes we can figure out a means to do this as there are no written rules on how to do this. Hoffman wants to recognize everyone best, if that means we adjourn and reconvene in a week and come back in a way to systematically vote, but we have to keep the emotions under control, and find a civil way to do this. Hoffman stated between the clerk and the Trustees can find a way to apportion a voting method. Hoffman stated there is no Iowa Code that spells out how to do this and Hoffman does not want to be a ruler, he wants to represent you, Hoffman stated the Trustees and the clerk would be happy to provide the petitions for the landowners to become their own Trustees, and can make these decisions, but you elect your leaders. It was stated by a landowner he just wanted the rules explained for landowners to vote. Granzow stated there are none, we asked for a show of hands, and that was the rule at that moment, a question was asked of individual owners, this landowner called a family out, and the question was asked are the Trustees representing each person or individual landowners, Granzow stated we try to represent individual landowners, and assumes everyone here would not vote twice if they don't have two parcels. Granzow stated he will not tolerate an argument in here. Granzow stated he is just looking for consensus. Hoffman stated we can easily send out a paper ballot to each parcel and that can be the rule if that is what we the Trustees feel is best and if that is what they want is representation, Hoffman wants to best represent you and does not want this to tear people apart. Hoffman stated let's be civil and figure out if that is what landowners want is for us to send out a paper ballot to each parcel, and have it sent in by August 1st, Hoffman is ok with that, we just want to know how we can best represent everyone civilly.

Gallentine stated that is why we suggested a simple hand vote, because if 20 people say yes and one person says no, then our answer is pretty clear, or vice versa. Hoffman stated that has worked well in the past. A landowner suggested a paper ballot would be better. One landowner stated he did not vote at all, as he has one vote for the trust and one for himself, and those votes are split, if he were to do it again he stated let's do a paper ballot right now, which would eliminate the show of hands and issues. Granzow stated let's break this down to just the people who are here and asked if there were any written comments received prior to this meeting. Smith stated we have received no new written comments since the last hearing. Granzow has one written comment that came in yesterday. Granzow stated let's go around the room, and vote. Smith stated she needs clarification on what we are choosing before we even look at any other options, are we choosing to move forward with an improvement or do nothing. Granzow stated let's vote by owner's count and do a paper ballot and vote to move forward with an improvement or do nothing, we will do this by owner count, not by acre or people count. Hoffman asked if the Trustees would allow Koldon and Mike Fjelland to have a verbal vote as they are attending by phone. Granzow stated yes, they may vote with a verbal vote. Granzow stated if the parcel is represented by a trust, a corporation, a partnership or a single owner, or how the ownership is written, that will be one vote for each entity or group of parcels you represent.

Granzow directed Smith to verify which owners the people in attendance are representing and deliver paper ballots around the room. Gallentine assisted Smith in verification and distribution. Kolden asked what was being passed out, Granzow stated Smith was going around the room and verifying which owner each person was representing and handing out ballots, Gallentine stated he wants to make sure we are doing this correctly and used Sheldahl as an example, Sheldahl owns 9 parcels with his brothers, and owns no other land with anyone else, so Sheldahl would get one vote. McClellan stated we are only voting right now to move forward and do something or do nothing. Kolden stated, she owns land so she gets one vote, her sister owns land and she gets one vote, her brother owns land and he gets one vote, and Radland farms gets one vote, and that is the four of us, and we each get one vote, Kolden stated for everyone else, if they own as a corporation or they own as an individual they might get two, Kolden stated we are casting 4 votes as we have 4 different owners. Gallentine stated those 4 owners are on one parcel, do you own that parcel together or are all the parcels separate. Kolden stated we each own land individually, the only thing we own together is Radland Farms, and Mike is voting for those parcels. McClellan stated she would like to see the vote done here in person to do something or do nothing, and then later have Smith send out ballots based on the amount of acres owned later by mail. Paper ballots were distributed.

Granzow stated the ballot question is yes we want to move forward with the improvement or no, we we want to do nothing. Smith asked for Kolden's verbal vote for parcels owned by Kathy Kolden and Robert Kolden, Kolden's

vote was "No". Smith asked for Mike Fjelland's vote for the Radland Farms parcels. Mike Fjelland replied "No". Granzow asked for any other written comments. No other written comments were presented at this time. Smith collected the paper ballots. McClellan read the votes along with the number of parcels those votes represented. Smith and Gallentine both tallied the votes separately. Smith stated the vote count was 17 votes for "Yes" move forward with and improvement and 10 votes for ""No" do nothing at this time, the votes represent 100 parcels in all, with 77 parcels represented by the "Yes" move forward option, and 17 parcels representing the "No" do nothing at this time.

Granzow stated so now know where we stand, with the largest amount of votes being "yes", let's talk about the methods for improvements. Granzow asked Gallentine for a review of options. Gallentine stated there are 3 options that involve the red cutoff and some green on the map, the fourth option would be to just do the red cutoff. Granzow stated he is just for the red cutoff, and would like to know where the others are on options, but for now let's talk about the red cutoff, and we can come back to the other options. Hoffman and McClellan stated they would like to just discuss the red at this point. Granzow stated there are three options for just the cut off, and each has the 1/2' coefficient or the 1" coefficient. Granzow stated either way it would be \$850,000 a similar size pipe it just depends on the pitch, Gallentine stated if you are going to spend the money you may as well go for the greater coefficient. Gallentine recommended going with the 1" coefficient, especially with tile that deep, it is not like you will want to dig it up later and replace it.

Granzow asked if anyone is interested in looking at doing the green line options, and is just looking for a show of hands right now, or is anyone interested in just doing the red line. It was asked if this would require creating two districts. Gallentine stated since they are drained to two different spots and you would have two different facilities, you would need two different methods for payment, because it isn't equitable to have someone on the far east side, long term to pay for a different outlet. Gallentine states that for the initial construction it makes sense, because we are taking the pressure off the top end but after it is initially built, why should the east side pay for that outlet, similarly, why should the west side pay for it if they don't use it. Gallentine stated even if you don't separate it into two districts, you would have to have two separate payment schedules within the district, a main one and main two but you really need to have it separate for payments. It was asked if this means it would be capped and split. Gallentine stated yes it would be capped and then runs to the north. McCartney asked if Sheldahl wanted the green line. Sheldahl replies he would to have the green line but also understands it is not going to happen. McCartney's stated if we voted to do the green line, the east side should not have to pay for the green line, the compromise would be the east side would not have to pay for the west's 100 year old tile line repairs, and the east would have a new tile line and no repair bills, so why would I pay for the green line, and maybe that is a compromise in the future. Gallentine stated maybe you would like to do the red line now and split the districts, then in the future the people in the west want the green line, they can do it and they can pay for it.

Granzow stated that is why we just wanted to see the redline at first, and then we can split the district and move forward from there, that may be the best answer for this district. It was asked how much the main costs. Sheldahl stated that a lot of the tile coming into the green area, so on that corner on down the tile and the main actually stops flowing and it won't drain for 7 or 8 days, just simply because of the volume of water coming in from all those tile outlets down there, and so everyone on the top end gets absolutely no drainage for about 10 days, because it is so loaded in that area, the green line would help because about a thousand acres drains into that 1/2 mile stretch from the north and from the south. Gallentine asked if Sheldahl was willing to do just the red line at first to see if that helps. Sheldahl stated we need to start somewhere, we can't just do nothing. McCartney asked that if we vote on the red line are we going to divide a district, because McCartney wants a definition now, so in the future we don't say we want the green line.

Gallentine would highly recommend the district gets split with the cut off. Granzow stated he would follow Gallentine's recommendations, if we are going to do this, we will split it with the red line, the discussions we have had lead him to believe this would be the best option. Hoffman, stated a motion would include splitting the district. Granzow stated the Reclassification Report is already done and in order. Gallentine stated the reclassification has been done, and the recommendations were the cost for the cut off be split equally between the two districts fifty-fifty, if we install the cut off any deeper, which was the discussion, the commissioners felt that the cost to install it for the deeper 2' of additional depth should solely belong to the west as they will be the ones getting the benefit from it, as the east side is cut off either way. That costs could be written in as an alternate on the bid.

Hoffman asked if we had voted on the reclassification yet, Smith stated the reclassification report has been acknowledged but not accepted yet, so it can be voted on today. Granzow stated before we do the reclassification, let's make sure we read any public comments, because if they object to this is the time they have to comment. Granzow stated moving forward we are just talking about the red line, and per the recommendation of the Engineer, we will split the districts, and this will end up in a motion, Gallentine asked if we would be doing the red line to a 1" coefficient. Granzow stated yes, we would use the 1" coefficient, also they may want to drop the red line lower to help the west portion of the new district at the expense of the new west district. Gallentine stated we can bid that as a separate bid item for additional depth so you know exactly what that cost is, and they can choose

that at that time. Granzow stated we also have a Reclassification in front of us, and asked if everyone has had a chance to look at that report, and if there any disagreements with that reclassification report before we approve it. Granzow stated if we approve it is done, Granzow asked if landowners wanted to do the classification now or work on the red line. Gallentine stated that at the end of the day, whether it is east or west, everyone understands the costs will not go away, and we have to pay for the project somehow. Kumrow asked if the if the Reclassification schedule he received in the mail would be the same costs as we are discussing on doing just the red line. Smith stated the Reclassification Report was based on the \$850,000 option which would be split the cost equally between the two districts, \$425,000 to the east and \$425,000 to the west. It was asked if the extra 2' of depth would be assessed to the west. Gallentine stated yes, it would be a separate bid item that the contractor has to fill out to tell us how much that extra 2' cost, so that we don't have to guess what that cost would be. It was asked by a landowner why did we pick the extra 2' for the depth. Gallentine stated that was the number kicked out at the hearing, do we want a percentage of grade.

Granzow stated we will send CGA out at the cost of the west half, but we can't do that until after the motion to split the district, and let Gallentine tell us the maximum depth we can go. Sheldahl stated if we can get by with a foot and a half, why go to 2'.

Motion by Hoffman to split District 56 into two portions, DD 56 East and DD 56 West. Second by McClellan. Granzow asked for any additional discussion on the motion, hearing none, Granzow called for the vote. All ayes. Motion carried.

Motion by Hoffman to adopt the red line plan to a 1" coefficient with the potential of dropping down at the expense of the new west district as an alternate bid to be determined at the bid awarding. Second by McClellan. Granzow asked for additional discussion on the motion, hearing none, Granzow called for the vote. All ayes. Motion carried.

Hoffman asked if anyone wanted more time to discuss the reclassification, or are we ok to adopt that today otherwise we can wait and put it on the Regular Drainage Agenda. Granzow stated if we adopt the reclassification this is the new classification we will be going with. If you have ground that does not fall in this drainage district or you think you are over classified, and you did not look at it, it is on you and not the Trustees, if you would like a week to review it to determine if you think it is correct, or dispute it now or tell us to wait a week, it will move forward. Sheldahl asked how do you go about determining the classification if we have one of the highest classifications and yet it doesn't drain, how is that figured. Gallentine replied the Reclassification Commission works is , we take into account the soil types which we take off the USDA website, those soil types may be well drained, poorly drained or very poorly drained, then we also look to see how close the parcel is to the district facility, so if it is right on the district main, they will pay more than someone farther away from the district main, because the thought is someone farther away from the district main may have their own private stuff and maintain it. Gallentine stated the soil types that are poorly drained or very poorly drained need more artificial drainage to make those soil types be more productive, it takes into account slope, the steeper the ground is sloped, the better it drains typically than flat ground. We talk about the combined factor, which means the highest combined factor will be the 100% benefitted parcel, that is typically the parcel that is closest to district tile and has the worst soil, which may be Sheldahl's field in that case, that would be the 100% benefitted parcel, comparing everyone to them using that same factor, then after that it is a matter of taking that times the number of acres, and we can figure the cost of the apportionment. Sheldahl asked if the coefficient of the main comes into play, Gallentine stated the coefficient of the main really does not come into play, the assumption is the district facility is adequate to handle it, it is often questioned, someone might say well I am right on the main and it overflows because it is not big enough, I shouldn't pay more, I should pay less because I am taking on everyone's water. Gallentine stated when this get's adopted, it will be in effect until the next reclassification is adopted, the last one was in effect for the last 100 years, so it is assumed that the main is functioning correctly and it will get used again if another project happens. Gallentine stated the other thing about a new classification that is tough is that if I feel my parcel should go down, it is almost a matter to explain why someone else's should go up to compensate, I just can't go down without someone else's going up because at the end of the day the district still has to pay the whole bill.

Granzow stated we have had instances where we ended up taking acres off because landowners can prove they drain a different direction to a different outlet. Gallentine stated we have had people produce tile maps, and say there is no outlet for the district on the map, but the landowner has tiled over here, and his outlet is over here, in those cases their benefit was reduced, and that was the Trustees choice to do that. Gallentine stated the other thing he would say about reclassification is that the Commission that draws up the reclassification consists of Gallentine and two landowners in the county who aren't interested in the district, we draw it up initially, the Board of Supervisors have the option to approve it, modify it or send it back to the Commission and after they approve, you as landowners have the right to appeal it to the district court within 30 days if you still don't agree, so it really is a three step process of review and oversight. Kuhfus asked how many acres were in the west half, Gallentine replied the proposed west district has 1,504 acres, and that is at the bottom of each sheet, the east side has 2,162 acres.

Hoffman motioned that no action be taken today and the Reclassification Report be placed on the agenda next week for adoption, then everyone has a week to contact the Supervisors or the Clerk with questions, concerns or complaints. Second by McClellan.

In additional discussion on the motion Granzow stated it has been moved to table this until next week, so you have time to get back to us with any questions or concerns, Smith is probably the best one to get back to, and it will be on next week's agenda for approval or disapproval depending on the information that has been given. Granzow asked for comments. Kumrow asked if we receive an estimate from the contractor, who is responsible to see that the estimated price is the price hat we pay. Gallentine stated CGA is actually watching the contractor do the work, Gallentine stated there are chances that something unforeseen can happen, that could lead to a change order, Gallentine stated CGA does not control when a contractor requests a change order, no change orders can happen unless they are agreed to by the district Trustees. Gallentine went on that if CGA is watching the contractor in the field, the Trustees also have the authority to approve the change order or not, so it is between CGA and the Trustees to ensure that is how the project goes down, change orders don't always have to be an increase change order, they can be a deduction, it doesn't happen often but it does happen.

Kuhfus stated he was not so concerned with the costs, but the project in DD 22 was a mess, McCartney stated they dumped frozen dirt on top of the tile, Kuhfus stated he does not want that. Gallentine stated he does not want that to happen either. It was asked what the time-line would look like for this project if the reclassification was approved. Gallentine stated we are looking at a winter bid letting because contractors are out busy now, in the January, february, march range and allow them to build it over next summer, and then the completion date would be the end of next year. Gallentine noted there would probably be crop damages with that, which would be an extra cost, but traditionally if CGA tells a contractor that work must be done before planting or after planting, his costs go through the roof, so unfortunately crop damages are just a part of the project. It was asked if the additional depth would be based on the new est district's main tile being a 1/2" coefficient or a 1" coefficient. Gallentine stated the coefficient is a function of size and slope, so we would probably figure out how deep we need to make it to put more slope on the main tile to get the difference between the 1/2" and 1" coefficient, we would figure out the optimal between the two then you get to 1/2" or 1" by changing the size of the tile. Granzow stated it was a 2009 project Kuhfus referred to that went through a lawsuit and settlement that was redone, Granzow stated we have implemented policies to prevent that from happening now and CGA will be on site for the entire project. Kuhfus stated that is what he would like to avoid, Granzow stated he recalled they recovered the cost of the original project. Gallentine stated that he recalled the settlement equalled the total dollar amount of the original project but obviously reconstruction was different price than the original construction because they were two different designs. McCartney asked if they have the research for the new drainage coefficient for the east half of the district, Gallentine stated he would look for the resulting coefficient, if it is not in the report it will be determined later.

Granzow stated we have a motion that no action be taken today and the Reclassification Report be placed on the agenda next week for adoption, then everyone has a week to contact the Supervisors or the Clerk with questions, concerns or complaints, while Gallentine looks up that information we will go ahead and vote on the motion. All ayes. Motion carried.

It was asked that this would involve a pretty deep cut to obtain the coefficient, we will be paid for crop damages done during next year's construction, but what about the following year. Granzow stated easements need to be purchased and it would be put or designed into those easements, but he is not sure whose ground we are going into, that would be negotiated. Gallentine stated that would not be unusual to have multi year crop damages on that deep of a cut. Granzow stated we have gone three years out on one project. Gallentine stated once the red line is installed, the drainage coefficient on the east district would range anywhere from 3" at the west side of the east district down to 1/4" coefficient at the outlet, so you went from a 0.03" to a .2" coefficient, so you are still not at a 1/2" or a 1" but you gain seven times what you had to start with.

5. Comments/Discussion

Granzow stated we have pretty well covered everything today and thanked all of the attendees for their participation, this is difficult for the Trustees to make these decisions without the landowners involvement. Gallentine thanked all of the attendees as well for this and all of the previous meeting involvement.

6. Possible Action

7. Other Business

No other business.

8. Adjourn Meeting

Motion to by Hoffman to adjourn. Second by McClellan. All ayes. Motion carried.

REGULAR DRAINAGE MEETING
Wednesday, July 29, 2020 9:30 AM

7/29/2020 - Minutes

1. Open Meeting

Hardin County Drainage Chairperson Lance Granzow opened the meeting. Also present were Trustee Renee McClellan; Michael Pearce, Network Specialist; Lee Gallentine of Clapsaddle-Garber Associates; and Denise Smith, Drainage Clerk.

2. Approve Agenda

Motion by McClellan to approve the agenda. Second by Granzow. All ayes. Motion carried.

3. Approve Minutes

Motion by McClellan to approve the minutes of Drainage Meeting dated 07-22-2020. Second by Granzow. All ayes. Motion carried.

4. Approve Claims For Payment

Motion by McClellan to approve the claims for payment dated 07-29-2020. Second by Granzow. All ayes. Motion carried.

DD 160 WO 283 - Tile repair, parts, labor, equip. McDowell & Sons Contractors \$4,929.67

5. DD 26 WO 266 - Discuss W Possible Action - Repair Summary

DD 26 This was reported by Sweeney's on main open ditch of DD 26, they had a washout occurring next to existing CMP, the existing CMP had some damage. Repair was made to existing CMP by cutting off the damaged end and cutting a hole in it and repaired with a concrete collar, and we also installed a secondary CMP surface drain next to it, everything looks good to Gallentine who recommended contacting the landowner and make sure that grading, seeding and clean up looks acceptable, Sweeney's run cattle on this ground and they may have different hopes than someone who just has a CRP strip. Gallentine stated we did have a little bit of crop damage and recommends payment of that at 0.14 acres. Granzow stated we should have Smith verify with the landowner that seeding/grading was done, and make them aware of crop damage of 0.14 acres, and bring it back with that as well as the summary, and table this until then.

Motion by McClellan, to table until next week's Drainage Meeting on 8-5-2020. Second by Granzow.

In additional discussion on the motion, Granzow directed the Drainage Clerk verify with the landowner seeding and grading was done, verify if there is a crop damage claim on the 0.14 acres and bring that back on next week's agenda for review.

All ayes. Motion carried.

6. DD 41 WO 299 - Discuss W Possible Action

Chris Blome reports a 3' blowout on the DD 41 Main Tile, in southeast corner of field, can be accessed from the drive on H Ave., follow the grassy waterway west into the field, blowout is in waterway and flagged. Gallentine stated this is a bit disappointing because we had done some spot repairs a couple of years ago with Hands On Excavating, thinking we could gain some time, evidently we didn't spot repair enough or a new problem has developed. Smith stated she had some followup to that previous repair, Blome had asked about a claim for crop damage submitted with previous clerk Schlemme, whose notes stated we would contact Blome at completion and Blome still needed to submit his yield. Smith was unsure of status as this was tied to several other projects with Hands On, and the claim remains unpaid. The notes state those projects were not completed at time of claim submission. Gallentine stated he spoke with Jacob Handsaker, this was one of several smaller projects lumped together and one of those was Dean Bright's, completion on any of these are on hold until Bright's is completed, Gallentine stated you don't have to wait till completion time to pay any damage claims, you just typically have in the past. Gallentine stated this new blowout is above and beyond this contract, it would be two similar but distinct issues.

Granzow stated it may be smarter that we wait for completion so it is all done together, but it has been 2 years, maybe we should take care of it now if this part is completed. Gallentine stated it is done and has been done awhile, we have just been waiting on the portion of Dean Bright's for completion. Granzow stated can we focus on the other three and wait on Dean Bright's, and get some closure on most of it. Gallentine stated we can start moving in that direction.

Motion by McClellan to send CGA out to investigate on the main tile DD 41 WO 299 and report findings back to the Trustees. Granzow seconded.

In additional discussion on the motion, Granzow asked if CGA would take photos of this blowout, Gallentine stated he would and report back their findings.

All ayes. Motion carried.

7. DD 121 WO 295 - Discuss W Possible Action - Investigation Summary

Gallentine stated this was reported by Tom Gilmore, the hand drawn diagram included in the Summary explains a lot, the original report was of a blowout, but the area around this blowout looks horrendous. There is a wet area upstream of the blowout, that flows down through a grass swale, there is running water, exposed tile and broken tile pieces, there are stumps of trees that were cut out recently, rocks have been pulled out, it is pretty nasty looking and the tile is pretty shallow. CGA recommends they go out and do some potholing and televising to see if we can determine the condition of this thing because Gallentine thinks there is more going on than just one single blowout. It was discussed that perhaps we should hold a landowners meeting first so the landowners are aware of what the Trustees are doing with this. Granzow asked how many feet of tile could we be talking about, Gallentine stated possibly in the hundreds of feet, not less than 100', it may be 1/8 to 1/4 mile. Granzow stated that may be pretty good money, Gallentine stated we don't know, but looking at the tile shards in the field it does not look pretty.

Granzow stated he would rather bring everyone in and explain why we are doing this, they may choose not to investigate and put in a new tile and be done. McClellan asked how many land owners were in this district. Smith will have to check number of landowners and stated if we want to do a landowner meeting that can be set with enough time to get notices out, should we require a hearing then we must publish and require at least 40 days notice to landowners. Gallentine stated he has two maps for this district, with one map showing it in Hardin County consisting of 1300 acres and the secondary map shows it as a joint district with Hardin and Marshall Counties, this may be a joint district. Smith stated she can confer with Gallentine but does not recall it on the joint district list. Granzow stated he was not comfortable having another landowner meeting in the EOC building, that if the district were small enough we could host it in the Large Conference Room at the Courthouse or do a zoom meeting, and see how many people want to attend with location to be determined, especially if we have to involve Marshall County. Gallentine stated the map that shows it as a joint district may not have been adopted, it will take some research. Smith will bring this back on next week's agenda.

8. Discuss W Possible Action - Drainage Utility Permit Repair Process

Smith stated she had asked the Trustees to review the draft of the letter regarding the status of open Drainage Utility Permit Applications. Smith stated the sample letter was to Midland and they have the most open permits right now. Smith stated the letter references Drainage Code, and states we have been made aware of repeated violations of a select few in the utility field, Smith did not name a specific utility or imply this was the applicant this letter is addressed to. Smith stated the letter goes on to state that having received no notice of intent to commence construction, the Trustees have directed me to request the current status of your company's projects in drainage districts as reflected in the list of outstanding and approved utility permits. Smith has listed all of their permits and to please advise us of the status of all their projects, if they are ongoing or complete, and if work on the projects have been completed to include completion date, a brief description of work completed and contractor or subcontractor utilized, and to continue an open dialogue with our Utility Applicants, their cooperation is appreciated. Smith asked for reply within 14 days of receipt of the certified letter. Smith stated if the Trustees find the language acceptable Smith can get those letters mailed out with the exception of the IRUA and one outstanding/open permit for Radcliffe Telephone that was on hold pending the IRUA outcome. Smith asked for clarification on whether the Trustees would like Mike Richards to send a letter to the IRUA or have Smith send one. Granzow stated if we have authorized you to do it we are fine, but what would we be paying legal for that Smith has not done already. Smith gleaned some of the language from a previous mailing done by legal and combined that with our question, what is the current status of your project. McClellan was comfortable with Smith sending the letter, Granzow agreed and stated if we don't have a response within 14 days, then we can involve legal.

Smith stated she had received a phone call from a woman with the IRUA who asked what does it take to be put on the agenda, they may want to be put on the agenda to discuss their open utility permit applications, Smith let her know that she would need a minimum of 24 hours notice to be put on the agenda for next week or any week. Granzow asked if they are interested in compliance with our permit. Smith stated that has been discussed between our attorney Mike Richards, and their attorney Frank Smith and asked that other than the cease and desist order, what other steps can be taken. Granzow stated the IRUA needs to comply with the permit. McClellan stated that we need to have Mike Richards participate in that meeting as well and check his availability for a meeting. Smith can include that information in an email to Richards. Granzow would prefer to meet with the IRUA other than in a regular drainage meeting, to include the IRUA, Richards and Gallentine, the IRUA agreed to this and should have argued this before signing the permit. Smith asked if there is something the Trustees would like Smith to do to better notify the applicants when a Drainage Utility Permit application is approved. Smith stated she assumes the utility has read and understands the document they are signing and submitted, that they know there are rules they must comply with but if they choose not to, does Smith need to be more stern with her reply when the application is approved, by stating it has been approved and you must comply with all the rules beginning with notifying us of construction. Smith stated if there is something that can be done differently or better to make it a smoother process, let her know.

Granzow stated there are two things we need to approach, that we need an end date on these permits and the bite needs to go to the utility, not the contractor working under them. Smith stated we don't know who their contractor is at this point. Granzow stated if Midland hires different contractors for each permit if they want to but the owner of the application's project is the utility whose responsibility is to get this permit application information to their contractors. Gallentine liked Hoffman's idea from last week's discussion of a cash bond or deposit to be paid by the utility based on the Trustees experiences they had had with that utility. McClellan inquired about other counties utility permit requirements. Gallentine stated a lot of the counties ignore utility crossings on their tile and only deal with it after the fact when there is complaints, Hardin County is on the proactive edge on this. Granzow stated we have received too many complaints and everyone else is catching up, Granzow sits on Boards in other counties, and they wish they had a similar utility permit. McClellan would rather be proactive than reactive as the utilities just get sloppy. Granzow stated in the end this causes more expense to the landowner not the utility that gets the freebies at the landowners expense. Gallentine stated the whole problem is if you don't do this, the margins for these producers on these lands are so slim they can't afford to fix someone else's mistake. Granzow stated it is the Trustees job to make sure the utilities pay for any damages they cause and it is far easier to fix up front than it is behind.

Smith stated we had approved in last week's meeting to add a line of text acknowledging that any utility permit application's work must be completed within 30 days of approval, so that step has already been done, that will be updated on the form this week. McClellan stated that if the work is not complete within 30 days they have to reapply. Granzow directed Smith to bring this back with bonding. Smith will send out the letters to the utilities to include the IRUA. Smith asked if the issue with Radcliffe Telephone Company had been resolved. Gallentine stated that Radcliffe Telephone ran the same route as rural water, so his assumption is that we would treat them the same as however you end up treating rural water, we were just waiting to see how that worked out, they both serviced the city of Buckeye and took the same route.

9. Other Business

DD 41 - In further conversation on DD 41, Gallentine stated the DD's that Handsaker worked on in the group project were DD Big Four, 41, 77, 123, and 143, 128 is the district that is not done. Granzow stated he would like to direct CGA to move the other projects towards completion to include DD 41, Big 4, 77, 121, & 143, and to exclude Hands On work in DD 128, as DD 128 is not complete on Dean Bright's parcel.

Motion by McClellan to direct CGA to move DD's Big Four, 41, 77, 123 and 143 towards completion. Second by Granzow.

In further discussion on the motion, Granzow stated there will still be an overall completion but this may help us move some of these crop damage claims along to completion.

All ayes. Motion carried.

DD 3 - Mike Carpenter requested contact information for the Private Trustees of DD 6, Carpenter has a blowout on the open ditch and is washing out the bank of the open ditch. Smith will provide Private Trustee contact info to Carpenter when he calls in.

DD 55-3 - Al Urhammer reports a sinkhole by the intake in the ditch, Urhammer stated the location was very close to recent work order #224, but when Smith references the current location of the sinkhole just west of Dillon Luhman's parcel on the south side of 280th, this is much further west of work order #224's location, and does not

correlate to that location, This reported location provided by Urhammer does not lie near district tile and may be an issue for Secondary Roads. Urhammer states this is a washout on the intake and the dirt is sinking away and does not want it to plug the tile and it would be on the west edge of the fourth home site on the south side of the road to the west of G Ave. Gallentine does not remember any project on Lateral 12 in a very long time. Smith stated this may be something Smith needs to notify Secondary Roads of. Gallentine agreed, this would not be district tile and to notify Secondary Roads.

Potential Assessment Project - Smith has been working on the potential assessment project for IRUA invoices and Wind Turbine Ordinance review invoices paid by Rural Services, and a portion of the Drainage Clerk's salary, Smith has gone through all of the districts and Smith realized we do not have classifications entered in Tyler for some districts that have not been assessed in a very, very long time. Smith will have to make a list of districts without classifications in Tyler and review that with Gallentine to see if a classification is on file and can lay hands on them, because if they can't be found in the paper DD file or in the computer, they can't be entered in Tyler. Smith also stated that is a learning curve for he on how to enter the classifications in Tyler as well, to make sure if we are going to assess there is a classification in Tyler to do so with. Smith will bring the list back to the Trustees as an agenda item for Discuss w Possible Action in the next week or so, so Smith can get authorization to talk with Gallentine to get those classifications covered that you want to assess. The Trustees agreed that those classifications will be needed, Granzow asked if Gallentine would review these classifications as well. Granzow stated that if Gallentine can take a short review on these classifications and see if anything looks out of whack to let the Trustees know. Granzow stated that should be addressed as well before it is a problem, McClellan asked for clarification, Granzow stated the city of Radcliffe had 95% of assessments were to the southern part of the district because they added onto the south end, the upper part of the district has only been paying for 5% of repairs, Buckeye had a similar situation where someone drained a pond and they assessed the whole cost to the district, so that any work that continues to be done goes on these people, if we see anything that doesn't look accurate we should address that at this time, we may not need to reclassify but we should flag and note it. Gallentine stated that we can look at this and there may be a little bit of time involved in this. Granzow asked how much time this would entail. Gallentine stated this could easily be 1/2 hour to an hour for each district.

Smith stated for most of the districts we have classifications, it is a small number that we don't have classification for, it might be 20 or 30 that have not been assessed in ages but still show on Smith's list of active districts. McClellan stated this went way back to when she was the Auditor, and the Supervisors wanted to do a full assessment because we didn't have classifications then for some of these. Smith was concerned that once we have the list compiled and get the classifications in order, it will be a lot of work to get all the districts processed through Tyler in one year, Smith stated a portion of the issue is that she is new, and also this year we assessed three districts in Tyler, and it was a struggle to get notices to print. Granzow was fine with waiting till the second year if needed to get it done right, Smith did not want the Trustees to think the project has lied dormant, but Smith will need some input from Gallentine to get those classifications and some more experience to feel confident it is done right. Granzow stated we have pushed for this for ten years, we can wait a while longer. Smith stated we need to pull the Treasurer in and have her discuss the project, and had raised concerns with Smith the project was not possible or possibly not legal to do it this way, Smith thinks there is experience in other counties that have done it this way that says, yes it can be done. Granzow stated we may be doing it in a more legal way than any other county, Smith stated by following the language in code that allows for additional duties performed by the Auditor's office, covers what we are trying to do. Granzow stated he did not like the way some counties just add a 5% increase over the cost of a project to cover these costs. Smith stated that only covers the districts that have a project. Granzow stated yes, so that the people that are in districts without a project are paying for it too, this whole thing is wrong if we don't do it, other counties do it by a quick, easy method and get sued, because if I paid 5% of a \$2,000,000 project for everyone else I would probably sue also, and we have a lot of landowners who would sue in that case. Smith stated it is a unique situation in the sense that we have had expenses recently, whether that be invoices for our IRUA letters or the Wind Turbine Utility Permit reviews, those affect every district in the county, those decisions that we have reached out to legal advice on, have effects on every district, so Smith understands the basis. Granzow stated the only distinction would be for open ditches versus non open ditches, there are some legal things that only apply to open ditches, but that would just be pulled off the open ditches.

McClellan asked some of the districts that have not been assessed in over 10 years, is there any way to give those districts the option to take that over as private tile rather than district tile, that may have come up before. Gallentine stated there is a process to abandon an entire district, Gallentine would have to check code but thinks that process begins with a petition. Granzow stated in some of the smaller districts that could happen very easily, where there are only 2 or 3 landowners, they may be able to do that through an abstract. Gallentine stated the smaller districts may be fixing it thinking it is their tile or may not want to go to the district due to the expense, this would be the perfect time to clean those up. Smith stated she wondered if some of the landowners in districts that have not been assessed in decades are even aware they are in a drainage district, as they have never received a notice from Smith, clerk Schlemme or clerk Jane Geerdes before her, it is a difficult thing to communicate, there may need to be an advance communication or a good letter with the assessment to explain the process for those districts, although you have not been assessed in recent years, you are still within the boundaries of a drainage

district, some language like that in there as well. Granzow stated that we are still the keeper of their records until they abandon, and they still need to be charged. McClellan asked how many districts we have on the list missing classification or having not been assessed in a long while. Smith stated she has not reviewed the list this week and is estimating a ballpark number. Granzow stated the kicker of this is everyone else is paying for it anyway and they will come in once they get an assessment, they have been getting these services for free whether they have utilized the services or not, there is still a bill there. Smith stated at some point we will have to discuss joint drainage districts and this assessment as well, Smith will bring this back as a Discuss w Possible Action agenda item. Granzow stated there is a lot involved in this and would rather do it right the first time, than do something and change it the following year. Smith stated the biggest issue she had was getting the assessment notices to print in Tyler, and Smith had spoken with Jessica Wright in the Treasurer's office and they were struggling to get parcels who had received a waiver and had payments and interest due to get those statements to print this week as well, so Smith is not alone in her issues with Tyler. Smith admits some of the issue is with being new to the Clerk position, but would rather look at the projects we will assess in 2021 and get those under her belt and get those regular construction projects assessed and Smith will feel more confident in the process.

Granzow stated he is happy to see progress made, and we can tally this money paid through Rural Services to be reimbursed later. McClellan asked how far back do we go with those invoices. Smith stated we can go back and look at the Rural Services code and see which invoices were paid for drainage vendors, Smith stated the last time invoices were paid by Mindy, it was discussed that we can pull a vendor report and look at all those transactions. Smith stated Tyler goes back for two and half years. McClellan stated going back further than Tyler, that information may be unobtainable so we should gather that going as far back as we can. Smith stated it would be invoices from Davis Brown Law, and maybe a couple from CGA. Granzow stated there may be invoices going back farther with attorney Mike Smith. McClellan stated we can print that off and go forward. Smith stated it can be printed off and going forward we can track any invoices paid after today's date. Granzow pointed out some of these invoices have been paid by the districts tied to specific projects, not a large overall bill. Smith will print it out and keep with the project file.

DD 52 - Smith stated she had received a call from Shaun Piel who was upset with the fact that Tracey Below's claim had been paid out, Piel received the payment for that claim as directed by Below, Smith stated Piel was disappointed the amount was low, and there may have been conversation between Piel and Mr. Meister who bought the parcel, that this would be corrected or reseeded by the district, but Smith thinks the issue may be between the seller Piel, and the buyer Meister. Granzow asked what is left for contractor Seward to clean up. Smith stated Seward removed the trees and brush, there is still stumps remaining. Gallentine stated the trees stumps were left and it is Gallentine's understanding Piel was ok with that, and that the stumps would be treated. Smith did send Piel and Meister photos of the trees removed, the trees were gone, Smith stated the Trustees have gone above and beyond trying to satisfy this claim, and Smith stated she explained to Piel that the project took three years, and part of the delay was in getting Piel's signature on the agreement to remove the trees. Smith sent Piel a copy of the work order details and the DD 52 minutes going back to 2013, so he has all of the details that have been discussed. McClellan stated Piel has not been easy to work with. Smith stated the land has been sold and transferred. Granzow stated he could talk with Meister, but this was a private sale and the district is done, Granzow asked if we left the ground all tore up. Smith stated the pictures looked pretty good, Gallentine stated the area looks fairly well considering the spot that it is considering we did not reseed it, they cut the trees down and left the stumps, but compared to everything else Piel had out there, it was the middle of a dump patch, you can't grub out stumps without dragging out scrap metal and water heaters. Granzow stated that the trees were there to hide that, the district is done and we settled the claim, which was with Below. Smith stated that was correct, Piel asked why he never received a claim, and Smith told him because he had never filed a claim, every landowner has the right to file a claim when work is done in their parcel on district tile, but the landowner has to actually submit that claim, the claim we received was from Tracey Below and that is the claim the Trustees acted on. Granzow pointed out Below's claim was for the same parcel, McClellan asked what Piel could have filed a claim for. Granzow stated he could have possibly filed for the trees that we went farther out in the field for, or possibly seeding. Granzow stated if Piel wants to file a claim he still can but was unsure what he would file a claim on. McClellan stated that will not satisfy the buyer if Piel is paid out on the claim too. Granzow stated Piel sold without filing a claim so he is out of it, Meister does not really have a claim he wasn't part of the repair, this is a private matter outside of district boundaries, Granzow stated the claim was filed within the easement, we also asked for permission to take the trees out, and we got that, and no claim was filed beyond that and Piel sold the parcel. Smith stated it sounds like a legal issue between the two parties. Granzow stated we are beyond the boundaries of our easements, we did a service by removing the trees, otherwise they would have had to pay for all that and now the district will have to pay for it. Granzow stated any of the parties can call him to discuss it. Smith stated she shared the Trustees contact number and email along with the work order details and minutes with Piel in a letter.

DD 143 - Roll had asked if we had a map that showed those locations of trees through Radcliffe, Gallentine looked through the records, and had GPS coordinates, and shared those coordinates with Roll, Roll said he could work with this and didn't need a map.

DD 25 - Near Garden City, they are boring under the railroad track today.

DD 56 - After the recent DD 56 Hearing, Gallentine had sent all the information to the NRCS and they are working on it, Gallentine is working them on where this will have an impact on jurisdictional wetlands and will get some determinations from the NRCS, they will not share the individual wetland determinations but they may say between station 25 and 35 drainage has increased/decreased, so we know where to concentrate our efforts.

DD 55-3 - Smith stated she spoke with contractor Seward who has submitted all of their forms and documents to RailPros and will hopefully get an approval from RailPros and get construction scheduled soon. Gallentine stated he just received an email from Seward during the meeting and is planning on working on the 19th.

10. Adjourn Meeting

Motion by McClellan to adjourn. Second by Granzow. All ayes. Motion carried.

Hardin County Drainage Claim for Damages

Claim # 2020-4 District # 52 Work Order # 215

Township Tipton Section 33 Twp 87 Rge 21 Qtr Sec _____

Parcel Tax IDS 872133276001

872133276002

Name Tracey Below

Address 204 South State Street

Hubbard, IA 50122

Phone 641-485-3396

Email Address tracey below@gmail.com

Landowner (if different) Shaun Piel - 9768 Magnolia Blossom Drive, Tampa, FL 33626

Claim Type: Crop Damage

Crop Year Fall 2019-Spring 2020

Crop Year _____

Type of Crop Alfalfa

Type of Crop _____

Acres Damaged 3.5

Acres Damaged _____

Yield Per Acre _____

Yield Per Acre _____

Fence Damage

Outlet Damage

Other: _____

Desired Compensation – Please note if payment should be split between landlord/tenant.

Monetary Payment

Repair of Damages

Tracey Below requests payment be made to landlord Shaun Piel. Payment to be based off contractor estimate of reseeding 3.5 acres of alfalfa. Honey Creek Land Improvement has provided a quote in the amount of \$430.00

Claimant Signature _____ Date _____

For Office Use Only

Unit Value \$ _____/bushel Unit Value \$ _____/bushel

Crop Damages (Verified Acres X Yield X Unit Value) \$ _____ \$ _____

Total Amount Approved \$430.00

Approved Signature [Signature]

Date 6-3-2020

51078
Balance
\$381.21
Stamped
Warrant
Pay Date
6-12-2020



Drainage Work Order Request For Repair Hardin County

Date: 11/12/2019

Work Order #: WO00000279

Drainage District: DDs\DD 128 (51142)

Sec-Twp-Rge: 23-88-20 **Qtr Sec:** NE 1/4

Location/GIS: 88-20-23-400-005

Requested By: Dean Bright

Contact Phone: 641-751-3464

Contact Email: _____

Landowner (if different): _____

Description:

DD 128 - Dean Bright reports area that had been previously repaired (WO127) is leaking in parcel #882023400005 in the West section of the NE corner. Seeping into an area 20' wide by 100 yards long. Area is harvested, good access. Dean requests repair. Motioned to have CGA investigate on 11/6/2019.

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: Per Minutes **Date:** 11/6/2019



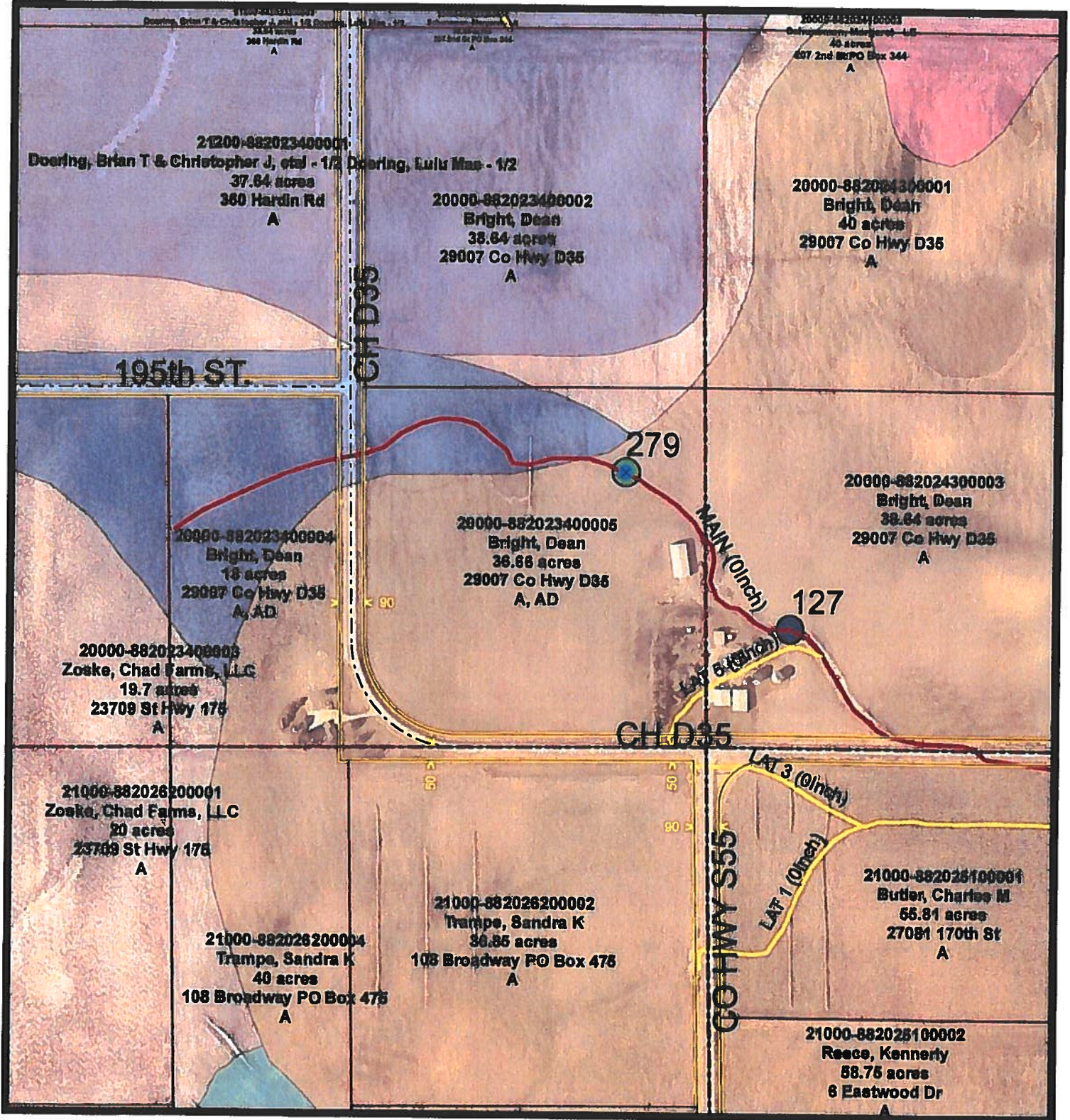
Drainage Tiles

- Lateral
- Main
- Open Ditch
- Private Tile

Hardin County Auditor's Office



Date: 11/12/2019



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 District:

#128

Investigation/Repair Summary:

- Per the recommended actions of the Investigation summary, excavated at the location of the Main tile near the overly wet area in the SE¼ SE¼ of Section 23, Township 88 North, Range 20 West.
- Visually observed water in the Hickenbottom intake on the Main tile near farmstead (downstream of the reported ponding) to be freely flowing with no signs of backed-up drainage.
- Upon excavation, the 8-inch CMP Main tile was found to be offset from the low spot/swale by approximately 12-feet. Said excavation lacked any standing water until past where the Main tile was exposed. However, the soil shows signs of not having good infiltration properties in the area. No obvious restrictions could be found on the Main tile.

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

See attached Tabulated Contractor Time and Materials Sheet.

Additional Actions Recommended:

Inform the landowner of what was found, and that if the problem persists, a new branch tile (private or district) could be installed to remedy the issue.



Tabulated Contractor Time and Materials

Date	Totals	3/26/2020
Workman (hrs)	2 1/2	2 1/2
Mini Excavator (hrs)	1 1/2	1 1/2
Utility Task Vehicle (hrs)	1/2	1/2



CONSTRUCTION ENGINEERING
OBSERVATION REPORT

DATE:

03/26/2020

PROJECT NUMBER:

HARDIN DD WO # 279
6935.3/DD#128

DAYS OF WEEK:

S M T W **D** F S

COUNTY, ROUTE, ROAD:

NORTH AND EAST OF CO HWY D35
318' SOUTH & 1000' EAST OF
INTERSECTION OF 195TH ST & CO HWY D35

SHEET NO.

1 OF 2

LOCATION:

DD#128 LOCATED IN SE 1/4 SE 1/4
23-88-20 HARDIN

UPPER 30'S TO LOW 50'S
CLOUDY WITH LIGHT WIND
JOB # 6935 DD128 SURVEY

DESCRIPTION OF WORK AND MATERIAL USED FOR EACH OPERATION, INCLUDING CONTRACTOR/SUB NAME, ITEM NO. AND LOCATION

9:00 ADAM CALLED THAT CREW WILL BE WORKING THIS JOB TODAY AND WILL BE ON SITE AROUND 10:30 A.M. TO 11:00 A.M. OBSERVER DOWNLOADED JOB FILE TO DATA COLLECTOR AND LOOKED FOR TILE REPAIR FILE.

9:40 A.M. OBSERVER HAD EQUIPMENT LOADED AND LEFT FOR REPAIR.

10:00 A.M. OBSERVER ARRIVED ON SITE AND WALKED OUT TO WHERE AREA WAS WET. FOUND AREA THAT IS WET WITH WATER SITING IN FL OF GRASSY AREA.

10:19 A.M. PICTURE # 3145, PICTURE # 3146, 10:20 A.M. PICTURE # 3147 SEE PICTURE FOR DETAILS.

10:20 A.M. CREW NOT ON SITE YET OBSERVER SET GPS BASE ON GPS# 277 3/4" IRON ROD 0.1' EXPOSED IN NW QUADRANT OF INTERSECTION OF CO HWY D35 AND 195TH ST TO WEST. MONUMENT IS

10:50 A.M. OBSERVER HAD BASE SETUP & CHECKED INTO GPS# 279 SURVEY MARK NAIL FLUSH IN AC AT INTERSECTION OF CO HWY D35 & 195TH ST.

11:10 A.M. JEFF AND TAKEUCHI TB 145 MINI EXCAVATOR WERE ON SITE. JEFF LOOKED OVER AREA AND STARTED TO EXCAVATE A 3.0' X 8.0' LONG TRENCH ON SE SIDE WHERE WATER WAS STANDING IN GRASS AREA.

11:30 A.M. ADAM ARRIVED ON SITE WITH UTV. JEFF CONTINUED TO EXCAVATE TRENCH. OBSERVER AND ADAM HEADED TO HICKEN BOTTOM ON NW END OF SWALE EAST OF MACHINE SHED. HICKEN BOTTOM IS OVER MAIN AND IS FLOWING GOOD.

12:00 P.M. CREW HAD TOP OF CMP TILE MAIN EXPOSED. THE TRENCH WAS DRY DURING EXCAVATION. IT WAS ABOUT 5

I Certify that the work described in this report was incorporated into this contract unless otherwise noted.

Observer's Signature:

Dean Penning

Date Prepared:

03/26/2020

Reviewed by:

Engineer

Date Reviewed

CONSTRUCTION ENGINEERING
OBSERVATION REPORT

DATE:

03/26/2020

DAYS OF WEEK:

S M T W T F S

PROJECT NUMBER:

HARDIN DDWO #279

COUNTY, ROUTE, ROAD:

6935.3/DD#128
NORTH 2 EAST OF CO HWY D35
318' ± SOUTH & 1000' EAST OF
INTERSECTION OF MS. TRST & CO HWY D35

SHEET NO.

2 OF 2

LOCATION:

DD#128 LOCATED IN SE 1/4 SE 1/4 23-88-20 HARDIN

UPPER 30'S TO LOW 50'S
CLOUDY WITH LIGHT WIND

JOB# 6935 DD 128 SURVEY

DESCRIPTION OF WORK AND MATERIAL USED FOR EACH OPERATION, INCLUDING CONTRACTOR/SUB NAME, ITEM NO. AND LOCATION

MINUTES AFTER TOP OF TILE WAS EXPOSED, WATER WAS VISIBLE ABOVE TILE.

CREW SAID SOIL IN THIS AREA IS TOO TIGHT AND WILL NOT ALLOW

SOIL TO DRAIN AND MAIN TILE IS 11.2' SW OF FLOF SWALE.

12:11 P.M. PICTURE #3148 SEE PICTURE FOR DETAILS.

12:13 P.M. OBSERVER CALLED LEE ABOUT WHAT CREW FOUND.

LEE WOULD LIKE ADAM, TO INFORM LAND OWNER ON

WHAT CREW FOUND SO HE IS AWARE THAT CREW EXCAVATED

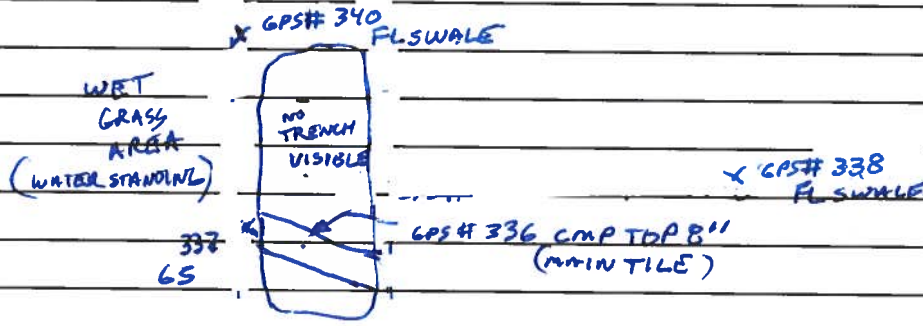
GPS# 339

FOR IT.

FL SWALE

12:40 P.M. CREW AND OBSERVER LEFT SITE

12:34 P.M. PICTURE #3151 SEE PICTURE FOR DETAILS.



QUANTITIES

OPERATOR JEFF 1 HOUR

OPERATOR ADAM. 1 1/2 HOUR

UTV 1/2 HOUR

TAKEUCHI TB145 MINI EXCAVATOR 1 1/2 HOUR

I Certify that the work described in this report was incorporated into this contract unless otherwise noted.

Observer's Signature:

Dean Remington

Date Prepared:

03/26/2020

Reviewed by:

Engineer

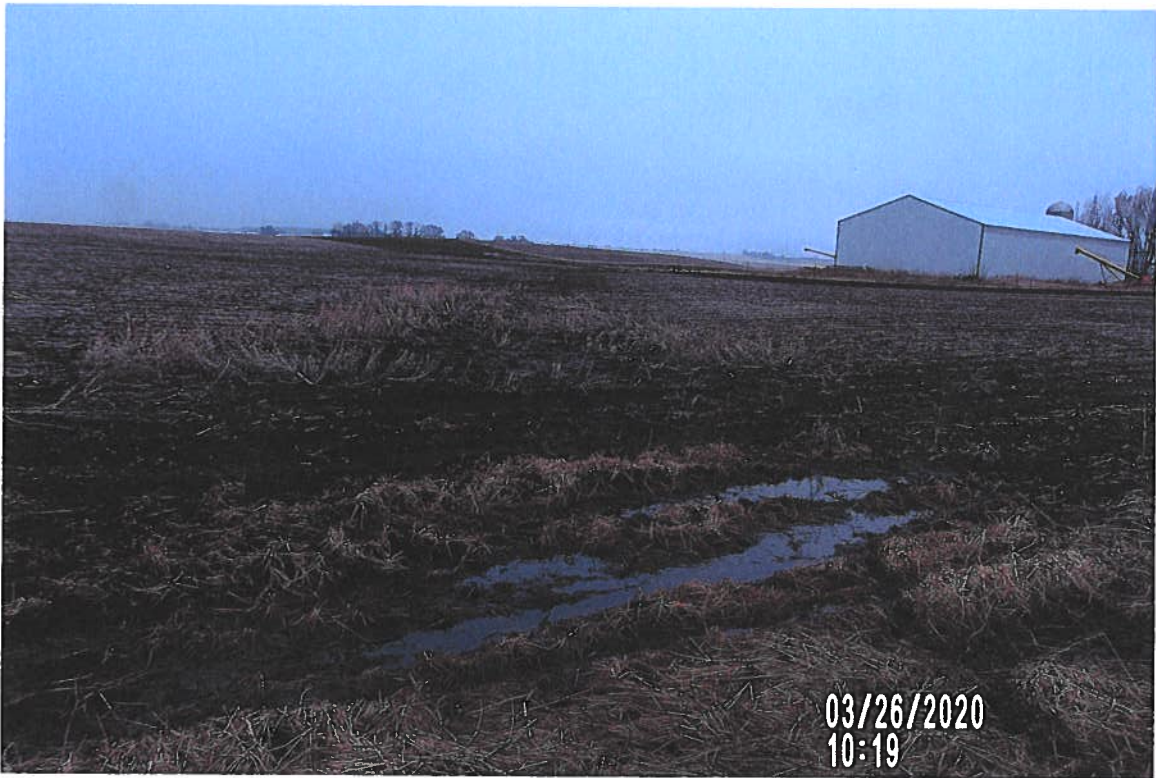
Date Reviewed

PICTURE # 3147 IS LOOKING NW WHERE SOIL IS WET SE OF STANDING WATER



PICTURE # 3148 IS LOOKING SOUTH IN 3.0' WIDE X 8.0' LONG TRENCH WHERE TOP OF 8" CMP WAS EXPOSED ON SE EDGE OF GRASS AREA WHERE WATER WAS STANDING. TRENCH WAS DRY DURING EXCAVATION.

PICTURE # 3145 IS LOOKING SE SHOWING GRASS AREA WITH WATER STANDING. SOIL IS WET IN THIS AREA.



PICTURE # 3146 IS LOOKING SE SHOWING GRASS AREA WITH WATER STANDING IN GRASS AREA.

PICTURE #3151 IS LOOKING SE SHOWING TRENCH BACKFILLED WITH SOIL ON SOUTH EDGE OF WATER STAND AT GRASS AREA (245' NORTH & 241.2' WEST OF NE CORNER OF MACHINE SHED)



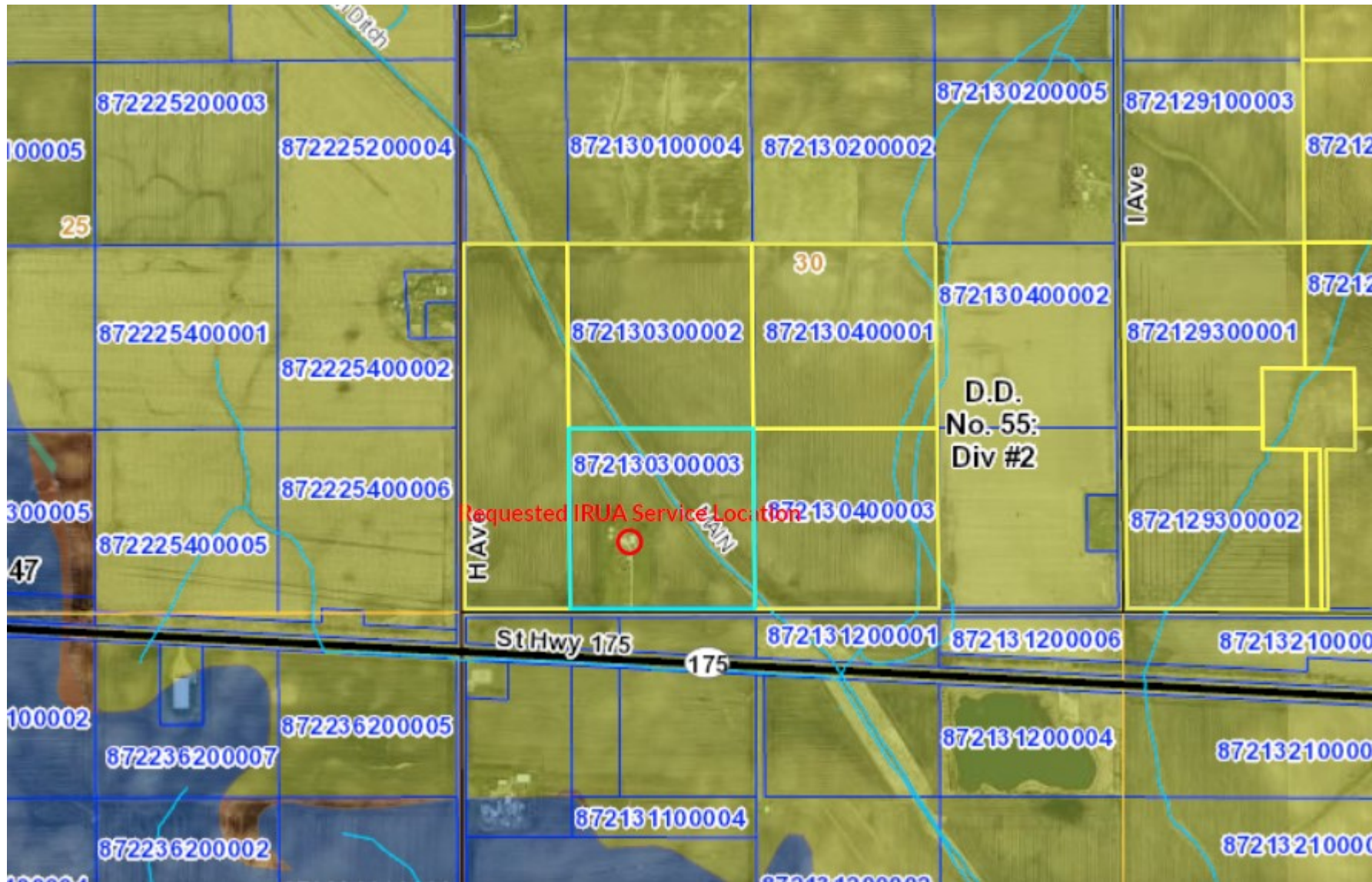
↓ N

6935 dd128 2020-3-26 DP

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6935 dd128 2020-3-26 DP

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350,3614220.014,5018811.967,1095.417,cmp 15" top 1.23' to fl
351,3614213.305,5018811.852,1093.724,toe
352,3614216.867,5018809.509,1094.039,toe
353,3614220.698,5018808.924,1094.278,toe
354,3614221.229,5018811.862,1093.924,toe
355,3614221.468,5018816.374,1093.934,toe
356,3614220.324,5018823.641,1094.283,toe
357,3614213.736,5018825.482,1094.044,toe
358,3614208.588,5018814.750,1093.675,toe
359,3614210.258,5018817.890,1093.374,fl ditch
360,3614216.948,5018814.257,1093.291,fl ditch
361,3614215.560,5018814.870,1093.560,fl ditch
362,3614218.096,5018813.634,1093.721,fl ditch
363,3614219.924,5018812.120,1093.524,fl ditch
364,3614209.900,5018802.186,1097.828,gs boulders/dirt
365,3614198.048,5018791.226,1100.862,TB
366,3614175.333,5018770.209,1102.698,gs grass
367,3614167.586,5018757.459,1104.905,gs grass
368,3614161.371,5018748.735,1105.311,shed e side
368_REF1,3614160.939,5018749.637,1105.151,Ref. Pt.
368_REF2,3614162.296,5018749.115,1104.872,Ref. Pt.
369,3614220.970,5018813.416,1093.879,fl ditch
370,3614223.085,5018814.961,1094.157,toe
371,3614224.420,5018816.904,1095.637,gs boulders/dirt
372,3614228.000,5018818.739,1096.310,gs boulders
373,3614233.702,5018821.342,1099.053,gs boulders
374,3614243.132,5018833.163,1101.554,tb
375,3614246.162,5018835.781,1102.236,gs grass/field
376,3614265.142,5018851.528,1102.680,gs field
377,3614302.253,5018877.566,1104.371,gs field
378,3614330.610,5018832.122,1104.358,gs field
379,3614292.704,5018801.730,1102.522,gs field
380,3614255.590,5018772.849,1101.286,gs field
381,3614249.291,5018770.613,1101.332,gs grass/field
382,3614224.746,5018746.015,1101.885,gs grass
383,3614202.845,5018734.767,1104.703,gs grass
384,3614193.417,5018727.133,1105.093,gs grass



Date of Issuance: 7-28-2020	Effective Date: 7-28-2020
Owner: Trustees of Drainage District 25 and 1	Owner's Contract No.: NA
Contractor: McDowell and Sons Contractors, Inc.	Contractor's Project No.: NA
Engineer: Lee Gallentine P.E.	Engineer's Project No.: 6501
Project: Repairs to Main Tile and Lateral 3 Tile DD 25 and Repairs to Main Tile DD 1	Contract Name:

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

Description: The landowner east of the UPRR requested that the existing district tile not be removed through his property. Instead, he is requesting that it stay in place and no longer be district responsibility. Also, the CCTV subcontractor was unable to perform CCTV due to the amount sediment in the tile, but still had costs mobilizing to the project.

Attachments: Mobilization request from contractor and revised list of items, quantities, and prices as a result of Change Order.

CHANGE IN CONTRACT PRICE	CHANGE IN CONTRACT TIMES
Original Contract Price: Original Contract: <u>\$ 248,936.30</u>	Original Contract Times: Substantial Completion: <u>December 30, 2019</u> Ready for Final Payment: _____ date
Increase from previously approved Change Orders No. <u>1</u> to No. <u>5</u> : <u>\$ 70,828.75</u>	Increase from previously approved Change Orders No. <u>1</u> to No. <u>5</u> : Substantial Completion: <u>DD 25 - August 31, 2020</u> <u>DD 1 - April 1, 2020</u> dates
Contract Price prior to this Change Order: <u>\$ 319,765.05</u>	Contract Times prior to this Change Order: Substantial Completion: <u>DD 25 - August 31, 2020</u> <u>DD 1 - April 1, 2020</u> dates
Decrease of this Change Order: <u>\$ 2,976.00</u>	Increase of this Change Order: Substantial Completion: <u>DD 25 - August 31, 2020</u> <u>DD 1 - April 1, 2020</u> dates
Contract Price incorporating this Change Order: <u>\$ 316,789.05</u>	Contract Times with all approved Change Orders: Substantial Completion: <u>DD 25 - August 31, 2020</u> <u>DD 1 - April 1, 2020</u> dates

RECOMMENDED:	ACCEPTED:	ACCEPTED:
By: <u>[Signature]</u>	By: _____	By: <u>[Signature]</u>
Engineer (if required)	Owner (Authorized Signature)	Contractor (Authorized Signature)
Title: <u>Engineer</u>	Title: _____	Title: <u>President</u>
Date: <u>July 30, 2020</u>	Date: _____	Date: <u>7-29-20</u>

Approved by Funding Agency (if applicable)

By: _____ Date: _____
Title: _____ P

MC DOWELL & SONS CONTRACTORS INC

10214 Hwy 65 PO Box 664 Iowa Falls IA 50126-8823

641-648-5071 Fax 641-648-3639

101 13th Street PO Box 6 Ackley IA 50601-0006

641-847-3535

PROJECT NAME #6501 and #6749.5

TO: Trustees of Repair to Change Order #: 6
Drainage District 35

CHECK ONE OF THE FOLLOWING:

This change order was caused by:

Another contractor's faulty workmanship,
name of contractor: _____

problem: _____

Not included in original proposal

Additional item requested by your representative,
name of that person: _____

Other, please describe: _____

Change order detail:

mobilization and labor for unsuccessful teleming

Original Total: \$ _____

Increase/Decrease \$ 1530.00

Revised Total \$ _____

Acknowledgment is hereby made of the foregoing and is accepted accordingly.

McDowell & Sons Contractors Inc

ACCEPTED By _____

By _____

DATE _____

Steve McDowell

MAIN 25 DIVISION BID

Item No.	Description	Estimated Quantity	Unit	Unit Price	Extended Price
1	24" Ø RCP Tile	260	LF	\$ 70.00	\$ 18200.00
2	Type PC-2 Concrete Collar	14	EA	\$ 500.00	\$ 7000.00
3	Private Tile Connection	2	EA	\$ 600.00	\$ 1200.00
4	Tile Removal	260	LF	\$ 10.00	\$ 2600.00
5	Permanent Seeding	0.3	AC	\$ 3500.00	\$ 1050.00
6	Seeding Warranty	1	LS	\$ 1000.00	\$ 1000.00

LATERAL 3 DIVISION ALTERNATE BID

Item No.	Description	Estimated Quantity	Unit	Unit Price	Extended Price
101ALT	12" Ø RCP Tile	780	LF	\$ 38.00	\$ 29640.00
102ALT*	24" Ø Steel Casing (Jack & Bore)	0	LF	\$ 380.00	\$ 0.00
103ALT*	12" Ø DIP Tile	0	LF	\$ 77.00	\$ 0.00
104ALT	Intake Junction Structure	3	EA	\$ 1750.00	\$ 5250.00
105ALT***	CCTV Tile Inspection	751	LF	\$ 3.25	\$ 2440.75
106ALT	Type PC-2 Concrete Collar	4	EA	\$ 350.00	\$ 1400.00
107ALT	Private Tile Connection	4	EA	\$ 600.00	\$ 2400.00
108ALT	Grading	2	STA	\$ 350.00	\$ 700.00
109ALT	Tile Removal	737	LF	\$ 6.00	\$ 4422.00
110ALT	Tile Abandonment	73	LF	\$ 14.00	\$ 1022.00
111ALT	12" Ø Hickenbottom Intake	1	EA	\$ 1000.00	\$ 1000.00
112ALT	RR Permitting, Flagging, Insurance, Coordination	1	LS	\$ 6500.00	\$ 6500.00
113ALT	Locate Existing Lateral Tile	7.37	STA	\$ 90.00	\$ 663.30
114ALT	Intake Removal	1	EA	\$ 300.00	\$ 300.00
115ALT*	30" Ø Steel Casing (Jack & Bore)	110	LF	\$ 560.00	\$ 61600.00
116ALT*	18" Ø DIP Tile	135	LF	\$ 120.00	\$ 16200.00

LATERAL 3 DIVISION ADDITIONAL ALTERNATE BID

Item No.	Description	Estimated Quantity	Unit	Unit Price	Extended Price
201ALT**	12" Ø RCP Tile	751	LF	\$ 38.00	\$ 28538.00
202ALT	Type PC-2 Concrete Collar	4	EA	\$ 350.00	\$ 1400.00
203ALT	Private Tile Connection	6	EA	\$ 600.00	\$ 3600.00
204ALT	Grading	1	STA	\$ 350.00	\$ 350.00
205ALT** ^	Tile Removal	0	LF	\$ 6.00	\$ 0.00
206ALT	12" Ø Hickenbottom Intake	2	EA	\$ 1000.00	\$ 2000.00
207ALT	Locate Existing Lateral Tile	10.6	STA	\$ 90.00	\$ 954.00
208ALT^	CCTV Mobilization	1	LS	\$ 1530.00	\$ 1530.00

LATERAL 3 DIVISION SOUTH PORTION BID

Item No.	Description	Estimated Quantity	Unit	Unit Price	Extended Price
401ALT**	12" Ø RCP Tile	1257	LF	\$ 47.00	\$ 59079.00
402ALT**	Type PC-2 Concrete Collar	2	EA	\$ 350.00	\$ 700.00
403ALT**	Tile Removal	5	LF	\$ 9.00	\$ 45.00

MAIN 1 DIVISION BID

Item No.	Description	Estimated Quantity	Unit	Unit Price	Extended Price
301	24" Ø Polypropylene Tile	123	LF	\$ 55.00	\$ 6765.00
302	34" Ø Steel Casing (Jack & Bore)	50	LF	\$ 707.00	\$ 35350.00
303	22 ½° x 24" Ø Polypropylene Bend	3	EA	\$ 450.00	\$ 1350.00
304	11 ¼° x 24" Ø Polypropylene Bend	1	EA	\$ 450.00	\$ 450.00
305	Intake Junction Structure	1	EA	\$ 1750.00	\$ 1750.00
306	Type PC-2 Concrete Collar	1	EA	\$ 350.00	\$ 350.00
307	Private Tile Connection	1	EA	\$ 600.00	\$ 600.00
308	Grading	2	STA	\$ 350.00	\$ 700.00
309	Tile Removal	49	LF	\$ 10.00	\$ 490.00
310	Tile Abandonment	60	LF	\$ 25.00	\$ 1500.00
311	Traffic Control	1	LS	\$ 1650.00	\$ 1650.00
312	Seeding	0.3	AC	\$ 3500.00	\$ 1050.00
313	Seeding Warranty	1	LS	\$ 1000.00	\$ 1000.00
314	12" Ø Hickenbottom Intake	1	EA	\$ 1000.00	\$ 1000.00

CONTRACT PRICE \$ 316,789.05

* - Approved as part of Change Order #2

** - Approved as part of Change Order #3

^ - Approved as part of Change Order #6



Drainage Work Order Request For Repair

Hardin County

Date: 11/9/2018

Work Order #: WO00000237

Drainage District: Drainage Districts \DD 48 (51072)

Sec-Twp-Rge: 23-88-21 Qtr Sec: SE

Location/GIS: 88-21-23-400-003

Requested By: Kevin Johnson

Contact Phone: (641) 373-1048

Contact Email: Lowells - lruskin43@msn.com

Landowner (if different): Lowell Skinner (515-532-2278)

Description: DD 48 - Outlet out on embankment 1/2 across field. Please call both Kevin and Lowell when come out.

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

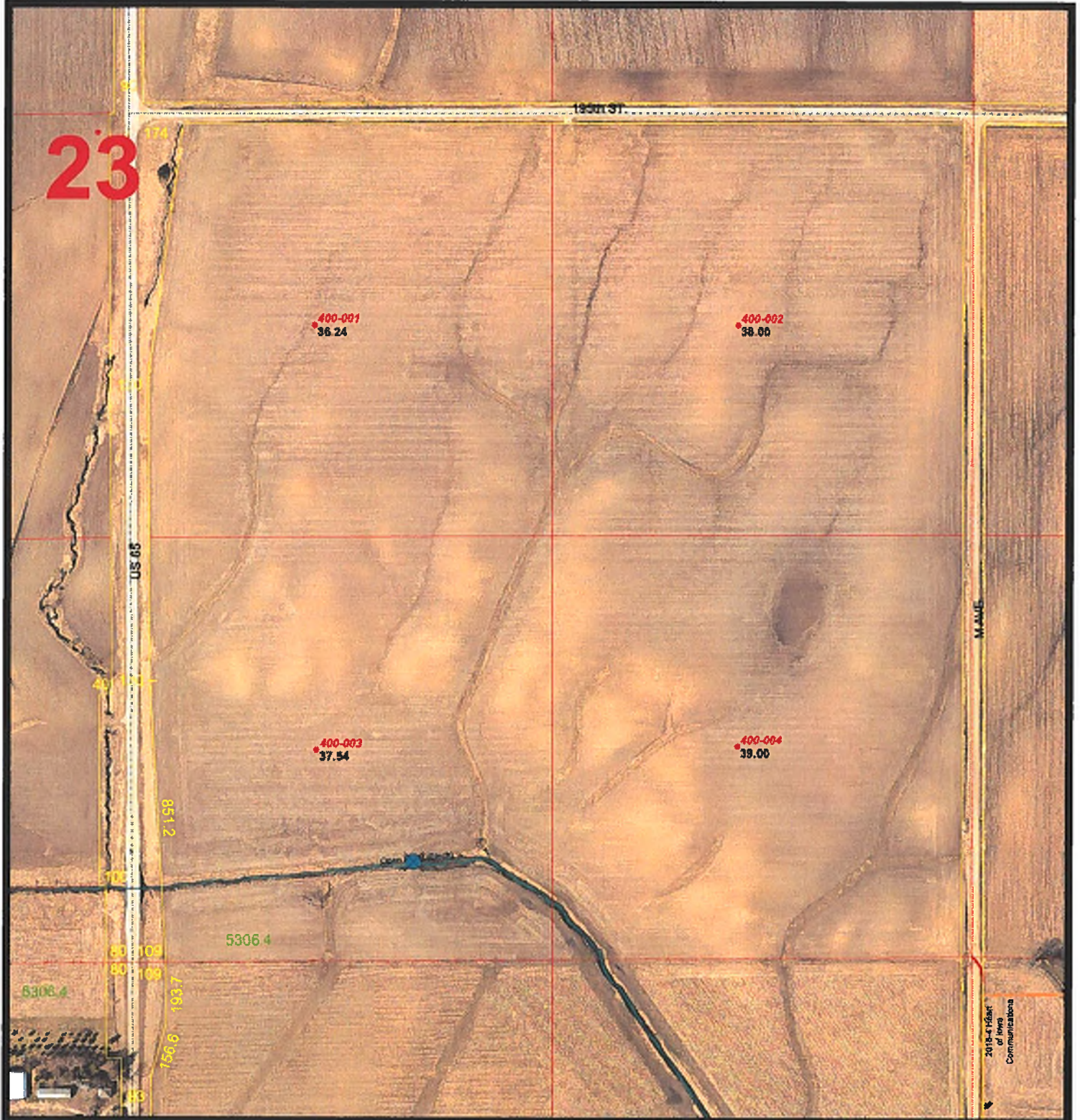
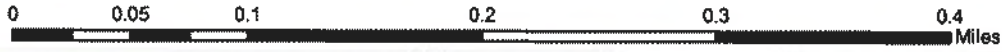
Approved: _____ Date: _____



Hardin County Auditor's Office



Date: 11/13/2018



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 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 District:

#48

Repair Summary:

- Per the recommended actions of the Investigation summary, the existing 36-inch CMP surface drain and anti-seep collar was excavated and removed in the SW¼ SE¼ Section 23, Township 88 North, Range 21 West. Because the CMP tile and anti-seep collar still had reasonable life cycle left, both were set aside to be reused.
- Set aside topsoil and used clay soil borrowed from the property to grade the slope of the surface drain base and perimeter. Base was prepared and packed, original ½ diameter metal anti-seep collar installed, and an additional full HDPE anti-seep collar installed nearer the inlet. Backfilled and compacted borrow clay soil around the perimeter of the surface drain to prevent future seepage. Backfilled and graded remaining excavation and bank with on-site soil.
- Waterway was graded to direct overland water flow towards the inlet of the surface drain and topsoil re-applied.
- Topsoil was re-applied and graded on the borrow area for the clayey soil.
- Silt bar in main channel identified in previous Investigation Summary appears to have mostly been washed away.

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

See attached Tabulated Contractor Time and Materials Sheet. Note, additional grading and seeding was planned to occur while CGA was not on-site.

Additional Actions Recommended:

- Contractor did not send photographic confirmation that remaining grading and grass seeding was completed to the disturbed soil at the jobsite. He should be contacted to verify said work was completed.
- The reused surface drain as found did not have stone erosion revetment, nor an apron on the inlet side. CGA recommends these two items be installed to prevent erosion if erosion is reported at this surface drain again.



Tabulated Contractor Time and Materials

Date	Totals	4/16/2020	4/17/2020
Workman (hrs)	58 1/2	29	29 1/2
Mini Excavator (hrs)	19 1/2	11 1/2	8
Skidloader (hrs)	30 1/4	14 1/4	16
1" Clean Bedding Rock	Yes		
Concrete Collars	Yes		
Jumping Jack Compactor (hrs)	7	1 1/4	6
HDPE Anti-Seep Collar (ea)	1		1
Metal Connection Bands (ea)	2		2

CONSTRUCTION ENGINEERING
OBSERVATION REPORT

DATE:

04/16/2020

DAYS OF WEEK:

S M T W **①** F S

PROJECT NUMBER: HARDIN DD WD#237
6486.4 DD48

COUNTY, ROUTE, ROAD: SOUTH OF 195TH STREET, EAST
OF US HWY 65 & 1533, & WEST
OF MAVENUE

SHEET NO. 1 OF 3

LOCATION: SW SE 23-88-21 HARDIN
NORTH SIDE OF OPEN DRAINAGE
DITCH #48

MID 40'S TO LOW 20'S
SUNNY TO CLOUDY BY LATE
AFTERNOON WITH LIGHT WINDS
JOB# 6486 DD48 SURVEY

DESCRIPTION OF WORK AND MATERIAL USED FOR EACH OPERATION, INCLUDING CONTRACTOR/SUB
NAME, ITEM NO. AND LOCATION

8:40 A.M. ADAM CALLED OBSERVER THAT
CREW HIS WORKING ON SURFACE DRAIN REPAIRS FOR
OPEN DITCH DD48.

9:20 A.M. OBSERVER FOUND FILE, UPLOADED FILE TO DATA COLLECTOR, LOADED
EQUIPMENT UP AND LEFT FOR JOBSITE

9:50 A.M. OBSERVER ARRIVED ON SITE AND SET GPS BASE
ON HARDIN COUNTY GPS MONUMENT 8043 GNSS. GPS WAS HAVING
ISSUES WITH STAYING GREEN FIX, CALLED ANOTHER CREW
AND THEIR GPS WAS WORKING GOOD. OBSERVER CHECKED ULTIMATE SCANNER
AND NONE OF CHANNELS HAD INTERFERENCE ON THEM.
CALLED OFFICE AND TRIED TO GET GPS SET UP ON NETWORK
USING PHONE AS MOBILE HOT SPOT BUT COULD NOT GET IT
TO WORK. RESET BOTH BASE AND RECEIVER HEADS.
AND GPS WOULD STILL GREEN FIX AFTER SET UP. CHRIS WAS
HEADING MY WAY TO FIGURE OUT SOMETHING.

11:20 A.M. OBSERVER HEADED TO SURFACE DRAIN LOCATION TO CHECK
ON CONTRACTOR. JEFF AND PERRY WERE ON SITE WITH
JEFF BEING ON SITE SINCE 8:30 A.M. AND PERRY ON
SITE AROUND 10:30 A.M. TAKEUCHI TBFR 180 MINI EXCAVATOR
AND CASE TR340 TRACKED SKIDLOADER WERE ON SITE SINCE 8:30 A.M.

11:43 A.M. PICTURE # 3370 SEE PICTURE FOR DETAILS.

12:03 P.M. PICTURE # 1 & PICTURE # 2, 12:04 P.M. PICTURE # 3, 12:05 P.M.
PICTURE # 4, 12:06 P.M. PICTURE # 5, PICTURE # 6, & PICTURE # 7
SEE PICTURE FOR DETAILS.

12:00 P.M. CHRIS ARRIVED ON SITE TO GET GPS WORKING.

12:07 P.M. PICTURE # 8 & 12:09 P.M. PICTURE # 9 SEE PICTURE FOR DETAILS.

12:20 P.M. CREW IS STARTING TO STRIP OFF TOPSOIL FROM AROUND

I Certify that the work described in this report was incorporated into this contract unless otherwise noted.

Observer's Signature: Dean Penning Date Prepared: 04/16/2020

Reviewed by: _____ Engineer

Date Reviewed _____

CONSTRUCTION ENGINEERING
OBSERVATION REPORT

DATE:

04/16/2020

DAYS OF WEEK:

S M T W T F S

PROJECT NUMBER:

HARDIN DD WD#237

COUNTY, ROUTE, ROAD:

6486.4 DD48
SOUTH OF 195TH STREET, EAST
OF HWY 65 & 1533' WEST
OF MAQUENILLE

SHEET NO.

2 OF 3

LOCATION:

SW SE 23-88-21 HARDIN
NORTH SIDE OF OPEN DRAINAGE DITCH #48

MID 40'S TO LOW 20'S SUNNY
TO CLOUDY BY LATE AFTERNOON
WITH LIGHT WINDS JOB #6486DD48, SURVEY

DESCRIPTION OF WORK AND MATERIAL USED FOR EACH OPERATION, INCLUDING CONTRACTOR/SUB
NAME, ITEM NO. AND LOCATION

- 36" CMP SURFACE DRAIN. CHRIS AND
OBSERVER LEFT TO TRY SETTING UP GPS BASE AGAIN
AFTER SWITCHING CHANNEL TO #1.
- 12:35 P.M. OBSERVER AND CHRIS HAD GPS SETUP AND NOW EVERYTHING
IS WORKING GOOD AGAIN. CHRIS LEFT SITE AFTER GETTING
GPS WORKING ON NETWORK AND WITH BASE AGAIN.
- 12:40 P.M. PICTURE #10 SEE PICTURE FOR DETAILS.
- 12:50 P.M. OBSERVER SHOT EXISTING CMP SURFACE DRAIN & GS IN WATERWAY
- 2:00 P.M. ADAM AND CARSON ARRIVED ON SITE.
- 2:25 P.M. PICTURE #11 & PICTURE #12, 2:26 P.M. PICTURE #13 SEE PICTURE FOR DETAILS
- 2:57 P.M. PICTURE #14, 3:04 P.M. PICTURE #15, 3:07 P.M. PICTURE #16
SEE PICTURE FOR DETAILS.
- 3:00 P.M. OBSERVER SHOT GROUND'S MOTION WATER & FC OF DRAINAGE
DITCH.
- 3:07 P.M. PICTURE #16 & 3:11 P.M. PICTURE #17 SEE PICTURE FOR DETAILS.
- 3:00 P.M. ADAM CALLED TENANT AND LANDOWNER TO SEE IF
THEY COULD DIG IN FIELD AND GET SOME
CLAY TO PLACE UNDER SURFACE DRAIN. BOTH TENANT
AND LANDOWNER SAID IT WAS OK
- 3:15 P.M. ADAM AND CARSON LEFT SITE TO GET ANOTHER SKIDLOADER.
- 4:11 P.M. PICTURE #18 SEE PICTURE FOR DETAILS.
- 4:30 P.M. CREW EXCAVATED A BORROW PIT IN FIELD TO HAUL IN LIMEY
CLAY BACKFILL TO SITE. ADAM AND CARSON BACK ON SITE WITH
CAT 299D XHP TRACKED SKIDLOADER
- 4:45 P.M. CARSON STARTED RUNNING JUMPING JACK OVER BACKFILL
SOIL FOR TRENCH UNDER 36" CMP SURFACE DRAIN
- 4:50 P.M. OBSERVER SETUP NEW GRADE ON SURFACE DRAIN @ 3%
SINCE WATERWAY HAS A 3% AND MOVED TO EAST OF ORIGINAL
TO GET IT ON UNDISTURBED GROUND.
- 5:00 P.M. CREW IS HAULING LIMEY CLAY TO SURFACE DRAIN TRENCH

I Certify that the work described in this report was incorporated into this contract unless otherwise noted.

Observer's Signature:

Dean Penning

Date Prepared:

04/16/2020

Reviewed by:

Engineer

Date Reviewed

Beacon™ Hardin County, IA



Search

Layers - Map Search Camp Search

Layer List Legend

Quick Links:

- Property Search
- View Map
- Drainage District Search

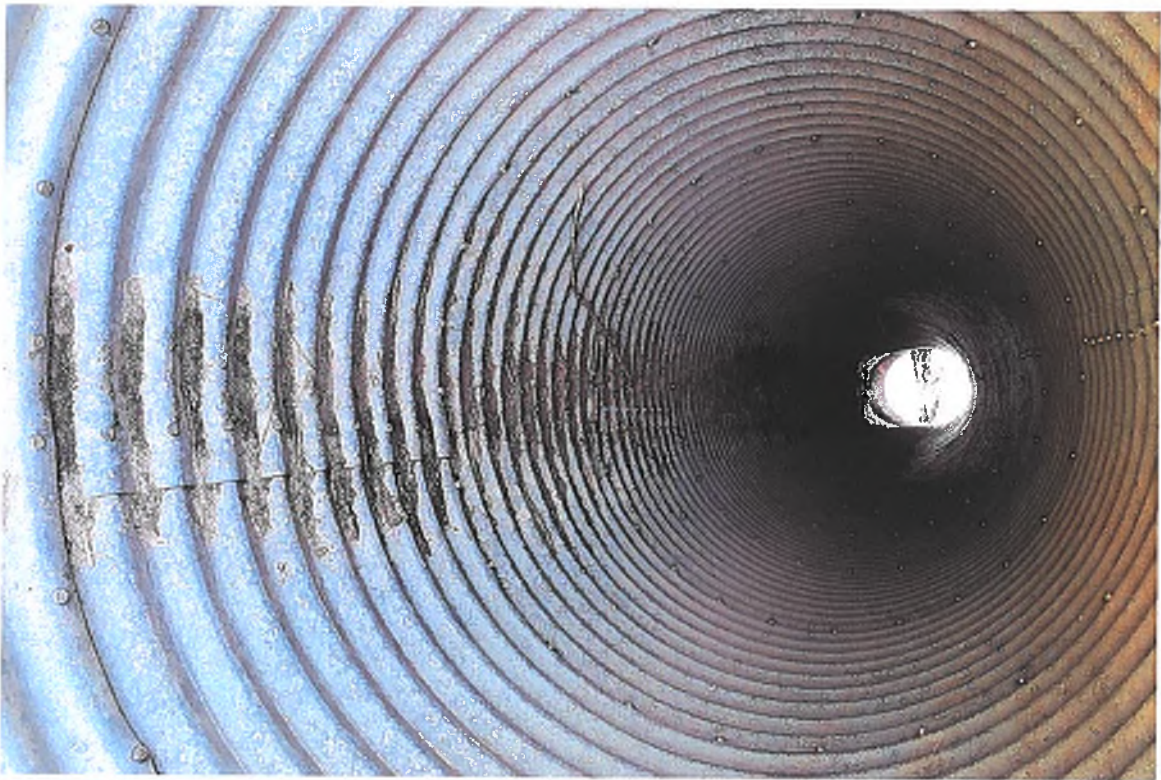
Layers:

- Addresses
- Corporate Limits
- Political Townships
- Geographic Townships
- Sections
- Subdivision Annotation
- Lot Annotations
- Lot Lines
- Road Dimensions
- Roads
- Road ROW
- Railroad Annotation
- Railroads
- Railroad ROW
- Water
- Parcel Dimensions
- Parcels
- Drainage Tiles
- Drainage Districts
- Cartography
- Landuse
- Soils
- Enterprise Zones
- Conservation Property
- Structures
- Garden Winds Turbines
- Airport Protected
- Airport Surfaces
- Two Mile Boundary
- School Districts
- Voting Districts
- LOWR



PICTURE# 3370 IS LOOKING SE AT 36" CMP INLET SHOWING DRAINAGE DITCH BANK ERODED AROUND SURFACE DRAIN INLET

GPS# 400 TOP 36" CMP 2.98' TOPTO FL



PICTURE #1



PICTURE IS LOOKING SE INSIDE 36" CMP SHOWING SURFACE DRAIN IN GOOD CONDITION. CREW WILL REUSE SURFACE DRAIN.

04/16/2020 12:03 P.M.

PICTURE #2 IS LOOKING SE FROM WEST SIDE OF SURFACE DRAIN ON TOP OF NORTH DRAINAGE DITCH BANK SHOWING GROUND ERODED AWAY AROUND SURFACE DRAIN

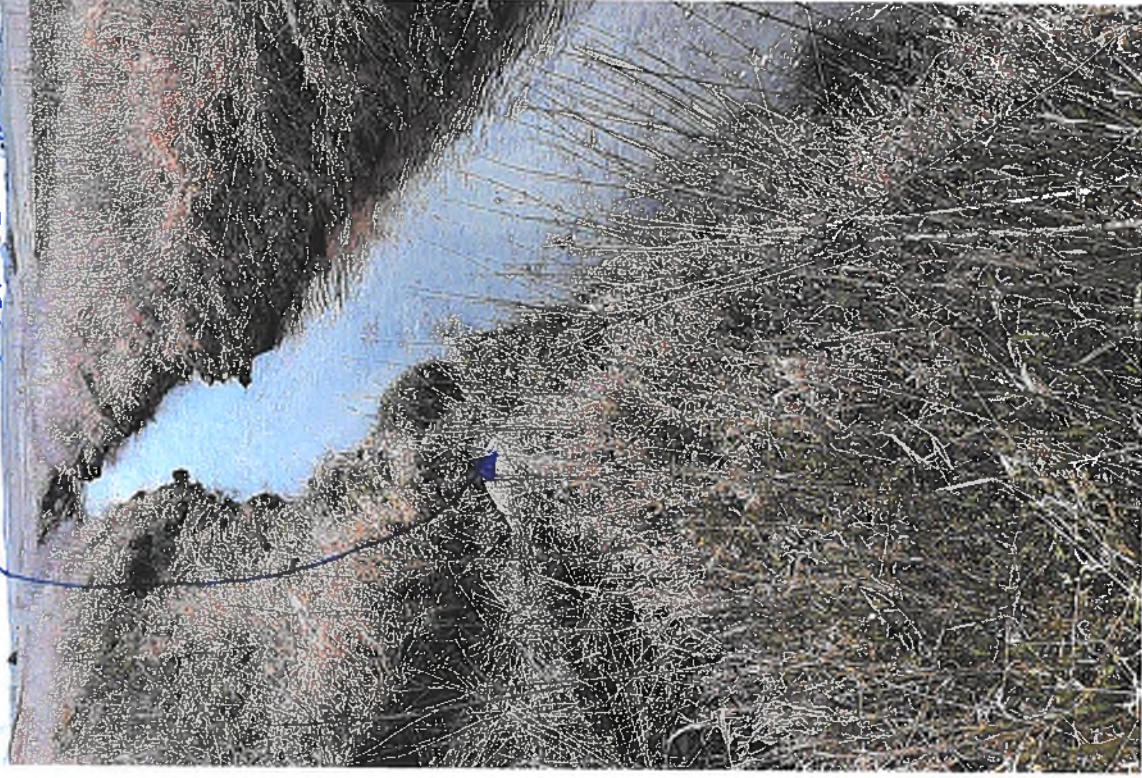


GPS# 401



04/16/2020 12:03 P.M.

PICTURE #3 IS LOOKING SE SHOWING DRAINAGE DITCH & OUTLET OF 36" CMP WITH DRAINAGE BANK ERODED, GPS# 401 TOP 36" CMP 3.0' TOP TO FL



04/16/2020 12:04 P.M.

PICTURE # 4 LOOKING NW SHOWING
OUTLET OF 36" CMP WITH 18" OF MUCK
IN FLOWLINE & DRAINAGE DITCH
BANK ERODED AWAY

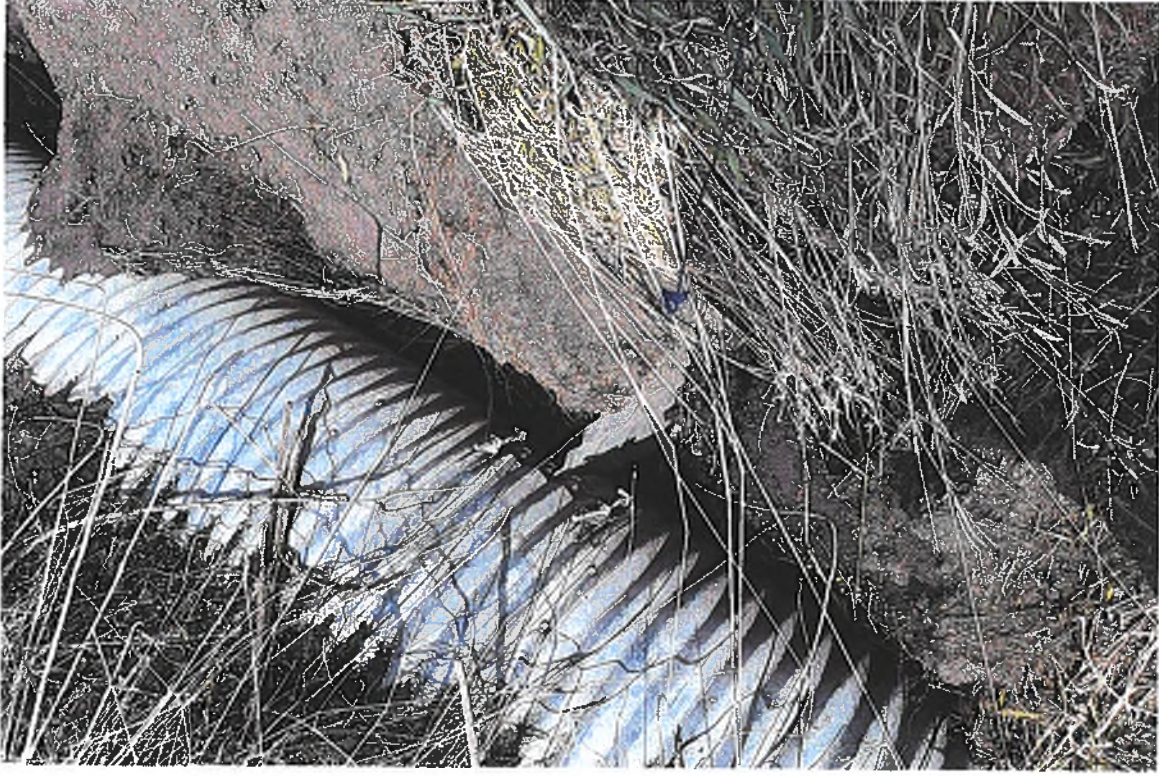


GPS # 401.
CMP 36"
3.0' TOP
TO FL



04/16/2020
12:05 P.M.

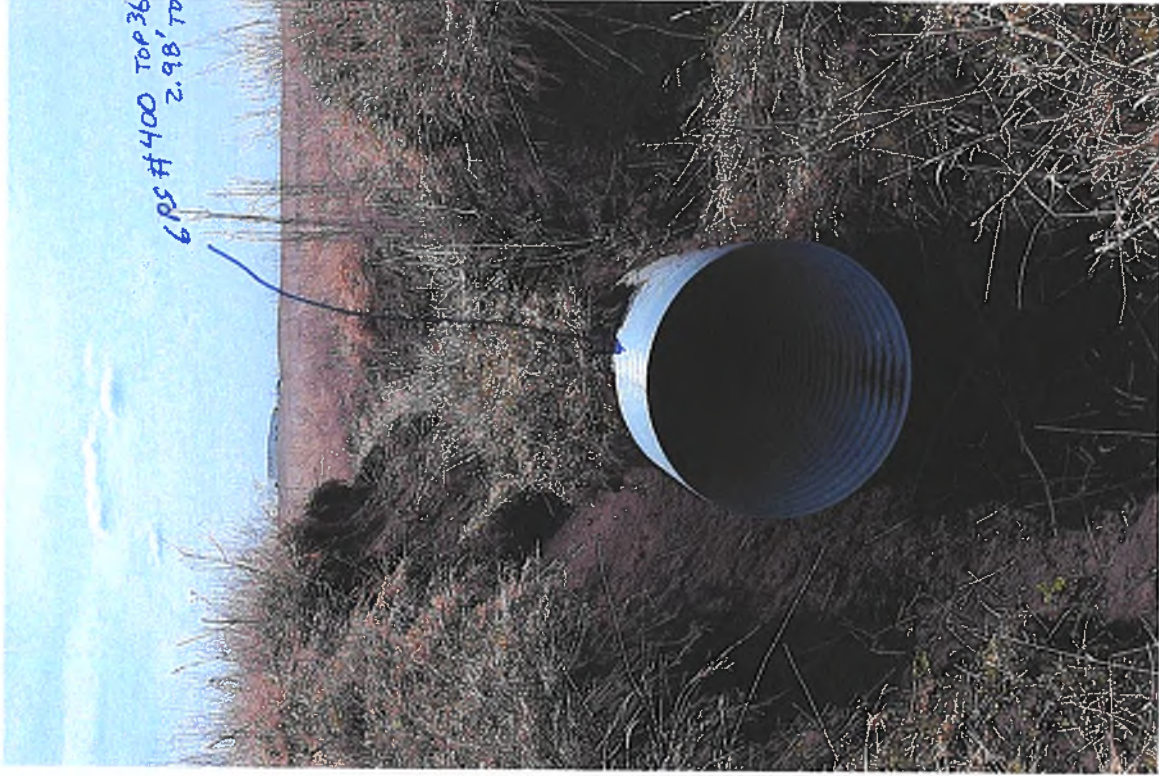
PICTURE # 5 IS LOOKING NW ON EAST SIDE
OF 36" CMP AT DRAINAGE DITCH ERODED
WITH METAL ANTI SEEP COLLAR EXPOSED



GPS # 413
TOP OF EXISTING
ANTI SEEP
COLLAR

04/16/2020
12:06

PICTURE #6 IS LOOKING SE AT 36" CMP INLET
SHOWING DRAINAGE DITCH BANK ERODED AROUND
SURFACE DRAIN INLET.



04/16/2020
12:06 P.M.



PICTURE #7 IS LOOKING NORTH AT GRASS
WATERWAY NORTH OF SURFACE
DRAIN INLET



04/16/2020
12:06 P.M.



PICTURE #8 IS LOOKING SOUTH
AT GRASS WATERWAY NORTH
OF 36" CMP SURFACE DRAIN INLET



04/16/2020
12:07 P.M.

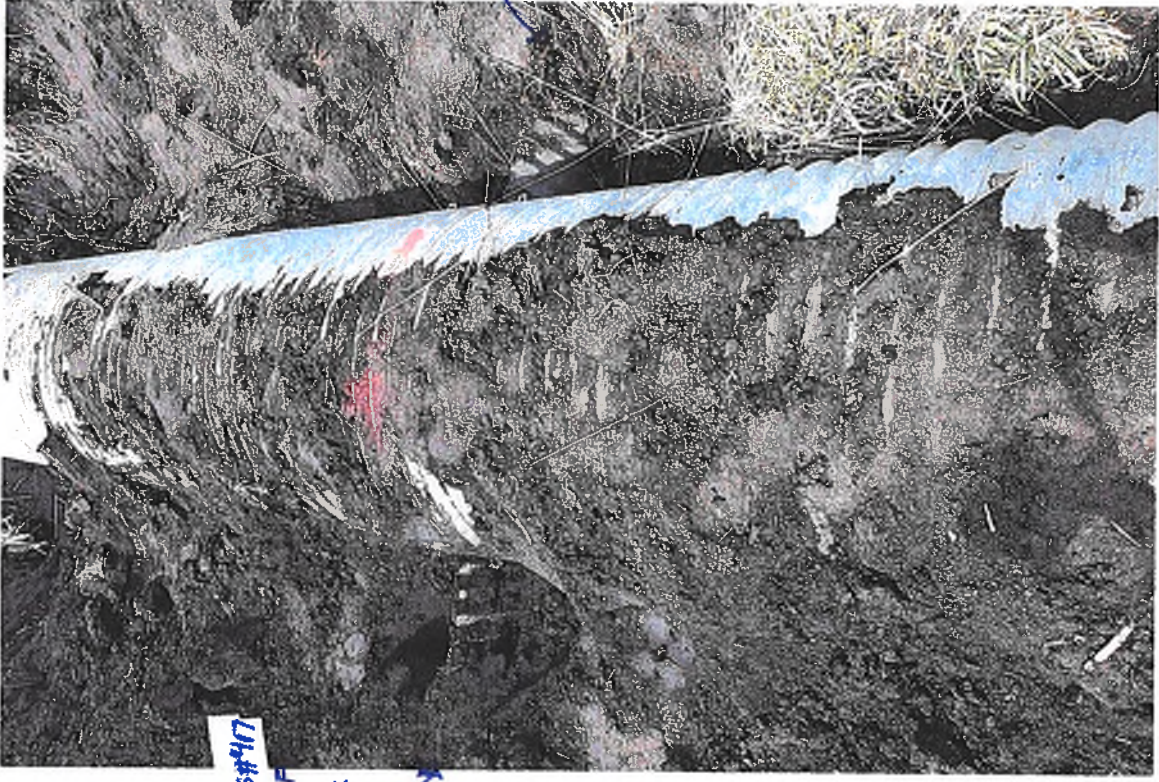
PICTURE #9 IS LOOKING NORTH OF 36"
CMP SURFACE DRAIN INLET AT GRASS
WATERWAY



GPS # 400
TOP 36" CMP
2.98' TOP TO FL

04/16/2020
12:09 P.M.

PICTURE #11 IS LOOKING NW AT EXISTING METAL ANTISEEP COLLAR EXPOSED 11.1' SE OF NORTH INLET



GPS#417
TOP OF
ANTI-
SEEP
COLLAR
W SIDE

GPS#413
TOP OF
ANTI-SEEP
COLLAR
E SIDE

04/16/2020
2:25 P.M.

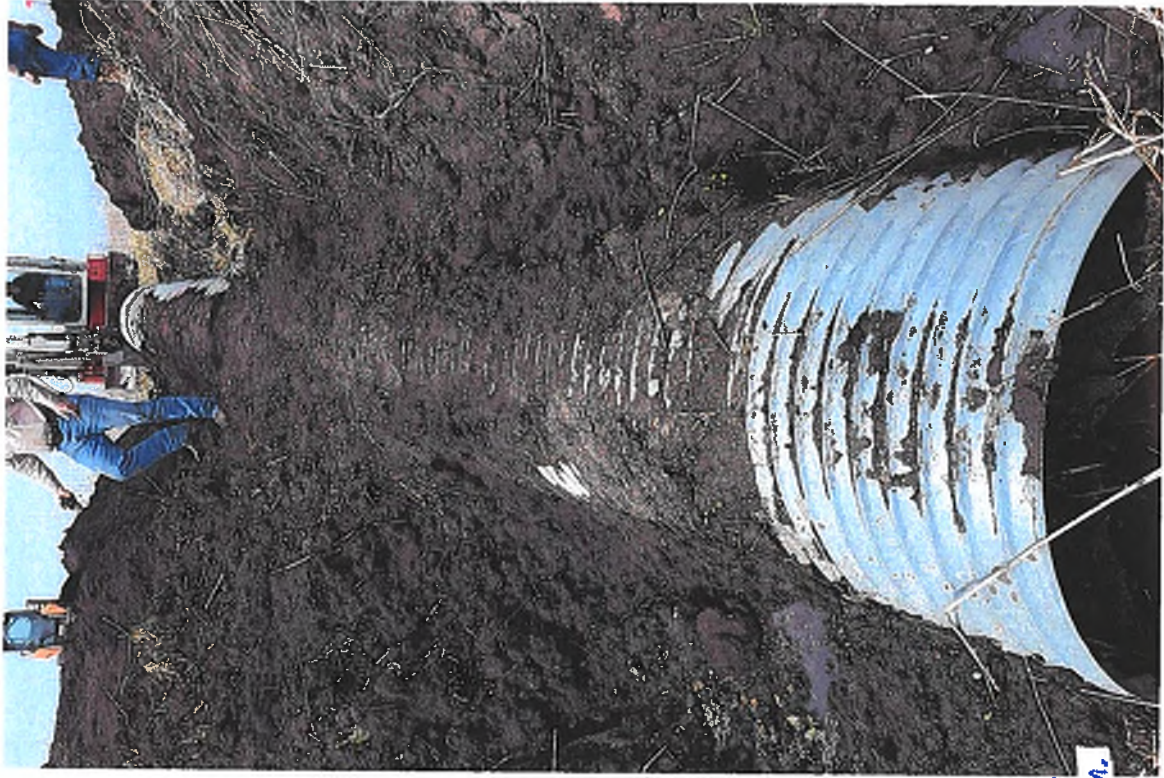
PICTURE #10 IS LOOKING SOUTH SHOWING GREW STRIPING OFF TOPSOIL FROM AROUND 36" CMP SURFACE DRAIN



N

04/16/2020
12:40 P.M.

PICTURE #12 IS LOOKING NW SHOWING MOST OF TOP OF 36" CMP SURFACE DRAIN EXPOSED & CREW READY TO REMOVE,



04/16/2020
2:25 P.M.

PICTURE #13 IS LOOKING NW SHOWING CREW GETTING READY TO REMOVE 36" CMP SURFACE DRAIN

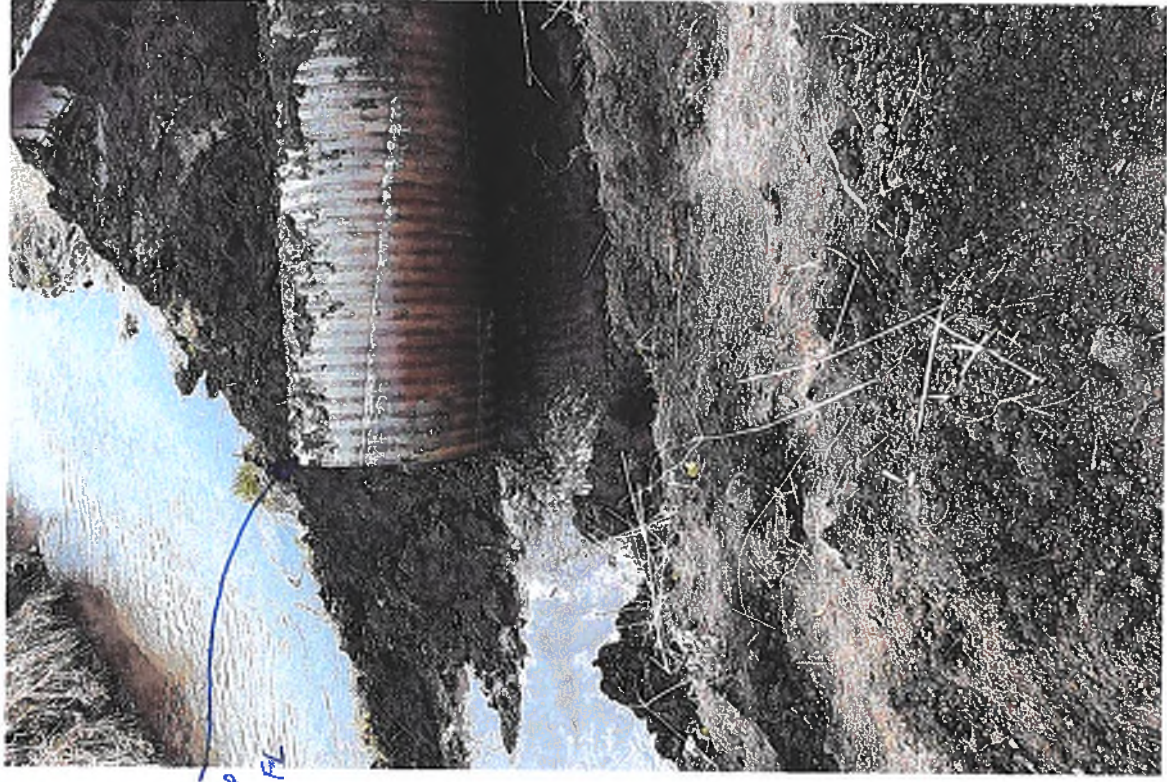


04/16/2020
2:26 P.M.

PICTURE # 14 IS LOOKING SW SHOWING
CONDITION OF 36" CMP THAT WAS BURIED
BELOW GROUND ON OUTLET END @ DD



GPS# 401
TOP 36" CMP
3.0' TOP TO FL



04/16/2020
2:57 P.M.

PICTURE #15 IS LOOKING NW SHOWING
36" CMP SURFACE DRAIN THAT WAS
REMOVED USING MINI EXCAVATOR
, AND TRACKED SKIDLOADER,



04/16/2020
3:04 P.M.

PICTURE # 16 IS LOOKING SOUTH SHOWING
EXCAVATOR DIGGING TO REMOVE
ANTI SEEP COLLAR.



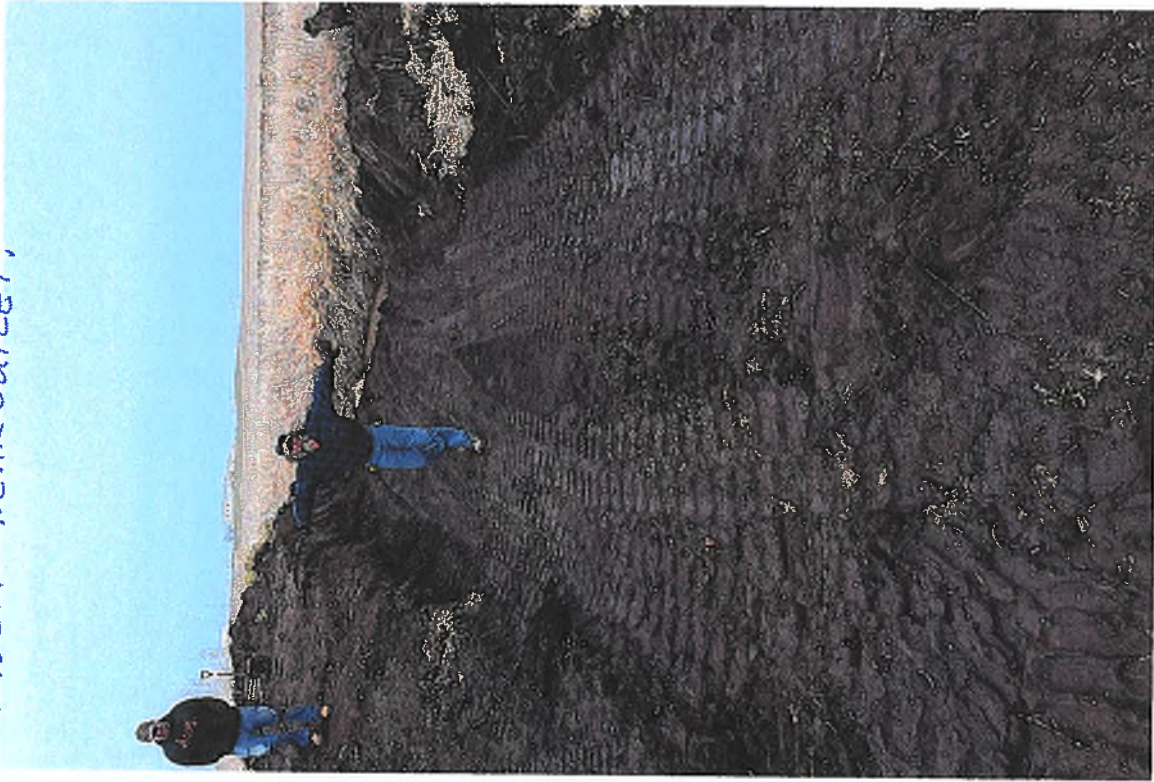
04/16/2020
3:07 P.M.

PICTURE # 17 IS LOOKING NW SHOWING
CREW REMOVING EXISTING METAL
ANTI SEEP COLLAR



04/16/2020
3:11 P.M.

PICTURE# 18 IS LOOKING SE SHOWING
EXISTING SUBGRADE AFTER MINI
EXCAVATOR RAN OVER WITH TRACKS.
SOIL IS SOFT NEAR OUTLET,



04/16/2020
4:11P.M

PICTURE# 19 IS LOOKING NW SHOWING CREW
COMPACTING SUBGRADE WITH JUMPING JACK
COMPACTOR & NOW CREW HAULING IN LIMY
CLAY SOIL INTO TRENCH TO PUT BELLYTILE



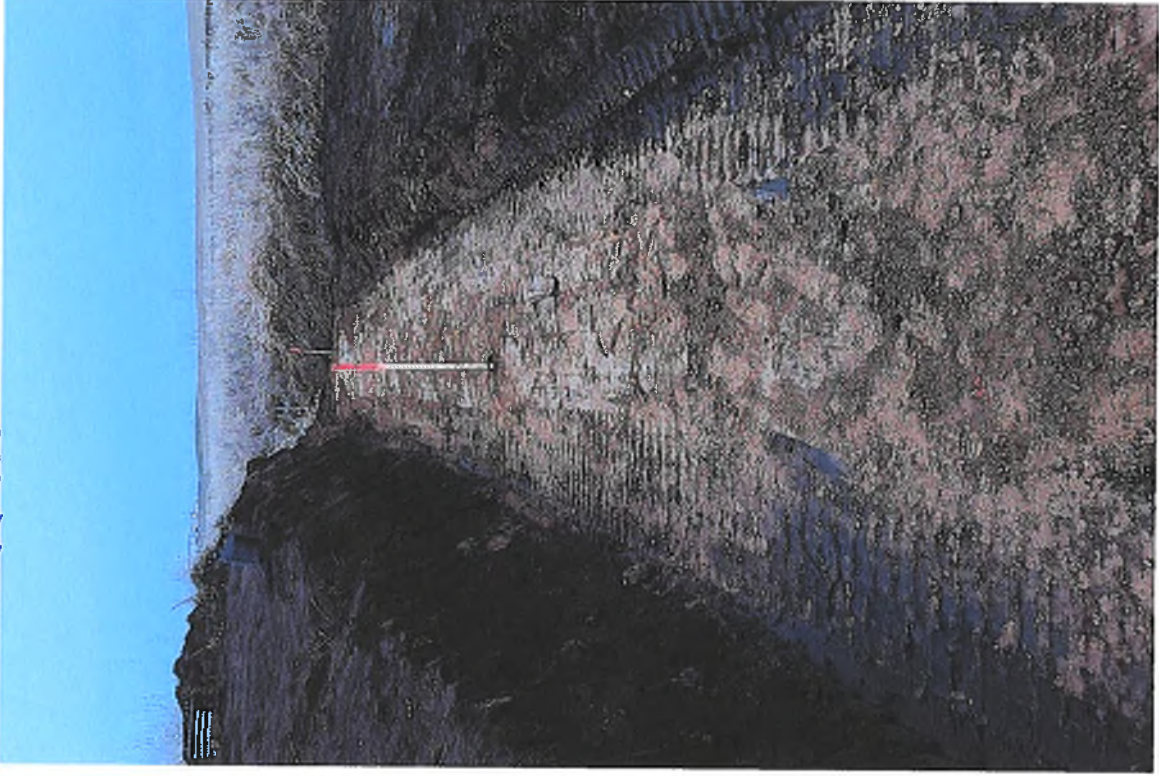
04/16/2020
5:09 P.M.

PICTURE #20 IS LOOKING SE SHOWING
CREW JUMPING JACK COMPACTING SOUTH
END OF TRENCH FOR SURFACE DRAIN
PIPE.



04/06/2020
6:19 P.M.

PICTURE #21 IS LOOKING SE SHOWING
LATH SET FOR GRADE FOR SURFACE
DRAIN. CREW WILL NEED TO FINISH GRADE
TOMORROW.



04/16/2020
7:50 P.M.

CONSTRUCTION ENGINEERING
OBSERVATION REPORT

DATE:

04/17/2020

PROJECT NUMBER:

HARDIN DD WD#237

DAYS OF WEEK:

S M T W T ⑥ S

COUNTY, ROUTE, ROAD:

6486.4 D048
SOUTH OF 195TH STREET EAST
OF US HWY 65 & 1533' WEST
OF MAVE #48

SHEET NO.

1 OF 3

LOCATION:

SW SE 23-88-21 HARDIN
NORTH SIDE OF OPEN DRAINAGE RITM #48

LOW 50'S TO LOW 30'S,
MOSTLY CLOUDY / PARTLY SUNNY
& BREEZY

JOB # 64860048 SURVEY

DESCRIPTION OF WORK AND MATERIAL USED FOR EACH OPERATION, INCLUDING CONTRACTOR/SUB
NAME, ITEM NO. AND LOCATION

7:40 A.M. OBSERVER LEFT OFFICE FOR JOBSITE.

8:05 A.M. OBSERVER SET GPS BASE ON GPS #300 3/4" Ø FROM ROD FLUSH IN
SW CORNER OF FIELD DRIVE ON WEST SIDE OF MAVE 660'E NORTH
OF 20482 MAVE MAIN DRIVE ENTRANCE (HARDIN COUNTY SANITARY
SOLID WASTE).

8:30 A.M. GPS BASE WAS SET UP AND CHECKED INTO HARDIN COUNTY GPS
MONUMENT #8043 WITH BOTH HORIZONTAL AND VERTICAL
POSITION CHECKING GOOD.

8:35 A.M. OBSERVER ARRIVED AT SURFACE DRAIN REPAIR. JEFF AND
PERRY WERE ON SITE AND HAVE BEEN SINCE 8:00 AM.
WITH TAKEUCHI TB180FR MINI EXCAVATOR, CASE TR340 TRACKED
SKID LOADER, CAT 299D XHP TRACKED SKID LOADER, & JUMPING
JACK ON SITE FOR EQUIPMENT.

8:40 A.M. OBSERVER WAS CHECKING GRADE FOR UNDER
SURFACE DRAIN PIPE AND PAINTED UP ALL AREAS THAT
NEED DRESSED UP WITH GPS.

9:15 A.M. ADAM AND CARSON ARRIVED ON SITE. CREW WAS
PILING UP LIMY CLAY ALONG SURFACE DRAIN TRENCH
TO BE USED AS BACK FILL AROUND CMP. CREW WAS JUST
STARTING TO COMPACT BOTTOM OF SURFACE DRAIN TRENCH
AGAIN WITH JUMPING JACK PLATE COMPACTOR.

9:21 A.M. PICTURE # 3371 SEE PICTURE FOR DETAILS.

9:50 A.M. OBSERVER CHECKED GRADE BELOW 36" CMP SURFACE DRAIN
WITH GPS AND GRADE CHECKED OUT GOOD.

10:00 A.M. CREW STARTING TO EXCAVATE TO REINSTALL ORIGINAL
METAL ANTISEEP COLLAR.

I Certify that the work described in this report was incorporated into this contract unless otherwise noted.

Observer's Signature:

Dean Penning

Date Prepared:

04/17/2020

Reviewed by:

Engineer

Date Reviewed

CONSTRUCTION ENGINEERING
OBSERVATION REPORT

DATE:

04/17/2020

PROJECT NUMBER: HARDIN DD WD# 237
6486.4 D048
COUNTY, ROUTE, ROAD: SOUTH OF 195TH STREET EAST
OF HWY 65 & 1533' WEST
OF MAQUENILLE
LOCATION: SW SE 23-88-21 HARDIN
NORTH SIDE OF OPEN DRAINAGE DITCH #48

DAYS OF WEEK:

S M T W T ⑥ S

SHEET NO.

2 OF 3

LOW 50'S TO LOW 30'S,
MOSTLY CLOUDY / PARTLY SUNNY

2 BREEZY / JOB # 64860048, SURVEY

DESCRIPTION OF WORK AND MATERIAL USED FOR EACH OPERATION, INCLUDING CONTRACTOR/SUB
NAME, ITEM NO. AND LOCATION

- 10:12 A.M. PICTURE # 3372 SEE PICTURE FOR DETAILS.
- 10:37 A.M. PICTURE # 3373 & 10:39 PICTURE # 3374 SEE PICTURE FOR DETAILS
- 11:13 A.M. PICTURE # 3375 SEE PICTURE FOR DETAILS.
- 11:40 A.M. PICTURE # 3376 & ^{11:43 A.M.} PICTURE # 3377 SEE PICTURE FOR DETAILS
- 12:05 P.M. CREW HAD 36" CMP SURFACE DRAIN SET IN PLACE.
- 12:10 P.M. PICTURE # 3379 & PICTURE # 3380 SEE PICTURE FOR DETAILS.
- 12:47 P.M. PICTURE # 3382 & 12:48 P.M. PICTURE # 3383 SEE PICTURE FOR DETAILS.
- 1:15 P.M. PICTURE # 3384 & PICTURE # 3385 SEE PICTURE FOR DETAILS.
- 1:35 P.M. PICTURE # 3386 & 1:41 P.M. PICTURE # 3387 SEE PICTURE FOR DETAILS.
- 2:00 P.M. CREW BACKFILLING AROUND SURFACE DRAIN & ROUGH GRADING WATERWAY.
- 2:35 P.M. PICTURE # 3388 & PICTURE # 3389 SEE PICTURE FOR DETAILS.
- 2:46 P.M. PICTURE # 3390 SEE PICTURE FOR DETAILS.
- 3:00 P.M. OBSERVER CALCULATED GRADE FROM CMP SURFACE DRAIN UP GRASS WATERWAY SEE SKETCH FOR DETAILS
- 3:45 P.M. STAKED GRADE THROUGH GRASS WATERWAY FOR CONTRACTOR TO FINISH GRADE ON SATURDAY
- 4:00 P.M. CREW LEFT SITE FOR DAY
- 4:14 P.M. PICTURE # 3391, PICTURE # 3392, PICTURE # 3393, PICTURE # 3394 SEE PICTURE FOR DETAILS.
- 4:47 P.M. PICTURE # 3395, 4:48 P.M. PICTURE # 3397 & 4:51 P.M. PICTURE # 3398 SEE PICTURE FOR DETAILS.
- 5:00 P.M. OBSERVER LEFT SITE. CREW WILL FINISH BACKFILLING DRAINAGE DITCH BANK AND FINE GRADE BANK AND GRASS WATERWAY ON SATURDAY AND THEN SEED AREA. LEE SAID WE WILL GET PICTURES WHEN THEY ARE FINISHED, BACKFILLING AND HAVE IT SEEDED

I Certify that the work described in this report was incorporated into this contract unless otherwise noted.

Observer's Signature: Dean Penning Date Prepared: 04/17/2020

Reviewed by: _____ Engineer

Date Reviewed: _____

CONSTRUCTION ENGINEERING
OBSERVATION REPORT

DATE: 04/17/2020

PROJECT NUMBER: HARDIN DD WD# 237
6486.4 0048
COUNTY, ROUTE, ROAD: SOUTH OF 195TH STREET, EAST
OF US HWY 65 & 1533' WEST
OF MAQUETTE
LOCATION: SW SE 23-88-21 HARDIN
NORTH SIDE OF OPEN DRAINAGE DITCH #48

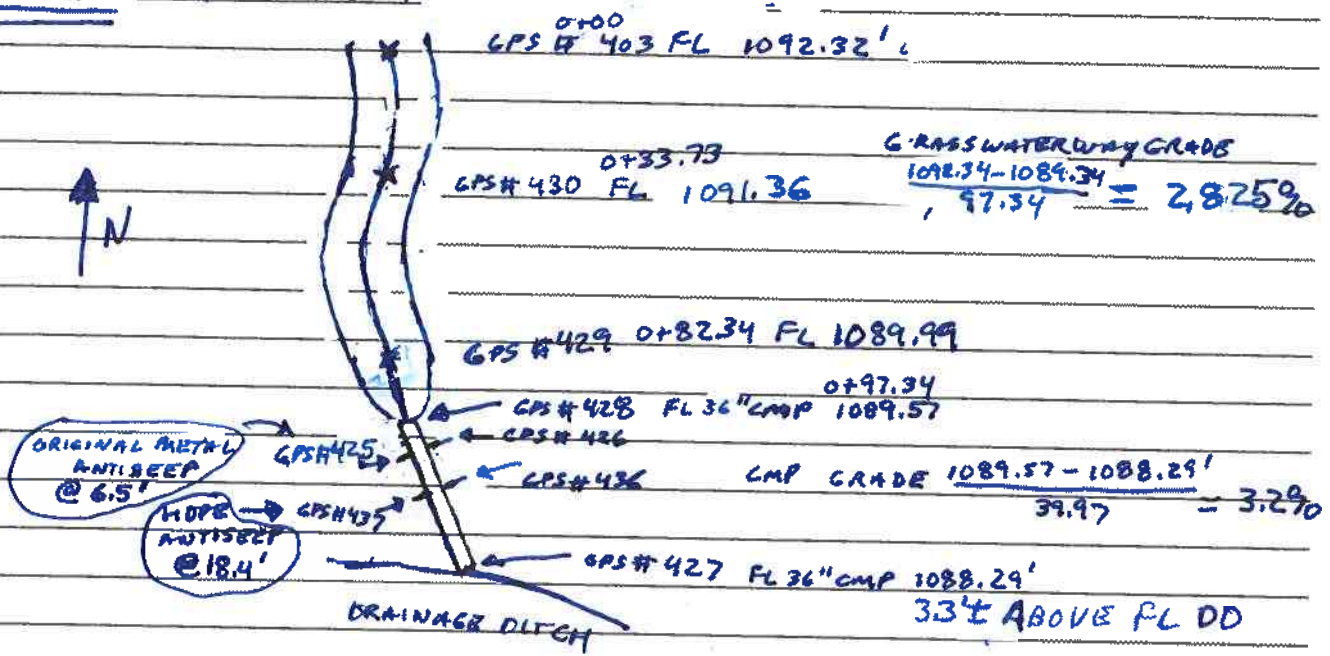
DAYS OF WEEK: S M T W T @ S
SHEET NO. 3 OF 3

LOW 50'S TO LOW 30'S,
MOSTLY CLOUDY / PARTLY SUNNY

R. BREEZY / JOB # 64860048 SURVEY

DESCRIPTION OF WORK AND MATERIAL USED FOR EACH OPERATION, INCLUDING CONTRACTOR/SUB NAME, ITEM NO. AND LOCATION

SKETCH



QUANTITIES

- ADAM 6 3/4 HOURS
- CARSON 6 3/4 HOURS
- PERRY 8 HOURS
- JEFF 8 HOURS
- TAKEUCHI TB180FR MINI EXCAVATOR 8 HOURS
- CASE TR340 TRACKED SKIDLOADER 8 HOURS
- CAT 299D XHP TRACKED SKIDLOADER 8 HOURS
- JUMPING JACK COMPACTOR 6 HOURS
- HOPE ANTI SEEP COLLAR 4 BOLTS, 4 ZIP TIES, 2 METAL BANDS

I Certify that the work described in this report was incorporated into this contract unless otherwise noted.

Observer's Signature: Dean Penning Date Prepared: 04/17/2020

Reviewed by: _____ Engineer

Date Reviewed: _____

PICTURE # 3371 IS LOOKING SE SHOWING CREW JUMPING JACK VIBRATORY
PLATE COMPACT SOIL BELOW 36" CMP SURFACE DRAIN.



PICTURE # 3372 IS LOOKING SW SHOWING 1.0' X 7.0' WIDE TRENCH
FOR ORIGINAL METAL ANTI SEEP COLLAR 7.0' ± SE OF NORTHEND
OF CMP SURFACE DRAIN. BOTTOM OF TRENCH IS CLAY.

PICTURE # 3373 IS LOOKING NORTH SHOWING CREW HAVING ORIGINAL METAL ANTISEEP COLLAR IN PLACE (7.0' SE OF NORTH END OF CMP SURFACE DRAIN). CREW HAULING IN LIMY CLAY SOIL TO BACKFILL AROUND ANTISEEP COLLAR.



PICTURE # 3374 IS LOOKING NW SHOWING CREW VIBRATORY PLATE COMPACTING BACKFILL SOIL AROUND METAL ANTISEEP COLLAR BEFORE SURFACE DRAIN INSTALLED.

PICTURE # 3375 IS LOOKING NW AT 14.0' WIDE X 7.0' LONG TRENCH 19.0' SE OF NORTH END OF CMP SURFACE DRAIN FOR HDPE ANTISEEP COLLAR. BOTTOM OF TRENCH WAS SAND, OVER, EXCAVATED, ADDED LIMY CLAY TO BOTTOM OF TRENCH AND JUMPING JACK COMPACTED. BOTTOM OF TRENCH UP TO BOTTOM OF HDPE ANTISEEP COLLAR.



PICTURE # 3376 IS LOOKING NW SHOWING CREW VIBRATORY PLATE COMPACTING AROUND HDPE ANTISEEP COLLAR

PICTURE # 3377 IS LOOKING SW AT BACK FILL SOIL JUMPING JACK COMPACTED AROUND HOPE ANTISEEP COLLAR 7.0' ± SE OF NORTH END OF SURFACE DRAIN BEFORE SURFACE DRAIN INSTALLED.



GPS# 425 TOP OF METAL ANTISEEP COLLAR



GPS# 426 TOP OF METAL ANTISEEP COLLAR



GPS# 43.7 TOP HOPE ANTISEEP COLLAR



GPS# 436 TOP HOPE ANTISEEP COLLAR

PICTURE # 3378 IS LOOKING SW SHOWING BACK FILL SOIL BEING COMPACTED BY JUMPING JACK COMPACTOR 19' ± SE OF NORTH END OF SURFACE DRAIN BEFORE SURFACE DRAIN INSTALLED.

PICTURE #3379 IS LOOKING SW SHOWING 36" CMP SURFACE DRAIN SET IN PLACE WITH CREW BACKFILLING LIMY CLAY AROUND SURFACE DRAIN AND TAMPING SOIL UNDER HAUNCH OF CMP.



GPS#428
TOP 36" CMP
INLET
2.98 TO TFL



PICTURE #3380 IS LOOKING SW SHOWING CREW TAMPING IN BACKFILL SOIL UNDER HAUNCH OF CMP

PICTURE# 3382 IS LOOKING SW SHOWING ORIGINAL CMP. ANTI SEEP COLLAR BOLTED ON 36" CMP 6.5' ± SE OF NORTH END OF 36" CMP SURFACE DRAIN.



GPS#428



GPS#428

PICTURE#3383 IS LOOKING SW SHOWING HDPE ANTI SEEP COLLAR IN PLACE 18.4' ± SE OF NORTH END OF 36" CMP SURFACE DRAIN.

PICTURE #3384 IS LOOKING NW SHOWING HDPE ANTISEEP COLLAR
IN PLACE WITH 4 BOLTS ON EAST SIDE AND 4 ZIPTIES
ON WEST SIDE TO FASTEN HDPE ANTISEEP COLLAR
TOGETHER.



PICTURE #3385 IS LOOKING NW SHOWING CREW JUMPING BACK
BACKFILL SOIL AROUND CMP

PICTURE # 3386 IS LOOKING NE SHOWING METAL BAND AROUND HDPE ANTI SEEP COLLAR TO HOLD IT ON 36" CMP SURFACE DRAIN.

↑ N



METAL BAND

↑ N



PICTURE # 3387 IS LOOKING NE SHOWING CREW STILL JUMPING JACK COMPACTING AROUND CMP SURFACE DRAIN

PICTURE # 3388 IS LOOKING SE SHOWING CREW DRESSING UP BORROW AREA.



PICTURE # 3389 IS LOOKING SW FROM BORROW AREA TO CMP SURFACE DRAIN REPAIR ABOUT 713.6' TO SW

PICTURE# 3390 IS LOOKING NW SHOWING CREW STILL
JUMPING JACK COMPACTING BACKFILL SOIL ON NORTH END
OF 36" CMP SURFACE DRAIN. / GPS#428



PICTURE# 3391 IS LOOKING NW AT DRAINAGE DITCH
BANK GETTING BACK FILLED AROUND 36" CMP SURFACE
DRAIN.

PICTURE#3392 IS LOOKING NW FROM DOWN STREAM IN DRAINAGE DITCH SHOWING CREW SHAPING UP BANK AROUND CMP SURFACE DRAIN OUTLET



CPS# 427
TOP 36" CMP
2.98' TO PTD FL



CPS# 429 GRADE STAKE



CPS# 428
TOP 36" CMP



PICTURE#3393 IS LOOKING NW SHOWING CREW BACK FILLING DRAINAGE DITCH BANK AROUND CMP SURFACE DRAIN & AROUND HDPE ANTI SEEP COLLAR.

PICTURE #3394 IS LOOKING NW SHOWING CREW BACKFILLING DRAINAGE DITCH BANK AROUND 36" CMP & HDPE ANTISEEP COLLAR



PICTURE #3395 IS LOOKING NW SHOWING GRASS WATERWAY ROUGH GRADED. OBSERVER SET SOME GRADE STAKES FOR CONTRACTOR.

PICTURE # 3397 IS LOOKING SE AT GRASS WATERWAY
ROUGH GRADED TO 36" CMP SURFACE DRAIN AND CREW
STILL BACKFILLING DRAINAGE DITCH BANK AROUND SURFACE
DRAIN



CPS 425
WATERWAY
GRADING
STAKES
IN LINE
WITH CMP
& 15' FROM
INLET



PICTURE # 3399 IS LOOKING SW AT BORROW AREA
BACK FILLED AND DRESSED UP.

6486 DD48 2020-4-17 DP

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 2,3608004.217,4988361.487,1119.137,IRF 3/4 IN CONC
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 4,3612153.256,4988347.454,1095.431,CUT X FND SWABUT
 5,3613286.845,4988330.242,1125.498,IRS 5/8 CP231,3612876.886,4987405.804,1088.369,TOP CMP
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 300,3611328.734,4988331.460,1128.168,CPT 34 IR
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 401,3613590.040,4986838.297,1087.672,cmp 36" 3.0'toptofl
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 404,3613722.903,4986799.484,1093.715,gs flag
 405,3613813.766,4986795.290,1095.842,gs flag
 406,3613817.992,4986811.969,1094.489,gs flag
 407,3613820.193,4986827.755,1095.612,gs flag
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 409,3613907.516,4986768.266,1095.962,gs flag
 410,3613903.006,4986752.460,1097.030,gs flag
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 412,3613635.531,4986818.222,1090.618,fl swale
 413,3613616.875,4986828.561,1089.127,top anti seep
 414,3613599.147,4986834.181,1088.605,cmp 36" top
 415,3613617.398,4986826.107,1091.007,cmp 36" top
 416,3613608.386,4986830.212,1089.721,cmp 36" top
 417,3613614.631,4986823.841,1089.697,top anti seep
 418,3613576.462,4986845.047,1084.952,fl dd
 419,3613578.482,4986846.184,1084.414,fl dd
 420,3613581.637,4986835.846,1084.859,fl dd
 421,3613588.417,4986828.739,1084.417,fl dd
 422,3613587.277,4986815.232,1084.650,fl dd
 423,3613588.114,4986844.983,1088.230,proposed fl
 424,3613624.895,4986830.309,1089.420,proposed fl
 425,3613617.753,4986829.327,1091.024,antiseep metal top w side
 426,3613620.209,4986835.829,1090.821,antiseep metal top E side
 427,3613588.021,4986845.293,1091.274,CMP 36" TOP OUTLET 2.98'TOPTOFL
 428,3613624.989,4986830.094,1092.551,CMP 36" TOP INTLET 2.98'TOPTOFL
 429,3613638.862,4986824.390,1089.990,PROPOSED FL
 430,3613687.437,4986822.483,1091.360,PROPOSED FL
 431,3613624.989,4986830.095,1089.570,FL 36" CMP
 432,3614148.132,4987315.378,1127.832,GS BORROW
 433,3614135.149,4987351.086,1129.244,GS BORROW
 434,3614172.174,4987361.871,1129.605,GS BORROW
 435,3614184.452,4987327.502,1128.794,GS BORROW
 436,3613609.293,4986840.487,1093.869,antiseep HDPE top E side
 437,3613606.809,4986834.049,1094.105,antiseep HDPE top W side
 438,3613638.862,4986824.390,1092.551,Cogo
 8043,3618478.920,4993657.660,1142.710,ALUMDISK USGS
 8043_GNSS,3618478.920,4993657.660,1142.710,Autonomous Setup

Drainage District:

26

Repair Summary:

- Per recommendation of investigation summary, installed new of 24" CMP surface drain with anti-seep collar.
- Repaired the existing 24" CMP surface drain, by cutting off damaged end and covering hole in pipe with engineering fabric and 3/4 concrete collar.
- Moved boulders and regraded the area so that surface water would flow to surface drains.

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

See attached Contractor Time and Materials sheet.

Additional Actions Recommended:

- Verify with landowner that the seeding, grading, and clean-up of the area is acceptable as this was performed without CGA representative present.
- Pay landowner/tenant for the approximately 0.14 acres of crop damage to the beans that were planted.



Tabulated Contractor Time and Materials

Date	Totals	6/1/2020	6/2/2020
Workman (hrs)	38.25	23.25	15.00
Mini Excavator (hrs)	15.25	7.75	7.50
Skidloader (hrs)	15.25	7.75	7.50
Compactor (hrs)	8.50	3.50	5.00
Concrete Collars	1	1	
24" CMP Tile (ft)	40.2	20.1	20.1
Crop Damage (ac)	0.14		0.14
Anti-Seep collar (ea.)	1		1



Drainage Work Order Request For Repair

Hardin County

Date: 7/31/2019

Work Order #: WO00000266

Drainage District: DDs\DD 26 (51049)

Sec-Twp-Rge: 30-88-22 Qtr Sec: SE NE

Location/GIS: _____

Requested By: James Sweeny

Contact Phone: (614) 373-3131

Contact Email: jsweeney@cgaconsultants.com

Landowner (if different): David/Annette Sweeney

Description: DD 26 - Overland water flow is bypassing surface inlet and has created a washout in the north bank of the DD26 main open ditch. Said washout and surface inlet are marked with a fencepost and pvc at each. The washout is approximately 1200 feet upstream of the DD22 Main tile outlet (of which is on the west side of C Avenue). Both the surface inlet and washout are visible via aerial photography on the beacon website.

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

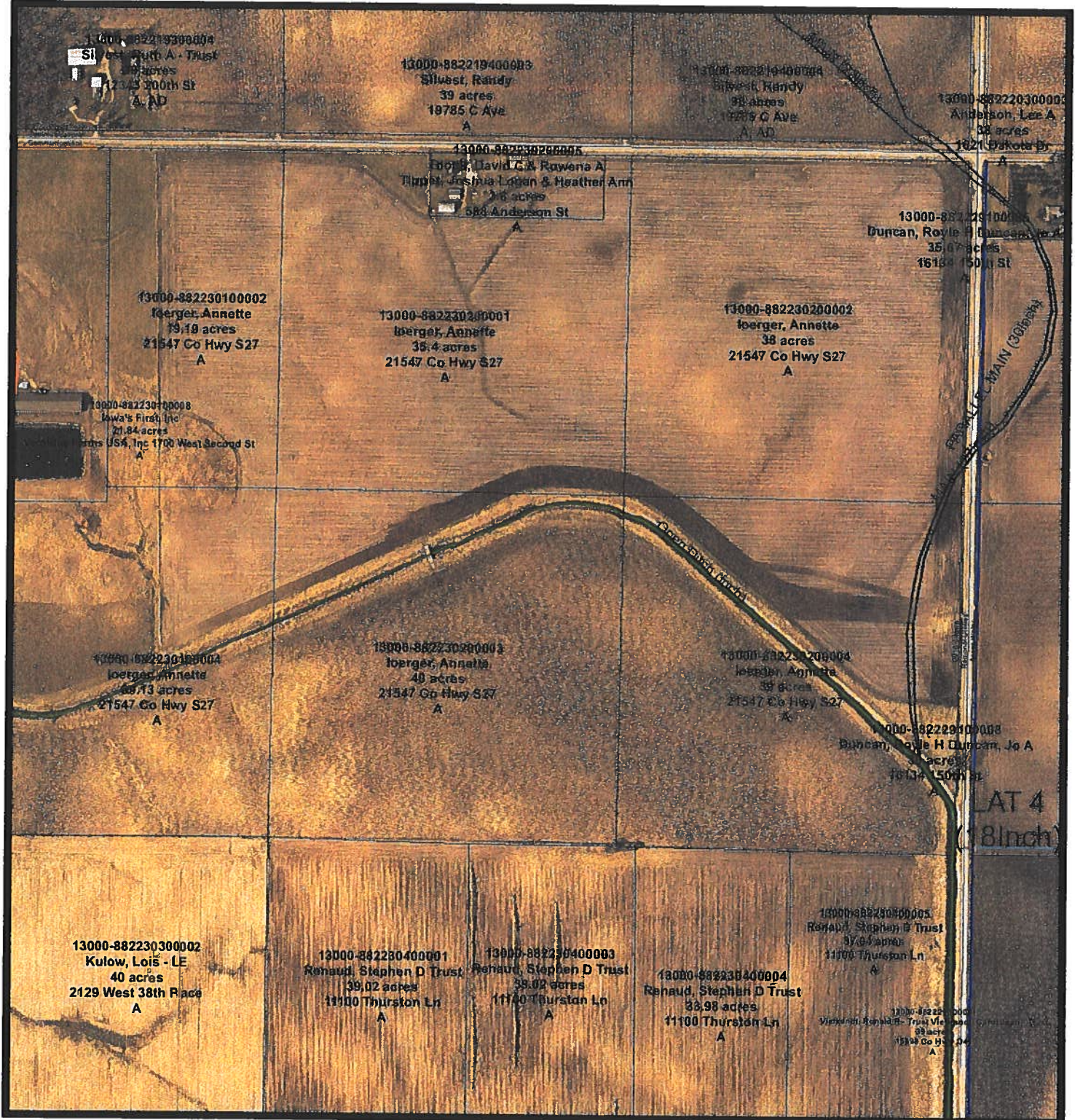
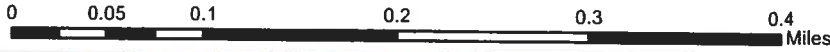
Approved: _____ Date: _____



Hardin County Auditor's Office



Date: 7/31/2019



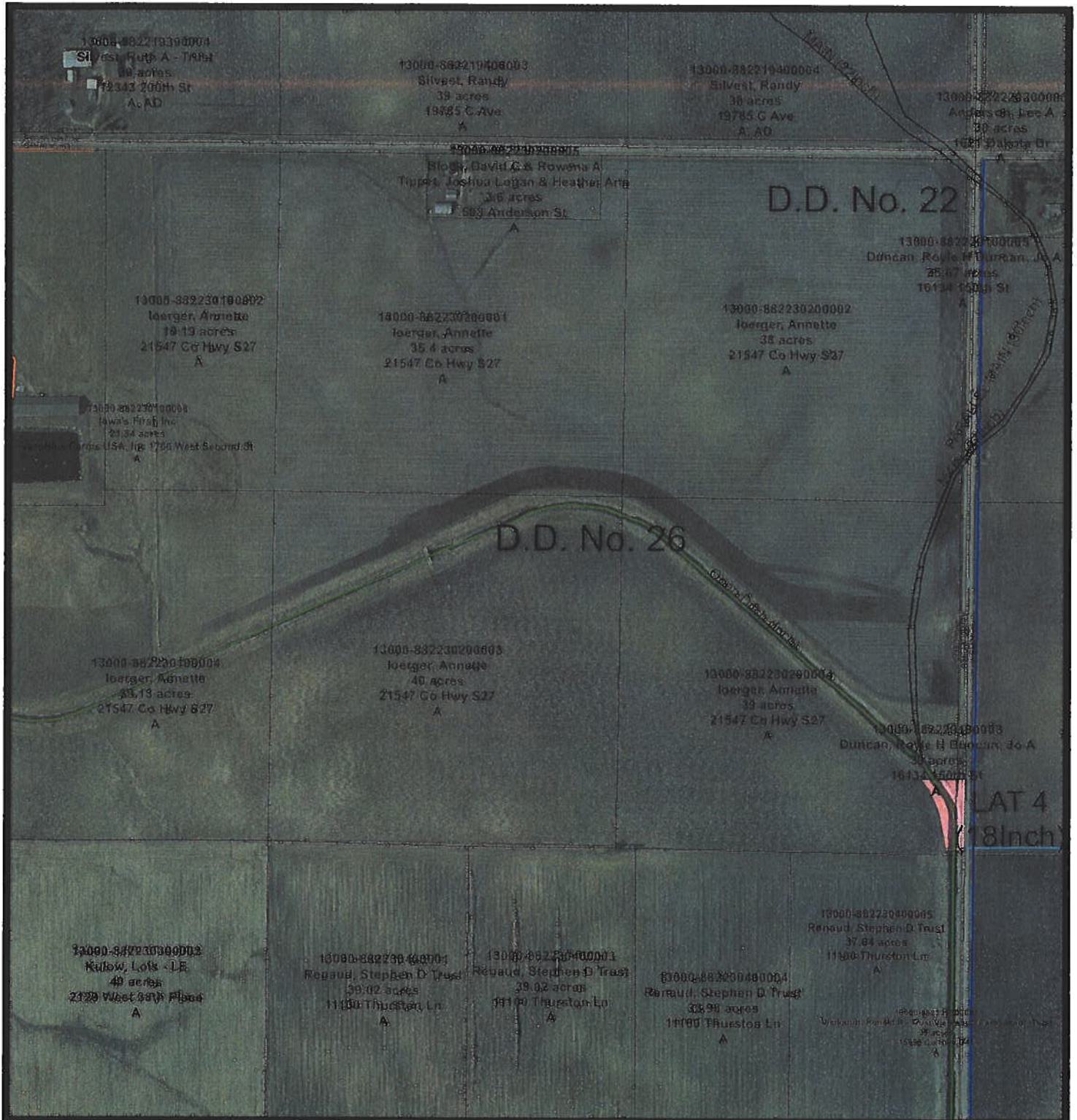
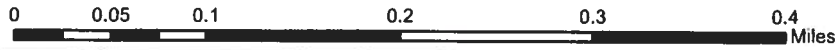
The Data is provided "as is" without warranty or any representation of accuracy, timeliness or completeness. The burden for determining accuracy, completeness, timeliness, merchantability and fitness for or the appropriateness for use rests solely on the requester. Hardin County makes no warranties, 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.



Hardin County Auditor's Office



Date: 7/31/2019



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.

CONSTRUCTION ENGINEERING
OBSERVATION REPORT

DATE:

06/01/2020

PROJECT NUMBER:

HARDIN COUNTY DDW# 266

DAYS OF WEEK:

S M T W T F S

COUNTY, ROUTE, ROAD:

5055.12 DD# 26
996.4 ± 8 1051.7 ± WEST OF
& CAVE & 1538.6 ± SOUTH OF 200TH STREET
1491.4 ±

SHEET NO.

1 OF 4

LOCATION:

SE NE 30-88-22 REPAIR SMASHED
END OF EXISTING 24" CMP INLET &
INSTALL NEW 24" CMP WITH ANTISEEP COLLAR
IN BLOWOUT

LOW 60'S TO UPPER 80'S
SUNNY & WINDY

DESCRIPTION OF WORK AND MATERIAL USED FOR EACH OPERATION, INCLUDING CONTRACTOR/SUB
NAME, ITEM NO. AND LOCATION

JOB# 5055 DD26 SURVEY

7:25 A.M. OBSERVER LEFT OFFICE FOR JOB SITE.

8:10 A.M. OBSERVER ARRIVED ON SITE WITH CREW NOT ON SITE YET
OBSERVER CALLED ADAM AND INFORMED THAT OBSERVER
WOULD BE SETTING UP GPS BASE. ADAM SAID HE WAS ABOUT
TO JOB SITE AND WOULD BE UNLOADING EQUIPMENT ON 220TH ST.
& CO HWY 5-27,

8:14 A.M. AFTER THINKING ABOUT IT MORE OBSERVER REALIZED THAT
ADAMS CREW WAS AT DIFFERENT LOCATION. OBSERVER DROVE
TO 220TH ST & CO HWY 5-27 TO MET WITH ADAM TO MAKE SURE
WHICH ONE WAS IN WRONG LOCATION.

8:30 A.M. AFTER DISCUSSION, THE REPAIR WAS BACK ON NORTH SIDE
OF DRAINAGE DITCH WEST OF CAVE & SOUTH OF 200TH WHERE
OBSERVER WAS THE FIRST TIME.

8:45 A.M. CREW WAS AT REPAIR LOCATION AND STARTED UNLOADING
EQUIPMENT FOR REPAIR. OBSERVER STARTED SETTING GPS BASE
ON GPS# 26008 5/8" Ø FROWN ROD IN NE COR OF FIELD DRIVEN ON
NORTH SIDE OF 200TH ST 1299 ± WEST OF & CAVE.

9:15 A.M. GPS BASE SET UP AND CHECKED INTO GPS# 4895 HARDIN COUNTY
GPS MONUMENT # 8016 WITH GOOD HORIZONTAL POSITION AND
VERTICAL POSITION SHOWING CUT 0.04' TO 0.05' (WITHIN REASON)

9:30 A.M. OBSERVER ARRIVED BACK ON SITE. PERRY LEFT SITE AROUND

9:15 A.M. WITH PICK UP AND TRAILER TO PICK UP 40' OF 24" CMP
& 24" CMP BAND. CARSON AND ADAM WERE AT REPAIR
LOCATION WITH CAT 299D XHP TRACKED SKID LOADER & KOLBELCO
SK85 CS MIN EXCAVATOR FOR EQUIPMENT. CREW STARTED
UNCOVERING EXISTING 24" CMP SURFACE DRAIN. I ADVISED

I Certify that the work described in this report was incorporated into this contract unless otherwise noted.

Observer's Signature:

Dean Peering

Date Prepared:

06/01/2020

Reviewed by:

Engineer

Date Reviewed

CONSTRUCTION ENGINEERING
OBSERVATION REPORT

DATE:

06/01/2020

DAYS OF WEEK:

S M T W T F S

PROJECT NUMBER:

MARION COUNTY DD#266

COUNTY, ROUTE, ROAD:

5055.12 DD#26
996.4' ± E 1051.7' ± WEST OF
E CAVE & 1538.6' ± SOUTH & 1491.4' ±
SOUTH OF S 200TH ST

SHEET NO.

2 OF 4

LOCATION:

SE NE 30-88-22 REPAIR SMASHED END
OF EXISTING 24" CMP INLET & INSTALL
NEW 24" CMP WITH ANTISEEP COLLAR
IN BLOWOUT

LOW 60'S TO UPPER 80'S
SUNNY & WINDY

JOB# 5055 DD 26, SURVEY

DESCRIPTION OF WORK AND MATERIAL USED FOR EACH OPERATION, INCLUDING CONTRACTOR/SUB
NAME, ITEM NO. AND LOCATION

ADAM THAT EXISTING 24" CMP SURFACE DRAIN
DOES NOT NEED REMOVED. NEED TO FIX OR CUT OFF MANGLED
END AND DO SOMETHING WITH PUNCTURED AREA FROM (12 TO 2) (1.5' SOUTH FROM NORTH
END). ASKED LEE ABOUT CMP, HIS THOUGHTS ARE TO CUT OR STRAIGHTEN MANGLED
END OF CMP & COVER WITH FABRIC AND CONCRETE OVER PUNCTURED
AREA.

9:46 A.M. PICTURE # 3617 SEE PICTURE FOR DETAILS.

9:50 A.M. CREW WAS PLACING SOIL BACK ON TOP OF EXISTING 24"
CMP SURFACE DRAIN. EXPOSED PORTION OF 24" CMP HAD
JUST SOME SMALL AMOUNT OF SURFACE RUST. CREW
ALSO STARTED TO REMOVE BOULDERS SET IN DD BANK WASHOUT
ABOUT 72' ± UPSTREAM FROM EXISTING 24" CMP SURFACE DRAIN.
TO INSTALL AN ADDITIONAL NEW 24" CMP SURFACE DRAIN. CREW
ALSO STARTED TO GRADE BOTTOM OF TRENCH FOR NEW SURFACE
DRAIN.

10:10 A.M. OBSERVER SHOT GPS# 70500 FL 24" CMP INLET 1133.526
& GPS# 70501 TOP 24" CMP OUTLET 1133.734 TOP

-2.04 TOPTOFL 1133.526 - 1131.694 = 5.3370
1131.694 FL 34.367

CREW WILL SET NEW 24" CMP SURFACE CLOSE TO SAME GRADE
AND ELEVATION.

11:12 A.M. PICTURE # 3618 SEE PICTURE FOR DETAILS

11:30 A.M. CREW STRAIGHTENED UP CRUSHED AND MANGLED
END OF EXISTING 24" CMP INLET.

11:40 A.M. OBSERVER HAD FL SET UP FOR 40' OF NEW 24" CMP
AND STARTED CHECKING GRADE ON BOTTOM OF TRENCH
FOR CREW TO CUT DOWN TOO.

I Certify that the work described in this report was incorporated into this contract unless otherwise noted.

Observer's Signature:

Dean Penning

Date Prepared:

06/01/2020

Reviewed by:

Engineer

Date Reviewed

CONSTRUCTION ENGINEERING
OBSERVATION REPORT

DATE:

06/01/2020

DAYS OF WEEK:

S M T W T F S

PROJECT NUMBER:

HAROLD COUNTY DDW#266

COUNTY, ROUTE, ROAD:

5055.12 DD#26
996.4' E & 1051.7' WEST OF
EAVE & 1538.6' SOUTH & 1491.4'
SOUTH OF E 200TH ST

SHEET NO.

3 OF 4

LOCATION:

SE NE 30-88-22 REPAIR SMASHED END
OF EXISTING 24" CMP INLET & INSTALL
NEW 24" CMP WITH ANTISERP COLLAR
IN BLOWOUT

LOW 60'S TO UPPER 80'S
SUNNY & WINDY

JOB # 5055 DD 26. SURVEY

DESCRIPTION OF WORK AND MATERIAL USED FOR EACH OPERATION, INCLUDING CONTRACTOR/SUB
NAME, ITEM NO. AND LOCATION

12:30 P.M. CREW HAD BOTTOM OF TRENCH

ROUGH GRADED AND CREW WAS RUNNING OVER BOTTOM OF TRENCH
WITH MINI EXCAVATOR BEFORE JUMPING JACK COMPACTING BOTTOM
OF TRENCH.

1:00 P.M. CREW STARTED JUMPING JACK COMPACTING BOTTOM OF TRENCH
FOR NEW 24" CMP SURFACE DRAIN IN DD BANK BLOWOUT.

1:14 P.M. PICTURE # 3619, 1:17 P.M. PICTURE # 3620, & 1:21 P.M. PICTURE # 3621 SEE PICTURE FOR DETAILS

1:40 P.M. OBSERVER SET UP PROPOSED FL FOR NEW 24" CMP TILE

GPS # 70503 FL PROPOSED NEW 24" CMP INLET 1133.53'

GPS # 70502 FL PROPOSED NEW 24" CMP OUTLET 1131.69

$$\frac{1133.53 - 1131.69}{34.37} = \text{GRADE} = 5.35\%$$

2:00 P.M. OBSERVER WAS CHECKING GRADE FOR NEW 24" CMP
SURFACE DRAIN.

3:59 P.M. PICTURE # 3622. SEE PICTURE FOR DETAILS.

4:09 P.M. PICTURE # 3623 SEE PICTURE FOR DETAILS.

4:31 P.M. PICTURE # 3624 & PICTURE # 3625, AND 4:32 P.M. PICTURE # 3626
SEE PICTURE FOR DETAILS.

4:30 P.M. CREW LEFT SITE FOR DAY. OBSERVER SHOT UPSTREAM @
BAND & DOWNSTREAM END @ OUTLET FOR NEW 24" CMP SURFACE DRAIN

GPS # 70506 24" CMP OUTLET FL = 1131.55 = $\frac{1132.54 - 1131.55}{20.05'}$

GPS # 70507 24" CMP @ BAND FL = 1132.54 = $\frac{1132.54 - 1131.55}{20.05'}$ = GRADE 4.938%

4:40 P.M. OBSERVER SHOT BEYOND DAMAGE DURING REPAIR.

4:50 P.M. OBSERVER SET GRADE STAKES FROM FIELD TO
FL OF EXISTING 24" CMP FOR CONTRACTOR

5:08 P.M. PICTURE # 3629, 5:09 P.M. PICTURE # 3630 SEE PICTURE FOR DETAILS.

5:30 P.M. PICTURE # 3631 SEE PICTURE FOR DETAILS.

I Certify that the work described in this report was incorporated into this contract unless otherwise noted.

Observer's Signature:

Dean Penning

Date Prepared:

06/01/2020

Reviewed by:

Engineer

Date Reviewed

CONSTRUCTION ENGINEERING
OBSERVATION REPORT

DATE:

06/01/2020

PROJECT NUMBER:

MARION COUNTY DD#266

DAYS OF WEEK:

S M T W T F S

COUNTY, ROUTE, ROAD:

5055.12 DD#26
996.4' E & 1051.7' WEST OF
E CAVE & 1538.6' SOUTH & 1491.4' S
SOUTH OF E 200TH ST

SHEET NO.

4 OF 4

LOCATION:

SE NE 30-88-22 REPAIR SMASHED END
OF EXISTING 24" CMP INLET & INSTALL
NEW 24" CMP WITH ANTISEEP COLLAR
IN BLOWOUT

LOW 60'S TO UPPER 80'S
SUNNY & WINDY

JOB# 5055 DD 26, SURVEY

DESCRIPTION OF WORK AND MATERIAL USED FOR EACH OPERATION, INCLUDING CONTRACTOR/SUB
NAME, ITEM NO. AND LOCATION

5:30 P.M. OBSERVER TORE DOWN GPS AND LEFT SITE

QUANTITIES

ADAM 7 3/4 HOURS

CARSON 7 3/4 HOURS

PERRY 4 HOURS 3 3/4 HOURS GETTING SUPPLIES

CAT 299D X HP TRACKED SKIDLOADER 7 3/4 HOURS

KOLBELCO SK85CS MINI EXCAVATOR 7 3/4 HOURS

JUMPING JACK COMPACTOR 3 1/2 HOURS

2- 60 LB BAGS OF ALLSTAR CONCRETE

20' X 20' ENGINEERING FABRIC

20.1 LF 24" CMP WITH 24" CMP BAND & 5 BOLTS

I Certify that the work described in this report was incorporated into this contract unless otherwise noted.

Observer's Signature:

Dean Penning

Date Prepared:

06/01/2020

Reviewed by:

Engineer

Date Reviewed

PICTURE# 3617 IS LOOKING SW SHOWING END OF 24" CMP ON SURFACE DRAIN INLET CRUSHED FROM (7 TO 2) AND ABOUT 1.5' BACK WITH A CUT FROM (12 TO 2) ON TOP, EXISTING 24" CMP INLET THAT



SOMETHING TORE INTO CMP.



CPS #70500
FL EXISTING
24" CMP



PICTURE# 3618 IS LOOKING NW SHOWING CREW REMOVING BOULDERS SET IN DRAINAGE DITCH WASHOUT AND GRADING BOTTOM OF TRENCH FOR NEW 24" CMP SURFACE DRAIN.

PICTURE# 3619 IS LOOKING SW SHOWING CREW BACK FILLING SOIL AROUND 24" EXISTING CMP INLET.



PICTURE# 3620 IS LOOKING SW SHOWING CREW JUMPING JACK COMPACTING BOTTOM OF TRENCH FOR NEW 24" CMP SURFACE DRAIN

PICTURE #3621 IS LOOKING NE SHOWING 2 BAGS OF 60 LB QUIKRETE CONCRETE & 2.0'x2.0' PIECE OF FABRIC PLACE OVER EXISTING HOLE TORE IN TOP OF EXISTING 24" CMP.



PICTURE #3622 IS LOOKING NE SHOWING CREW PUSHING IN NEW CMP AFTER BOTTOM OF TRENCH GRADED AND JUMPING JACK COMPACTED.

PICTURE #3623 IS LOOKING NW - SHOWING 40FT OF NEW 24" CMP IN PLACE WITH CREW BACK FILLING LOOSE SOIL AROUND CMP. CREW IS TAMPING WITH SHOVEL SOIL UNDER HAUNCH OF PIPE



PICTURE # 3624 IS LOOKING SW SHOWING CREW JUMPING JACK COMPACTING LOOSE SOIL ON SIDES OF PIPE WITH 24" CMP BAND IN PLACE.

PICTURE # 3625 IS LOOKING SOUTH SHOWING CREW STILL BACKFILLING WITH LOOSE SOIL AND JUMPING JACK COMPACTING SOIL AROUND CMP



N ↓



N ↓

PICTURE # 3626 IS LOOKING SOUTH SHOWING SOIL COMPACTED ON SIDE OF NBW 24" CMP

PICTURE # 3627 IS LOOKING SW SHOWING BOTTOM OF TRENCH GRADED & COMPACTED WITH SOIL BACKFILLED AND COMPACTED AROUND TILE.



PICTURE # 3628 IS LOOKING SE AT OUTLET END OF NEW 24" CMP OUTLET INTO DITCH. PIPE IS BACKFILL AROUND PIPE AND STILL NEEDS MORE COMPACTING.

PICTURE # 3629 IS LOOKING SW SHOWING GRADING STAKES SET FROM FIELD TO FL EXISTING 24" CMP



PICTURE # 3630 IS LOOKING SE SHOWING GRADING STAKES SET TO FL 24" CMP SURFACE DRAIN FROM FIELD

PICTURE # 3631 IS LOOKING SW SHOWING EXISTING 24" CMP
SURFACE DRAIN INLET WITH STRAIGHTENED MANGLED END.
LOOKS LITTLE ROUGH. CREW HAS BACKFILL SOIL AROUND
CMP INLET BUT STILL NEEDS COMPACTED.
GPS # 70500 FL 24"
CMP INLET



N
↓

CONSTRUCTION ENGINEERING
OBSERVATION REPORT

DATE:

06/02/2020

PROJECT NUMBER: HARDIN COUNTY DDW#266

DAYS OF WEEK:

S M W T F S

COUNTY, ROUTE, ROAD: 5055.12 DD#26
996.4' ± E 1051.7' ± WEST OF
E CLAVE B 1538.6' ± SOUTH 121491.4' ±
SOUTH OF S 200TH ST

SHEET NO.

1 OF 3

LOCATION: SENE 30-88-22 REPAIR SMASHED END
OF EXISTING 24" CMP INLET & INSTALL
NEW 24" CMP WITH ANTISEEP COLLAR
IN BLOWOUT

LOW 70'S TO MID 90'S
SUNNY & WINDY

JOB # 5055 DD 26. SURVEY

DESCRIPTION OF WORK AND MATERIAL USED FOR EACH OPERATION, INCLUDING CONTRACTOR/SUB
NAME, ITEM NO. AND LOCATION

9:15 A.M. OBSERVER TALKED TO JAMES ABOUT A COUPLE THINGS ON
PROJECT.

9:40 A.M. OBSERVER LEFT OFFICE FOR JOB SITE.

10:20 A.M. OBSERVER ARRIVED ON SITE AND STARTED SETTING UP GPS
BASE ONEPS 2600B 5/8" IRON ROD IN NE CORNER OF FIELD DRIVE
ON NORTH SIDE OF 200TH ST 1299' ± WEST OF CLAVE

10:50 P.M. OBSERVER HAD GPS BASE SETUP AND CHECKED INTO HARDIN
GPS MONUMENT #8086 (GPS#4815) WITH GOOD HORIZONTAL POSITION
AND VERTICAL POSITION SHOWING CUT 0.04' TO 0.05' (WITHIN REASON)

11:00 A.M. OBSERVER ARRIVED ON SITE WITH ADAM AND PERRY ON
SITE SINCE 9:00 A.M. WITH JUMPING JACK COMPACTOR, ROBELO
SK85CS MINI EXCAVATOR, & CASE TR340 TRACKED SKI LOADER
ON SITE FOR EQUIPMENT. CREW WAS WORKING ON GETTING 2ND
24" CMP IN PLACE AND EXCAVATED FOR 7.0' WIDE 24" ANTISEEP
COLLAR

11:40 A.M. CREW WAS WORKING ON FASTENING 2 SECTIONS OF
24" CMP WITH 24" CMP BAND AND GETTING 24" HOPE
ANTISEEP COLLAR IN PLACE.

12:14 P.M. PICTURE #3632, 12:43 P.M. PICTURE #3633 & PICTURE #3634 SEE PICTURE
FOR DETAILS.

12:47 P.M. PICTURE #3635 SEE PICTURE FOR DETAILS.

12:57 P.M. PICTURE #3636, 12:58 P.M. PICTURE #3637, & 12:59 P.M. PICTURE
#3638 SEE PICTURE FOR DETAILS.

1:42 P.M. PICTURE #3640 SEE PICTURE FOR DETAILS.

2:00 P.M. CREW WAS DONE USING JUMPING JACK FOR COMPACTING SOIL.

4:30 P.M. CREW LEFT SITE AND WILL FINISH GRADING AREA TOMORROW.

I Certify that the work described in this report was incorporated into this contract unless otherwise noted.

Observer's Signature: Dean Penny

Date Prepared:

06/02/2020

Reviewed by:

Engineer

Date Reviewed

CONSTRUCTION ENGINEERING
OBSERVATION REPORT

DATE:

06/02/2020

PROJECT NUMBER:

HARDIN COUNTY DD W0#266

DAYS OF WEEK:

S M Q W T F S

COUNTY, ROUTE, ROAD:

5055.12 DD#26
996.4' E & 1051.7' E WEST OF
E SAVER & 1538.6' S SOUTH & 1491.4'
SOUTH OF E 200TH ST

SHEET NO.

2 OF 3

LOCATION:

SE NE 30-88-22 REPAIR SMASHED END
OF EXISTING 24" CMP INLET & INSTALL
NEW 24" CMP WITH ANTISEEP COLLAR
IN BLOWOUT

LOW 70'S TO MID 90'S
SUNNY & WINDY

JOB# 5055 DD 26, SURVEY

DESCRIPTION OF WORK AND MATERIAL USED FOR EACH OPERATION, INCLUDING CONTRACTOR/SUB
NAME, ITEM NO. AND LOCATION

4:42 P.M. PICTURE # 3641 & 4:43 P.M. PICTURE # 3643 SEE PICTURE FOR DETAILS.
4:44 P.M. PICTURE # 3644 & 4:45 P.M. PICTURE # 3645 SEE PICTURE FOR DETAILS.
4:46 P.M. PICTURE # 3646 SEE PICTURE FOR DETAILS.
5:00 P.M. OBSERVER ADJUST SOME OF BEAN DAMAGE SHOTS, TORE
DOWN GAS AND LEFT SITE. OBSERVER WILL CHECK OVER
SITE AFTER CREW IS DONE FINE GRADING AND
HAS IT SEEDED.

QUANTITIES

ADAM 7 1/2 HOURS

PERRY 7 1/2 HOURS

KOLBELCO SK85CS MINI EXCAVATOR 7 1/2 HOURS

CASE TR340 TRACKED SKIDLOADER 7 1/2 HOURS

JUMPING JACK COMPACTOR 5 HOURS

20.1 LF 24" CMP

24" HDPE ANTISEEP COLLAR (ONLY PARTIAL ON TOP) ^{METAL} 2 BANDS 10 BOLTS TO FASTEN

1 CAN OF FOAM FILL (SEAL HDPE ANTISEEP COLLAR TO 24" CMP, SUOAS CALLS
(INFORMED CONTRACTOR IT SHOULD BE BITUMINOUS) FOR BITUMINOUS MATERIAL FOR SEALING)

TRUCK AND TRAILER TO HAUL 2 BOULDERS OFF SITE

BEAN DAMAGE DURING REPAIR 0.14 ACRES

I Certify that the work described in this report was incorporated into this contract unless otherwise noted.

Observer's Signature:

Dean Penny

Date Prepared:

06/02/2020

Reviewed by:

Engineer

Date Reviewed

CONSTRUCTION ENGINEERING
OBSERVATION REPORT

DATE:

06/02/2020

PROJECT NUMBER: MARION COUNTY DDW#266

DAYS OF WEEK:

S M W T F S

COUNTY, ROUTE, ROAD: 5055.12 DD#26
996.4' ± E 1051.7' ± WEST OF
EAVE & 1538.6' ± SOUTH & 1491.4' ±
SOUTH OF S 200TH ST

SHEET NO.

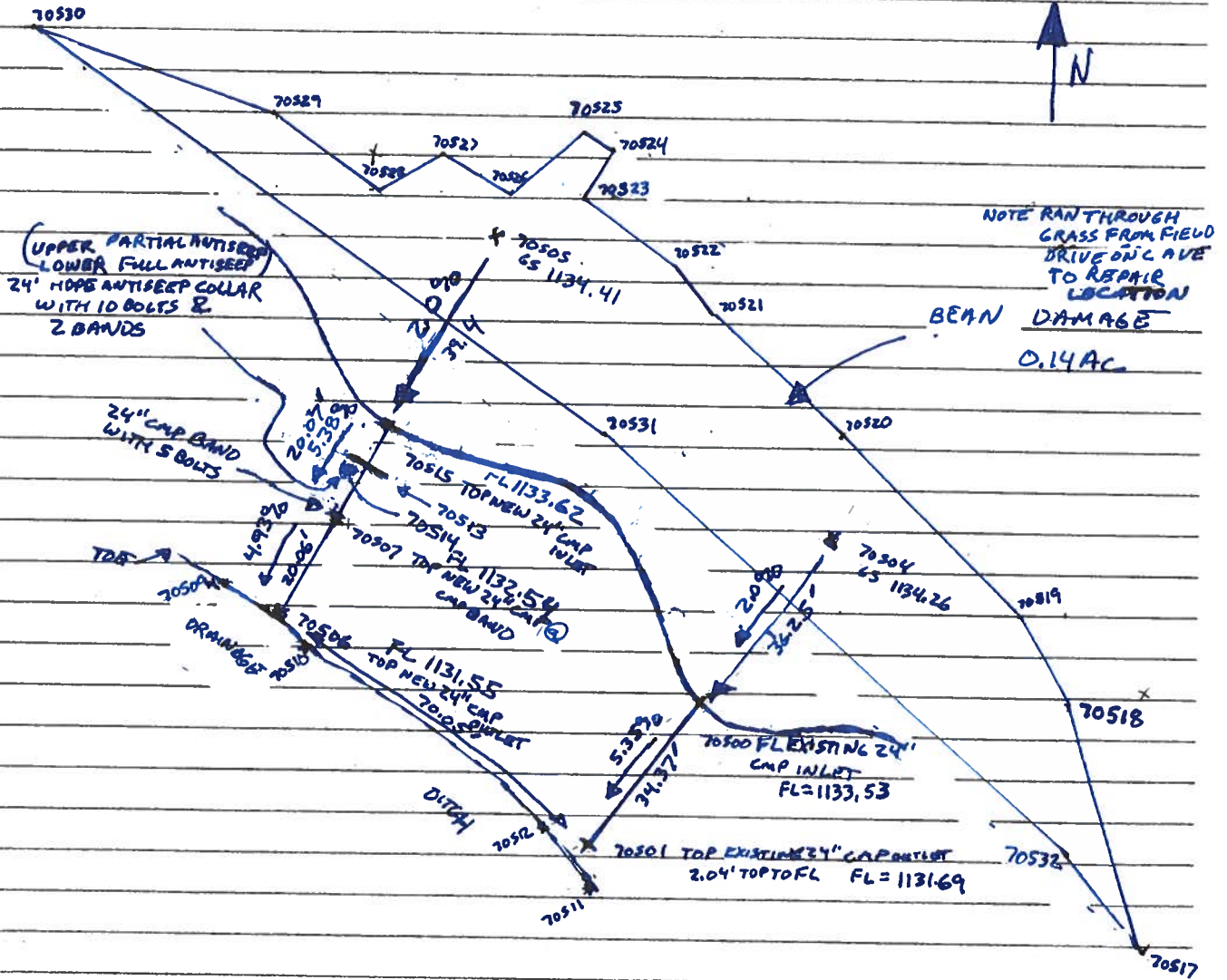
3 OF 3

LOCATION: SE NE 30-88-22 REPAIR SMASHED END
OF EXISTING 24" CMP INLET & INSTALL
NEW 24" CMP WITH ANTISEEP COLLAR
IN BLOWOUT

LOW 70'S TO MID 90'S
SUNNY & WINDY

JOB # 5055 DD 26, SURVEY

DESCRIPTION OF WORK AND MATERIAL USED FOR EACH OPERATION, INCLUDING CONTRACTOR/SUB NAME, ITEM NO. AND LOCATION



I Certify that the work described in this report was incorporated into this contract unless otherwise noted.

Observer's Signature: Dean Penning

Date Prepared: 06/02/2020

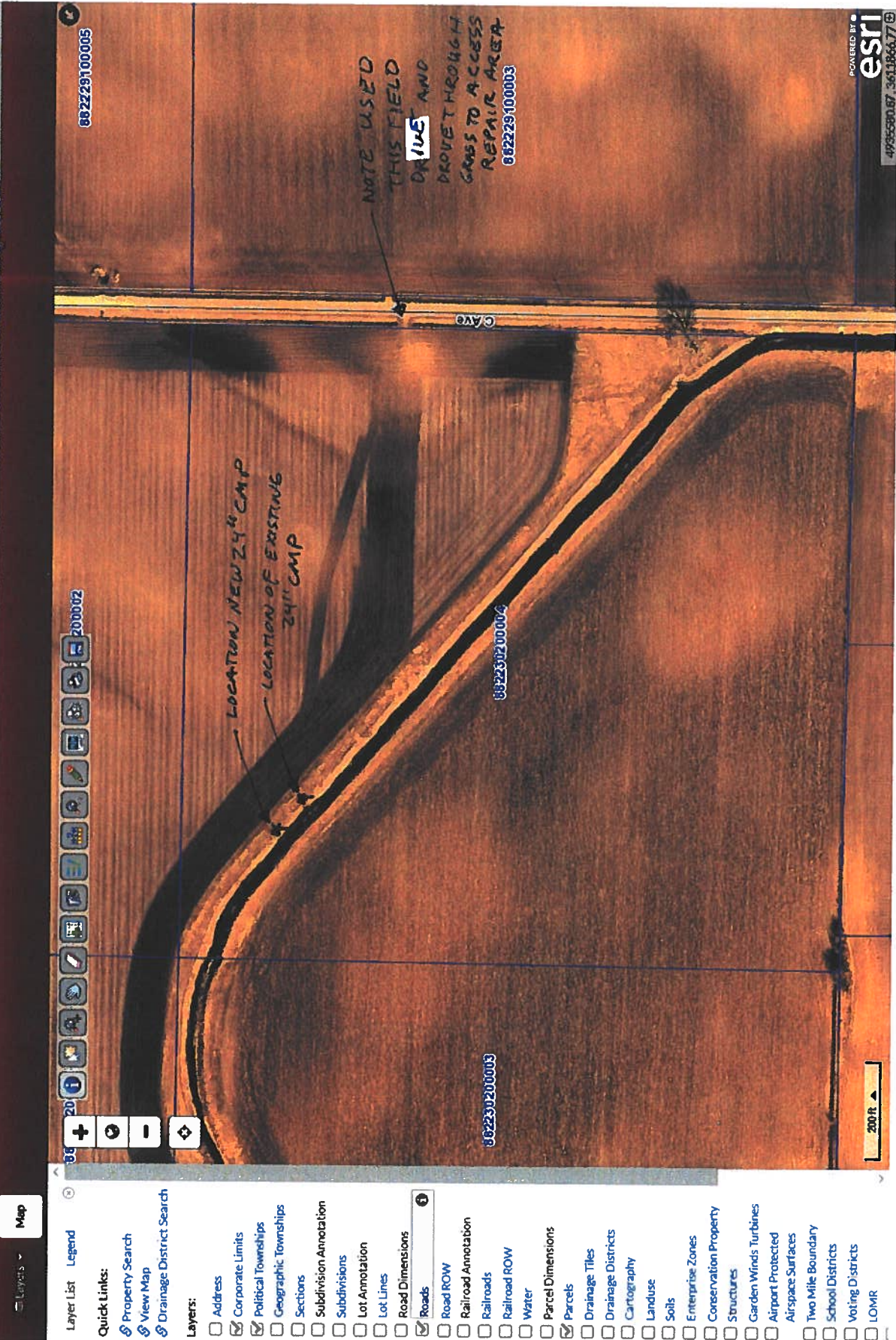
Reviewed by: _____

Engineer

Date Reviewed: _____

5055.12 / 0026

NOTE EXISTING 24" CAMP INLET 195.8' ± WEST OF EC AVE & 1525' ± SOUTH OF E 200TH ST
NEW CAMP INLET 1531.4' ± SOUTH E 200TH ST & 1051.74' WEST OF EC AVE



- Layer List Legend
- Quick Links:
 - Property Search
 - View Map
 - Drainage District Search
- Layers:
 - Address
 - Corporate Limits
 - Political Townships
 - Geographic Townships
 - Sections
 - Subdivision Annotation
 - Subdivisions
 - Lot Annotation
 - Lot Lines
 - Road Dimensions
 - Roads
 - Road ROW
 - Railroad Annotation
 - Railroads
 - Railroad ROW
 - Water
 - Parcel Dimensions
 - Parcels
 - Drainage Tiles
 - Drainage Districts
 - Cartography
 - Landuse
 - Soils
 - Enterprise Zones
 - Conservation Property
 - Structures
 - Garden Winds Turbines
 - Airport Protected
 - Airspace Surfaces
 - Two Mile Boundary
 - School Districts
 - Voting Districts
 - LOMR

NOTE USED THIS FIELD DATA AND PROVED THROUGH GRASS TO ACCESS REPAIR AREA 882229100003



PICTURE# 3632 IS LOOKING SE SHOWING CREW INSTALLING 2ND NEW 24" CMP WITH 24" CMP BAND & 5 BOLTS.



PICTURE# 3633 IS LOOKING NW SHOWING 24" HDPE ANTISEEP COLLAR IN PLACE WITH 2 BANDS AND 5 BOLTS FASTENING LOWER ANTISEEP AND PARTIAL UPPER ANTISEEP HDPE COLLAR ONE EAST SIDE



PICTURE #3634 IS LOOKING NE AT 2 BANDS AND 5 BOLTS FASTENING LOWER ANTISEEP AND PARTIAL UPPER ANTISEEP.

↖ N



↖ N



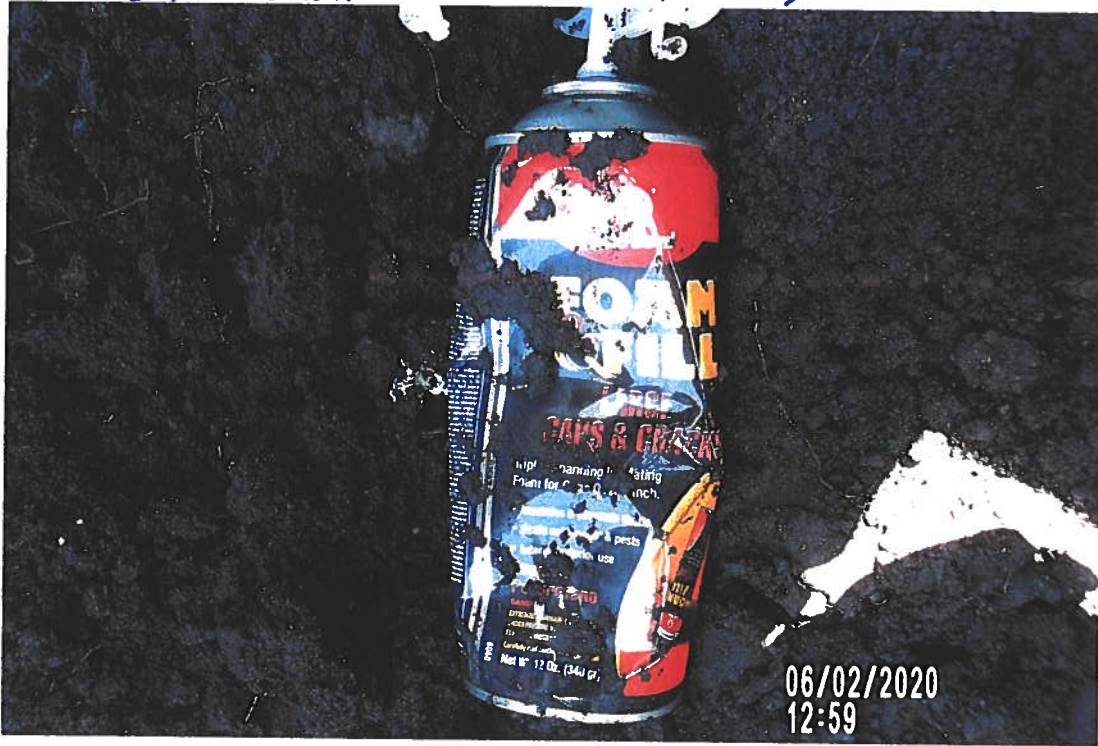
PICTURE # 3635 IS LOOKING NW SHOWING CREW JUMPING JACK COMPACTING SOIL AROUND 24" HDPE ANTISEEP COLLAR.

PICTURE # 3636 IS LOOKING EAST SHOWING CREW USING FOAM FILL TO SEAL BETWEEN HDPE ANTISEEP COLLAR AND 24" CMP SURFACE DRAIN, (SUDAS SHOWS SHOULD BE BITUMINOUS MATERIAL)



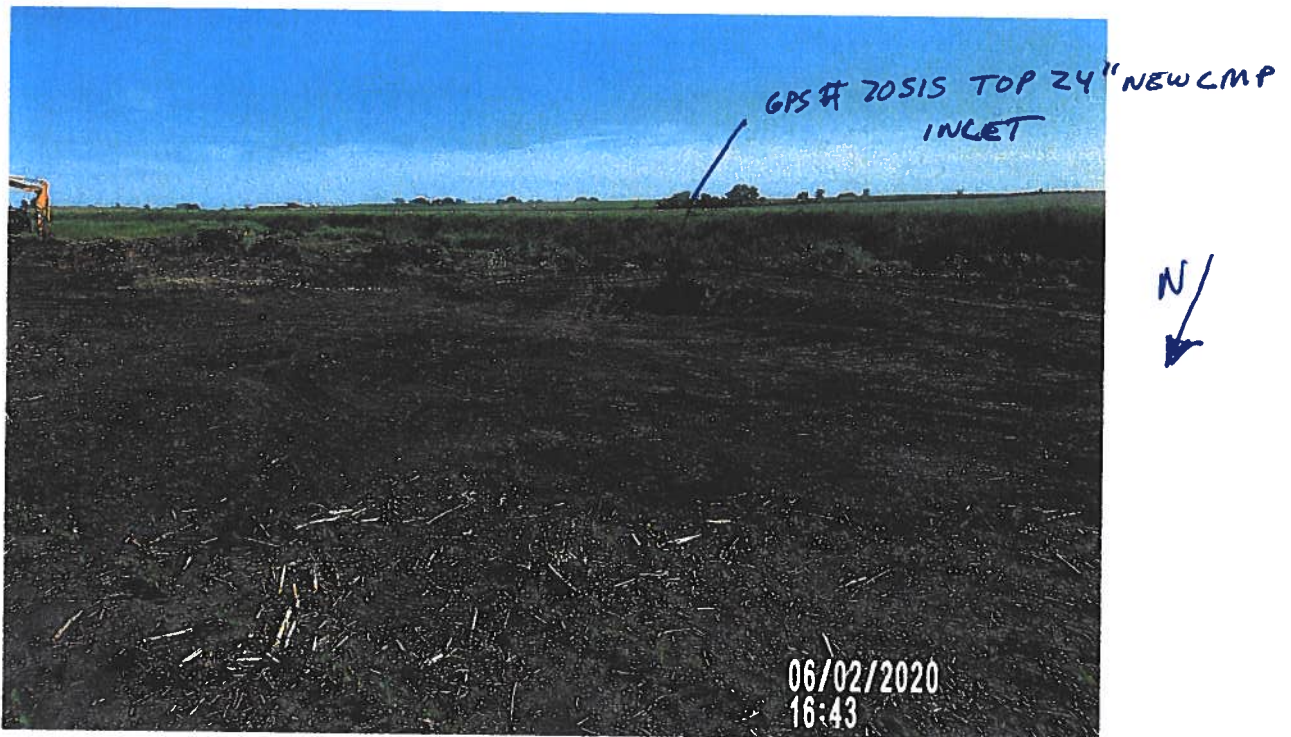
PICTURE # 3637 IS LOOKING SE SHOWING CREW USING FOAM FILL TO SEAL BETWEEN HDPE ANTISEEP COLLAR AND 24" CMP SURFACE DRAIN. (SUDAS SHOWS SHOULD BE BITUMINOUS MATERIAL)

PICTURE # 3638 SHOWING FOAM FILL USED TO SEAL VOID BETWEEN HDPE ANTISEEP COLLAR AND CMP SURFACE DRAIN (OBSERVER INFORMED CREW THAT SUDAS CALLS FOR BITUMINOUS MATERIAL AND THIS IS WHAT CREW BROUGHT BACK)



PICTURE # 3640 IS LOOKING SOUTH SHOWING BACK FILL SOIL AROUND 24" CMP WITH CREW USING JUMPING JACK COMPACTOR TO COMPACT SOIL AROUND CMP.

PICTURE #3641 IS LOOKING SE AT 0.14' AC OF BEAN
DAMAGE DURING REPAIR



PICTURE # 3643 IS LOOKING SE SHOWING AREA AROUND
NEW 24" CMP INLET STILL WEEDING GRADED. CREW
WILL FINE GRADE TOMORROW.

PICTURE # 3644 IS LOOKING SW SHOWING AREA AROUND
EXISTING 24" CMP INLET STILL NEEDING GRADED. CREW
WILL FINE GRADE TO MORROW,



GPS# 20507 TOP 24" NEW CMP. OUTLET



PICTURE # 3645 IS LOOKING AT NEW 24" CMP OUTLET AT DRAINAGE
DITCH

PICTURE # 3646 IS SHOWING 2 BOULDERS THAT CREW
IS MAULING OFFSITE,



CONSTRUCTION ENGINEERING
OBSERVATION REPORT

DATE:

06/18/2020

DAYS OF WEEK:

S M T W **④** F S

SHEET NO.

1 OF 1

PROJECT NUMBER: HARDIN COUNTY DDWA#266
SOSS.12 DD#126
COUNTY, ROUTE, ROAD: 996.4'± & 1051.7'± WEST OF
E CAVE & 1538.6'± SOUTH & 1491.4'±
SOUTH OF E 200TH ST
LOCATION: SENE 30-88-22 REPAIR SMASHED END
OF EXISTING 24" CMP INLET & INSTALL
NEW 24" CMP WITH ANTISEEP COLLAR
IN BLOWOUT

MID 60'S TO MID 80'S MOSTLY
CLOUDY AND BREEZY
JOB# 5055 DD26 SURVEY

DESCRIPTION OF WORK AND MATERIAL USED FOR EACH OPERATION, INCLUDING CONTRACTOR/SUB
NAME, ITEM NO. AND LOCATION

1:20 P.M. OBSERVER ON SITE TO CHECK OVER GRADING AROUND
EXISTING SURFACE DRAIN AND NEW SURFACE DRAIN.

1:20 P.M. PICTURE # 3831 & PICTURE # 3832 SEE PICTURE FOR DETAILS.

1:21 P.M. PICTURE # 3833 & PICTURE 3834 SEE PICTURES FOR DETAILS.

1:22 P.M. PICTURE # 3835, 1:23 P.M. PICTURE # 3836, PICTURE # 3837, &
PICTURE # 3838 SEE PICTURE FOR DETAILS.

1:24 P.M. PICTURE # 3839, 1:25 P.M. PICTURE # 3840 & PICTURE
3841 SEE PICTURE FOR DETAILS.

1:30 P.M. OBSERVER LEFT SITE AFTER TAKING PICTURES OF
FINAL GRADING.

CREW SAID THEY SEEDED AREA BUT DID NOT SEE MUCH
GRASS GROWING YET.

I Certify that the work described in this report was incorporated into this contract unless otherwise noted.

Observer's Signature: Dean Penning

Date Prepared: 06/18/2020

Reviewed by: _____ Engineer

Date Reviewed _____

PICTURE# 3831 IS LOOKING SE SHOWING DD NORTH BANK
NEEDING DRESS UP YET

GPS 70506 NEW 24" CMP OUTLET



GPS # 70506 NEW CMP OUTLET



PICTURE# 3832 IS LOOKING SE SHOWING DD NORTH BANK
NEEDING DRESSED UP ON WEST SIDE OF NEW CMP
OUTLET

PICTURE #3833 IS LOOKING NW SHOWING BOULDERS IN DD BANK FOR A FILLED IN WASHOUT BETWEEN NEW AND EXISTING SURFACE DRAIN. NEEDS DRESSED UP / GPS#70506 NEW CMP OUTLET



GPS# 70515 TOP 24" CMP INLET
2.05' TOP TO FL



PICTURE #3834 IS LOOKING SW AT NEW SURFACE DRAIN INLET WITH WATER STARTING TO ERODE UNDER CMP

PICTURE # 3835 IS LOOKING NW SHOWING SOIL GRADED OVER SURFACE DRAINS AND CREW SAID THEY SEEDED IT



AREA SETTLED WHERE CREW EXCAVATED FOR SOME BETTER SOIL TO BACKFILL AROUND SURFACE DRAINS



SMALL WASHOUT WITH ROCKS IN IT

CORN STALKS ON TOP WHERE WATER WENT OVER AND RAN TO WASHOUT



PICTURE # 3836 IS LOOKING SW SHOWING AREA GRADED TO EXISTING SURFACE DRAIN BUT NO GRASS GROWING

PICTURE # 3837 LOOKING SOUTH AT LOW AREA WHERE GRASS NOT GROWING VERY WELL,

DD BANK ERODED FROM WATER RUNNING TO DD SMALL WASHOUT WITH BOULDERS MAY NEED TO GRADE LOW AREA TO GET FLOW TO SURFACE DRAIN BY ADDING MORE SOIL



06/18/2020
13:23

DD BANK NEEDS DRESSED UP



06/18/2020
13:23

PICTURE # 3838 IS LOOKING SW SHOWING SOIL STARTING TO ERODE UNDER INLET OF NEW 24" CMP INLET. AND GRASS NOT GROWING.

PICTURE # 3839 IS LOOKING NW SHOWING AREA
ALONG FIELD NW OF NEW 24" CMP WHERE GOOD SOIL
WAS EXCAVATED FOR BACK FILL AROUND CMP AND BACK FILLED



AREA
HAS
SETTLED
NOW



PICTURE # 3840 IS LOOKING NW OF NEW 24" SURFACE
DRAIN SHOWING NORTH BANK WEEDING DRESSED UP
AND SOIL PACKED IN.

PICTURE #3841 IS LOOKING SE SHOWING DD BANK BETWEEN
EXISTING AND NEW OUTLET NEEDING DRESSED UP WITH SOIL IN
WASHOUT FILLED WITH BOULDER AND ALL BOULDERS TAPPED

INTO
BANK





Drainage Work Order Request For Repair

Hardin County

Date: 7/6/2020

Work Order #: WO00000298

Drainage District: DDs\DD 120 (51135)

Sec-Twp-Rge: 09-89-20 **Qtr Sec:** NE NW

Location/GIS: 89-20-09-100-002

Requested By: Kevin Vierkandt

Contact Phone: (515) 689-3388

Contact Email: vierkandtfarms@windstream.net

Landowner(if different): Hansen Farms, Inc.

Description: DD 120 - Kevin Vierkandt reports issues with neighboring parcel's intake discharging onto his parcel (892009100002) when intake is surcharged. Intake is in fenceline about 8" above ground.

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:** _____

Drainage District:

#120

Investigation/Repair Summary:

- Tenant in the S½ SW¼ Section 4, Township 89 North Range 20 West and NW¼ Section 9, Township 89 North Range 20 West reported that an upstream landowner in N½ SW¼ Section 4, Township 89 North Range 20 West had installed an intake on district tile to act as a pressure relief point for the tile system and graded the area to “drain” to his field. As a result, water was flowing overland and collecting on the north side of 115th Street (no intake visible in the road ditches on either side of the 115th Street). At 115th Street and throughout the flow path, crops were either drown out or washed away.
- Visual observations (with and without tenant) found:
 - Drown out/washed out areas as tenant described (115th Street and flow paths).
 - Wet drown out area in neighbor’s field on the north side of tenant’s fenceline.
 - Woven portion of said fenceline appears to have cut.
 - Sod “fenceline hump” is no longer in place allowing the free flow of surface water.
 - Yellow wire topped intake is just north of fenceline on neighbor’s property and not in the low point of the neighbor’s wet area.
- A review of the original district maps (Drainage District 5) indicates that the tile at said fenceline is not district tile as the Main tile (highlighted yellow on the attached maps) runs northwest as it moves upstream through the S½ SW¼ Section 4, Township 89 North Range 20 West and never enters the N½ SW¼ Section 4, Township 89 North Range 20 West.
- A review of the reconstruction district map (Drainage District 120) shows multiple “lines” on the drawing, but the only one identified as the district tile is the Main tile (highlighted pink on the attached map) and it does not enter the N½ SW¼ Section 4, Township 89 North Range 20 West.

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

None recorded as only visual observation was performed.

Additional Actions Recommended:

The immediate problem at the fenceline between the S½ SW¼ Section 4, Township 89 North Range 20 West and the N½ SW¼ Section 4, Township 89 North Range 20 West appears to be on a private tile and not a district facility based on the above review. If desired, a detailed record search could be performed to verify that the maps accurately represent the district facilities. If the tile is private, then the primary solution that the district could offer for the immediate area would be to construct a lateral from the Main tile to the N½ SW¼ Section 4, Township 89 North Range 20 West.

A secondary issue is the ponding at 115th Street. Preliminary calculations indicate that the existing Main tile lacks drainage capacity at this point and there are no means for standing water to enter the Main tile. These both could be remedied by a drainage district project, but this would not prevent the crop loss along the flow paths from 115th Street to the N½ SW¼ Section 4, Township 89 North Range 20 West. Alternatively, secondary roads could be contacted to upsize the roadway culvert at 115th Street, but this would just push the problem to the south.





Drainage Work Order Request For Repair

Hardin County

Date: 7/6/2020

Work Order #: WO00000298

Drainage District: DDs\DD 120 (51135)

Sec-Twp-Rge: 09-89-20 **Qtr Sec:** NE NW

Location/GIS: 89-20-09-100-002

Requested By: Kevin Vierkandt

Contact Phone: (515) 689-3388

Contact Email: vierkandtfarms@windstream.net

Landowner(if different): Hansen Farms, Inc.

Description:

DD 120 - Kevin Vierkandt reports issues with neighboring parcel's intake discharging onto his parcel (892009100002) when intake is surcharged. Intake is in fenceline about 8" above ground.

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:** _____

7-8-2020

E end drawn spot @ 115+4



W end drawn spot @ 115+4

7-8-2020



Middle drain spot @ 115ft

7-15-2020
Wet spot in adjoiners field



7-15-2020
Yellow topped intake just
north of fence line



7-15-2020 W side of missing
soil "hump"

7-15-2020 middle of missing soil "hump"

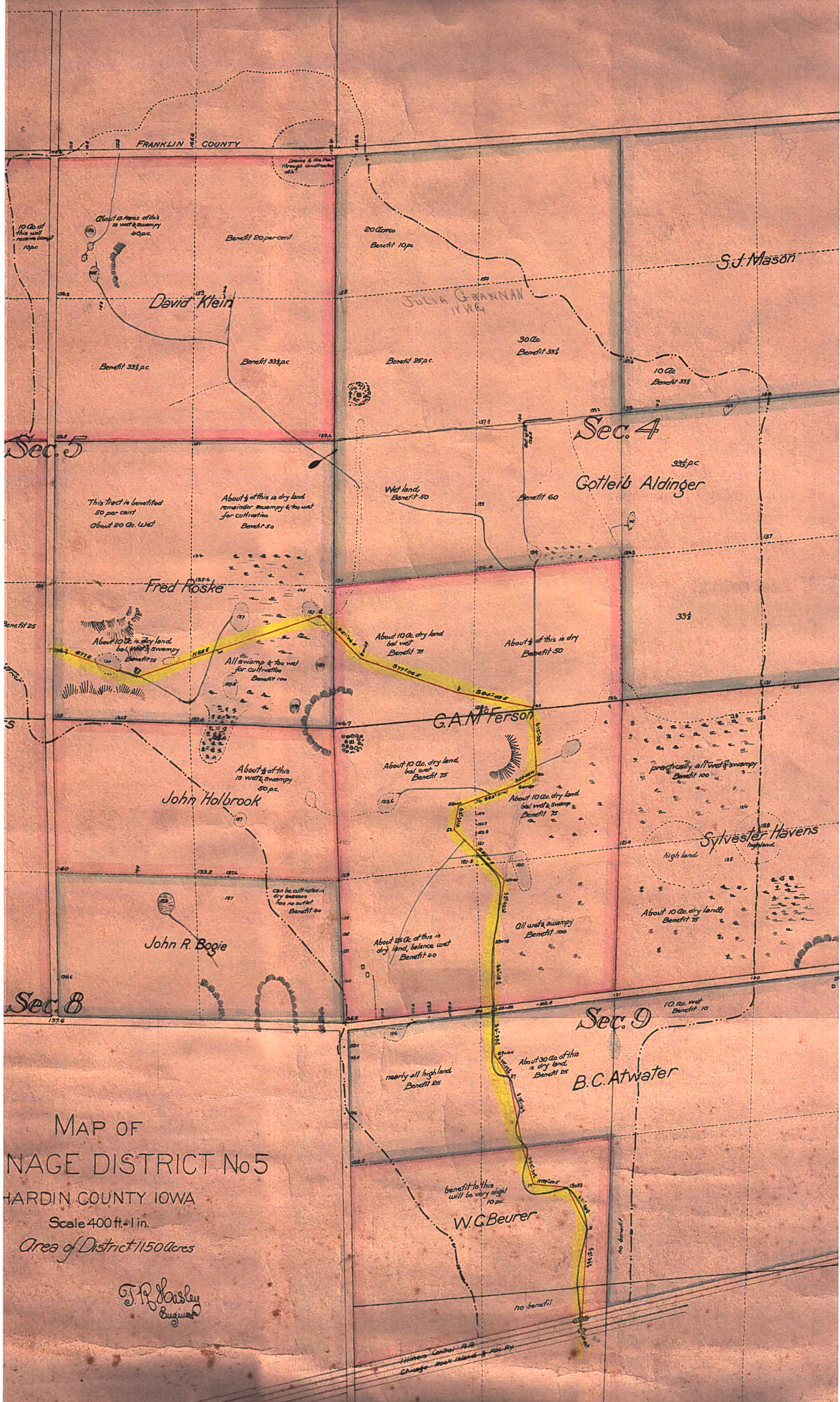


7-15-2020 East side of missing soil "hump"

7-15-2020



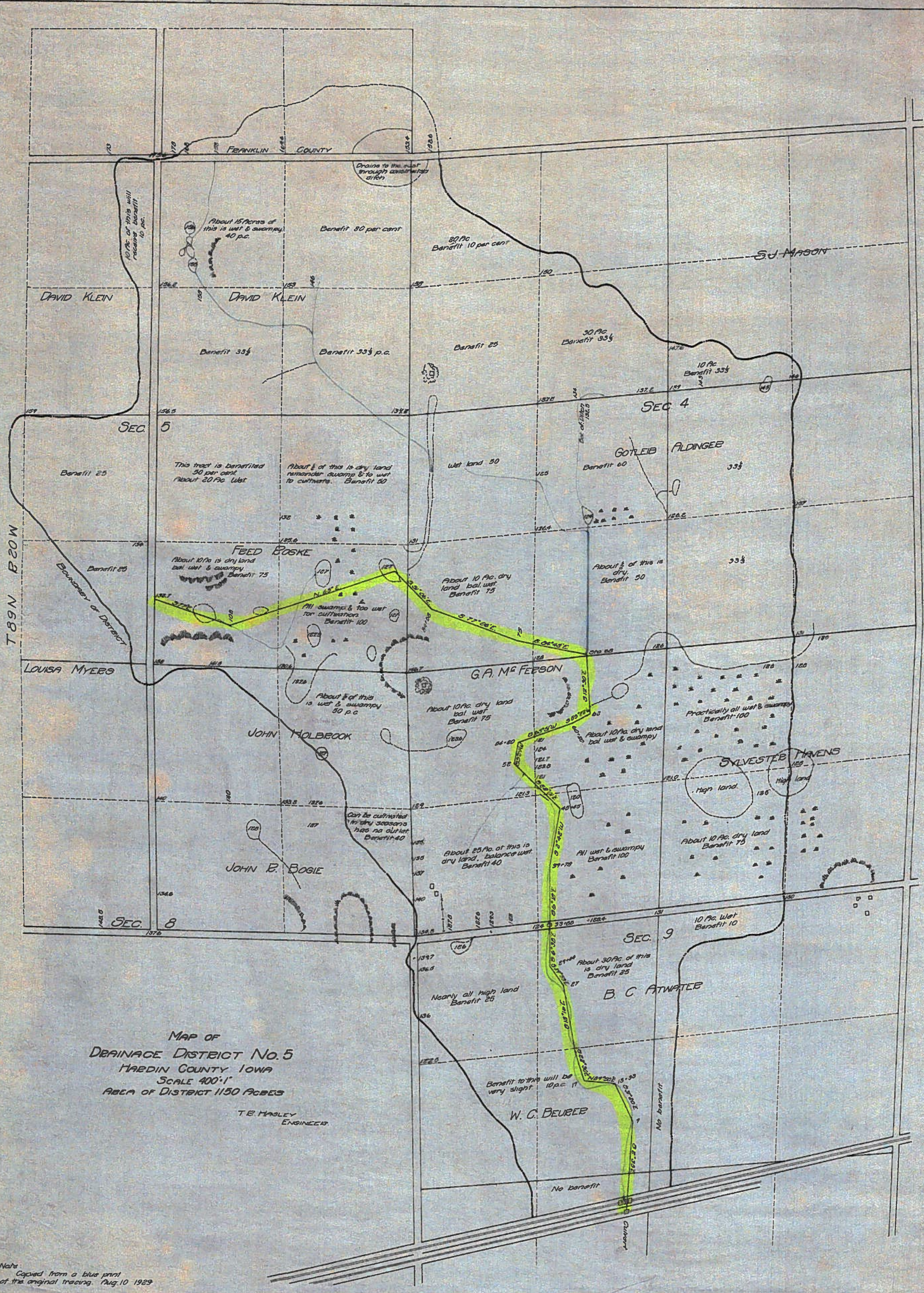
"Cat" woven wire fence



MAP OF
 NAGE DISTRICT No 5
 HARDIN COUNTY IOWA
 Scale 400 ft. = 1 in.
 Area of District 1150 acres

J. P. Hasley
 Engineer

Havens Canal - R.R.
 Chicago - Rock Island - Gal. Ry.



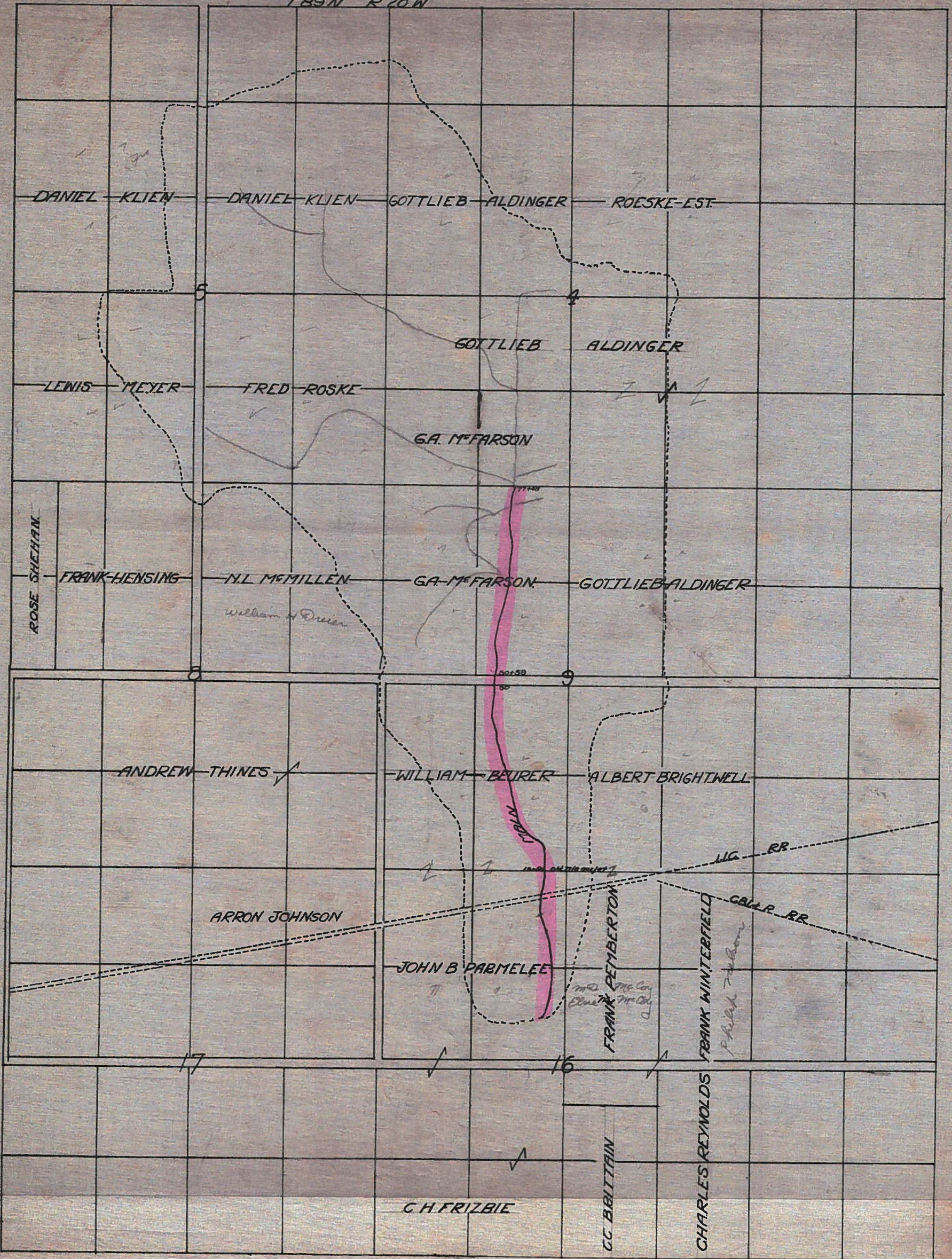
MAP OF
DRAINAGE DISTRICT No. 5
HARDIN COUNTY IOWA
SCALE 400'-1"
AREA OF DISTRICT 1150 ACRES

T.E. HADLEY
ENGINEER

Note:
Copied from a blue print
of the original tracing, Aug. 10 1929

PLAT
DRAINAGE DISTRICT
NO 5
RECONSTRUCTION
D.D CONTAINING 1220 ACRES 120
SCALE 1" = 800'

T89N R20W





Drainage Work Order Request For Repair

Hardin County

Date 11/1/2017 Work Order # 195
District # Big 4 Lat 4 Lateral Open Ditch Fund # 51197
Township Alden Section 30 Twp 89 Rge 22 Qtr Sec NW1/4

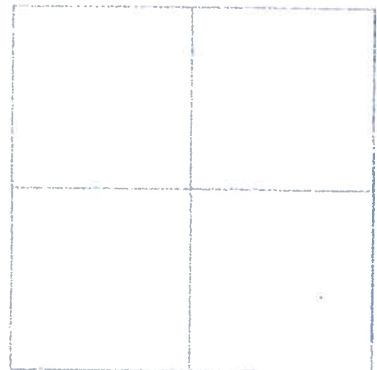
Repair Requested By Tim Burton
Address _____ Phone (515) 689-3658

Landowner James Crisp or Abigail Farms
Address GIS 892230100003 or 892230300008 Phone _____

Request Taken By Angela Silvey

Available for Repair Now? Yes Date Available _____

Problem Description Beaver dam in ditch on the dead end gravel road.



Repair labor, materials and equipment _____

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

Repaired By: _____

Date: _____

Please send statement for services to:
Hardin County Auditor's Office
Attn: Tina Schlemme
1215 Edgington Ave, Suite 1
Eldora, IA 50627

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

For Office Use Only

Approved: _____ Date: _____

WORK REQUEST 3700Date Submitted Wed, Nov 1, 2017
Submitted By Angela SilveyHardin County Secondary Roads Dept
708 16th Street
Eldora, IA 50627-0534

Name	Tim Burton	Address	
Company			
Phone	515-689-3658	Email	
Callback Requested	Yes		

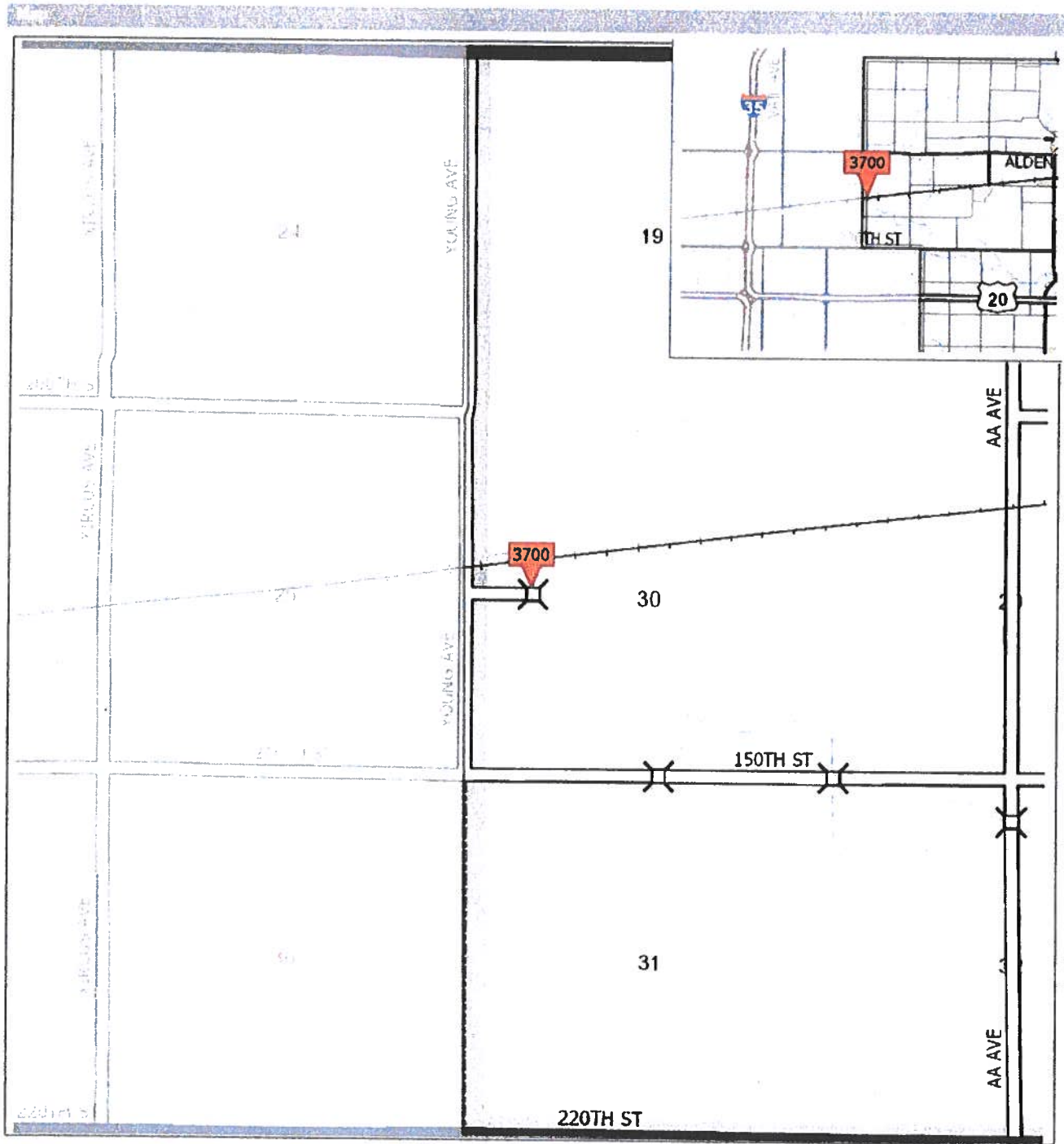
Type	Informational Message	Sub-Type	
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Comments Tim advises there's beaver dam in a dredge ditch a few hundred feet to the east of the intersection of 145th Street and Young Avenue, on the dead-end gravel road.

Address	10001-10267 145th Street	S-T-R	S30 - T89N - R22W
	Alden, IA 50006	Civil Township	Alden
District		Coordinates	42.492779, -93.495575
Bridge	(4391) 176830	Length	

Assigned To	Not Assigned	Status	New
Priority	Normal	Date Closed	

Update (field use only)



Drainage District:

Big 4, Lat 4

Investigation/Repair Summary:

- Landowner in the SW¼ NW¼ of Section 30, Township 89 North, Range 22 West reported a beaver dam in the Lateral 4 Open Ditch at the end of 145th Street.
- Visual observation found a small beaver dam north of the intersection of 145th Street on the Lateral 4 Open ditch. Further north, a 4-foot tall beaver dam beneath the CNRR approximately 550-feet north of 145th Street.
- The contractor originally contacted to facilitate the removal of the observed beaver dams did not complete said removal, and an alternate contractor was found. Said contractor went to the site with removal equipment and inspected in each direction from the reported beaver dams. Remnants of the reported dams were found (dams had washed out), but no active dams or beavers were found.

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

None, as the beaver dams were not removed by the contractor

Additional Actions Recommended:

Monitor the area for beaver activity so that trapping and dam removal can be completed as needed.



CONSTRUCTION ENGINEERING
OBSERVATION REPORT

DATE:

11/27/17

DAYS OF WEEK:

S M T W T F S

SHEET NO.

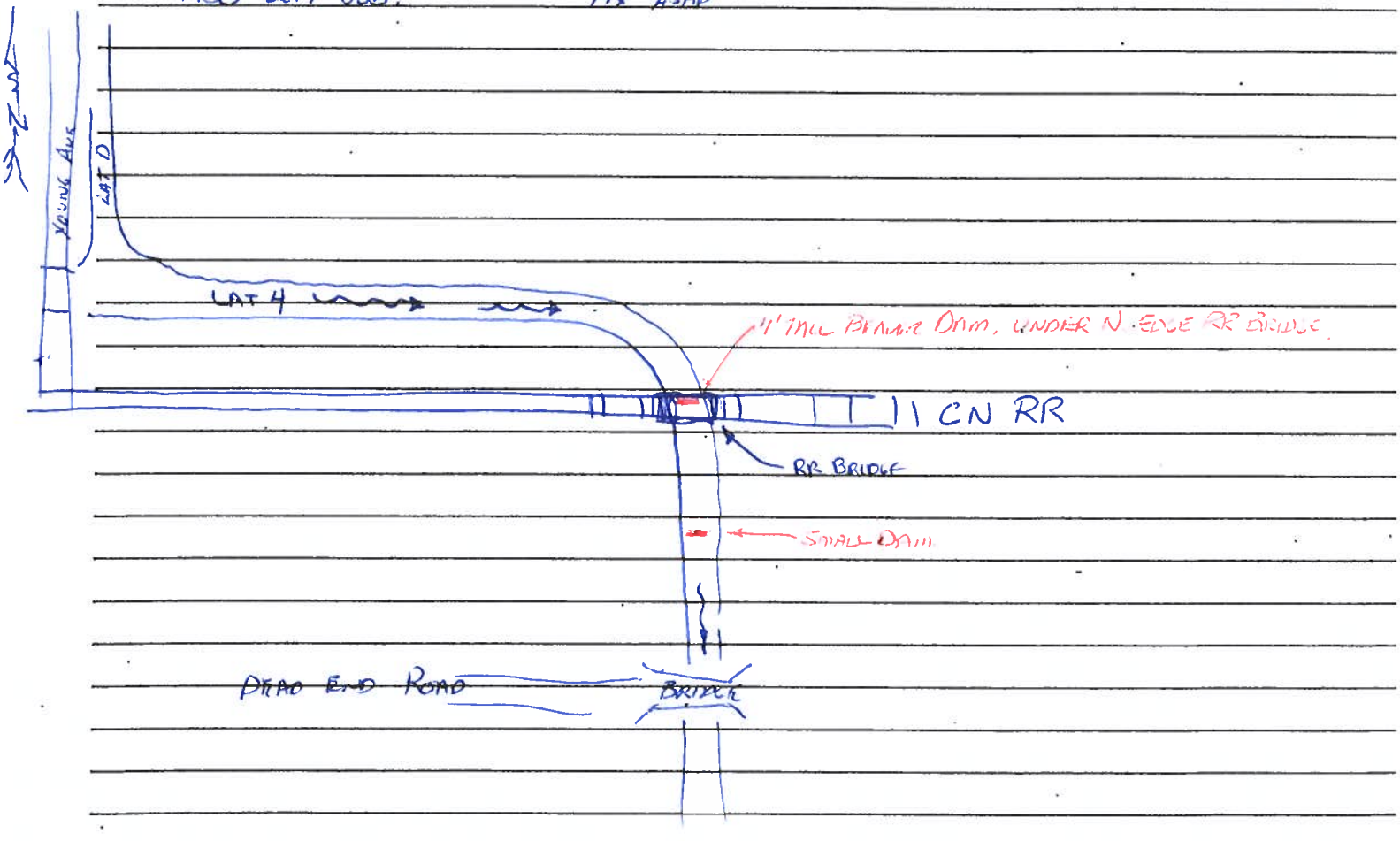
1 OF 1

PROJECT NUMBER: 5585.1
 COUNTY, ROUTE, ROAD: DD BIG 4, LAT 4
 LOCATION: YOUNG AVE, E. TO CCRR.

DESCRIPTION OF WORK AND MATERIAL USED FOR EACH OPERATION, INCLUDING CONTRACTOR/SUB NAME, ITEM NO. AND LOCATION

Partly Sunny, 39°, Breezy From S. Dry Conditions

9:15 AM. Drove in on Young, S. of RR Tracks, E. on Dead End Road to old Wood Bridge.
 Drove N on W side of DD4. Found small earthen dam 200' N. of bridge.
 Drove N to RR tracks finding 4' high curbstumps/sticks, / dirt dam under
 new RR bridge just under N. edge of bridge. Beavers had living N. of this.
 Ditch is deep enough that extendable rubber tire backhoe won't work. Need long stick.
 9:30 LEFT JOB. Fix ASAP



I Certify that the work described in this report was incorporated into this contract unless otherwise noted.

Observer's Signature: [Signature]
 Reviewed by: _____

Date Prepared: 11/27/17
 Engineer
 Date Reviewed _____







Drainage Work Order Request For Repair

Hardin County

Date: 4/22/2019

Work Order #: WO00000247

Drainage District: DDs\Big 4 Main (51193)

Sec-Twp-Rge: _____ **Qtr Sec:** _____

Location/GIS: _____

Requested By: Hands On

Contact Phone: _____

Contact Email: _____

Landowner (if different): _____

Description: Big 4 Main - Bank washed out about 350 yards east of C Ave on the south bank of the S. Fork/Big 4 Main

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

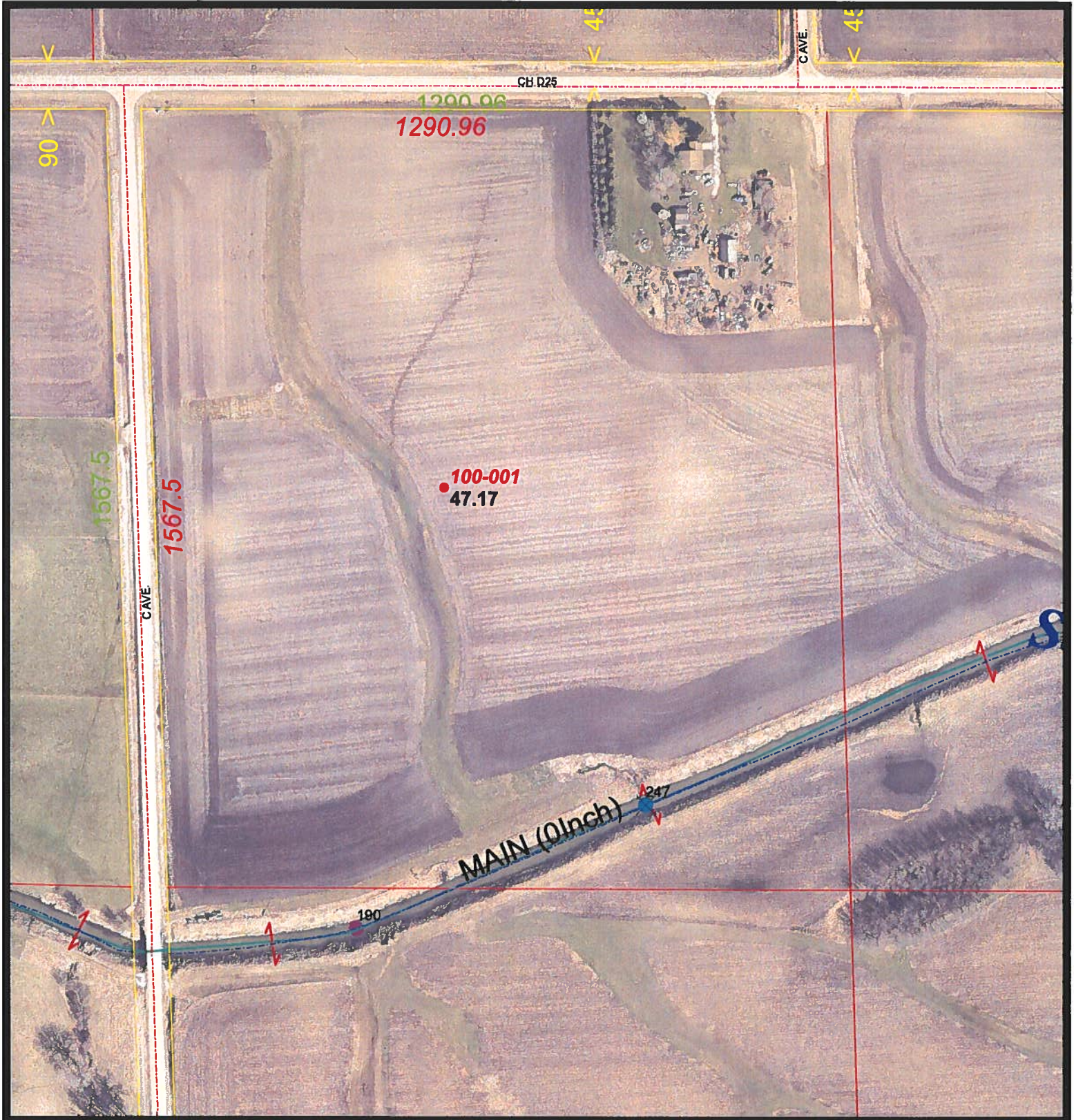
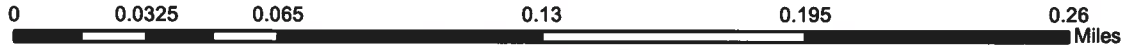
Approved: _____ **Date:** _____



Hardin County Auditor's Office



Date: 4/22/2019



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 District:

Big 4

Investigation/Repair Summary:

- Contractor in the area reported a washout in the south bank of the Big 4 Main open ditch in the NW¼ NW¼ Section 5, Township 88 North, Range 22 West.
- Due to the surrounding topography directing water towards the washout, a surface drain was decided upon for the washout repair.
- Washout area was graded and a 36-inch CMP surface drain tile with anti-seep collar installed.
- Backfilling and grading of the bank repair was completed while CGA was not on-site. When observation of the completed work was conducted, it was found that the CMP surface drain was dented during installation of the backfill.
- Damaged 36-inch CMP surface drain was replaced and backfill and grading completed by contractor while CGA was not on-site. Observation of the work completed found the CMP surface drain in good working order, but the grading around said surface drain was found to possibly be in need of a final dress, and the grass seeding possibly in need of additional coverage. These items were likely not completed due to poor construction conditions (wet) at the time.

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

See attached Tabulated Contractor Time and Materials Sheet. Note, some work was completed without CGA on site.

Additional Actions Recommended:

Contractor should be contacted to complete, a final dressing of the grading, and additional seeding with a CGA observer on site.



Tabulated Contractor Time and Materials

Date	Totals	5/16/2019
Workman (hrs)	3	3
Excavator (hrs)	1	1
36" CMP Surface Drain (ft)	40	40
Anti-Seep collar (ea.)	1	1

CONSTRUCTION ENGINEERING
OBSERVATION REPORT

DATE:

5/13/19

PROJECT NUMBER:

~~02002~~ 5734.1

DAYS OF WEEK:

S M T W T F S

COUNTY, ROUTE, ROAD:

C AVE

SHEET NO.

1 OF 1

LOCATION:

Big 4 open ditch

DESCRIPTION OF WORK AND MATERIAL USED FOR EACH OPERATION, INCLUDING CONTRACTOR/SUB NAME, ITEM NO. AND LOCATION

Sunny, 65°, CALM

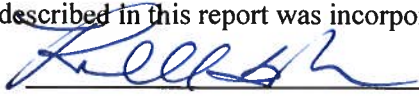
~~WALKED IN, TOOK PICS OF FINISHED "LET DOWN" STRUCTURE AND FINISH~~
~~GRAVING DONE, ALSO WALKED TO EXTRA SURF. DRAIN TO BE INSTALLED TO EAST.~~
SOME GRAVING DONE PRELIMINARILY FOR 36" CMP. CMP IS ON SITE. 14 GAUGE GALV., NO ANTI SEEP COUPLER ON SITE.

5/20/18; Sunny, 50°, DRYING CONDITIONS, BIG 4 DITCH IS 1/2 FULL (HIGH).

MAT BRIAN HANDBACKER @ CMP SURF. DRAIN REPAIR W. OF C. AVE. WENT OVER DETAILS OF SETTING NEW CMP W. OF OLDER EXISTING CMP, GENERATING CURT FOR BACKFILL @ INLET OF CMP. WATER IS GOING DOWN, HE WILL ~~BE~~ CALL WHEN EXCAVATION STARTS.

I Certify that the work described in this report was incorporated into this contract unless otherwise noted.

Observer's Signature:



Date Prepared:

5/13/19

Reviewed by:

Engineer

Date Reviewed





CONSTRUCTION ENGINEERING
OBSERVATION REPORT

DATE:

2019-5-16

DAYS OF WEEK:

S	M	T	W	X	F	S
---	---	---	---	---	---	---

SHEET NO.

1 OF 1

PROJECT NUMBER:

5734.1

COUNTY, ROUTE, ROAD:

Big 4 mail

LOCATION:

DESCRIPTION OF WORK AND MATERIAL USED FOR EACH OPERATION, INCLUDING CONTRACTOR/SUB NAME, ITEM NO. AND LOCATION

72° - Sunny - windy

9:00am - arrived on site - 3 men & excavated

9:40am - sit in surface drain with antiseep collar 1/3 away from inlet side

9:45am - Left site - crew still need to backfill around pipe.

I Certify that the work described in this report was incorporated into this contract unless otherwise noted.

Observer's Signature:

Date Prepared:

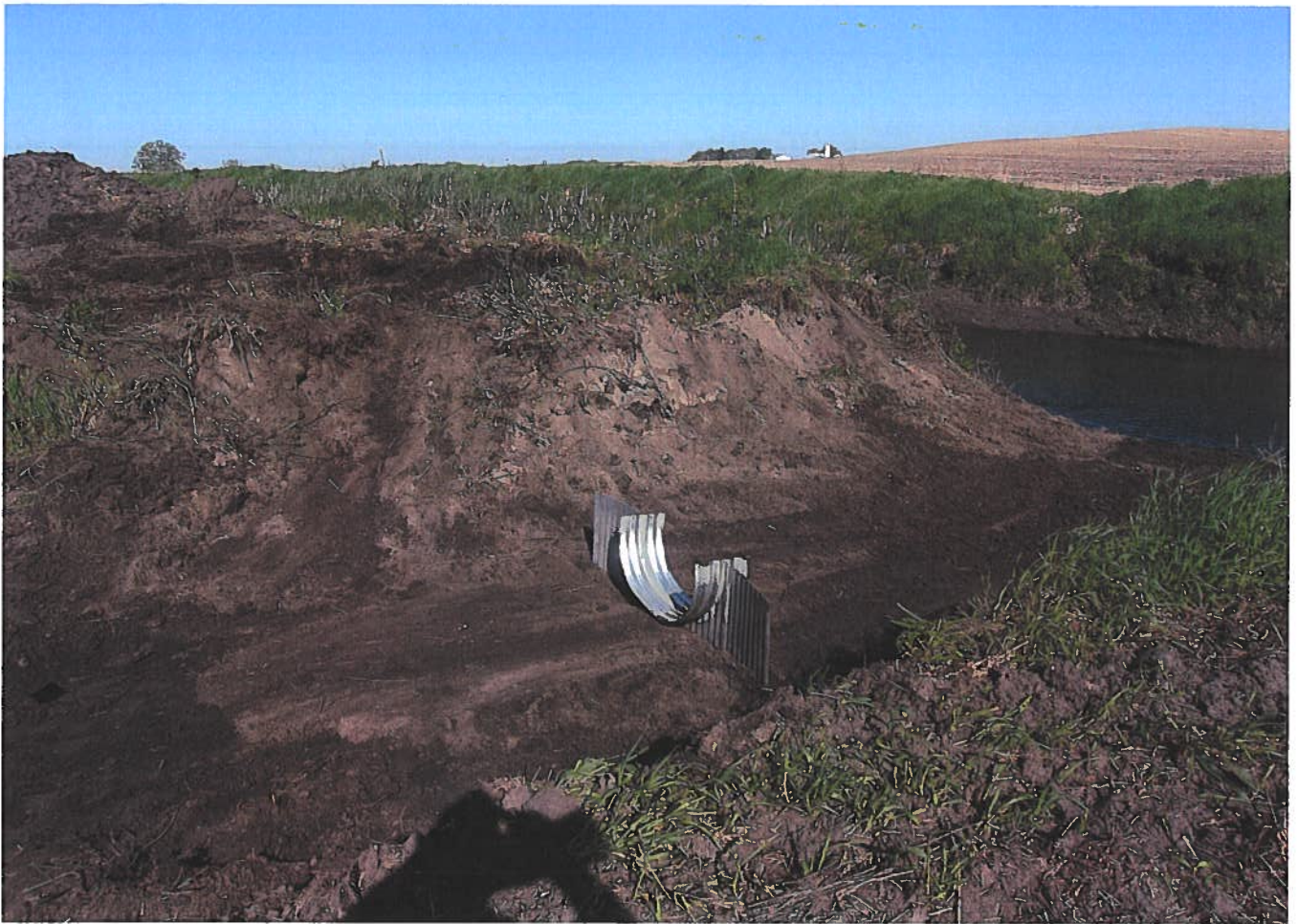
5-17-2019

Reviewed by:

Engineer

Date Reviewed _____





CONSTRUCTION ENGINEERING
OBSERVATION REPORT

DATE:

2019-8-5

PROJECT NUMBER:

5734.1

COUNTY, ROUTE, ROAD:

Big Y

LOCATION:

C AVE

DAYS OF WEEK:

S	M	T	W	T	F	S
---	---	---	---	---	---	---

SHEET NO.

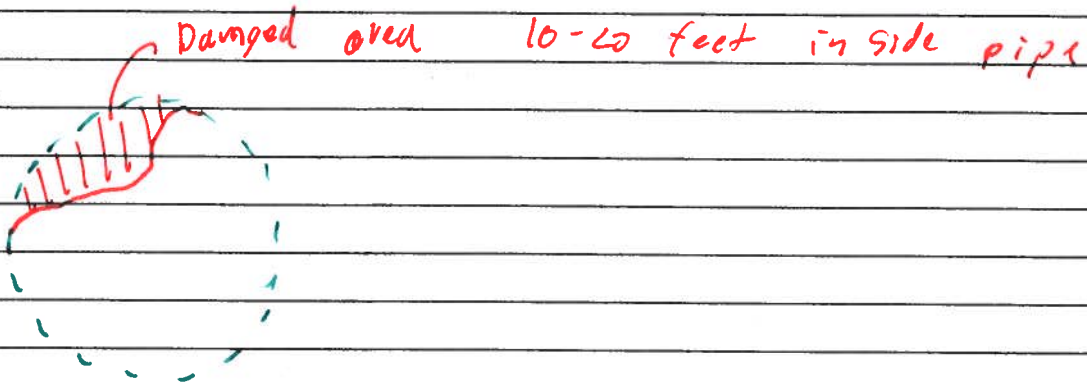
1 OF 1

DESCRIPTION OF WORK AND MATERIAL USED FOR EACH OPERATION, INCLUDING CONTRACTOR/SUB NAME, ITEM NO. AND LOCATION

1:00 - went to check on Backfill.

- pipe was backfilled & seeded

- pipe is damaged on inside (see photos)



515-291-2918

Area #

South side

36"

I Certify that the work described in this report was incorporated into this contract unless otherwise noted.

Observer's Signature:

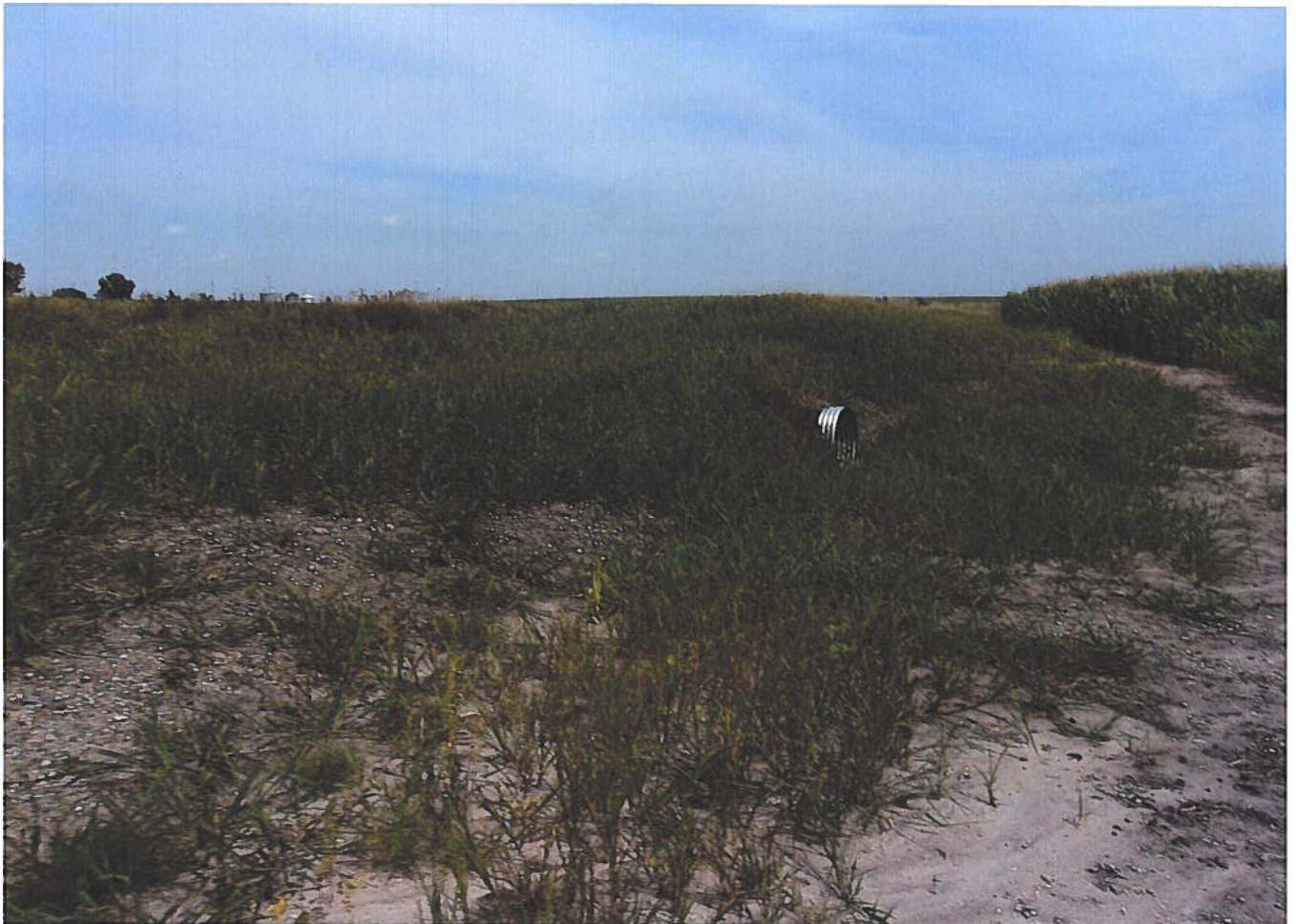
Date Prepared:

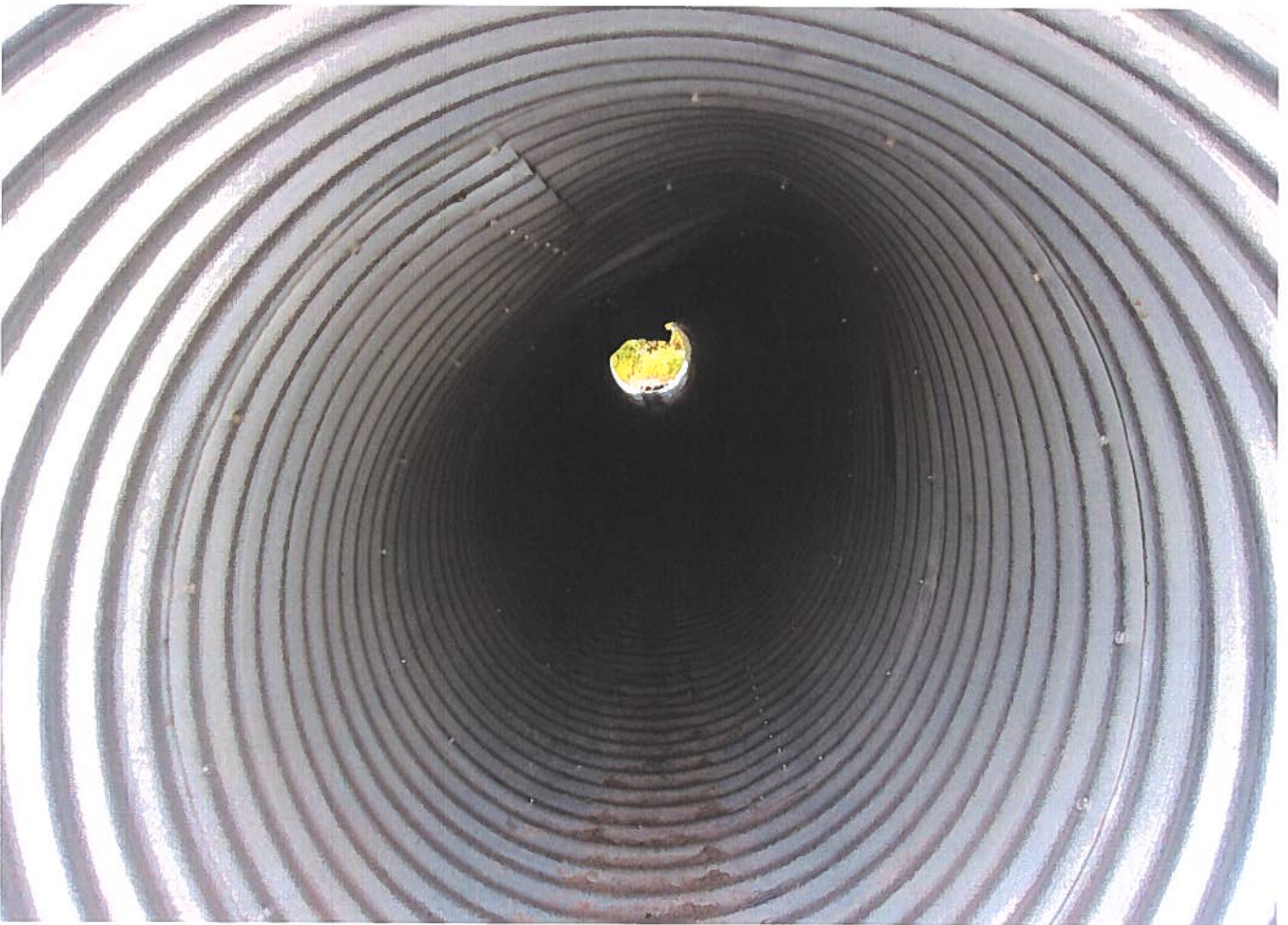
2019-08-05

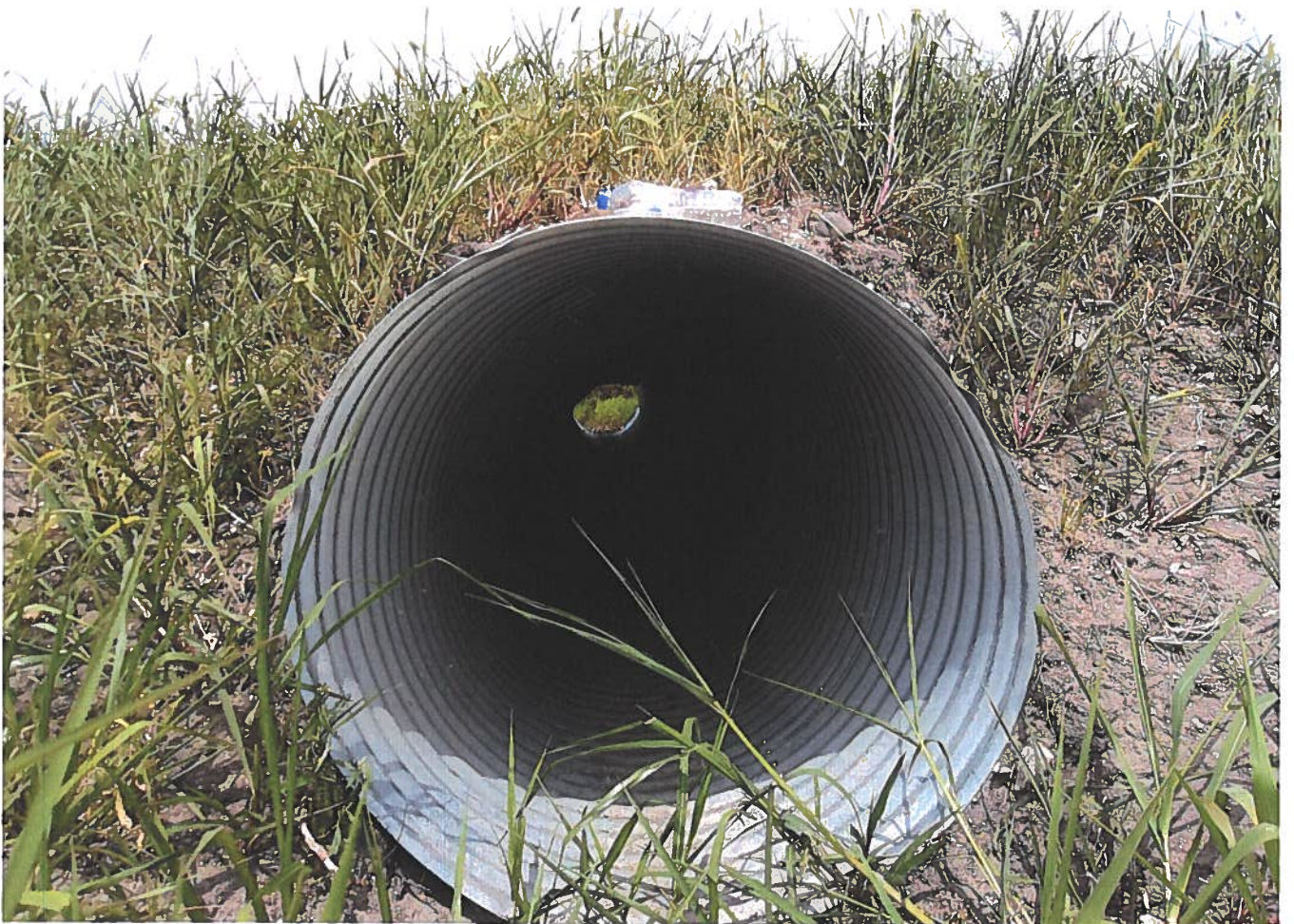
Reviewed by:

Engineer

Date Reviewed _____







CONSTRUCTION ENGINEERING
OBSERVATION REPORT

DATE:

3-25-20

DAYS OF WEEK:

S M T **W** T F S

SHEET NO.

1 OF

PROJECT NUMBER:

5734.1

COUNTY, ROUTE, ROAD:

D-25 and C Ave

LOCATION:

Hardin County Big Four D.R.

DESCRIPTION OF WORK AND MATERIAL USED FOR EACH OPERATION, INCLUDING CONTRACTOR/SUB NAME, ITEM NO. AND LOCATION

10:26 a.m. = Arrived at job site. weather = cloudy, patchy drizzle, temperatures = 40's

Per phone call to Brian Handsaker he reported location and size of surface drain to Field Observer.

Surface drain is a 36" CMP, East of C Avenue and on South side of Drainage Ditch. North of clump of trees.

Walked out to surface drain replacement. 36" CMP, 40.5' long with no apron or rip rap around inlet or outlet. Water is flowing through CMP. Area at top of berm and around inlet could use some additional grading and seeding after soils have dried. Current soil conditions too wet to shape or seed.

12:00 p.m. = Returned to office.

I Certify that the work described in this report was incorporated into this contract unless otherwise noted.

Observer's Signature:

James Van Horne

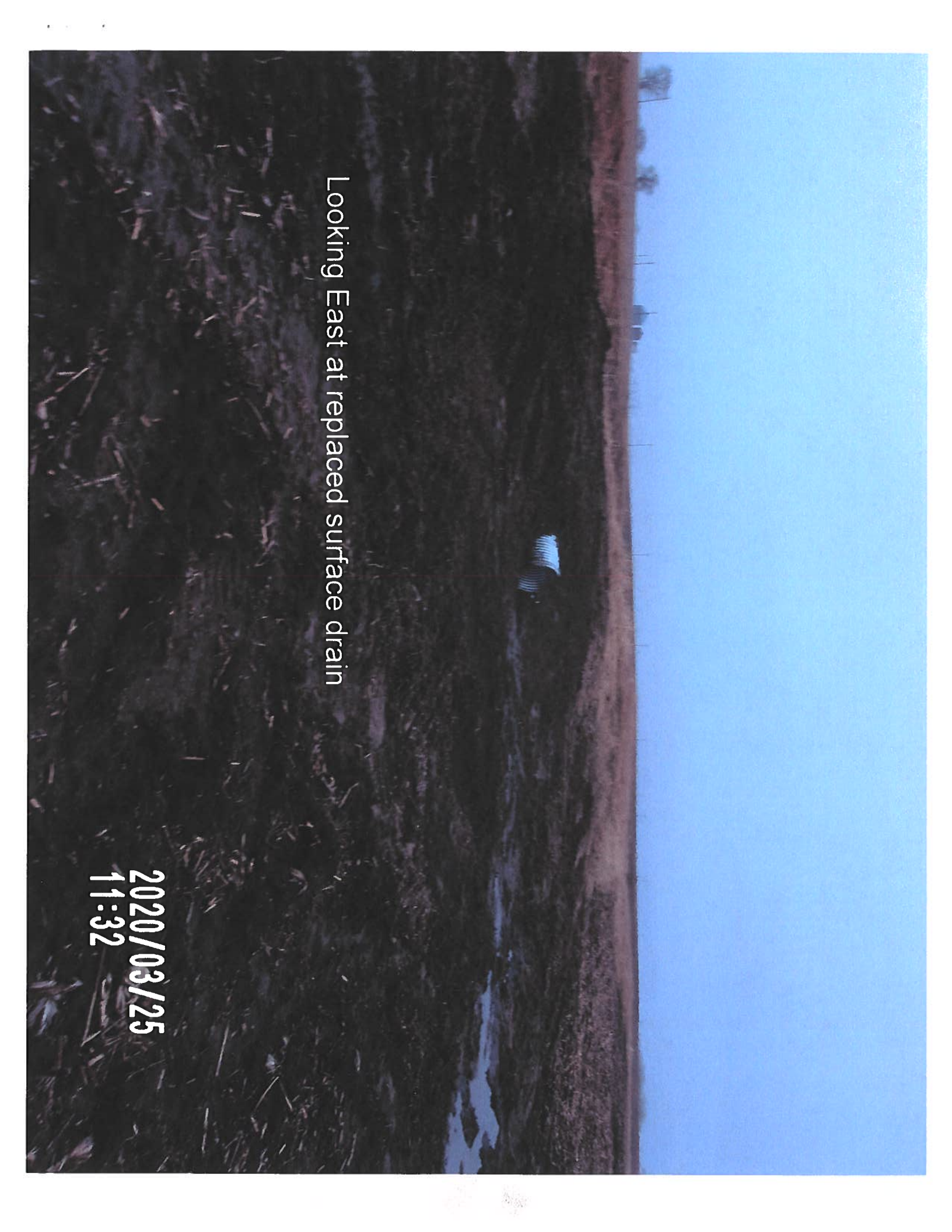
Date Prepared:

3-25-20

Reviewed by:

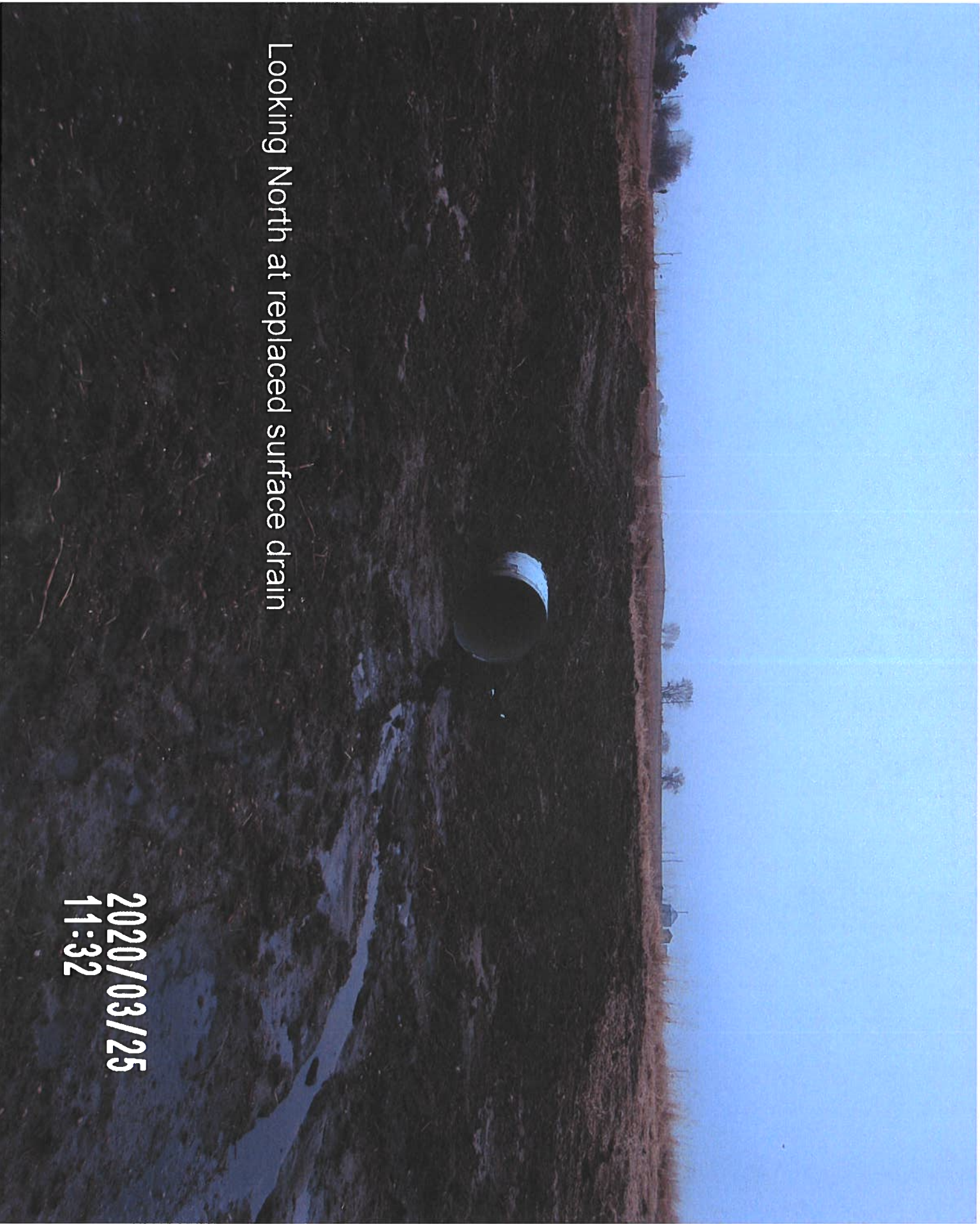
Engineer

Date Reviewed

A landscape photograph showing a field with a corrugated metal pipe protruding from the ground. The sky is clear and blue. The field is dark and appears to be a mix of soil and some sparse vegetation. The pipe is a light-colored, corrugated metal, and it is positioned in the middle ground. The background shows a flat horizon line with some distant trees and a utility pole.

Looking East at replaced surface drain

2020/03/25
11:32

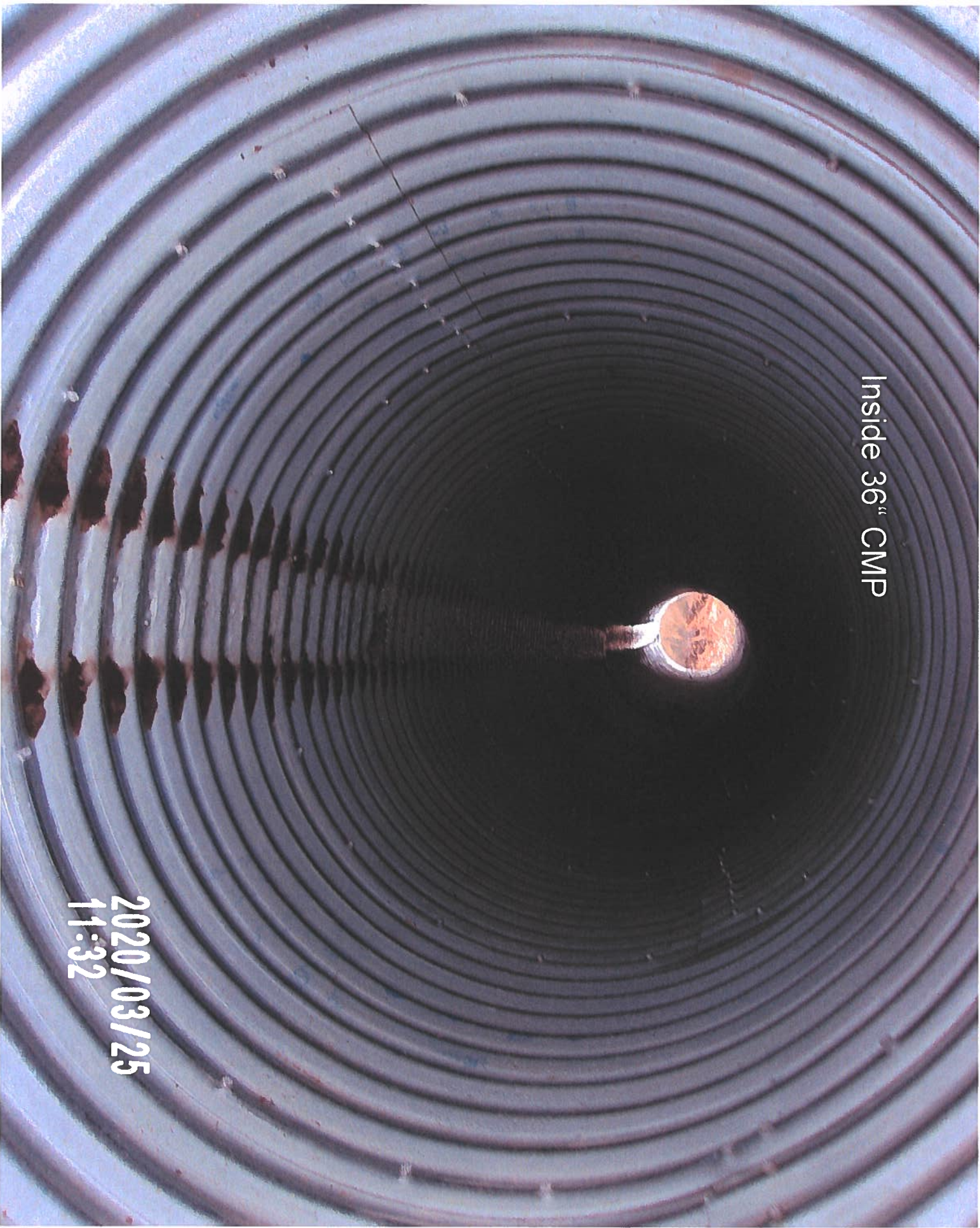


Looking North at replaced surface drain

2020/03/25
11:32

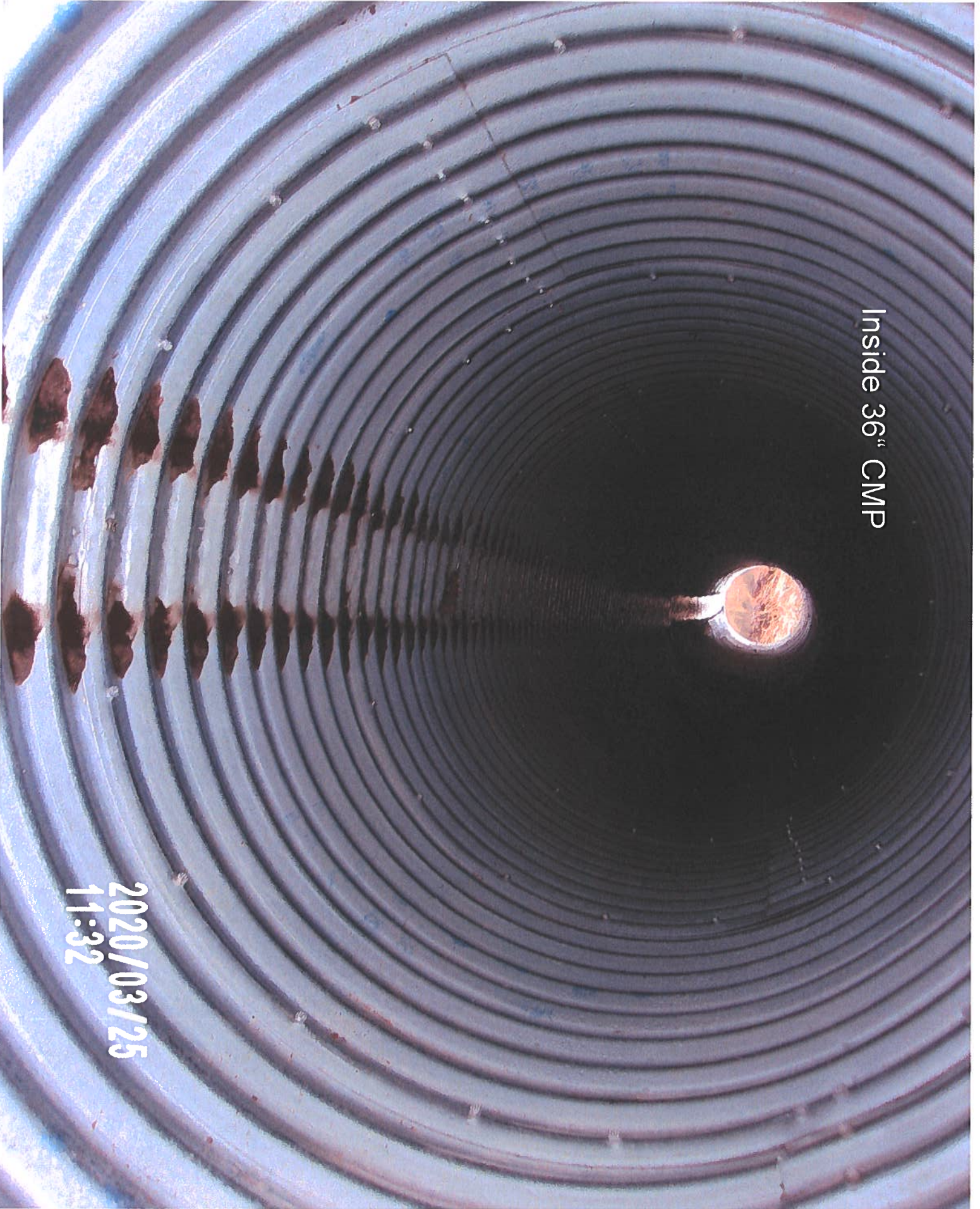
Inside 36" CMP

2020/03/25
11:32



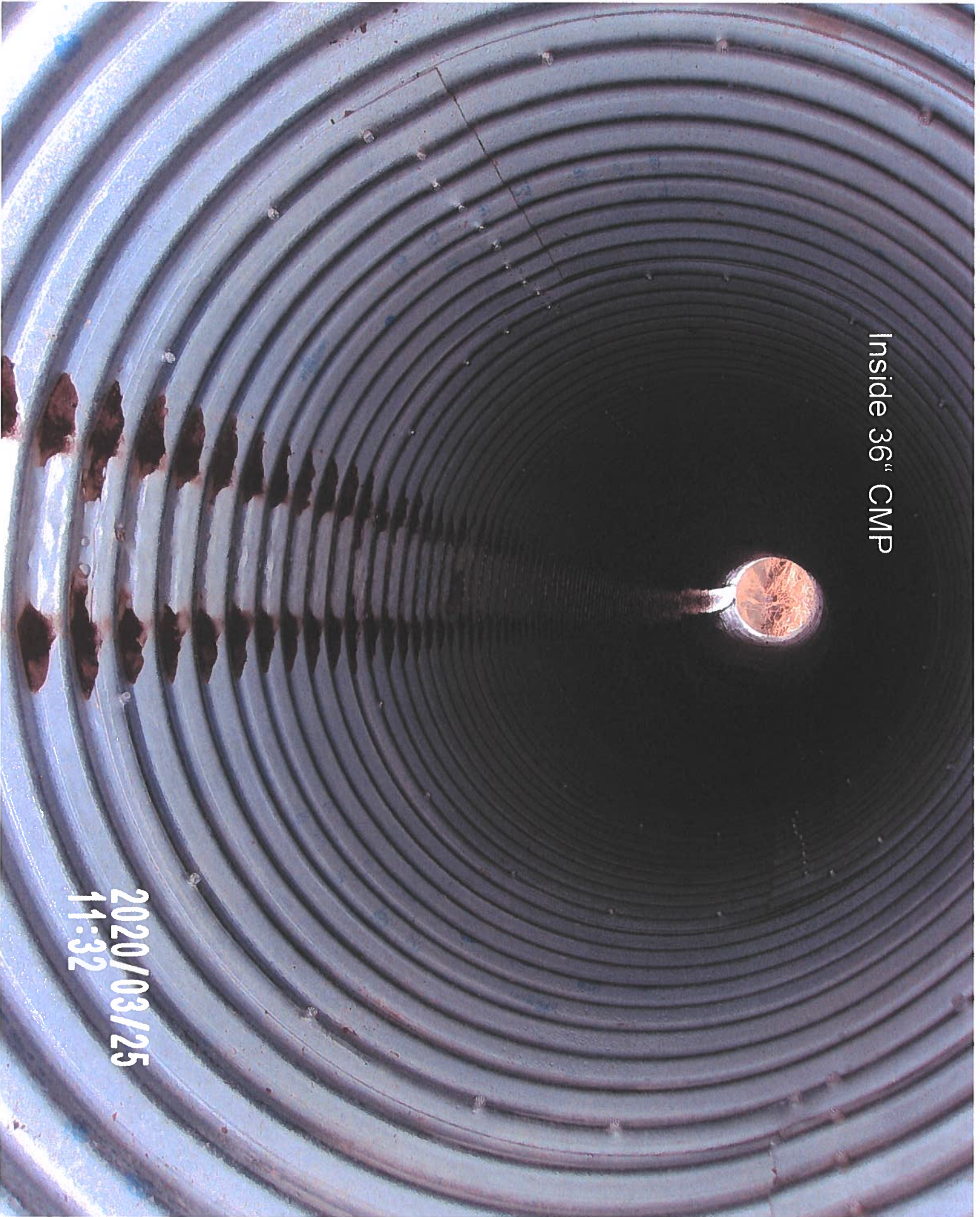
Inside 36" CMP

2020/03/25
11:32



Inside 36" CMP

2020/03/25
11:32



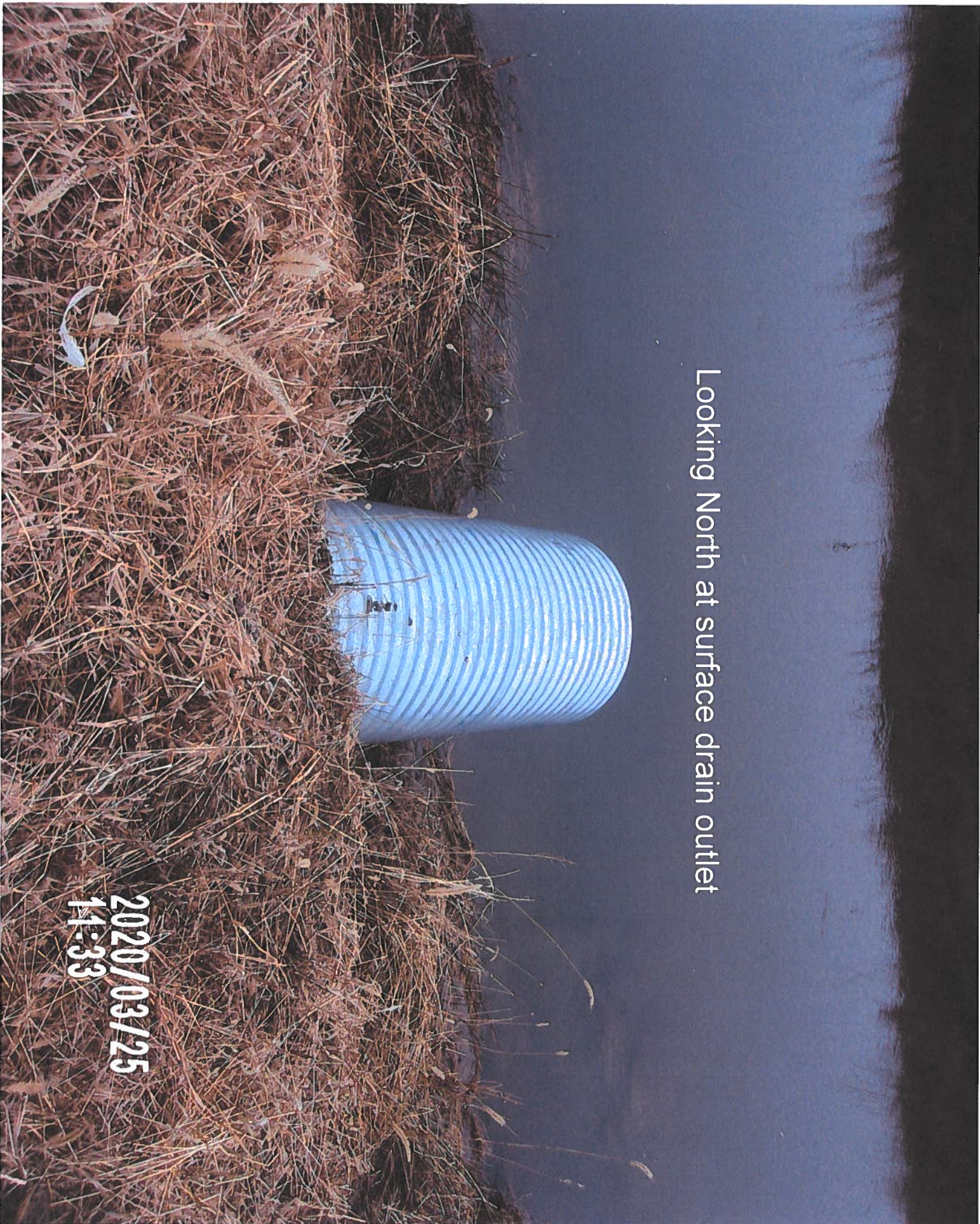


Looking Northwest at surface drain outlet

2020/03/25
11:33

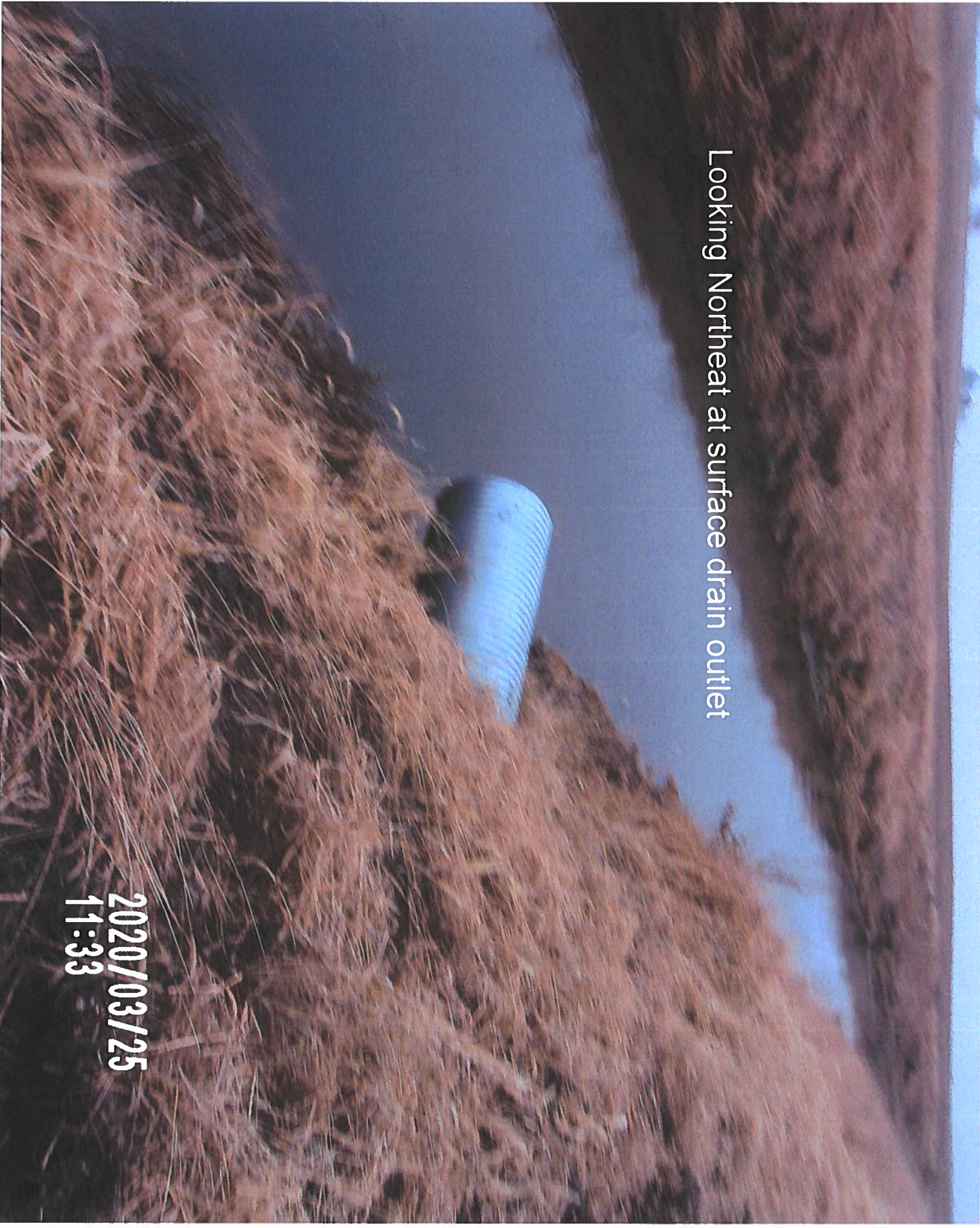
Looking North at surface drain outlet

2020/03/25
11:33



Looking Northeast at surface drain outlet

2020/03/25
11:33





Looking Southeast at inlet of surface drain

2020/03/25
11:33



Drainage Work Order Request For Repair

Hardin County

Date: 12/9/2019

Work Order #: WO00000281

Drainage District: DDs\DD 118-232D2 (51226)

Sec-Twp-Rge: 32-89-22 **Qtr Sec:** NW 1/4

Location/GIS: 89-22-32-400-003

Requested By: Sterling Renaud

Contact Phone: (515) 689-8661

Contact Email: _____

Landowner (if different): Burton, Floyd

Description: DD 118-232 Dv2- Sterling Renaud reports plugged tile outlet on east side of AA Ave, just north of County Hwy D25, about 4 telephone poles north of D25 on east side of AA Ave. nearest parcel is 892232400003. Tile outlet is plugged with dirt/debris and has no flow. Tile outlet is in ditch and has been flagged by Sterling. Map reflects tile has road crossing at this location, so not sure if this is a tile outlet or a tile blowout.

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:** _____

Drainage District:

#118-232, Branches 2CA and 2B5

Repair Summary:

- Per the recommended actions of the investigation summary, began repair by excavating in the west ditch of AA Avenue (SE¼ SW¼ Section 32, Township 89 North, Range 22 West) where the 15-inch beehive intake improperly connected to Branch 2CA was found to be completely full of soil and very little space for water to drain.
- Removed soil from the concrete intake and made a larger drain hole in the underlying 8-inch Branch 2CA concrete tile so that water can freely drain from the structure. Within said tile, water was found to be flowing freely. The surrounding road ditch was also graded to provide positive drainage towards the intake.
- Moving south (toward Hwy D25), excavated at the blowouts/sinkholes immediately adjacent to the 24-inch beehive intake on the Branch 2B5 tile. Upon excavation it was revealed that the 8-inch VCP tile between the 24-inch concrete inlet and the 8-inch Branch 2B5 CMP tile (further downstream) was broken. Also found in the same excavation was a poor connection between a private 6-inch tile and the 8-inch CMP Branch 2B5 tile.
- Removed the beehive intake and repaired with an 8-inch Hickenbottom intake, 8-inch single wall HDPE, internal snap coupler, full concrete collar, and rock bedding and backfill.
- Repaired connection of private tile to the Branch 2B5 tile with a ¾ concrete collar.
- Excavations were then filled with on-site soil, and surrounding road ditch was graded to provide positive drainage slope towards the intake.
- The two other blowouts/sinkholes reported on the south Side of County Highway D25 were found to have been created by burrowing animals, and not due to tile breaks.

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

See attached Tabulated Contractor Time and Materials Sheet.

Additional Actions Recommended:

- More grading and cleanout needs to be completed in the road ditches of AA Avenue to provide positive drainage slope towards the intakes repaired in this Work Order. This includes the east road ditch of AA Avenue, where soil is partially limiting flow to the 36-inch culvert that drains towards the southernmost intake. Secondary Roads should be contacted to complete said grading.
- Secondary roads should also be contacted to complete grass seeding in the areas repaired.



Tabulated Contractor Time and Materials

Date	Totals	6/15/2020	6/16/2020
Workman (hrs)	30 1/2	22 1/4	8 1/4
Mini Excavator (hrs)	11 1/4	8 1/2	2 3/4
Skidloader (hrs)	11 1/4	8 1/2	2 3/4
1" Clean Bedding Rock	Yes		
Concrete Collars	Yes		
Hickenbottom Intake (ea)	1	1	
8" Single Wall HDPE Tile (ft)	4 1/2	4 1/2	
8" HDPE Snap Coupler (ea)	2	2	

CONSTRUCTION ENGINEERING
OBSERVATION REPORT

DATE:

06/03/2020

PROJECT NUMBER:

HARDIN DD WO # 281
8778.1 / DD # 118-232

DAYS OF WEEK:

S M T **W** T F S

COUNTY, ROUTE, ROAD:

WEST DITCH, AA AVE
656' E 1312' NORTH OF COMWY D25

SHEET NO.

1 OF 1

LOCATION:

SE 1/4 SW 1/4 32-89-22 HARDIN
REPAIR BLOWOUT / PLUS ON BRANCH 2B

MID 30'S TO LOW 60'S
SUNNY AND WINDY

JOB # 8778 hh 118-232 SURVEY

DESCRIPTION OF WORK AND MATERIAL USED FOR EACH OPERATION, INCLUDING CONTRACTOR/SUB NAME, ITEM NO. AND LOCATION

7:30 A.M. ADAM CALLED OBSERVER THINKING IT WAS ANOTHER SURFACE DRAIN ISSUE. OBSERVER INFORMED HIM THAT THIS PROJECT WAS A TILE BLOWOUT SOUTH OF BEEHIVE INTAKE & ALSO INVESTIGATE SMALL BLOWOUTS EAST OF 3576 COMWY D25 ACREAGE DRIVE (HAMILTON COUNTY).

7:45 A.M. ADAM CONTACTED STERLING RENAUD AND TOLD ADAM THAT HE DOES NOT WANT ANY BODY IN SEED CORN FIELD. WILL HAVE TO WAIT TILL FALL IF REPAIR ENDS UP IN FIELD. ADAM ALSO ADVISES THAT HIS LOCATES ARE NOT READY YET EITHER BUT MAY LOOK AT REPAIR TO FIGURE WHAT NEEDS DONE.

7:50 A.M. OBSERVER TALKED TO LEE ABOUT ADAMS LOCATES NOT BEING DONE AND STERLING RENAUD NOT WANTING ANY BODY IN SEED CORN FIELD WHEN DOING REPAIR. LEE SAID HE WOULD TALK TO STERLING ABOUT IT.

06/04/2020 OBSERVER CALLED ADAM AND HE IS WAITING TILL 06/05/2020 TO GO UP TO REPAIR WHEN LOCATES ARE DONE.

06/05/2020 ADAM SAID WITH RAIN OVER NIGHT CREW WILL NOT BE WORKING TODAY AND NEXT WEEK ADAM WILL BE GONE TOO. OBSERVER INFORMED LEE.

I Certify that the work described in this report was incorporated into this contract unless otherwise noted.

Observer's Signature:

Dean Perrin

Date Prepared:

06/03/2020

Reviewed by:

Engineer

Date Reviewed

CONSTRUCTION ENGINEERING
OBSERVATION REPORT

DATE:

06/15/2020

PROJECT NUMBER: HARDIN DD WO # 281
8778.1 / DD# 118-232
COUNTY, ROUTE, ROAD: WEST DITCH AA AVE
656' & 1312' NORTH OF
LOCATION: SE 1/4 SW 1/4 32-89-22 HARDIN
REPAIR BLOWOUT / PLUG ON BRANCH 2B

DAYS OF WEEK:

S M T W T F S

SHEET NO.

1 OF 4

SUNNY MID 60'S TO MID 80'S
& BREEZY

JOB# 8778 hh 118-232 SURVEY

DESCRIPTION OF WORK AND MATERIAL USED FOR EACH OPERATION, INCLUDING CONTRACTOR/SUB NAME, ITEM NO. AND LOCATION 06/13/2020 ADAM TEXT OBSERVER IF WEATHER STAYS GOOD PLAN ON WORKING ON THIS JOB ON 06/15/2020.

7:05 A.M. LEE SENT TEXT THAT ADAM WOULD BE WORKING ON THIS PROJECT AND WOULD NOT BE ON SITE UNTIL 9:00 A.M.

8:10 A.M. OBSERVER HAD FILE AND EQUIPMENT LOADED UP FOR TILE REPAIR.

8:45 A.M. OBSERVER ARRIVED ON SITE AT STOPPED AT REPAIR LOCATION WITH CREW NOT ON SITE YET.

8:54 A.M. PICTURE # 3736 & 9:15 A.M. PICTURE # 3737 SEE PICTURE FOR DETAILS.

9:00 A.M. OBSERVER SET GPS BASE ON GPS # 10002 3/4" Ø IRON ROD 0.5' Ø IN NW CORNER OF 1ST FIELD ON EAST SIDE OF LA AVENUE SOUTH OF CO HWY 025.

9:30 A.M. CREW ARRIVED ON WITH ADAM, PERRY, AND CARSON ON SITE WITH KOLBELLO SK85CS MIN EXCAVATOR AND CAT 299D XHP TRACKED SKIDLOADER ON SITE FOR EQUIPMENT

9:30 A.M. OBSERVER CHECKED INTO GPS # 1082 MAC NAIL FLUSH IN ALL WITH HORIZONTAL POSITION CHECKING GOOD & VERTICAL POSITION WITHIN REASON SHOWING Fx 0.04'

9:50 A.M. CREW STARTED EXCAVATING AT 15" BEEHIVE INTAKE WITH BEEHIVE COMPLETELY FULL OF SOIL. SHOT N RIM GPS # 1200.

10:32 A.M. PICTURE # 3738 & 10:50 A.M. PICTURE # 3739 SEE PICTURE FOR DETAILS

10:50 A.M. PICTURE # 3740 & 11:02 A.M. PICTURE # 3741 SEE PICTURE FOR DETAILS.

11:00 A.M. ADAM AND CARSON HEADING TO INVESTIGATE 24" BEEHIVE INTAKE IN WEST DITCH OF AA AVE 656' ± NORTH OF CO HWY 025 WHILE PERRY GRADES BOTTOM OF DITCH TO BEEHIVE INTAKE WITH SKIDLOADER.

11:19 A.M. PICTURE # 3742 & PICTURE # 3743 SEE PICTURE FOR DETAILS.

11:33 A.M. PICTURE # 3744, 11:37 A.M. PICTURE # 3745 & 11:43 A.M. PICTURE # 3746 SEE PICTURE FOR DETAILS.

I Certify that the work described in this report was incorporated into this contract unless otherwise noted.
Observer's Signature: Dean Penning Date Prepared: 06/15/2020
Reviewed by: _____ Engineer Date Reviewed: _____

CONSTRUCTION ENGINEERING
OBSERVATION REPORT

DATE:

06/15/2020

PROJECT NUMBER:

HARDIN DD WO # 281

DAYS OF WEEK:

S M T W T F S

COUNTY, ROUTE, ROAD:

8778-1/00#118-232
WEST DITCH OF RR AVE
656'± & 1312'± NORTH OF HWY D-25

SHEET NO.

2 OF 4

LOCATION:

SE 1/4 SW 1/4 32-89-22 HARDIN

SUNNY MID 60'S TO MID 80'S
& BREEZY
JOB # 8778 HW 118-232 SURVEY

REPAIR BLOWOUT / PLUG ON BRANCH 2B

DESCRIPTION OF WORK AND MATERIAL USED FOR EACH OPERATION, INCLUDING CONTRACTOR/SUB NAME, ITEM NO. AND LOCATION

11:20 A.M. PERRY WAS DONE GRADING DITCH @ BEEHIVE INTAKE 1312'± NORTH OF D-25 AND NOW WITH OTHER CREW.

11:40 A.M. PERRY LEFT SITE TO GET SOME SUPPLIES.

11:43 A.M. PICTURE # 3746 SEE PICTURE FOR DETAILS.

12:11 P.M. PICTURE # 3747 SEE PICTURE FOR DETAILS.

12:15 P.M. AFTER TALKING TO LEE, DECIDED TO INSTALL 8" HDPE TILE WITH HOPE TEE FOR 6" SPIRAL CMP TILE TO TIE INTO.

12:16 P.M. ADAM ASKED OBSERVER IF CREW COULD JUST INSTALL 8" HOPE TEE & HICKEN BOTTOM INTAKE ON END OF 8" CMP SPIRAL AND USE JUST SAME 6" TO 8" CMP SPIRAL CONNECTION WITH CONCRETE COLLAR POURED AROUND IT. LEE SAID THAT WOULD WORK.

12:18 P.M. PICTURE # 3748, 12:32 P.M. PICTURE # 3749, PICTURE # 3750, & PICTURE # 3751 SEE PICTURE FOR DETAILS.

12:50 P.M. CREW STOPPED FOR LUNCH. OBSERVER HEADED TO CHECK ON 2 SMALL BLOWOUTS EAST OF 3575 HWY D25 DRIVE & SOUTH SIDE OF CO HWY D25, ONLY THING OBSERVER COULD FIND WAS HOLES FROM ANIMAL DIGGING (SOIL PILE IN FRONT OF HOLE)

1:12 P.M. PICTURE # 3752 & PICTURE # 3753 SEE PICTURE FOR DETAILS.

1:40 P.M. PERRY BACK ON SITE WITH BAGS OF CONCRETE CREW ALSO ON SITE AND WILL CHECK ON SMALL HOLE EAST OF DRIVE. CREW EXCAVATE HOLE DOWN AND THINK THEY ARE ANIMAL HOLES TOO (DITCH HAS NUMEROUS OTHER ANIMAL HOLES TOO).

2:40 P.M. ADAM CALLED GEHRKES WHO HAVE AN 8" HICKEN BOTTOM

I Certify that the work described in this report was incorporated into this contract unless otherwise noted.

Observer's Signature:

Dean Penning

Date Prepared:

06/15/2020

Reviewed by:

Engineer

Date Reviewed

CONSTRUCTION ENGINEERING
OBSERVATION REPORT

DATE:

06/15/2020

PROJECT NUMBER:

HARDIN DD WO # 281

DAYS OF WEEK:

S M T W T F S

COUNTY, ROUTE, ROAD:

8778.1/OD#118-232

SHEET NO.

3 OF 4

LOCATION:

SE 1/4 SW 1/4 32-89-22 HARDIN

REPAIR BLOWOUT / PLUG ON BRANCH 2B

SUNNY MID 60'S TO MID 80'S

& BREEZY

JOB # 8778 HW/118-232 SURVEY

DESCRIPTION OF WORK AND MATERIAL USED FOR EACH OPERATION, INCLUDING CONTRACTOR/SUB NAME, ITEM NO. AND LOCATION

INTAKE ON HAND. PERRY LEFT SITE TO

GET 8" HICKENBOTTOM, INTAKE & MORE BAGS OF CONCRETE.

3:32 P.M. PICTURE # 3754 SEE PICTURE FOR DETAILS.

4:35 P.M. PERRY BACK ON SITE WITH 8" HICKENBOTTOM & MORE BAGS OF CONCRETE. GEHRKES DID NOT HAVE 8" TEE AND BROUGHT BACK 8" HDPE SW PERF TILE. OBSERVER TOLD CREW THAT IT SHOULD BE DW HDPE TILE. CREW WILL HAVE TO ENCASE IT IN CONCRETE ALONG WITH 6" SPIRAL CAP TO 8" SPIRAL CAP TIE IN.

4:52 P.M. PICTURE # 3755 & 4:53 P.M. PICTURE # 3756 SEE PICTURE FOR DETAILS.

5:15 P.M. CREW STARTED MIXING UP CONCRETE FOR COLLAR & ENCASEMENT.

5:16 P.M. PICTURE # 3757 & PICTURE # 3758 SEE PICTURE FOR DETAILS.

5:40 P.M. PICTURE # 3759 & 5:41 P.M. PICTURE # 3761 SEE PICTURE FOR DETAILS.

6:35 P.M. CREW RAN OUT OF CONCRETE WHILE POURING COLLARS

6:36 P.M. PICTURE # 3763 SEE PICTURE FOR DETAILS.

6:50 P.M. OBSERVER AND CREW LEFT SITE.

QUANTITIES

PERRY 5 1/6 HRS

KOLBELCO SK 85CS MINI EXCAVATOR 8 1/2 HRS

ADAM 8 1/2 HRS

CAT 2999 XHP TRACKED SKIDLOADER 8 1/2 HRS

CARSON 8 1/2 HRS

GENERATOR & CONCRETE MIXER 1 1/4 HRS

3FT HICKENBOTTOM TOP WITH 1" HOLES TILE TAPE

4.5 LF 8" SW HDPE PERF TILE 2- 8" HDPE INTERNAL SNAP COUPLER

20' X 20' ENGINEERING FABRIC 1.0' X 2.0' 1.5 X 2.5 6" X 6" SQUARE WIRE MESH

12-60LB BAGS OF ALL STAR CONCRETE 12-60LB BAGS OF QUIKRETE HIGH STRENGTH CONCRETE

I Certify that the work described in this report was incorporated into this contract unless otherwise noted.

Observer's Signature:

Dean Penning

Date Prepared:

06/15/2020

Reviewed by:

Engineer

Date Reviewed

CONSTRUCTION ENGINEERING
OBSERVATION REPORT

DATE:

06/15/2020

PROJECT NUMBER:

HARDIN DD WO # 281

DAYS OF WEEK:

S M T W T F S

COUNTY, ROUTE, ROAD:

8778.1/OD#118-232

SHEET NO.

4 OF 4

LOCATION:

SE 1/4 SW 1/4 32-89-22 HARDIN
WEST DITCH OF AA AVE
656' ± & 1312' ± NORTH OF HWY D-25
REPAIR BLOWOUT / PLUG ON BRANCH 2B

SUNNY MID 60'S TO MID 80'S
& BREEZY

DESCRIPTION OF WORK AND MATERIAL USED FOR EACH OPERATION, INCLUDING CONTRACTOR/SUB NAME, ITEM NO. AND LOCATION

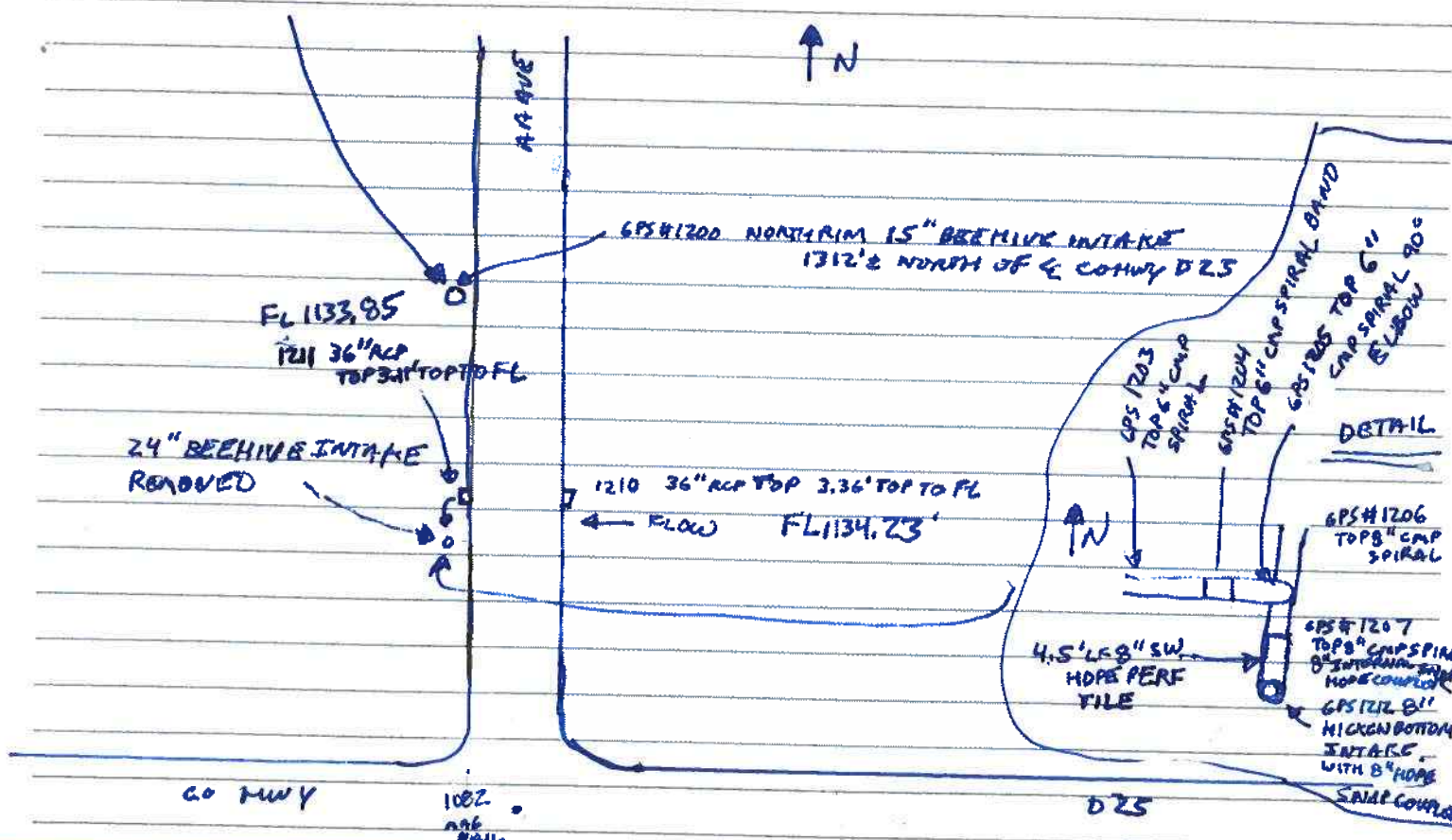
JOB # 8778 AA/118-232 SURVEY



DETAIL 15" Ø BEEHIVE INTAKE 1

2" ⁶⁰⁰⁰ FLOW 8" CONCRETE

ORIGINAL HOLE 1" x 3" NOW 5" x 5" HOLE TO DRAIN WATER



1208.57" HOLE
1209.57" HOLE
NOT SINK HOLE ANIMAL DUNG

I Certify that the work described in this report was incorporated into this contract unless otherwise noted.

Observer's Signature: Dean Penning Date Prepared: 06/15/2020

Reviewed by: _____ Engineer _____ Date Reviewed: _____

Beacon™ Hardin County, IA

Layers - Map Search Comp Search

Log in search



CO HWY D25

CAVE

HARDIN COUNTY

HAMILTON COUNTY

- Legend**
- Quick Links:**
- Property Search
 - View Map
 - Drainage District Search
- Layers:**
- Address
 - Corporate Limits
 - Political Townships
 - Geographic Townships
 - Sections
 - Subdivision Annotation
 - Subdivisions
 - Lot Annotation
 - Lot Lines
 - Road Dimensions
 - Roads
 - Road ROW
 - Railroad Annotation
 - Railroads
 - Railroad ROW
 - Water
 - Parcel Dimensions
 - Parcels
 - Drainage Tiles
 - Drainage Districts
 - Cartography
 - Landuse
 - Soils
 - Enterprise Zones
 - Conservation Property
 - Structures
 - Garden Winds Turbines
 - Airport Protected
 - Airspace Surfaces
 - Two Mile Boundary
 - School Districts
 - Voting Districts
 - LOMR

PICTURE# 3736 IS LOOKING SOUTH AT 24" BEEHIVE INTAKE IN WEST DITCH OF AA AVE 656' ± NORTH OF CO HWY D25 SHOWING BEEHIVE WAS COMPLETELY COVERED WITH CORN STALKS WITH SINKHOLES ON NORTH SIDE OF BEEHIVE INTAKE,



SINKHOLES
NORTH
SIDE OF
BEEHIVE
INTAKE

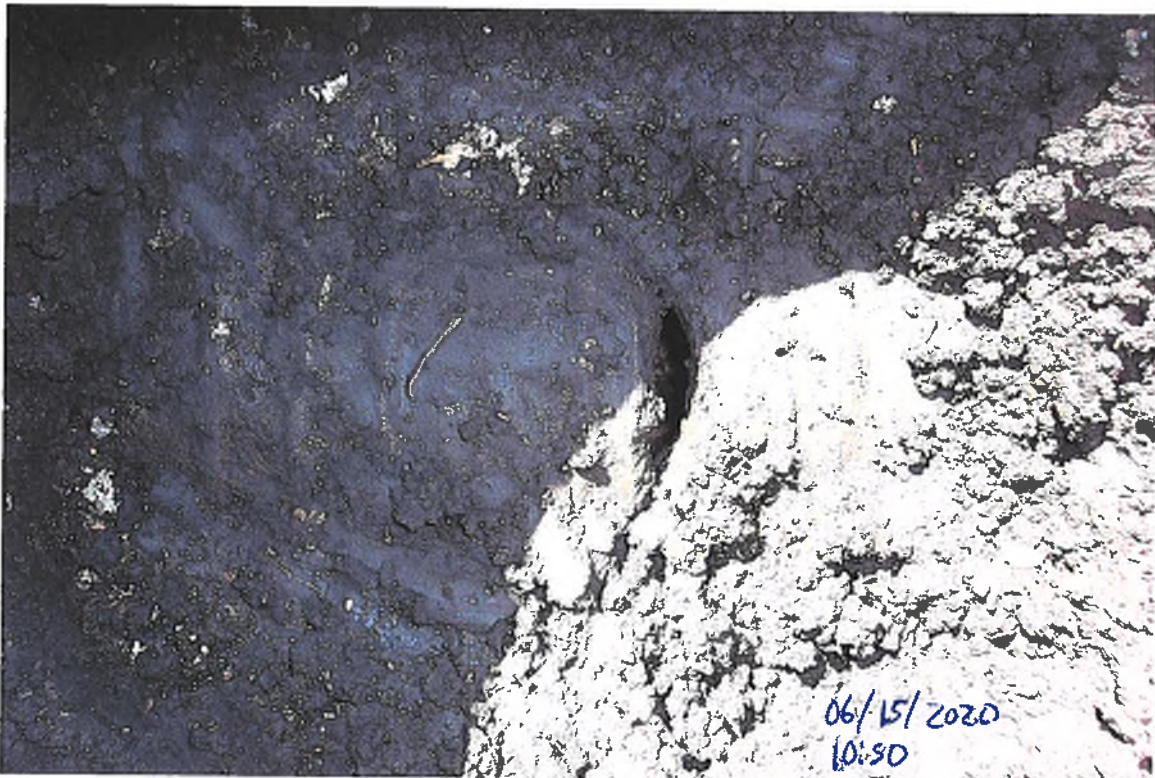


PICTURE# 3737 IS LOOKING SOUTH AT 15" BEEHIVE INTAKE IN WEST DITCH OF AA AVE 1312' ± NORTH OF CO HWY D25 WITH BLOWOAT ON WEST SIDE AT ONE TIME AND NOT DRAINING PROPERLY

PICTURE# 3738 LOOKING SOUTH AT 15" BEEHIVE INTAKE IN WEST
DITCH OF RA#AVE 1312' NORTH OF HWY D 25 COMPLETELY
FULL OF SOIL WITH CREW REMOVING SOIL FROM INSIDE INTAKE



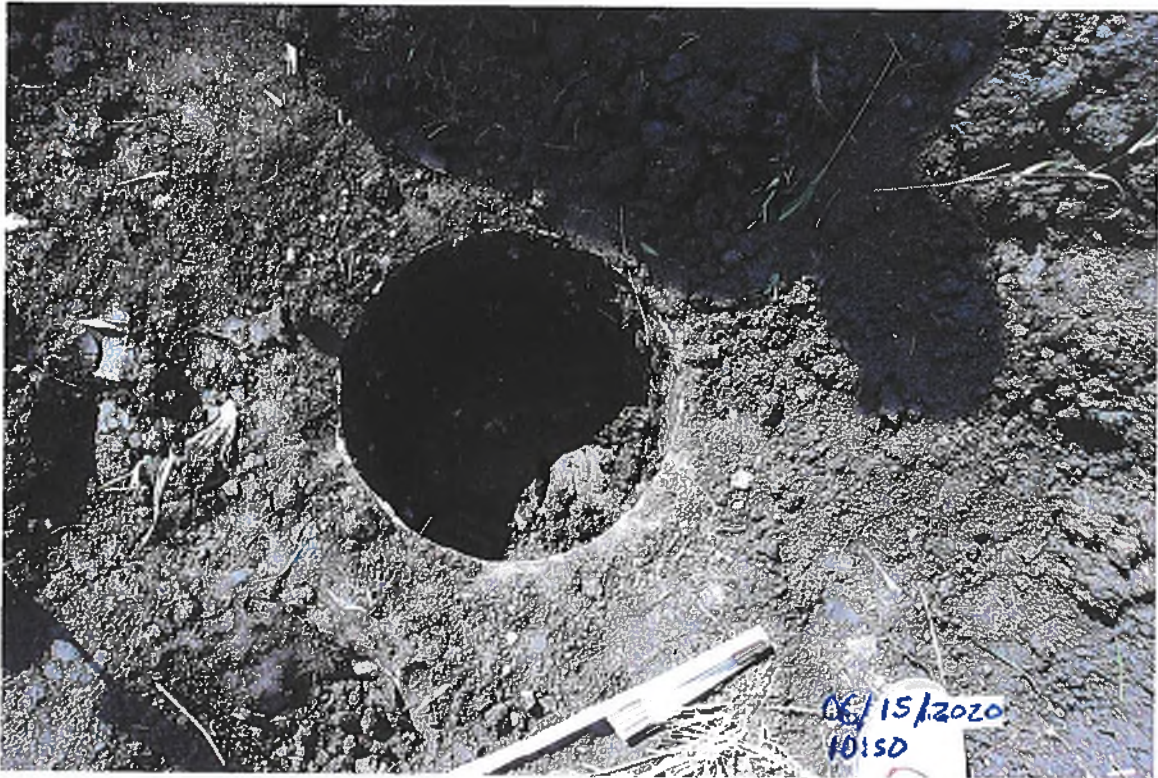
GPS# 1200
N RIM 15"
BEEHIVE



06/15/2020
10:50

PICTURE# 3739 IS LOOKING SE INSIDE 15" BEEHIVE INTAKE
AFTER SOIL REMOVED SHOWING 1" X 3" HOLE IN 8" CONCRETE
TILE RUNNING THROUGH BEEHIVE TO DRAIN WATER.

PICTURE # 3740 IS LOOKING SE AT TOP VIEW OF 15" BEEHIVE INTAKE SHOWING SMALL HOLE IN TILE TO DRAIN WATER THROUGH IN INTAKE.



PICTURE # 3741 IS LOOKING SW INSIDE 15" BEEHIVE INTAKE SHOWING A 5" OPENING IN 8" CONCRETE TILE TO DRAIN INTAKE

PICTURE # 3742 IS LOOKING SOUTH AT 24" BEEHIVE INTAKE WITH TOP OFF AND SINKHOLES ALONG BEEHIVE INTAKE ON NORTH SIDE BEFORE ANY EXCAVATION DONE.



PICTURE # 3743 IS LOOKING NE INSIDE 24" BEEHIVE INTAKE SHOWING A POOR CONNECTION BETWEEN 8" CLAY TILE IN WALL OF BEEHIVE AND 8" SPIRAL CMP OUTLET, APPEARS SOIL HAS BEEN FLOWING THROUGH THE CONNECTION.

PICTURE #3744 IS LOOKING SE SHOWING 6" SPIRAL CMP TILE FROM FIELD TIED INTO 8" SPIRAL CMP OUTLET TILE FOR BEEHIVE INTAKE



PICTURE #3745 IS LOOKING SE SHOWING GAP WHERE 6" SPIRAL CMP 90° OUTLET TIES INTO 8" SPIRAL CMP OUTLET TILE FROM BEEHIVE INTAKE WHERE CONCRETE COLLAR BROKE OUT.

PICTURE # 3746 IS LOOKING NE INSIDE 8" CLAY TILE
INSIDE BEEHIVE INTAKE WALL, SHOWING 8" CMP SPIRAL CMP
SANK DOWN @ CONNECTION WITH CLAY TILE PIECES ON TOP.
SOIL & CORN STALKS VISIBLE @ CONNECTION.



PICTURE # 3747 IS LOOKING SE SHOWING THAT 6" CMP SPIRAL
TILE WILL NOT ALLOW 8" CMP SPIRAL TILE TO BE LIFTED
BACK UP TO FIT 8" CLAY TILE OUTLET IN BEEHIVE WALL.

PICTURE # 3748 SHOWING 24" BEEHIVE INTAKE REMOVED
 656'± NORTH OF HWY DLS ON WESTSIDE OF AA AVE.



PICTURE # 3749 IS LOOKING SW AT 6" CMP SPIRAL FROM FIELD TIED INTO
 8" CMP SPIRAL FROM BEEHIVE INTAKE AFTER BEEHIVE
 INTAKE HAS BEEN REMOVED

PICTURE # 3750 IS LOOKING SE SHOWING 6" SPIRAL CMP TIED INTO 8" CMP SPIRAL FROM BEEHIVE INTAKE WITH BAND ON 6" CMP SPIRAL TO 6" CMP SPIRAL 90° ELBOW CONNECTION



PICTURE #3751 IS LOOKING NE SHOWING 8" SPIRAL CMP AFTER BEEHIVE INTAKE REMOVED

PICTURE # 3752 IS LOOKING NORTH TOWARDS CO HWY D25
SHOWING 6 HOLES WITH SOIL DUG OUT IN FRONT (ANIMAL
HOLE).



PICTURE#3753 IS LOOKING WEST AT HOLES IN RELATION TO
DRIVEWAY

PICTURE # 3754 IS LOOKING NORTH AT 1312'± NORTH OF
60 HWY DLS IN WEST DITCH OF ARAVE SHOWING DITCH GRADED
TO 15" BEEHIVE INTAKE



GPS # 1207 TOP 8" CMP SPIRAL



PICTURE # 3755 IS LOOKING SE SHOWING 8" HDPE INTERNAL COUPLER
INSIDE 8" CMP SPIRAL & TILE TAPED TO 8" CMP SPIRAL

PICTURE #3756 IS LOOKING SE SHOWING 4.5 LF OF 8" SW HOPE
 PERF TILE INSTALL ON 8" HOPE INTERNAL SNAP COUPLER (TILE TAPED)
 WITH 3.0' ORANGE HICKEN BOTTOM ON TOP WITH 8" INTERNAL SNAP
 COUPLER WITH JOINT TILE TAPED



GPS# 1207 TOP 8" CMP SPIRAL

GPS# 1212 TOP 8" HICKEN BOTTOM



GPS#1207
 TOP 8"
 CMP
 SPIRAL

PICTURE # 3757 IS LOOKING SW SHOWING HICKEN BOTTOM BRACED
 UP. BOTTOM OF TRENCH HAD GOOD CLAY BOTTOM. CREW PLACED
 A QUICKRETE BAG DRY UNDER TILE FIRST.

PICTURE # 3758 IS LOOKING SE SHOWING 8" HICKEN BOTTOM SUPPORTED UP BEFORE CONCRETE POURED. GPS 1212 TOP 8" HICKEN BOTTOM



PICTURE # 3759 IS LOOKING SW SHOWING 6" 90° CMP SPIRAL TIE IN INTO 8" CMP SPIRAL WRAPPED WITH FABRIC & TILE TAPED BEFORE CONCRETE COLLAR POURED,

PICTURE # 3761 IS LOOKING SW SHOWING 1.5' X 2.5' 6" X 6" WIRE MESH AROUND CONNECTION BEFORE CONCRETE POURED



PICTURE # 3762 IS LOOKING SOUTH SHOWING 1.0' X 2.0' 6" X 6" WIRE MESH AROUND 6" TO 8" CMP SPIRAL CONNECTION BEFORE CONCRETE POURED.

PICTURE #3763 IS LOOKING SW SHOWING PARTIAL CONCRETE COLLARS POURED. CREW RAN OUT OF CONCRETE AND WILL FINISH TOMORROW,



SW

CONSTRUCTION ENGINEERING
OBSERVATION REPORT

DATE:

06/15/2020

DAYS OF WEEK:

S M W T F S

PROJECT NUMBER:

HARDIN DD WO# 281

COUNTY, ROUTE, ROAD:

8778.1/DD#118-232
WEST DITCH OF A.A. AVE
656'± & 1312'± NORTH OF HWY D-25

SHEET NO.

.1 OF 2

LOCATION:

SE 1/4 SW 1/4 32-89-22 HARDIN

REPAIR BLOWOUT / PLUG ON BRANCH 2B

SUNNY LOW 60'S : TO MID 80'S
& BREEZY
JOB # 8778.1/118-232 SURVEY

DESCRIPTION OF WORK AND MATERIAL USED FOR EACH OPERATION, INCLUDING CONTRACTOR/SUB NAME, ITEM NO. AND LOCATION

7:30 A.M. CALLED ADAM AND LEFT MESSAGE

TO FIGURE OUT WHAT OTHER JOB HE WOULD BE WORKING ON,

7:40 A.M. OBSERVER LEFT OFFICE FOR JOB SITE.

7:50 A.M. ADAM CALLED BACK THAT CREW MAY WORK ON JOB # 6209
DD 158 WO# 285 & JOB # 6756.7 BUCKEYE/DD11 WO# 294 TODAY.

7:55 A.M. OBSERVER HEADED BACK TO OFFICE TO FIND FILES AND
UPLOAD JOB.

8:30 A.M. OBSERVER HAD FILES FOUND AND UPLOADED TO DATA COLLECTOR
AND HEADED TO REPAIR LOCATION.

9:05 A.M. OBSERVER ARRIVED ON SITE WITH CREW ON SITE
SINCE 8:30 A.M. CREW WAS WORKING ON FINISHING
CONCRETE COLLAR AROUND 8" SW HOPE PERF TILE BASE &
AROUND 6" 90° CMP SPIRAL TIE IN INTO 8" CMP SPIRAL TO FINISH
EXISTING BEEHIVE REPAIR @ 656'± NORTH OF HWY D-25.

9:22 A.M. PICTURE # 3766 & 9:26 A.M. PICTURE # 3767 SEE PICTURE FOR DETAILS.

9:30 A.M. CREW WAS DONE POURING CONCRETE COLLAR AND
STARTED TO PLACE OVERSIZED ROCK AROUND HICKEN BOTTOM
& 8" SW HOPE PERF. TILE FOR BETTER DRAINAGE. PERRY
WAS GRADING DITCH & 36" RCP TO DRAIN TO NEW 8"
HICKEN BOTTOM.

9:40 A.M. OBSERVER SET UP LEVEL TO MAKE SURE DITCH FLOWS
FROM 36" RCP OUTLET TO NEW 8" HICKEN BOTTOM INTAKE.

FL 36" RCP OUTLET -7.06
TOP ROCK @ 8" HICKEN BOTTOM -7.38
 $\frac{.32}{16.55} = 1.93\%$
GRADE

9:50 A.M. CREW CUT DOWN SOIL THAT WAS HIGHER THAN OUTLET
AND GRADED TO NEW 8" HICKEN BOTTOM INTAKE WITH GRADE
LOOKING GOOD.

10:08 A.M. PICTURE # 3769 & 10:30 A.M. PICTURE # 3770 SEE PICTURE FOR DETAILS.

I Certify that the work described in this report was incorporated into this contract unless otherwise noted.

Observer's Signature: Dean Penning Date Prepared: 06/15/2020

Reviewed by: _____ Engineer _____ Date Reviewed: _____

CONSTRUCTION ENGINEERING
OBSERVATION REPORT

DATE:

06/15/2020

PROJECT NUMBER:

HARDIN DD WO # 281

DAYS OF WEEK:

S M W T F S

COUNTY, ROUTE, ROAD:

8778.1/OD#118-232

SHEET NO.

2 OF 2

LOCATION:

SE 1/4 SW 1/4 32-89-22 HARDIN
WEST DITCH OF AA AVE
656' ± & 1312' ± NORTH OF HWY D-25
REPAIR BLOWOUT / PLUG ON BRANCH 2B

SUNNY LOW 60'S TO 40 80'S

& BREEZY

JOB # 8778 AA / 118-232 SURVE

DESCRIPTION OF WORK AND MATERIAL USED FOR EACH OPERATION, INCLUDING CONTRACTOR/SUB NAME, ITEM NO. AND LOCATION

11:05 A.M. PICTURE # 3771 & PICTURE # 3772 SEE PICTURE FOR DETAILS;
06/16/2020 PICTURE # 1 SEE PICTURE FOR DETAILS.
11:15 A.M. OBSERVER AND CREW LEFT SITE.

QUANTITIES

ADAM 2 3/4 HOURS

CARSON 2 3/4 HOURS

PERRY 2 3/4 HOURS

GENERATOR & MIXER 1 HOUR

KOLBELCO SK85CS MINI EXCAVATOR 2 3/4 HOURS

CASE TR340 TRACKED SKIDLOADER, 2 3/4 HOURS

CONCRETE INC. TICKET # 43604 OVER SIZE ROCK 6.4 TONS
(HARDIN A66 A425R)

10 - 60LB BAGS OF QUIKRETE HIGH STRENGTH CONCRETE MIX

- ADDITIONAL ACTIONS
- ① SEED GRADED AREAS IN DITCH (WESTSIDE AA AVE)
 - ② COUNTY NEEDS TO GRADE MORE OF DITCH AROUND BOTH INTAKES
 - ③ COUNTY NEEDS TO GRADE DITCH TO 36" RGP. INLET ON EAST SIDE OF AA AVE. (SOIL HIGHER THAN FL OF 36" RGP).

I Certify that the work described in this report was incorporated into this contract unless otherwise noted

Observer's Signature

Dean Penning

Date Prepared

06/15/2020

Reviewed by

Engineer

Date Reviewed

PICTURE # 3766 IS LOOKING SW SHOWING CONCRETE COLLAR FINISHED AROUND 6" 90° CMP SPIRAL ELBOW TO 8" CMP SPIRAL TO 8" HOPE SW PERF TILE.



PICTURE # 3767 IS LOOKING NE SHOWING OLD CONCRETE CHUNKS CONCRETED IN TO SUPPORT 8" SW HOPE PERF TILE FOR 8" HICKEN BOTTOM INTAKE.

PICTURE # 3769 IS LOOKING NE SHOWING CREW TRIMMING DOWN 8" SW HOPE PERF TILE SO 3.0' HICKEN BOTTOM TOP SITS A LITTLE LOWER. PICTURE SHOWS CREW GRADING TO 8" HICKEN BOTTOM.



GPS # 1212 TOP 8" HICKEN BOTTOM



PICTURE # 3770 IS LOOKING NE SHOWING 8" HICKEN BOTTOM IN PLACE WITH OVERSIZED ROCK AROUND 8" HICKEN BOTTOM.

PICTURE # 3771 IS LOOKING SOUTH AT DITCH GRADED TO NEW 8" HICKEN BOTTOM INTAKE.



PICTURE # 3772 IS LOOKING NORTH SHOWING DITCH GRADED TO NEW 8" HICKEN BOTTOM INTAKE & SHOWS DITCH GRADED FROM 36" R/P TO NEW 8" HICKEN BOTTOM

PICTURE #1 ROCK USED TO BACK FILL
 AROUND NEW 8" HICKEN BOTTOM INTAKE,

CONCRETE, INC. 436N4

A42512
 HARDIN AGG

28295 4TH AVE
 GIFFORD, LA 50259
 PHONE 841-858-5637

TRUCK NO. _____

DATE: Q1 Q2 Q3 Q4

MONTH: 1 2 3 4

DAY: 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31

YEAR: 2019 2020 2021

SOLD TO: Adam Seward

ADDRESS: _____

DELIVERED TO: _____

ADDRESS: _____

WASHED SAND	1410 EA	GROSS	
FILL SAND	16,600	1/2020	
BUFFING	0713	#	
PEA GRAVEL	26480	lb	
GRAVEL			
1 1/2			
OVERSIZE			
OTHER			
NET	13600		
	12880		

TARE _____

NET _____

PAID _____

TRUCK MAKE _____

TRUCK MAKE _____

SALES TAX	6.4	AMOUNT	
HAULING			
TOTAL			

DRIVER SIGNATURE: _____

06/16/2020

8778 DD#118-232

1,3650568.780,4921455.020,1147.670,GPS MON 8002
2,3666234.650,4921419.660,1152.600,gps mon 8001
3,3650524.146,4928946.578,1133.880,4+00 hubnsidedd
4,3650415.452,4934362.265,1136.303,top rcp
5,3655746.813,4929952.888,1138.657,irs 5/8
6,3657916.115,4932022.492,1141.982,DIVIT NW ABUT
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981, 3656221.324, 4929988.869, 1126.445, TOE
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984, 3656288.877, 4929955.223, 1137.399, GS
985, 3656332.586, 4929973.656, 1137.500, GS
986, 3656347.964, 4929934.214, 1137.921, GS
987, 3656301.999, 4929917.434, 1138.521, GS
988, 3656254.044, 4929905.237, 1138.126, GS
989, 3661052.655, 4928227.629, 1143.286, DIVIT 1" S SIDE CL BRDG
990, 3658634.779, 4929251.566, 1137.095, FL CMP SURF
991, 3658660.760, 4929283.202, 1133.580, FL CMP SURF 15"
992, 3658666.698, 4929282.441, 1132.616, TOP CMP8"
993, 3658207.630, 4929706.311, 1136.872, CMP NEW18"
994, 3658228.221, 4929729.312, 1132.121, CMP NEW18"
995, 3656862.942, 4930216.572, 1134.185, CMP NEW18"
996, 3656850.695, 4930244.209, 1130.911, CMP NEW18"
997, 3656177.242, 4929934.909, 1135.181, CMP NEW24"
998, 3656166.100, 4929962.703, 1130.762, CMP NEW24"
999, 3655312.561, 4929999.389, 1136.530, CMP FL NEW24"
1000, 3655322.066, 4930028.238, 1130.873, CMP FL NEW24"
1001, 3653531.920, 4930432.441, 1133.044, CMP FL NEW18"
1002, 3653534.405, 4930462.478, 1130.021, CMP FL NEW18"
1003, 3652172.018, 4929646.706, 1132.146, CMP FL NEW24"
1004, 3652150.029, 4929667.416, 1128.594, CMP FL NEW24"
1005, 3650454.337, 4929279.055, 1129.421, CMP FL NEW24"
1006, 3650424.626, 4929272.603, 1128.011, CMP FL NEW24"
1007, 3651496.565, 4929384.495, 1128.305, FL 18"NEW CMP
1008, 3651497.347, 4929354.337, 1132.797, FL 18"NEW CMP
1009, 3651487.814, 4929384.167, 1129.044, FL 8"NEW CMP
1010, 3651492.099, 4929343.699, 1131.537, TP 8"NEW CMP
1011, 3652189.942, 4929656.851, 1128.619, TP 8"NEW CMP
1012, 3652162.762, 4929685.318, 1126.903, TP 8"NEW CMP
1013, 3651549.748, 4929410.027, 1128.312, TP 8"NEW CMP
1014, 3651556.985, 4929448.081, 1128.767, TP 8"NEW CMP
1015, 3652478.769, 4930087.197, 1128.091, TP 8"NEW CMP
1016, 3652472.555, 4930126.162, 1129.722, TP 8"NEW CMP
1017, 3654397.331, 4930495.458, 1132.944, FL 24"NEW CMP
1018, 3654394.097, 4930465.524, 1129.975, FL 24"NEW CMP
1019, 3654371.117, 4930465.431, 1128.225, FL 15" EXIST CMP
1020, 3653921.471, 4930508.419, 1136.250, FL 18"NEW CMP
1021, 3653922.099, 4930478.780, 1129.416, FL 18"NEW CMP
1022, 3656930.368, 4930298.886, 1132.409, TP 6"NEW CMP
1023, 3656930.015, 4930338.125, 1134.259, TP 6"NEW CMP
1024, 3657074.744, 4930418.296, 1140.038, GS
1025, 3656551.918, 4930176.865, 1135.657, FL 24"NEW CMP
1026, 3656561.529, 4930148.073, 1131.680, FL 24"NEW CMP
1027, 3656022.512, 4929928.251, 1131.040, FL 18"NEW CMP
1028, 3656016.785, 4929957.896, 1136.305, FL 18"NEW CMP
1029, 3656867.685, 4930249.915, 1131.298, FL 6"NEW CMP

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1030,3656876.061,4930232.084,1132.228,FL 6"NEW CMP
1031,3660319.471,4928210.599,1131.711,FL 8"NEW CMPFARMER TIBBS
1032,3659542.261,4928545.796,1132.486,FL 8"NEW CMPFARMER TIBBS
1033,3657776.255,4930274.674,1132.348,FL 12"NEW CMP
1034,3657745.428,4930251.905,1129.370,FL 12"NEW CMP
1035,3658332.974,4929648.394,1131.909,TP 6"NEW CMP
1036,3658365.625,4929671.338,1133.414,TP 6"NEW CMP
1037,3634184.594,4932865.494,1130.173,CPT IRS 3/4
1038,3633953.119,4932940.532,1125.401,TB
1039,3633944.325,4932925.274,1124.697,TB
1040,3633945.231,4932942.744,1125.142,GSWASHOUT
1041,3633944.677,4932944.233,1123.479,GS WASHOUT
1042,3633932.027,4932951.139,1122.875,GS WASHOUT
1043,3633931.038,4932951.422,1125.175,GS WASHOUT
1044,3633917.638,4932963.087,1125.196,GS WASHOUT
1045,3633918.471,4932964.222,1123.237,GS WASHOUT
1046,3633898.731,4932970.877,1125.261,GS WASHOUT
1047,3633898.938,4932972.272,1123.089,GS WASHOUT
1048,3633884.856,4932984.696,1125.608,GS WASHOUT
1049,3633885.952,4932984.820,1123.579,GS WASHOUT
1050,3633910.495,4932977.303,1120.487,CMP TOP
1051,3633910.707,4932977.644,1116.471,CMP FL
1052,3633906.425,4932953.130,1125.104,TB
1053,3633904.258,4932948.836,1119.911,CMP TOP
1054,3633938.126,4932916.036,1118.267,TOE
1055,3633935.709,4932914.282,1117.320,TOE
1056,3633960.871,4932951.287,1115.285,TOE
1057,3633901.850,4932995.000,1115.637,FL 48"CMP NEW
1058,3633890.124,4932955.869,1116.150,FL 48"CMP NEW
1059,3633945.978,4932944.676,1125.390,TB REPAIR
1060,3633918.718,4932964.098,1125.075,TB RIPRAP
1061,3633891.542,4932985.274,1125.233,TB RIPRAP
1062,3633871.842,4933002.235,1126.084,TB REPAIR
1063,3633860.125,4932961.865,1124.315,TB REPAIR
1064,3633872.566,4932959.249,1123.831,TB CONC RIPRAP
1065,3633883.806,4932964.401,1124.639,TB CONC RIPRAP
1066,3633899.100,4932956.412,1125.093,TB CONC RIPRAP
1067,3633912.957,4932987.502,1116.318,FL 48"CMP 10'EXT
1068,3634642.784,4923002.606,1149.999,GS -27.5
1069,3634643.248,4922951.467,1150.067,GS -26.3
1070,3634641.936,4923059.075,1149.809,GS -26.4
1071,3634629.686,4923005.049,1146.078,TP CMP 12TO FL
1072,3634606.641,4926775.044,1151.941,GS -20.9FO
1073,3634606.321,4926813.515,1152.058,GS -21.5FO
1074,3634606.315,4926810.794,1152.032,GS -10.0 TILE 8"CLAY
1075,3634580.533,4926806.674,1147.802,GS -6.0TILE 8"CLAY
1076,3634655.322,4926825.566,1143.145,GS -33"@INTK
1077,3634605.728,4926854.790,1152.783,GS -21.4FO
1078,3634602.374,4927511.594,1154.004,GS -6.5TOP TILE6"CLAY

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1079, 3634585.468, 4930229.067, 1133.608, RIM BEEHIVE-50"FLN
1080, 3634575.549, 4930487.142, 1133.400, BLOWOUT 2'
1081, 3634529.439, 4930463.818, 1135.149, TOP SYPTIC TANK
1082, 3634613.174, 4929596.742, 1145.383, scf mag
1083, 3634597.524, 4929861.596, 1142.763, GS CABLE 36"DEEP
1084, 3634600.940, 4929861.759, 1142.927, EOA S EDGE
1085, 3634588.507, 4929862.086, 1138.281, GS 20" OD CLAY TILE 7.8' TO TOP TILE
1086, 3634547.303, 4930467.345, 1135.194, GS LOCATE
1087, 3634553.680, 4930471.479, 1135.243, GS LOCATE 41" DEEP
1088, 3634563.456, 4930477.947, 1135.250, GS LOCATE
1089, 3634566.761, 4930480.012, 1135.319, GS LOCATE
1090, 3634581.986, 4930490.823, 1133.738, GS 3.94' TO TOP 6" SPIRAL CMP
1091, 3634586.276, 4930494.904, 1134.467, GS 5.27' TO TOP 6" SPIRAL CMP TIE IN 5.80' TO
TOP 2.75' OD CLAY TILE
1092, 3634586.058, 4930698.716, 1134.568, GS 6.86' TO TOP 2.65" OD CLAY TILE
1093, 3634595.460, 4930241.975, 1139.700, GS CABLE BORE LOCATE 6.0'DEEP
1094, 3634595.016, 4930295.175, 1140.002, GS CABLE BORE LOCATE 6.0'DEEP
1095, 3634595.158, 4930332.286, 1138.818, GS CABLE BORE LOCATE 6.0' DEEP
1096, 3634596.111, 4930362.264, 1139.273, GS CABLE BORE LOCATE 6.0'DEEP
1097, 3634596.448, 4930392.367, 1139.273, GS CABLE BORE LOCATE 6.0'DEEP
1098, 3634595.628, 4930422.028, 1138.972, GS CABLE BORE LOCATE 6.0'D
1099, 3634595.091, 4930462.078, 1138.502, GS CABLE BORE LOCATE 6.0'DEEP
1100, 3634595.228, 4930482.579, 1138.642, GS CABLE BORE LOCATE 6.0'DEEP
1101, 3634595.259, 4930511.712, 1138.497, GS CABLE BORE LOCATE 6.5'DEEP
1102, 3634599.238, 4930502.506, 1139.818, GS EOA S SIDE
1103, 3634599.011, 4930699.272, 1139.210, GS EOA S SIDE
1104, 3634565.656, 4930686.085, 1135.516, FNL EAST
1105, 3634594.844, 4930541.626, 1139.058, GS CABLE BORE LOCATE 6.8'DEEP
1106, 3634594.699, 4930571.954, 1139.359, GS CABLE BORE LOCATE 6.8'DEEP
1107, 3634595.562, 4930592.348, 1139.305, GS CABLE BORE LOCATE 6.8'DEEP
1108, 3634595.545, 4930633.152, 1138.669, GS CABLE BORE LOCATE 5.5'DEEP
1109, 3634595.096, 4930672.307, 1138.417, GS CABLE BORE LOCATE 4.5'DEEP
1110, 3634595.132, 4930672.253, 1138.414, GS CABLE BORE LOCATE 4.0'DEEP
1111, 3634585.111, 4930229.354, 1129.379, FL 18" BEEHIVE INTAKE
1112, 3634585.420, 4930229.285, 1133.694, 18" BEEHIVE INTAKE N RIM
1113, 3634587.892, 4930229.463, 1134.484, GS 6.0' TO TOP TILE
1114, 3634600.476, 4930231.515, 1140.301, GS EOA S SIDE
1115, 3634565.961, 4930202.521, 1136.598, FNL S&W
1116, 3634586.829, 4931156.251, 1134.753, GS TILE BORE LOCATE
1117, 3634588.657, 4931196.422, 1136.053, GS TILE BORE LOCATE
1118, 3634563.933, 4931320.238, 1134.025, FNL E-W &S
1119, 3634597.676, 4931241.249, 1139.587, EOA 22'
1157, 3634597.963, 4931157.541, 1139.149, GS EOA 21'
1158, 3634597.823, 4931198.605, 1139.265, GS EOA 21'6"
1159, 3634588.297, 4931236.347, 1136.424, GS BORE CABLE LOCATE
1160, 3634595.277, 4931339.490, 1140.128, GS PULL CABLE 3.0' DEEP
1161, 3634597.639, 4931339.409, 1140.535, GS EOA S SIDE
1162, 3634596.380, 4931056.594, 1138.746, GS PULLED CABLE 36"DEEP
1200, 3635925.987, 4929548.667, 1134.755, n rim beehive intake

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1201,3635925.037,4929548.090,1132.552,fl 8" conc tile
 1202,3635925.501,4929548.907,1133.259,top 8" conc tile
 1203,3635273.398,4929558.747,1132.210,tile top 6" cmp spiral
 1204,3635273.334,4929560.678,1131.945,tile top 6" cmp spiral band
 1205,3635273.348,4929561.744,1131.994,tile top 6" cmp spiral 90 elbow
 1206,3635274.211,4929561.976,1130.856,tile top 8" cmp spiral
 1207,3635271.403,4929560.798,1131.252,tile top 8" cmp spiral 0.68'toptofl
 1208,3634588.076,4930642.342,1134.604,gs 7" hole
 1209,3634587.738,4930640.386,1134.686,gs 7" hole
 1210,3635285.014,4929602.679,1137.586,rcp 36" top 3.36'toptofl
 1211,3635283.957,4929566.283,1136.955,rcp 36" top 3.11'toptofl
 1212,3635268.796,4929559.642,1136.768,HICKENBOTTOM INTAKE NEW TOP 8"
 8000,3650215.430,4929387.381,1133.161,303+25.000 L 30.0
 8001,3650291.627,4929385.663,1136.841,304+00.000 L 30.0
 8002,3650492.166,4929379.204,1138.374,306+00.000 L 30.0
 8003,3650689.922,4929379.454,1136.806,308+00.000 L 30.0
 8004,3650892.535,4929376.033,1138.032,310+00.000 L 30.0
 8005,3651092.065,4929374.007,1140.711,312+00.000 L 30.0
 8006,3651290.938,4929373.133,1137.956,314+00.000 L 30.0
 8007,3651491.110,4929368.531,1135.549,316+00.000 L 30.0
 8008,3651695.206,4929392.593,1137.137,318+00.000 L 30.0
 8009,3651885.612,4929467.604,1135.704,320+00.000 L 30.0
 8010,3652063.083,4929570.939,1137.775,322+00.000 L 30.0
 8011,3652212.084,4929710.675,1136.822,324+00.000 L 30.0
 8012,3652345.845,4929864.425,1136.647,326+00.000 L 30.0
 8013,3652471.835,4930014.421,1138.270,328+00.000 L 30.0
 8014,3652601.550,4930167.172,1138.715,330+00.000 L 30.0
 8015,3652725.955,4930315.852,1138.792,332+00.000 L 30.0
 8016,3652876.832,4930428.820,1139.928,334+00.000 L 40.0
 8017,3653059.996,4930451.194,1141.967,336+00.000 L 40.0
 8018,3653256.484,4930447.109,1140.896,338+00.000 L 40.0
 8019,3653456.076,4930444.823,1138.797,340+00.000 L 40.0
 8020,3653654.069,4930436.943,1139.016,342+00.000 L 40.0
 8021,3653854.817,4930430.263,1140.341,344+00.000 L 40.0
 8022,3654055.297,4930427.353,1139.730,346+00.000 L 40.0
 8023,3654255.275,4930421.438,1140.653,348+00.000 L 40.0
 8024,3654455.544,4930416.620,1139.823,350+00.000 L 40.0
 8025,3654642.912,4930400.561,1140.523,352+00.000 L 40.0
 8026,3654817.512,4930324.347,1140.665,354+00.000 L 40.0
 8027,3654977.153,4930210.590,1141.360,356+00.000 L 40.0
 8028,3655143.646,4930085.973,1139.235,358+00.000 L 30.0
 8029,3655330.532,4930002.496,1139.060,360+00.000 L 40.0
 8030,3655521.212,4929945.553,1140.854,362+00.000 L 40.0
 8031,3655693.083,4929896.584,1138.727,363+75.000 L 40.0
 8032,3655924.124,4929859.487,1138.272,366+00.000 L 30.0
 8033,3656119.694,4929920.123,1138.336,368+00.000 L 30.0
 8034,3656305.101,4929991.660,1139.022,370+00.000 L 30.0
 8035,3656488.188,4930074.200,1139.353,372+00.000 L 30.0
 8036,3656674.960,4930150.146,1138.200,374+00.000 L 30.0

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8037,3656860.455,4930227.026,1137.687,376+00.000 L 30.0
8038,3657048.968,4930300.724,1139.045,378+00.000 L 30.0
8039,3657226.256,4930371.119,1139.108,380+00.000 L 30.0
8040,3657413.535,4930395.772,1139.312,382+00.000 L 30.0
8041,3657583.725,4930343.831,1139.357,384+00.000 L 30.0
8042,3657727.421,4930218.390,1139.214,386+00.000 L 30.0
8043,3657868.099,4930071.628,1140.530,388+00.000 L 30.0
8044,3658016.884,4929921.552,1139.932,390+00.000 L 30.0
8045,3658149.014,4929789.473,1139.505,392+00.000 L 30.0
8046,3658285.508,4929646.898,1140.360,394+00.000 L 30.0
8047,3658426.066,4929498.619,1140.774,396+00.000 L 30.0
8048,3658561.785,4929354.317,1139.593,398+00.000 L 30.0
8049,3658705.741,4929213.590,1140.014,400+00.000 L 30.0
8050,3658844.851,4929069.774,1140.684,402+00.000 L 30.0
8051,3658981.781,4928924.950,1140.090,404+00.000 L 30.0
8052,3659121.860,4928781.735,1140.289,406+00.000 L 30.0
8053,3652416.049,4929954.300,1136.975,CP HUB
9000,3633010.750,4936255.785,1131.683,CUT X NE COR BRDG
9001,3632946.490,4936356.821,1127.675,TB
9002,3632923.839,4936358.173,1127.782,GS
9003,3632913.693,4936358.514,1127.805,GS
9004,3632887.217,4936361.815,1133.264,GS CROP LN
9005,3632908.449,4936470.242,1130.714,GS CROP LN
9006,3632918.757,4936468.960,1127.742,GS
9007,3632928.956,4936469.946,1127.150,GS
9008,3632951.256,4936469.077,1127.753,TB
9009,3632975.268,4936466.423,1113.472,TOE
9010,3632917.364,4936572.865,1129.296,GS CROPLN
9011,3632934.792,4936570.761,1125.952,GS
9012,3632943.215,4936570.334,1126.247,GS
9013,3632962.788,4936569.631,1127.602,TB
9014,3632983.929,4936569.473,1113.910,TOE
9015,3632995.885,4936607.616,1113.099,TOE
9016,3632984.421,4936610.422,1118.497,CONC RUBBLE
9017,3632981.444,4936611.348,1123.058,TOP 24"CMP SURF
9018,3632975.667,4936613.604,1124.111,GS
9019,3632969.557,4936615.003,1127.543,TB
9020,3632958.170,4936620.023,1127.385,TB
9021,3632956.379,4936619.666,1126.707,TOP 24"CMP
9022,3632955.943,4936620.229,1124.636,FL 24"CMP SURF
9023,3632943.690,4936623.120,1125.470,GS
9024,3632921.995,4936625.157,1126.833,GS CROP LN
9025,3632923.455,4936638.407,1126.104,GS CROP LN
9026,3632904.194,4936641.620,1126.901,GS CROP LN
9027,3632804.649,4936640.612,1129.877,GS CROP LN
9028,3632803.079,4936662.144,1128.457,GS
9029,3632801.917,4936686.695,1126.902,GS FL
9030,3632801.453,4936719.126,1128.465,GS CROPLN
9031,3632851.519,4936724.248,1127.671,GS CROPLN

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9032, 3632862.798, 4936723.863, 1127.709, GS CROPLN
9033, 3632865.916, 4936684.326, 1125.931, GS FL
9034, 3632921.802, 4936667.390, 1125.235, GS FL
9035, 3632926.279, 4936707.596, 1126.075, GS
9036, 3632903.023, 4936734.405, 1127.183, GS
9037, 3632881.764, 4936767.708, 1129.159, GS
9038, 3632862.882, 4936759.024, 1128.982, GS CROPLN
9039, 3632813.327, 4936810.079, 1133.669, GS CROPLN
9040, 3632834.889, 4936835.193, 1133.689, GS
9041, 3632863.906, 4936866.275, 1135.042, GS CROPLN
9042, 3632889.768, 4936804.800, 1131.127, GS CROPLN
9043, 3632918.173, 4936764.808, 1128.201, GS CROPLN
9044, 3632964.089, 4936740.212, 1126.378, GS CROPLN
9045, 3632977.875, 4936749.642, 1126.525, GS CROPLN
9046, 3633003.601, 4936796.196, 1128.135, GS CROPLN
9047, 3633032.514, 4936858.663, 1131.354, GS CROPLN
9048, 3633043.326, 4936854.273, 1131.135, GS
9049, 3633057.932, 4936849.330, 1130.810, TB
9050, 3633026.135, 4936808.880, 1129.026, GS
9051, 3633037.273, 4936804.992, 1128.818, TB
9052, 3633058.730, 4936798.606, 1113.691, TOE
9053, 3633041.152, 4936749.598, 1113.742, TOE
9054, 3633039.318, 4936730.553, 1113.794, TOE
9055, 3633027.365, 4936722.784, 1117.299, FL 8"CMP
9056, 3633034.570, 4936722.847, 1114.847, TOE
9057, 3633042.543, 4936722.072, 1114.015, GS COBBEL BAR
9058, 3633045.931, 4936711.507, 1113.712, GS COBBEL BAR
9059, 3633041.106, 4936698.972, 1113.926, GS COBBEL BAR
9060, 3633032.428, 4936690.915, 1113.918, GS COBBEL BAR
9061, 3633019.609, 4936685.305, 1113.817, GS COBBEL BAR
9062, 3633017.194, 4936691.407, 1116.477, GS COBBEL BAR
9063, 3633023.980, 4936699.287, 1116.830, GS COBBEL BAR
9064, 3633030.918, 4936711.068, 1116.203, GS COBBEL BAR
9065, 3633011.870, 4936680.060, 1114.102, TOE
9066, 3633012.415, 4936667.839, 1113.245, TOE
9067, 3633006.831, 4936656.402, 1112.702, TOE
9068, 3633002.522, 4936661.807, 1115.218, GS
9069, 3633004.941, 4936671.665, 1115.628, GS
9070, 3632991.145, 4936644.538, 1114.247, TOE CONCRUBBEL
9071, 3632990.300, 4936636.879, 1114.154, TOE CONCRUBBEL
9072, 3632998.434, 4936636.307, 1114.666, GS
9073, 3633000.247, 4936635.906, 1113.404, TOE
9074, 3632998.408, 4936643.621, 1113.906, GS
9075, 3633002.346, 4936642.765, 1113.261, TOE
9076, 3632996.500, 4936623.575, 1113.317, TOE
9077, 3632971.875, 4936627.655, 1127.669, TB
9078, 3632961.675, 4936631.499, 1127.739, TB
9079, 3632955.145, 4936634.590, 1125.727, GS
9080, 3632943.927, 4936651.749, 1124.754, GS

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9081, 3632956.688, 4936646.855, 1124.446, FL 24" CMP
9082, 3632957.174, 4936646.617, 1126.439, TOP CMP
9083, 3632958.721, 4936653.180, 1124.262, FL 24" CMP
9084, 3632959.631, 4936652.872, 1126.286, TOP CMP
9085, 3632964.280, 4936651.995, 1127.456, TB
9086, 3632962.620, 4936644.489, 1127.557, TB
9087, 3632974.700, 4936641.240, 1128.118, TB SLOUGH
9088, 3632977.659, 4936651.231, 1128.338, TB SLOUGH
9089, 3632979.552, 4936654.435, 1128.227, TB SLOUGH
9090, 3632985.575, 4936665.259, 1126.758, TB SLOUGH
9091, 3632986.289, 4936670.869, 1127.024, TB SLOUGH
9092, 3632984.171, 4936660.772, 1127.000, TB
9093, 3632990.408, 4936679.213, 1126.724, TB SLOUGH
9094, 3632993.120, 4936689.532, 1126.590, TB SLOUGH
9095, 3632982.901, 4936695.681, 1126.418, TB SLOUGH
9096, 3632970.049, 4936696.783, 1125.900, TB SLOUGH
9097, 3632960.039, 4936704.557, 1125.658, TB SLOUGH
9098, 3632964.240, 4936714.387, 1125.774, TB SLOUGH
9099, 3632971.898, 4936724.343, 1125.859, TB SLOUGH
9100, 3632984.101, 4936726.994, 1125.970, TB SLOUGH
9101, 3632991.560, 4936725.906, 1126.265, TB SLOUGH
9102, 3632995.368, 4936733.110, 1126.092, TB SLOUGH
9103, 3633007.524, 4936734.288, 1126.569, TB SLOUGH
9104, 3633015.027, 4936742.281, 1126.954, TB SLOUGH
9105, 3633019.679, 4936750.444, 1127.318, TB SLOUGH
9106, 3633024.179, 4936761.858, 1127.243, TB
9107, 3633029.718, 4936779.648, 1127.596, TB
9108, 3633006.697, 4936770.623, 1127.235, GS
9109, 3632987.372, 4936740.306, 1126.125, GS
9110, 3632999.683, 4936726.884, 1121.751, GS
9111, 3632995.548, 4936725.709, 1122.594, GS
9112, 3633000.265, 4936730.126, 1122.258, GS
9113, 3633007.841, 4936728.561, 1121.975, GS
9114, 3633010.747, 4936720.112, 1120.680, GS
9115, 3633016.308, 4936718.074, 1118.659, GS
9116, 3633010.076, 4936703.805, 1118.342, GS
9117, 3633004.841, 4936698.934, 1118.435, GS
9118, 3633001.993, 4936692.458, 1118.885, GS
9119, 3632993.782, 4936695.244, 1119.402, GS
9120, 3632993.397, 4936703.684, 1119.069, GS
9121, 3632995.979, 4936711.857, 1119.419, GS
9122, 3632999.392, 4936716.759, 1121.005, GS
9123, 3632989.680, 4936722.453, 1120.841, GS
9124, 3632988.154, 4936717.769, 1119.039, GS
9125, 3632985.552, 4936709.734, 1119.163, GS
9126, 3632983.405, 4936700.048, 1120.075, GS
9127, 3632968.814, 4936700.454, 1121.141, GS
9128, 3632962.489, 4936704.739, 1121.151, GS
9129, 3632968.690, 4936708.878, 1119.530, GS

9130,3632970.198,4936717.940,1121.031,GS
9131,3632977.032,4936713.834,1119.397,GS
9132,3632981.082,4936722.289,1120.765,GS
9133,3632955.122,4936722.424,1125.944,GS
9134,3632950.403,4936688.094,1125.447,GS
9135,3632965.366,4936675.159,1125.415,GS
9136,3632968.742,4936672.532,1126.827,TB
9137,3633028.133,4936781.993,1128.165,BM HUB
9138,3633385.645,4937725.072,1121.036,WASHOUT
9139,3633008.122,4936729.623,1124.085,GS KEY
9140,3632993.905,4936733.223,1124.549,GS KEY
9141,3632977.729,4936735.474,1125.290,GS KEY
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9149,3632988.351,4936701.281,1119.433,TOE
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9151,3632973.554,4936716.633,1119.929,TOE
9152,3632970.286,4936706.933,1120.241,TOE
9153,3633005.481,4936687.295,1115.401,TOE
9154,3633017.138,4936712.750,1114.641,TOE
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9156,3632906.964,4936688.284,1125.803,GS
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30004,3659770.925,4934732.133,1142.007,IR 58
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30236,3659814.441,4934684.485,1141.542,SPK BRACEPST
30237,3663758.591,4934807.275,1143.735,SPK CORPST
40000,3643021.331,4921243.902,1149.631,IR 58
40001,3642586.329,4922475.431,1143.461,BOTTLECAP
40002,3642588.600,4922430.730,1144.568,NAIL FUZZY
40003,3643011.338,4921249.131,1145.361,GA
40004,3642670.960,4917591.297,1156.450,IR 34
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8778 DD#118-232

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70042,3643146.406,4922230.155,,Intersection
70043,3643084.472,4922233.000,,Cogo

Hardin County Drainage Claim for Damages

Claim # 2020-6 District # 22 Work Order # 176 & 192 Combined

Township Buckeye Section 20 Twp 20 Rge 88 Qtr Sec 2

Parcel Tax IDS 882220300002

Name James E. Vierkandt

Address 20825 Hwy S-27

Alden, IA 50006

Phone 515-689-4737

Email Address jsvierkandt@wbfrec.com

Landowner (if different) Lee Anderson

Claim Type: Crop Damage

Crop Year 2019

Crop Year _____

Type of Crop Corn

Type of Crop _____

Acres Damaged 2.841

Acres Damaged _____

Yield Per Acre 212

Yield Per Acre _____

Fence Damage

Outlet Damage

Other: _____

Desired Compensation – Please note if payment should be split between landlord/tenant.

Monetary Payment

Repair of Damages

CGA verified 2.841 acres of crop damage in document Main Tile Repairs – Drainage District No. 22, submitted by Heather Thomas on 4/28/2020.

Claimant Signature See attached original

Date 7/25/2020

For Office Use Only

Unit Value \$ 3.90 /bushel Unit Value \$ _____ /bushel

Crop Damages (Verified Acres X Yield X Unit Value) \$ 2,348.97 \$ _____

Total Amount Approved \$ 2,348.97

Approved Signature _____

Date _____

Hardin County Drainage Claim for Damages

Claim # 2020-016 District # 22 Work Order # 176 & 192 Combined
Township Buckeye Section 20 Twp 20 Rge 88 Qtr Sec 2
Parcel Tax IDS 882220300002

Name James E. Vierkandt
Address 20825 Hwy S-27
Alden, Ia. 50006
Phone 515-689-4737
Email Address jsvierkandt@wbfree.com
Landowner (if different) Lee Anderson

FILED

JUL 31 2020

HARDIN COUNTY AUDITOR

Claim Type: Crop Damage
Crop Year 2019 Crop Year _____
Type of Crop CORN Type of Crop _____
Acres Damaged 2.841 # Acres Damaged _____
Yield Per Acre 212 Yield Per Acre _____

- Fence Damage
- Outlet Damage
- Other: _____

Desired Compensation – Please note if payment should be split between landlord/tenant.

- Monetary Payment
- Repair of Damages
- Other: _____

Claimant Signature James E. Vierkandt Date 7-25-2020

For Office Use Only

Unit Value \$ 3.90 /bushel Unit Value \$ _____ /bushel
Crop Damages (Verified Acres X Yield X Unit Value) \$ _____ \$ _____
Total Amount Approved \$ _____
Approved Signature _____ Date _____

Main Tile Repairs – Drainage District No. 22

Hardin County, Iowa

2018-2020

Crop Damage

Crop damaged was incurred by 5 property owners on this project. Crops impacted were beans and corn. The following table shows which property owners were impacted, which type of crops were impacted, and the number of acres impacted:

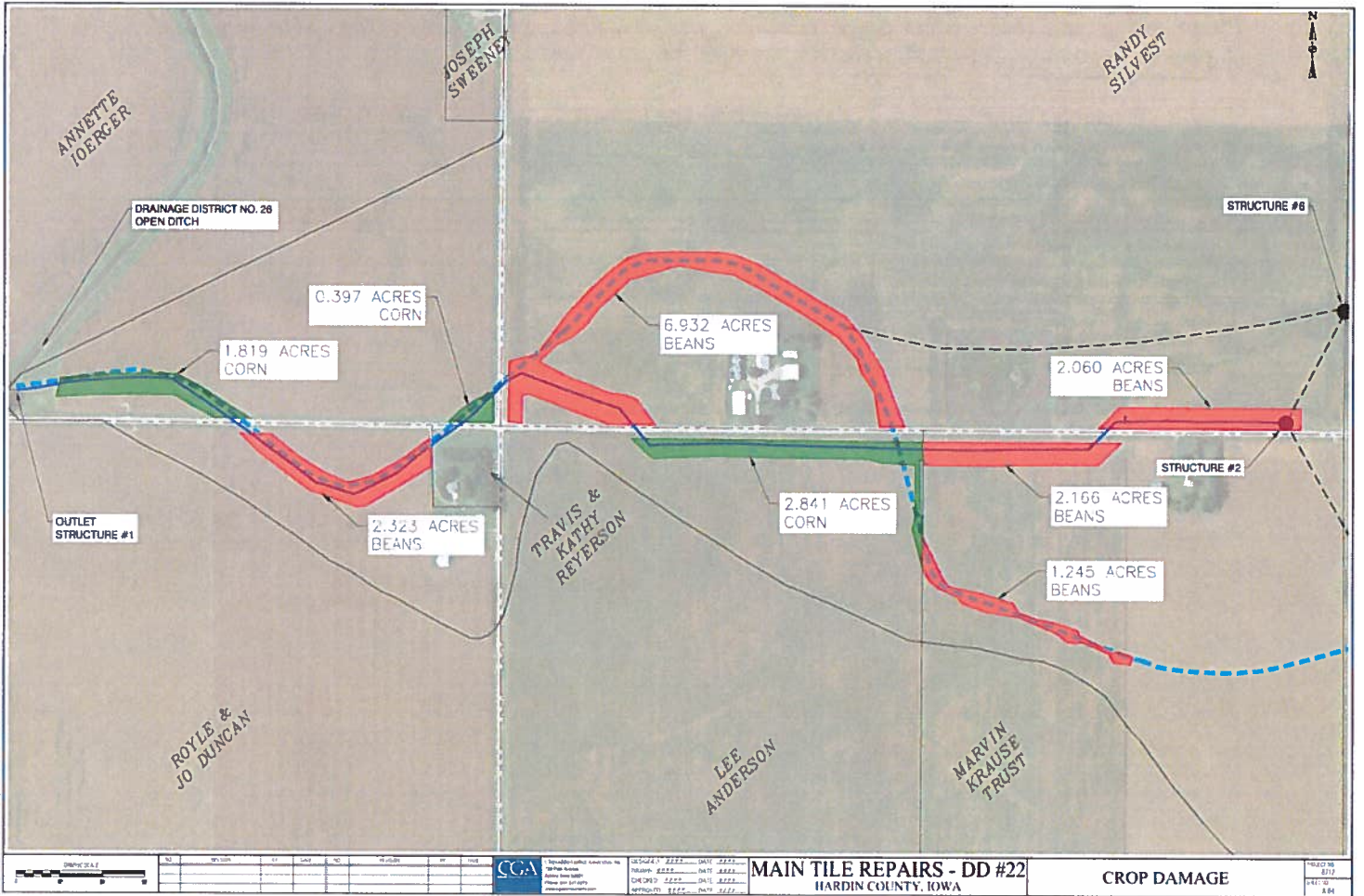
Property Owner	Corn Damage (Acres)	Bean Damage (Acres)
Annette Ierger	2.216	
Royle & Jo Duncan		2.323
Randy Silvest		8.992
Lee Anderson	2.841	
Marvin Krause Trust		3.411

An exhibit showing the areas of the loss of crops is attached.

Respectfully Submitted,

Heather Ann Thomas 04/28/20

Heather Ann Thomas, PE



2017 Engineering Report 7 - For Sample Only - 01/18/2017 - 10:00 AM - 2017



NO.	DATE	BY	DESCRIPTION



USG241 2222 DATE 2222
 PUBAPP 2222 DATE 2222
 DRGAPP 2222 DATE 2222
 APPROV 2222 DATE 2222

MAIN TILE REPAIRS - DD #22
 HARDIN COUNTY, IOWA

CROP DAMAGE
 01/18/2017
 8:04