

AGENDA
REGULAR DRAINAGE MEETING
Wednesday, August 19, 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:

[08_05_20 - DRAINAGE MINUTES.PDF](#)
[08_12_20 - DRAINAGE MINUTES.PDF](#)

4. DD 22 WO 176 - Discuss W Possible Action - Completion Hearing
5. DD 121 WO 295 - Discuss W Possible Action - Investigation Summary / Landowner Meeting

Documents:

[DD 121 WO 295 -6934.1 - INVESTIGATION SUMMARY - 07_24_2020.PDF](#)

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

Documents:

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

7. 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](#)

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

Documents:

[DD BIG 4 MAIN - WO 247 - 5734.1 - REPAIR SUMMARY - 08_03_2020.PDF](#)

9. JDD H-H 118-232 WO 281 - Discuss W Possible Action - Repair Summary

Documents:

[DD H-H 118-232 -WO 281 - 8778.1 - REPAIR SUMMARY - 08_03_2020.PDF](#)

10. Discuss W Possible Action - Drainage Utility Permit Process

11. Other Business

12. Adjourn Meeting

REGULAR DRAINAGE MEETING

Wednesday, August 5, 2020 9:30 AM

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

8/5/2020 - Minutes

1. Open Meeting

Hardin County Drainage Chairperson Lance Granzow opened the meeting. Also in attendance were Trustee BJ Hoffman; Trustee Renee McClellan; Lee Gallentine of Clapsaddle-Garber Associates (CGA); Jacob Handsaker of Hands On Excavating; Shaun Piel; Michael Pearce, Network Specialist; and Denise Smith, Drainage Clerk.

2. Approve Agenda

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

3. Approve Minutes

Motion by Hoffman to approve the minutes to Drainage Meeting dated 7-29-20 and DD 56 Landowner Meeting dated 07-08-20. Second by McClellan. All ayes. Motion carried.

4. DD 52 WO 215 - Discuss W Possible Action - Crop Damage Claim 2020-4

Shaun Piel was present electronically to discuss DD 52 Crop Damage Claim 2020-4, filed by Tracey Below, tenant on property that was owned by Piel in Hubbard. Below's claim directed payment be made to Piel. Granzow asked Piel to share his concerns. Piel stated he received a packet of info from the Clerk, and there are some gaps in the logic in how we approach the problem. Granzow stated normally we would reseed and the request was made by both Piel and Below that they just wanted the cost of reseeding. Piel stated that was more of a Below thing, in Piel's opinion in a damage claim you go by the value of the thing damaged, the value of the seed does not have the same value as the crop, the seed value is much smaller. Piel made an analogy that if a car is totalled out the insurance company does not go by the steel value, they go by the car value. Granzow stated that with drainage within the easements, we are not entitled to pay anything but we try to with crop damage. Granzow went on with hay ground that is more complicated, and Handsaker has sat through this as well with waterways, which are a little more complicated, the field gets leveled out annually due to crops, so golf courses, waterways, hay fields are newer to us as far as doing damages, but we are trying to do our best as Trustees to everyone. Granzow stated this is not an insurance company and this is not an insurance claim, it is a claim against yourself. Granzow stated, you the landowners are the district, the Trustees are not part of this district and we have no claim to it, but what we have to do is make it fair for everyone in that district, and this is about the best we can. Granzow stated normally there is nothing in the Code of Iowa that says we have to pay crop damages, we just did, but when the damage is incurred by the property owner in some cases we don't do that, and is not implying Piel intentionally incurred anything, it is just trees.

Piel stated that as he reviewed the previous discussion, it does not seem to infer that there is no responsibility in the discussions, maybe Granzow is right as Piel is not familiar with Iowa code, but as far as assigning who is actually responsible, and there was a legal opinion given on evaluating whether or not negligence on the landowners part would reduce the district's liability towards the landowners. Piel felt this was one of the things that had a logic gap, was that big legal opinion. As Piel looks back on the notes from 3-25-20, Mr. Granzow saying the two years it was dug up are the district's responsibility, that quote tells Piel we are in agreement, that at one point it would have been the responsibility to pay that out. Granzow stated the district tore it up, and can't disagree with that, Granzow asked if it was a motion, and action or just a statement. Piel stated it was a quote in the minutes, not a motion or statement of action, but that it supports that there is a lot of discussion of whose responsibility it was and how long it took to get approval, which is something Piel would like to discuss also. Granzow stated when he spoke with Piel on the phone, Piel had stated he received the notice and assumed the Trustees would go ahead and remove the trees, we had to have it in writing, there is a time lapse there. Piel stated it wasn't a huge time lapse, but Davis Brown required a notary signature which was a challenge, Piel was in the process of relocating and changing jobs, and you start off at zero PTO so it is hard to get time off to get a notary signature.

Gallentine interjected that Davis Brown sent Piel something back in early 2019, in August of 2018 Gallentine sent a letter out that required no notary signature, that letter got no reply, that is the only the only reason Davis Brown got involved, is because we did not get a reply to our standard letters. Piel stated the way he read that letter was that if Piel did not object within 30 days, work was going to proceed on removing the trees, Piel chose not to respond because he assumed it would all commence on its own. Gallentine stated that may have been Davis Brown's letter, Gallentine stated his letter said in it's last paragraph, if you are in agreement please acknowledge so by signing this letter and return. Piel stated he believed it said somewhere in there, that it would proceed regardless, and that they requested a response, but his understanding was he didn't have a choice in the matter

and it would commence regardless. Granzow stated he thought they were both saying the same thing, but our proceedings would be going to the attorney and moving forward, not going through with the project, because we still need something to allow us to do that. Granzow asked if that cleared it up for both of them. Gallentine agreed it did, Piel stated possibly, he remembers Davis Brown. Granzow stated we had to go to an attorney because you didn't sign it to proceed forward with the project, we can't proceed with the project without all the legal papers first, Granzow thinks Piel understands it but our procedures are different. Piel is not familiar enough with the procedures or the legal implications of it, but assumed all was moving forward with it and no action was needed. Piel stated in terms of what a lawyer would do, he didn't know but they reached for an agreement but they didn't have any language that would imply that he had no choice. Piel stated that was late in the year and there was flooding damage in 2018. Granzow does not recall. Piel thought that 2018 was submitted in the claim. Smith stated below submitted a claim for 2016 through beginning of 2020. Piel stated he may agree with Granzow on that, but did not know about the flooding issue until much later, but that 2 years does seem appropriate to Piel, in 2018 the attempt to take action on this was pretty late in the year, and the damage was already done, the following year was damage related to the removal, so we have two incidences of damage.

Piel stated in his opinion this could have easily been prevented because we knew there was an issue in 2013 there was apparently roots were removed in that same tile, but to his understanding the trees were left. Granzow stated the trees were removed within the right of way, we are talking about this exceptional part where trees were removed outside of the right of way, and that is why we were contacting you for that easement. Granzow stated we have so much space within an easement and in '13 they were removed within the easement, but that did not pull them back far enough, the roots still got back in within 10 years. Gallentine stated in 2013, we removed the tile and replaced it out farther away from the trees, so not only did it get back in, the tree roots went farther out. Granzow stated that is why we reached out to you to try to get that easement, to try to take the trees out farther away from the tile to help prevent this from happening. Piel's recollection was that much of an emphasis placed on urgency but has not read the letter in 2 years, that this was more of a preventative maintenance of things, and even Davis Brown did not address this. Granzow recalled that this was left open for two years. Gallentine replied that we removed as many of the tree roots as we could, there was a section of tile that was missing and was an open ditch which was left open, and the water flowed through the tile to the open ditch and back into the tile.

Granzow stated the flooding issue should have gone away, but the disturbance of the ground is what we were talking about during this time frame, Granzow asked how long the ditch was left open. Gallentine stated it was left open from the summer of 2018 to earlier this year when contractor Seward went back and repaired it, it should not have flooded in that time because it was flowing. Granzow stated prior to that time we don't pay for flooding damages, we would pay damages if we created the problem, but we did not create the problem, what we created was an opening, and we left it open for a longer period because we were waiting on all this paperwork and the time it took to extend a farther reach on those trees. Smith stated the claim was paid for 2019 crop year for \$430. Granzow stated we paid for one crop year which would have taken one crop year if everything had just clicked right in a room, but we paid for the damages at a request from both Below and Piel. Smith stated the claim was submitted by just Below. Granzow stated the request was also to go to Piel and not Below. Piel stated Below owed for rent and it was easier to collect it this way, and Piel wasn't familiar enough with the situation to file the claim but the other thing Piel wanted to bring up is the way this was paid out, there was a claim for \$715 and this is where he sees another logic gap was that someone decided it should be paid at a lower amount with cheaper seed because it was being sold. Granzow stated we received a quote for Round-Up Ready alfalfa, which was a higher dollar amount, we will reseed just alfalfa, because that was what was in the field, the quote difference was between regular alfalfa and Round-Up Ready alfalfa, and had nothing to do with the sale of the property.

Piel stated he was pretty sure it was Round-Up Ready in the field and we are already paying raw material cost rather than actual damages, going with a seed that is 60% of cost of this other seed. Granzow stated when we deal with claims on CRP ground, we don't pay for CRP seed, we pay for grass seed, that is the same way with all districts, even if you have a premium crop in there we will just pay on the crop. Granzow stated he did not know if Round-Up Ready alfalfa was in the field already, the quote we were given specified Round-Up Ready seed, we sent that back to the contractor and asked what does regular alfalfa cost. Granzow stated it was truly an alfalfa field, if you tear it up that year or not, if it has been alfalfa for four years, more than likely you will tear it up, you have gotten the life out of the alfalfa.

Piel stated he disagreed with the way they are doing it because when you pay damages and you only pay raw material costs, you are not compensating for actual damages, it is a very inexpensive way to go about it. Piel stated if you want to pay full value, he does not see the big problem with that. Granzow stated if we were to pay what Piel calls full value, that is the problem because we are trying to keep consistent in what we do in all the other districts as well, this is why we did it this way is to stay consistent, again it goes back to we don't have to pay you anything, but Granzow does not believe that is right either. Smith stated our crop reimbursement rates are based off the USDA Crop Loss Insurance Risk Rates for that year, so we based the prices on this 2019 report, and one of the issues with alfalfa is it is little more subjective crop because you have first cutting, second cutting, third cutting and there are quality differences in all of those different cuttings, and the rates for alfalfa are not spelled out in the

USDA Crop Loss Insurance report, so Smith deferred to the Trustees and asked for guidance as well, which is noted in the minutes. Smith stated there are differences in how alfalfa is handled than other crops, and wanted to provide that information as well because those USDA rates do not spell anything out for alfalfa. Piel stated just because it is a more rare crop that does not have as much data, he does not know what the approach is typically, Piel assumes they normally go by actual harvest value than by seed value, and it would be appropriate to follow that guideline. Smith stated for regular crops, yes, but alfalfa Smith did not know. Piel stated that we can still estimate the value of the harvested crop, although it would not be exact, it would be far better rather than going by seed value. Granzow stated that the request was to pay for the seed value in lieu of crop damage by the tenant who has the claim. Piel asked if we modified the claim would we be able to rectify that. Granzow stated it was over, the tenant's claim was satisfied and the tenant requested the claim be sent to Piel.

Piel stated then let's at least make it right with a larger amount of seed value, Piel felt this was not a very fair approach to this and we probably spent 10 times as much as this on legal opinions that say you guys might not have to pay out if the landowner is negligent. Piel asked why we are wasting so much money on lawyer opinions on less than a thousand dollar payout when we can just round up and pay it out. Granzow stated we don't do that, he knows what Piel is asking and wants, but if we were to do that once we would have to do it every time. Gallentine stated that the legal opinion was on taking trees outside of the right of way, not with crop damage inside the right of way, which are two separate things. Granzow stated that was correct. Piel stated there was a different legal opinion than what is on here. Granzow stated when we are talking about the crop damage claim we are at a standstill because the person that filed the claim accepted it, and had he wanted to change that he would have had to approach us at that point with the claim, and Below wanted the money to go to Piel instead of himself on his own crop damage, Granzow stated we can put that to rest as we are not getting anywhere, Granzow stated he knows what Piel wants but just can't do it. Piel stated, of course you can do it, there is always a way, why don't we just do two years instead of one.

Smith stated she wanted to interject with the last legal opinion that we received from attorney Mike Richards who got back to us on this claim, Smith shared Richard's reply with the Trustees at the time, and the minutes from that meeting state "Mike Richards reviewed the claim made by Tracey Below and Richards reply states that the information provided by Below is not enough to substantiate his claims associated with alleged damages caused by drainage tile, that there is technically no obligation in this circumstance to provide any compensation to Below as drainage districts are not subject to liability claims for money damages. Richards cited several cases and goes on to say that a landowner within the district can sue a drainage district to compel, complete or correct the performance related to the tile and drainage districts are not susceptible to suits for damages and cites several cases in his letter. Richards goes on to cite several of those cases and in one which was Holler vs. the Court, concluded that a landowner can not sue a drainage district for damages caused by flooding from maintenance or by failure to maintain a drainage system. In short, attorney Mike Richards thinks that DD 52 should deny the claim for damages as submitted by Below." Smith stated that was our last legal opinion and it took her a moment to find it in our previous minutes, Smith stated the Trustees have done the best that they can to satisfy the claim as presented and have gone beyond their possible requirements to do so. Granzow stated we did pay an attorney to answer that question.

Piel stated we are wasting tremendous amounts of money without even thinking twice on these legal opinions for a very small claim to the landowner and we are looking for the cheapest seed possible. Piel stated are we trying to spend as much of the districts money as possible on legal fees instead of paying landowners, that is Piel's impression. Gallentine stated the cheapest way possible to deal with trees is to not plant them near a tile. Piel stated we could eliminate all the trees in the world. Gallentine stated in the beginning, if the trees had not been planted so close to the tile that would have been cheapest solution. Piel stated the field still has trees all the way around, and asked are we going to go in and cut every homeowner's trees within the vicinity. Gallentine stated most of the trees don't affect the tile the way the Aus trees do. Piel stated it would make more sense to have regulations on what kind of trees and at what distance would make more sense. Granzow stated we can always do anything and we got a legal opinion on why we did this as that legal opinion will stay with us on every district, but to pay money to someone just because they want money, and we can't justify, Granzow needs an answer as to why we justified it in the first place, that is where we got the answer in the dollar amount we came to, which is more than the legal opinion gave but it was justifiable. Piel stated it may be too late, it is just a really bad practice, you are shoveling money into the attorney's offices, it was a small amount of money that it was went to very great lengths to minimize it from \$700 down to \$400, Piel does not understand why you just couldn't give him the extra \$300, but if we are just going to close the books on it, Piel will move on and deal with it. Piel stated he did not understand why we are willing to shovel so much money into the attorneys on such simple unnecessary legal opinions rather than just pay out a small amount of money. Granzow stated it was precedence, and did not want to finish yet because we are only half done.

McClellan stated she wanted to comment, since McClellan has been on the Board there has been a number of times this district has come up due to these Aus trees and we have tried numerous time to contact Piel with no response. McClellan stated landowners do have responsibility when they own property and we tried to contact Piel

a number times to remove the trees and gave Piel an opportunity to do the work, but if it ends up being the district then everyone in the district ends up paying for it. McClellan stated that now over a few hundred dollars this is the only time we get a call from Piel, and that is McClellan's problem with this. Piel stated he was unsure what McClellan was referring to, we talked about the time-line of less than a year to get it resolved and there are various reasons for that, in terms of Piel removing the trees, he does not ever recall having that conversation or letter or contact, you may be referring to Piel's father who passed away in 2014. Piel stated whatever conversations you are referring to were not with Piel except for the one we talked about earlier in this phone call. McClellan stated her term on the Board did not start until January of 2015. Granzow stated the conversation Piel is referring to were had back in 2010. McClellan stated there have been a couple of other times we have tried contacting Piel with no response. Piel stated you are speaking of non-verifiable accusations here, we have the one on the agenda Piel has that begins in August of 2018. Granzow stated in December of 2010 prior to any of this Board, there was motions made to clean those trees out, it was the last meeting before Granzow came on to the Board and he sat through that meeting about moving the trees.

Piel stated he feels this is negligence on the Board's part, in 2018 it became a rush because it was not done in 2010. Granzow stated the trees were removed in 2013 from the 2010 issues, which is what Gallentine referred to earlier, the roots worked their way back in. Granzow stated that is why we reached out into the area outside the easement, which is what he wanted to discuss as well. Granzow asked how it looks outside the easement area, this would be the part that they reached out farther to take out the trees, and does Piel want to submit a claim for that. Granzow stated we have beaten the field to death and that is all done, but is there a claim outside of the easement Piel wants to submit instead. Piel stated so there is a claim for the easement that still needs to be paid. Granzow stated this would be outside the easement. Gallentine stated he did not think there would be any payment for easement itself. Granzow stated he is referring to damages done, and asked if there were any damages done outside the easement. Piel stated he would have to check with Below on that. Granzow stated the rent between Below and Piel is not the Trustees problem, that is Piel's. Granzow stated the question of the damages would have went to Tracey, as he requested that be in a dollar amount instead of a repair amount, and that is the dollar amount it came to if we were to go in and reseed it, that is the amount, whether it is RoundUp Ready or not, that is the amount. Granzow stated Below requested cash value, which does not mean what value, it is cash value of reseeded, and Below requested that it go to Piel and that both Below and Piel were fine with that, that is just not the dollar amount that Piel wanted. Piel stated that is how it worked out except for the dollar amount. Granzow stated that is above and beyond what had to be done in any measure the Trustees had to do, but we need to stay consistent with all our districts, not just a little fair her and there, we are beating this to death and we are not going to change our minds on it.

Granzow stated he would like to discuss the part outside the easement where we had to get an attorney involved, were there any damages beyond that point that we can address. Piel stated there was a claim that the new landowner was considering filing. Granzow stated that is the problem, it sold and the new landowner has filed a claim that is not entitled to anything, Granzow asked if Piel has a claim. Piel stated he will have to get all the facts together and assemble it. Smith stated there was a claim form included in the minutes documents she provided to Piel that he can fill out and return to the Drainage Clerk. Granzow stated he is not saying we are going to do anything, Granzow stated that is more of an open discussion than the hay field, and we would have to see what the claim is, Piel may add everything in and we may subtract some things and will just have to see if we can meet in the middle. Granzow stated as far as the new owner, Meister giving us a claim, there is no claim there for him, as far as Below submitting a claim, there is no claim there for him. Granzow stated if Piel has a claim the Board will have to review that, but Piel is no longer a landowner so this is a challenge and Granzow does not know how that would work, and suggested Piel submit his claim. Piel stated he would gather some facts because he does not have them all, and will get the form filled out. Smith stated Piel could reach out with any questions he may have. Granzow thanked Piel for his patience.

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

Contractor Jacob Handsaker was present to provide update on WO 279. Handsaker stated this was the last work order we had to wrap up with on a multiple district project. Landowner Dean Bright had concerns about a side hill that was weeping, Handsaker's crew did extensive exploration, they did find a 40' section of old house drain, that had been connected in already on the top end, but that 40' or so was still seeping water. Handsaker stated it had been day-lighted into the crevice before they started, they intercepted that and it was still pulling water when we found it. The top end is hooked up so it has a good outlet. Handsaker stated CGA had sent an observer out to review their work, they dug all through there and didn't find any lateral coming in and it looks like a sidehill seep, Handsaker would like to hear CGA's observer's thoughts on this. Handsaker stated as part of their agreement, Hands On paid for televising of the tile, and they had Paul Williams come out and televise the tile. Handsaker provided the video to the Trustees at the meeting, Handsaker noted no crushed or rippled spots, there was good slope on the tile.

Handsaker noted that down at the end of the tile at about 840' to 860' there is some root intrusion at the end of the line. Gallentine asked if the video was just provided to the district and not CGA, Handsaker stated it was just put on his computer this morning and will provide a copy to CGA. Handsaker direct the video be forwarded to the 3/4 mark, and noted the yellow tile in the video is the plowed in flexible dual wall tile. Handsaker noted a 2 to 3 percent grade on the tile. Granzow asked if we did the flexible dual wall in lieu of concrete, Handsaker stated it was in lieu of excavated in dual wall tile. Gallentine stated this is the one Handsaker trenched in for us doing the rock bedding and the backhoe, the thought was to do this as a trial experiment and Handsaker would provide video so we could look at it and see what kind of deformations there were. Gallentine asked if the Trustees wanted to watch the whole video now or have CGA review the video and come back with findings. Handsaker stated he brought it for a quick review, as it is over an hour long, as it gets closer to the end of the video, the roots really start to come in. Handsaker stated they removed all the trees, and these roots would be all that remains of the trees above. Handsaker pointed out in the video where the tile comes to a tee and connects to the clay tile on each and then Y's off to the intake they installed. There is some intrusion from the intake sucking in some dirt, but not a lot, it is a dual wall tee. Handsaker wanted to get the video submitted, and get Gallentine's thoughts as to what more Hands On should look at to try to find any lateral tiles, as they have dug through the wet spots and not found any laterals, this would be the end of wrapping up that entire project. Handsaker stated in reviewing last week's minutes, he saw the discussion on wrapping up the entire project and releasing some things. Gallentine stated that this is not entirely the end, he still needs to receive lien waivers.

Gallentine stated CGA can watch the video and do some analysis. Hoffman stated it would probably be a good idea to have CGA look at it as this was a trial run and perform analysis that way if it comes back that we would ever decide to do a similar process using similar materials we will have something documented from CGA with some constructive criticism if it was or was not acceptable. McClellan agreed. Granzow asked if by doing this on removing the trees, does it allow that root growth to get there faster versus excavating. Gallentine stated if you excavate you pull out more of the trees because you have a wider trench, with any tree roots there is a possibility they can come back and get in the tile, hopefully they are just some sapling roots that will die off as Bright maintains that waterway and does not let the trees grow back. Granzow stated that was about the only concern he saw.

Motion by Hoffman to instruct CGA to analyze the video and make a simple report and return it to the Trustees for future reference. Second by McClellan.

In additional discussion on the motion, Granzow asked about the side hill seepage mentioned by Handsaker. Handsaker would like CGA's thoughts on that and if there is something more that Hands On needs to do, Handsaker will send more guys out there, if it appears from the observer's point of view that we need to do due diligence or if it is up to private tile issues for Bright, Handsaker would clarification on that decision so he knows when we can call this project done. Granzow asked if we could have that info back by next week. Gallentine stated we can't call the project done until we have the lien waivers. Handsaker stated we are working on the lien waivers right now. Gallentine will reach out to Bright for his thoughts as well. Smith stated she would get the video to Gallentine.

All ayes. Motion carried.

6. Discuss W Possible Action - IRUA Service Request

Smith stated contractor Jacob Handsaker received a request for service connection to IRUA water from a homeowner, Smith provided a map and stated she was unsure which direction IRUA would be coming in from. Handsaker stated IRUA has a service line at H Ave, and would run from H Ave east to the property line. Gallentine stated it appears they would not be crossing a district facility. Handsaker stated they would not, there is no district laterals through there. Smith stated we have not received an application for a Drainage Utility Permit from the IRUA yet, if the IRUA submits an application, then we can get it on the agenda. Granzow stated if you need to cross a district tile, my answer will be a no, as we have had issues with the IRUA, but if it does not cross a district tile Granzow does not have a problem with it. Granzow stated he does not want to prohibit a landowner from getting service through the IRUA but feels the IRUA have not been honest with us. Handsaker will let them know that the IRUA needs to submit a Drainage Utility Permit application. McClellan asked if we need to act on this if it does not cross district tile. Smith stated yes because even if they are not crossing district tile work is being done within the drainage district boundaries, and it can be noted as such in the minutes and the Trustees can approve it like we did on the last request.

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

Gallentine stated this is for the project near Garden City and is Change Order #6, we had spoken at the last meeting about the landowner east of the RR tracks not wanting the old tile removed, instead leaving it in place, this Change Order incorporates that and the mobilization for McDowell's subcontractor to show up when he was trying to televise and he couldn't televise because of the amount of mud in it. Gallentine stated overall this is a net

decrease of \$2,976, and Gallentine stated he felt it would be best to have a change order on file to officially document that this tile east of the tracks is no longer district tile that is staying in place. Smith stated she noted that in last week's minutes discussion.

Motion by McClellan to approve Change Order No. 6. Second by Hoffman. All ayes. Motion carried.

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

Smith stated she had spoken with Gallentine about the NRCS Wetland determination for DD 56 and asked Gallentine to elaborate. Gallentine stated he reached out to the NRCS about the wetland determinations in DD 56 where we are splitting the district into two halves, and has talked to them generally and have gotten to a rough tentative agreement where we feel the improvement would be affected on the ground, but the NRCS is not willing to take that conversation any further until he has active determinations from the landowners. Gallentine asked if it would be helpful to have the district send a letter out to please get your wetland determinations and get those back to the district as soon as possible. Gallentine stated NRCS won't imply which area CGA should get determinations from as that may imply who has or does not have a wetland determination, Gallentine stated we talked about the tile route and generally that this portion of the route may see an improvement or not.

Motion by Hoffman to instruct the Drainage Clerk to send out a mailing to DD 56 landowners to encourage landowners to get their wetland determinations from the NRCS. Second by McClellan. All ayes. Motion carried.

Handsaker stated that the edict came down from Washington that they wanted all the wetland determinations to be completed with a year, but they had such a backlog in southern Iowa plus Illinois, Wisconsin and Minnesota, that he has heard the NRCS is not doing any work in this area currently. Granzow stated this project may take a while. Gallentine stated he can't do anything with wetlands without a determination. Smith requested Gallentine review the draft of the letter to ensure it includes all the pertinent information. Gallentine will review the letter.

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

Action on DD 48 WO 237 was postponed until the next Regular Drainage Meeting.

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

Action on DD 121 WO 295 was postponed until the next Regular Drainage Meeting.

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

Gallentine stated this is Kevin Vierkandt's question on what is going on with the intake on Kent Pecht's property. Gallentine stated what CGA found in the area where the fenceline was cut and the intake was installed, based off of the maps it is private tile and not district tile. The district tile stops about a 1/4 mile south of there and heads off to the northwest instead of due north. Gallentine stated if the Trustees would like, CGA can do a detailed search of the history to verify that, but based off the map, it is not district tile. Gallentine stated the district could be the solution but it would involve installing a lateral or installing a new facility. Granzow stated even with Kent's request to up-size the tile it does not affect the district at all. Gallentine stated the shaded area of the map that says GA McPherson, the yellow highlighted area that runs from north south and starts going off at an angle, that is where the district tile is, where the issue is at is actually 1/4 mile farther north on the edge of the pink area if you went straight up. Based off the maps this issue is a 1/4 mile away from the district facility, you could fix it if you chose by installing a lateral up there but you don't have to. The secondary issue is that all this water goes down about 3/4 of a mile and ponds at 115th. Gallentine stated you could install something bigger so it drains away faster but the primary issue is the washout that occurs in between that Vierkandt is not happy with, but not necessarily the ponding. Granzow asked where the intake is on the fenceline is not even district tile. Gallentine states it shows up on the GIS as district, but if you look back through the maps it is not district tile. McClellan asked if this area was ever annexed into the district. Gallentine replied it is inside the district boundary but is not district tile. Granzow stated it is not a district main, but did Vierkandt hook into the district main and hickenbottom it to the fenceline. Gallentine stated no because the district main is not that far north. Granzow stated so this is all private tile according to the maps and this is our answer to Vierkandt. McClellan stated we should direct Gallentine to notify both of the parties that it is not county tile.

Smith stated on a related note, she created a work order on this to track CGA's expenses, which we have not acknowledged yet, Smith stated she had created the work order and was waiting to see where the investigation led us, and would need an acknowledgement and signature on the work order to note that it might be included in this information.

Motion by McClellan to acknowledge DD 120 Work Order 298. Second by Hoffman. All ayes Motion carried.

Motion by McClellan to direct CGA to notify both parties and share this map that reflects this is not district tile, but private tile. Second by Hoffman. All ayes. Motion carried.

12. DD Big 4 Lat 4 - WO 195 - Discuss W Possible Action - Repair Summary
Action on DD Big 4 Lat 4 - WO 195 was postponed until the next Regular Drainage Meeting.
13. DD Big 4 Main - WO 247 - Discuss W Possible Action - Repair Summary
Action on Big 4 Main WO 247 was postponed until the next Regular Drainage Meeting.
14. JDD H-H 118-232 WO 281 - Discuss W Possible Action - Repair Summary
Action on JDD H-H 118-232 was postponed until the next Regular Drainage Meeting.
15. DD 22 - WO 176 & 192 Comb. - Discuss W Possible Action - Claim For Crop Damages - Vierkandt

Smith stated we had a request for crop damage claims from James E. Vierkandt for work done on DD 22 WO's 176 & 192, previously we had received a document from Heather Thomas of CGA that spelled out crop damages for this parcel at 2.841 acres on Lee Anderson's farm, on which James Vierkandt is tenant. Vierkandt requests payout of the claim on the damaged acres to be directed to Vierkandt, with a yield of 212 bushels per acre at \$3.90 per bushel as spelled out with USDA Crop Insurance pricing for crop year 2019, for a total of \$2,348.97. Smith also reached out to James Sweeney on the loger parcel, and another one listed on the document and is waiting to hear back from the landowners.

Motion by Hoffman to approve the Crop Damage Claim 2020-6 for James E. Vierkandt in the amount of \$2,348.97. Second by McClellan. All ayes. Motion carried.

16. Other Business
17. Adjourn Meeting
Motion by Hoffman to adjourn. Second by McClellan. All ayes. Motion carried.

REGULAR DRAINAGE MEETING

Thursday, August 12, 2020 9:30 AM

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

8/12/2020 - Minutes

1. Open Meeting

Hardin County Drainage Chairperson Lance Granzow opened the meeting. Also present were Trustee BJ Hoffman; Trustee Renee McClellan; Michael Pearce, Network Specialist; Taylor Roll, County Engineer; Darrell Meyer, County Attorney; and Denise Smith, Drainage Clerk.

2. Approve Agenda

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

3. Approve Claims For Payment

Granzow stated that due to the power outage on Tuesday, the agenda did not get displayed in time, but we do have claims that need to be paid, they are on this agenda and claims have been made out, if you so choose Smith can mail them and put them on next week for the approval, but they will be sent out regardless. Smith stated claims are ready to go out, you can review them as attached to the agenda, most are from CGA for investigations and repairs, there are a couple claims for DD 165 which is a Private Trustee district and have already been approved with a voucher, there is one claim for Honey Creek Land Improvement for tile repair, parts and labor. Smith stated it she reviewed last week's minutes and thought it would be more appropriate to put the postponed items from last week on next week's agenda, there will be a good size agenda for next week. Smith stated she could mail the claims out unless directed not to.

Motion by Hoffman to approve the claims for payment with pay date of Friday, August 14, 2020. Second by McClellan.

In further discussion on the motion, Granzow noted this agenda was not printed 24 hours ahead of time, but Drainage was put on the regular Board of Supervisors agenda. Smith reviewed public notice section of Iowa Code, and when it is necessary to hold a meeting with less than 24 hours notice posted, we have to state the nature and the good cause as the reason for the change in the minutes, in this case being the storms of Monday, August 10, 2020 and the Governor's Disaster Proclamation of August 11, 2020 including Hardin County and the ensuing power outage for the Courthouse on August 11, 2020. McClellan stated she did not think any of these claims would be contested.

All ayes. Motion Carried.

DD 11 WO 294 - Prof Svcs 6/26/20-7/31/20	Clapsaddle-Garber Assoc	\$ 1,386.50
DD 165 - Rock and dirt for tile repair	Brandt Sand & Gravel	\$ 253.53
DD 14 WO 291 - Tile repair, parts, labor, equip.	Honey Creek Land Improvement, LLC	\$ 13,943.00
DD 14 WO 291 Prof Svcs After 5/23/20 to 7/31/20	Clapsaddle-Garber Assoc	\$ 5,007.95
DD 22 WO 176/192 Drainage Claim for Damages 2020-6	Vierkandt, James E	\$ 2,348.97
DD 25 WO 1 Contract Admin Const Obsv. Rail Monitor	Clapsaddle-Garber Assoc	\$ 20,418.83
DD 26 WO 266 - Prof Svcs after 6/20/20 to 7/13/20	Clapsaddle-Garber Assoc	\$ 1,209.10
DD 48 WO 237 - Prof Svcs After 5/30/20 to 7/31/20	Clapsaddle-Garber Assoc	\$ 649.80
DD 56 WO 3 - Prof Svcs After 4/25/20 to 7/31/20	Clapsaddle-Garber Assoc	\$ 877.80
DD 56 WO 3 - Prof Svcs After 04/25/20 to 7/31/2020	Clapsaddle-Garber Assoc	\$ 409.80
DD 68 WO 293 - Prof Svcs After 5/30/20 to 7/31/20	Clapsaddle-Garber Assoc	\$ 1,333.20
DD 102 WO 265 Prof Svcs 6/26/20 to 7/31/20 Reclass	Clapsaddle-Garber Assoc	\$ 2,749.80
DD 109 WO 269 - Prof Svcs After 5/30/20 to 7/31/20	Clapsaddle-Garber Assoc	\$ 746.40
DD 120 WO 298 - Prof Svcs to 7/31/2020	Clapsaddle-Garber Assoc	\$ 1,015.80
DD 121 WO 295 - Prof Svcs to 7/31/20 Blowout Inv	Clapsaddle-Garber Assoc	\$ 1,134.40
DD 128 WO 279 -Prof Svcs Aft 11/30/2019 to 7/31/20	Clapsaddle-Garber Assoc	\$ 420.20
DD 158 WO 285 - Prof Svcs After 6/26/20 to 7/31/20	Clapsaddle-Garber Assoc	\$ 6,502.10
DD 165 - Tile repair, parts, labor, and equipment	Johnson Tiling	\$ 497.50
DD Big 4 Main WO 247 Prof Svcs 3/27/20 to 7/31/20	Clapsaddle-Garber Assoc	\$ 723.00

4. Other Business

Granzow stated we will look to see the postponed items on next week's agenda.

5. Adjourn Meeting

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



Drainage Work Order Request For Repair

Hardin County

Date: 6/3/2020

Work Order #: WO00000295

Drainage District: DDs\DD 121 (51136)

Sec-Twp-Rge: 30-86-20 **Qtr Sec:** _____

Location/GIS: 86-20-30-400-003

Requested By: Tom Gilmore

Contact Phone: (515) 450-1942

Contact Email: _____

Landowner (if different): George C Fagg Heirs

Description: DD 121 - Tom Gilmore reports blow out/ plugged tile and water running across the field on parcel #862030400003.

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:

#121

Investigation/Repair Summary:

- Tenant in the SW¼ SE¼ Section 30, Township 86 North Range 20 West reported a blowout/sinkhole, with the tile plugged, and water flowing overland as a result.
- Visual observation found a wet area on the north fenceline, multiple wet areas in the grass swale, a blowout/sinkhole, and water running overland to the downstream of the observed blowout/sinkhole. Also found exposed tile, multiple pieces of broken tile and in the in the field, and large rocks and remnants of trees that had been removed just downstream of the blowout/sinkhole.

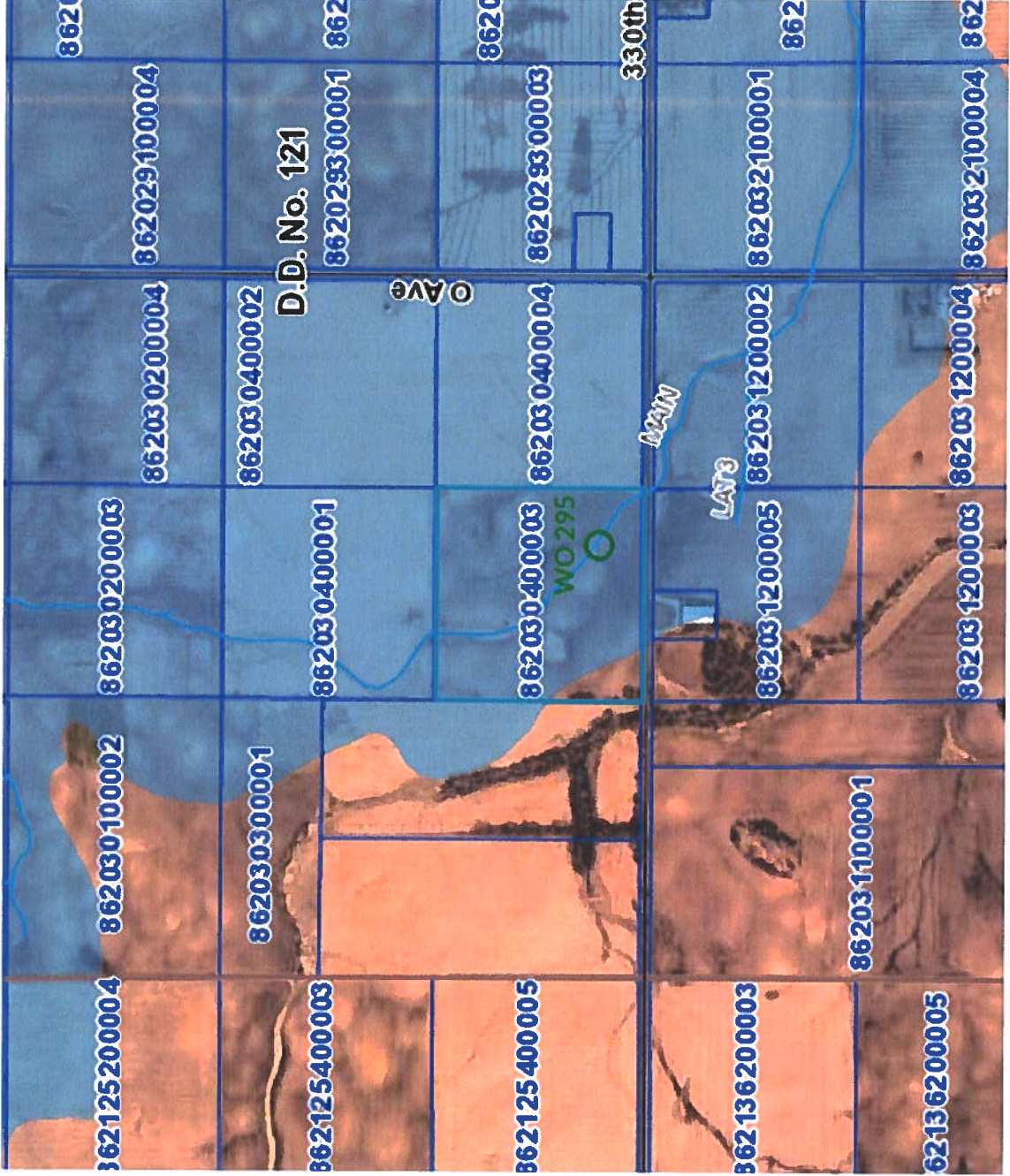
Contractor Time and Materials (spent while CGA was on-site):

None recorded as only visual observation was performed.

Additional Actions Recommended:

Due to the lack of soil cover over the tile, broken pieces of tile found in the field, and recently cut trees, CGA recommends locating and CCTV inspecting the tile in both directions from the blowout/sinkhole as the observed issue may be due to a larger-scale deterioration of the Main tile's physical condition.





8620

862125200004

862030100002

862030200003

862030200004

862029100004

8620

862125400003

862030300001

862030400002

D.D. No. 121

862029300001

862029300001

8620

862125400005

862030400003

862030400004

862029300003

8620

862136200003

862031200005

862031200002

862032100001

8620

862136200005

862031200003

862031200004

862032100004

8620

862136200005

862031200003

862031200004

862032100004

8620

Ave

MAIN

LAT3

WO 295

330th

CONSTRUCTION ENGINEERING
OBSERVATION REPORT

DATE:

6/12/20

DAYS OF WEEK:

S M T W T F S

SHEET NO.

1 OF 1

PROJECT NUMBER:

6934.1

COUNTY, ROUTE, ROAD:

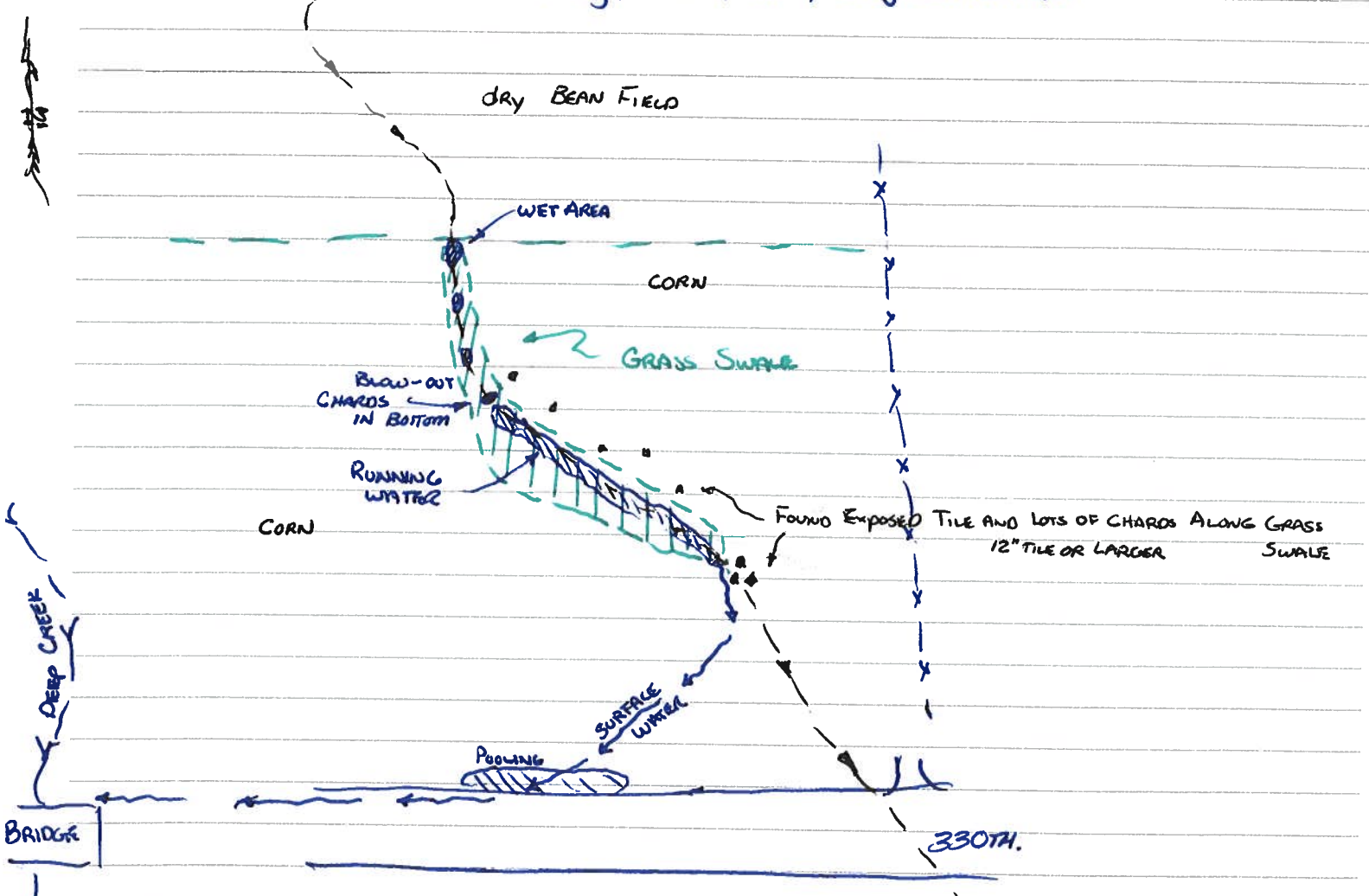
DD 121 HARDIN - MARSHALL Co.

LOCATION:

HARDIN Co. W.O. # 295

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

Sunny, Calm, 80°, dry Conditions



Parked @ 1/4 1/4 cor, WALKED TILE ROUTE FOLLOWING CHARDS IN FIELD 12" + CLAY. FOUND NOISY WATER RUNNING OUT OF GRASS SWALE TO N. SIDE OF 40 ACRES. IT LOOKS LIKE TILE IS VERY SHALLOW OR REMOVED IN SWALE AREA. SOME WATER IN SWALE IS 2' DEEP. I HAVE NO IDEA WHY TILE DOESN'T RUN TO CREEK

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

Observer's Signature: [Signature] Date Prepared: 6/12/20

Reviewed by: _____ Engineer _____ Date Reviewed: _____

LOOKING NW ON TILE ROUTE



LOOKING SE FROM TIRE CHAIRS ON MAIN ROUTE



Exposed TILE CHARDS @ SE COR. OF GRASS SWALE



START OF GRASS SWALE



WATER RUNNING IN 2' DEEP TRENCH IN SWALE



TREES CUT DOWN LAST YEAR



TREES JUST DOWNSTREAM FROM Blow-out



BLOW-OUT, CAN HEAR WATER





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

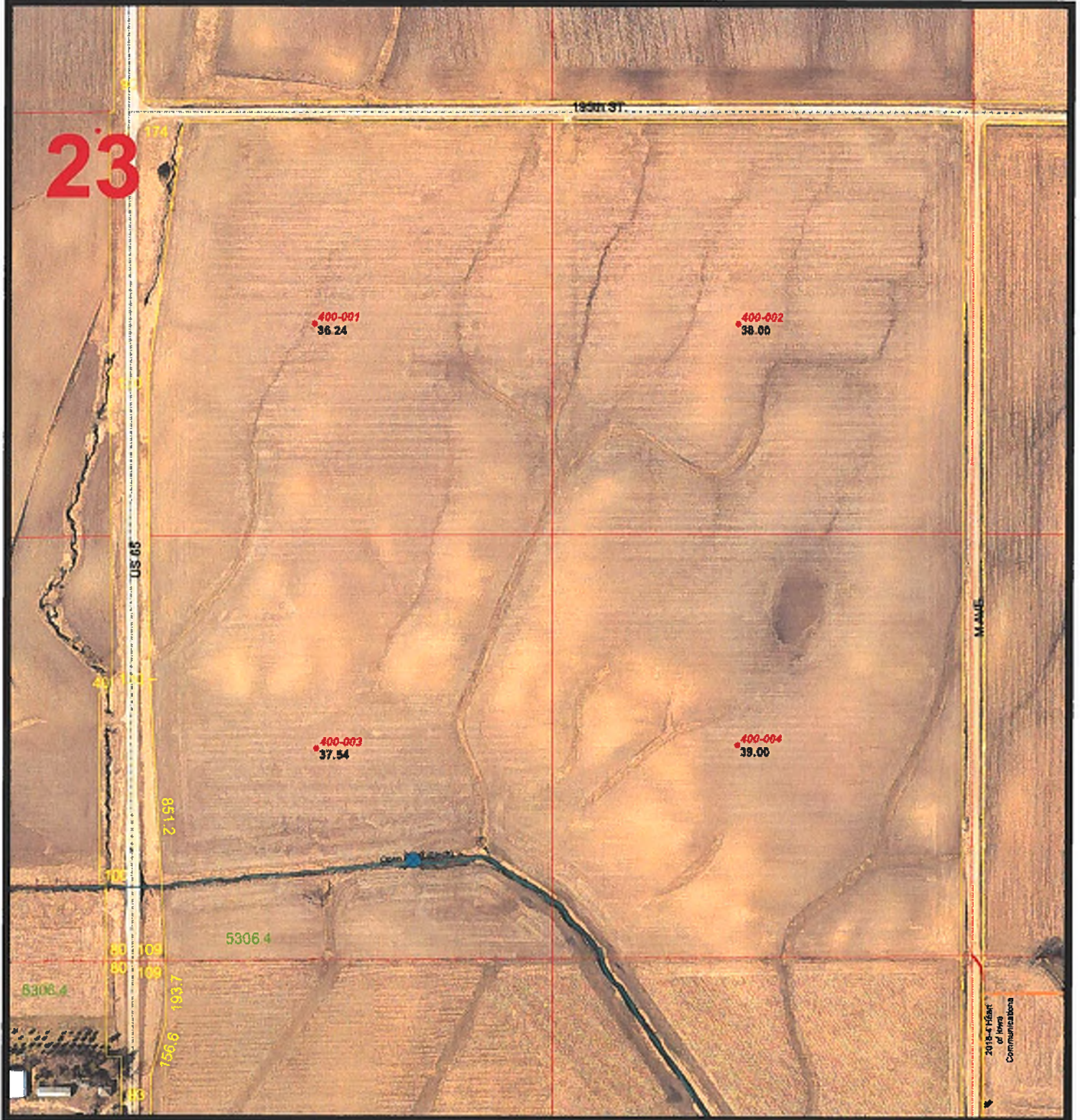
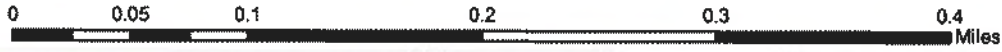
Approved: _____ **Date:** _____



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 MA AVENUE

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 MAQUENNA

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 # 64860048, 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

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 D048
SOUTH OF 195TH STREET, EAST
OF HWY 65 & 1533' WEST
OF MAVENUE

SHEET NO.

3 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 #64860048, SURVEY

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

WITH 2 SKID LOADERS FROM BORROW AREA
IN FIELD.

6:19 P.M. PICTURE #20

7:30 P.M. CREW LEFT SITE FOR DAY

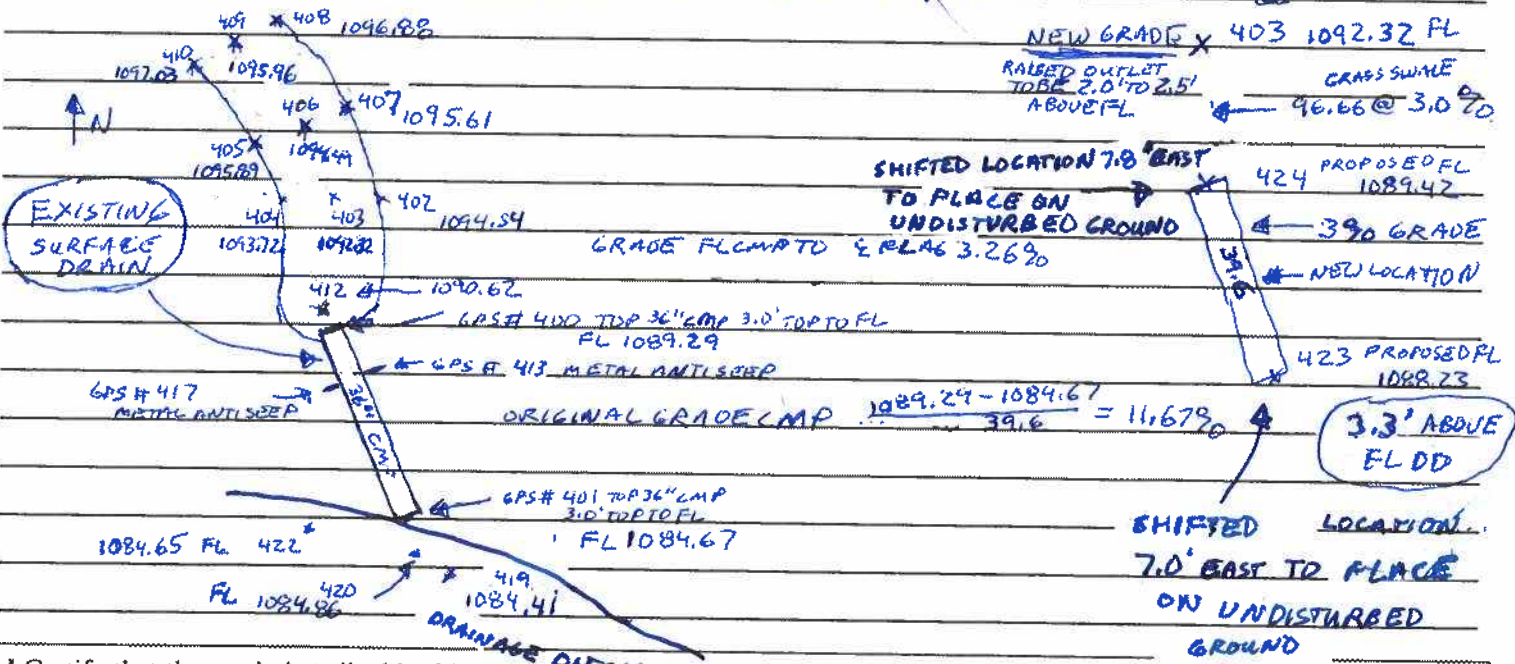
7:50 P.M. PICTURE #21

7:55 P.M. OBSERVER LEFT SITE AFTER MARKING GRADE ELEVATION

FOR SURFACE DRAIN AFTER CREW LEVELLED BOTTOM OF TRENCH WITH
SKIDLOADER, OBSERVER CHECKED INTO GPS #300 3/4" Ø IRON ROD IN

SW CORNER FIELD DRIVE ON WEST SIDE OF M AVENUE 660' E NORTH OF 20482 M AVE
DRIVE WITH BOTH HORIZONTAL AND VERTICAL CHECKING GOOD.

QUANTITIES	TEFF	11 1/2 HOURS	TAKEUCHI TB130FR MINI EXCAVATOR	11 1/2 HR
PERRY	9 HOURS		CASE TR340 TRACKED SKIDLOADER	11 1/2 HR
ADAM	4 1/4 HOURS		CAT 299D XHP TRACKED SKIDLOADER	2 3/4 HR
CARSON	4 1/4 HOURS		JUMPING JACK COMPACTOR	2 3/4 HR
ADAM & CARSON	GETTING ANOTHER SKID LOADER	1 1/4 HOUR		



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

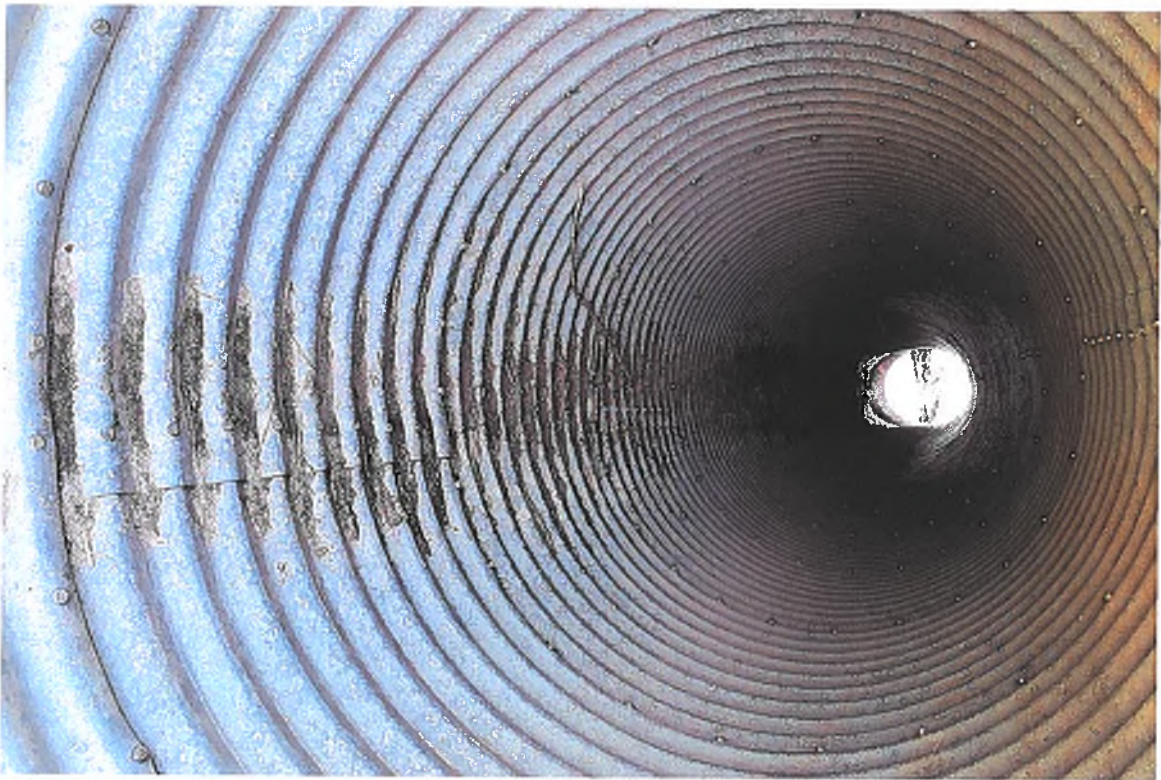
Layers:

- 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 Airspace 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

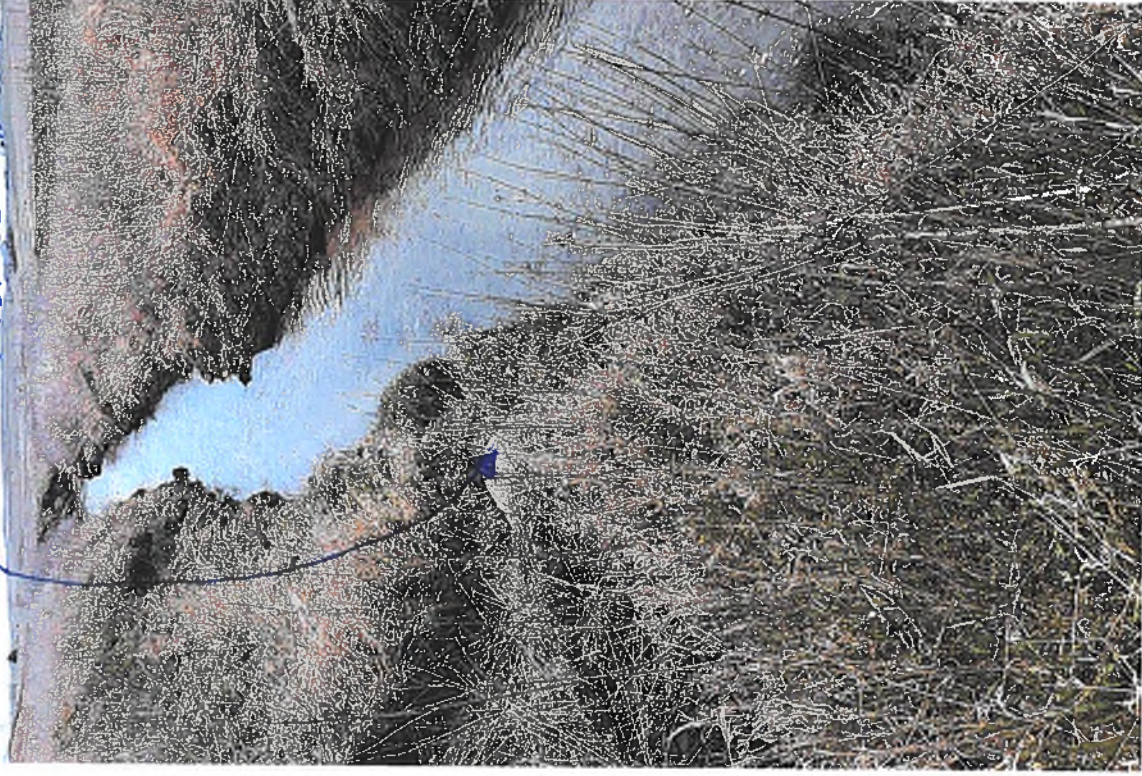


GPS# 401



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

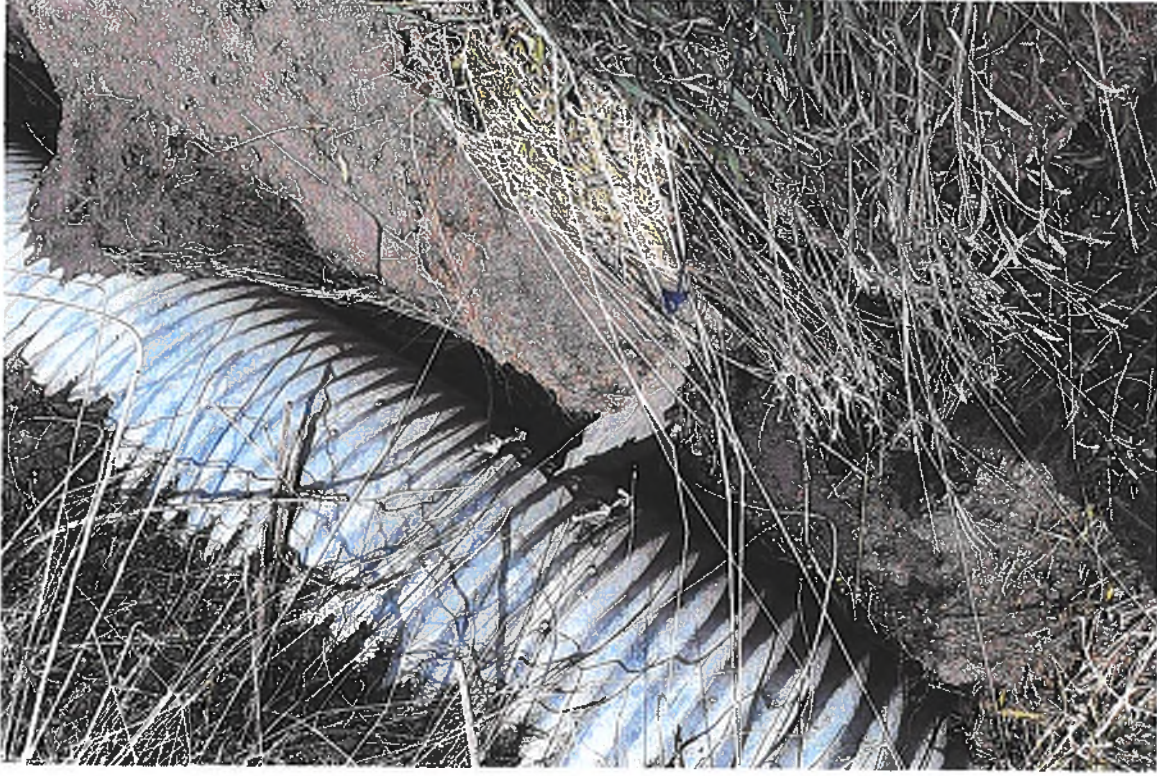


GPS # 401.
CMP 36"
3.0' TOP
TO FL



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

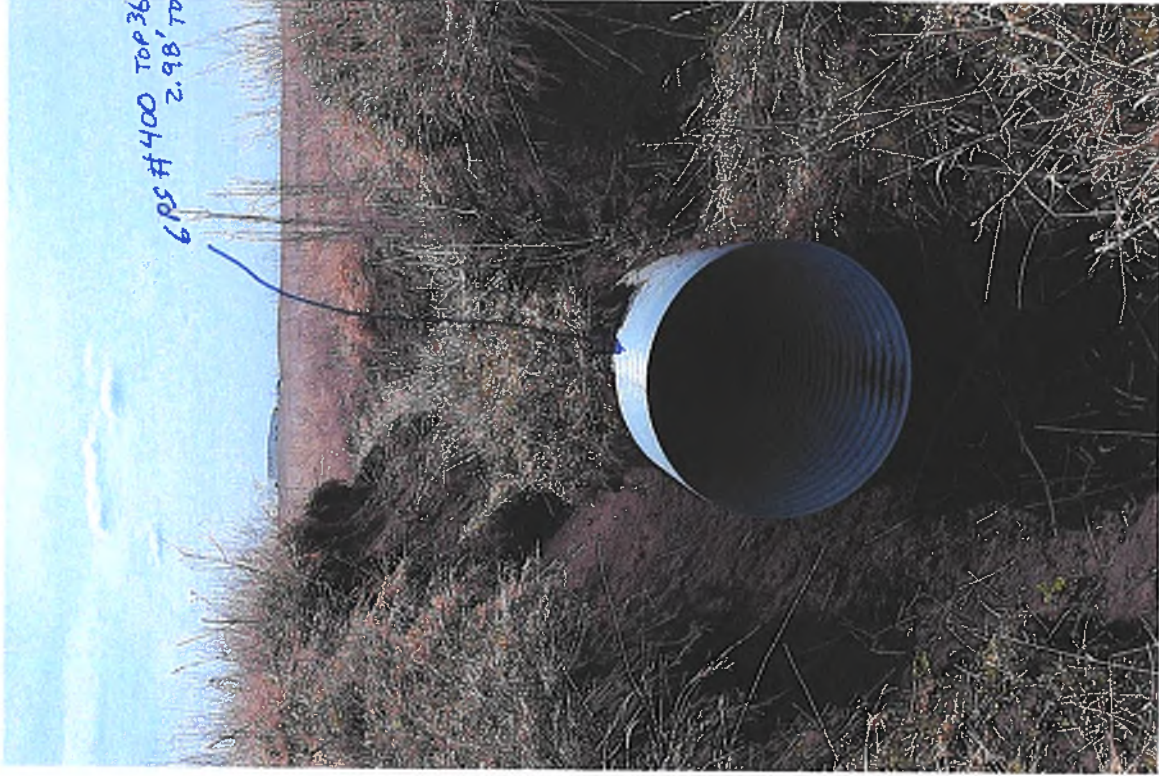
PICTURE # 5 IS LOOKING NW ON EAST SIDE
OF 36" CMP AT DRAINAGE DITCH ERODED
WITH METAL ANTI SEEP COLLAR EXPOSED



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.

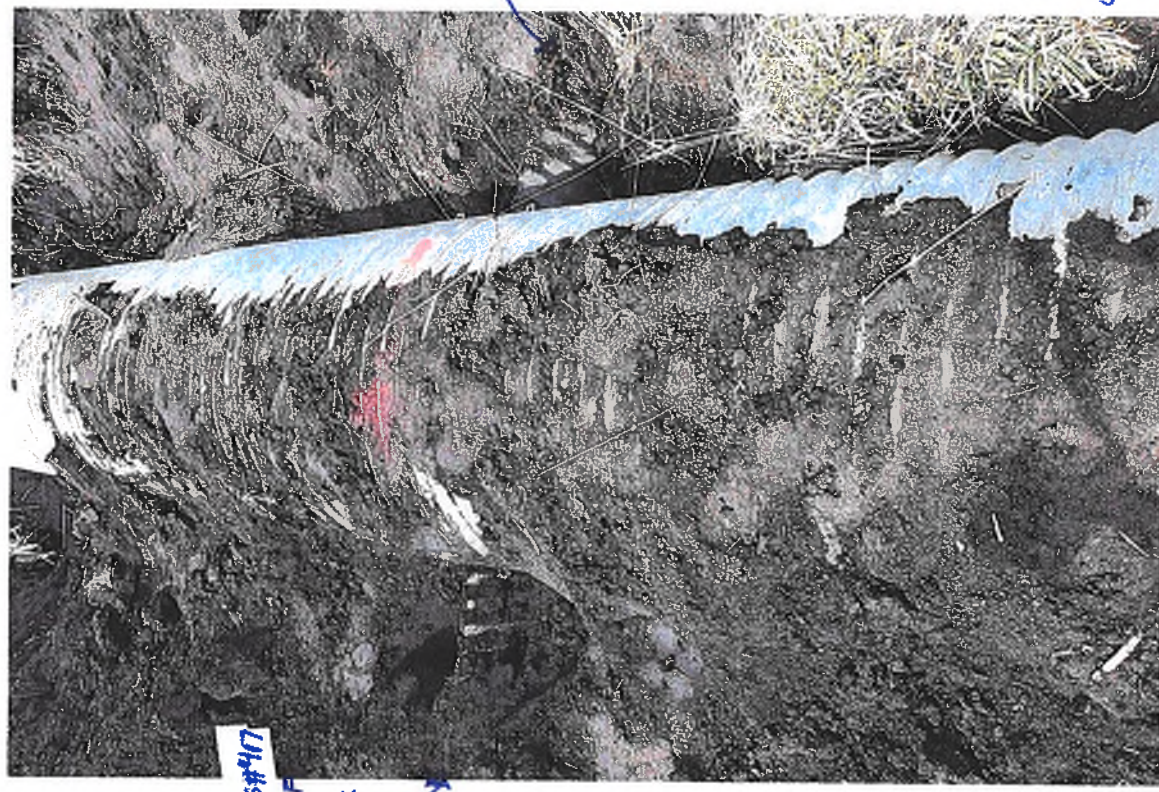
PICTURE #9 IS LOOKING NORTH OF 36"
CMP SURFACE DRAIN INLET AT GRASS
WATERWAY



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.

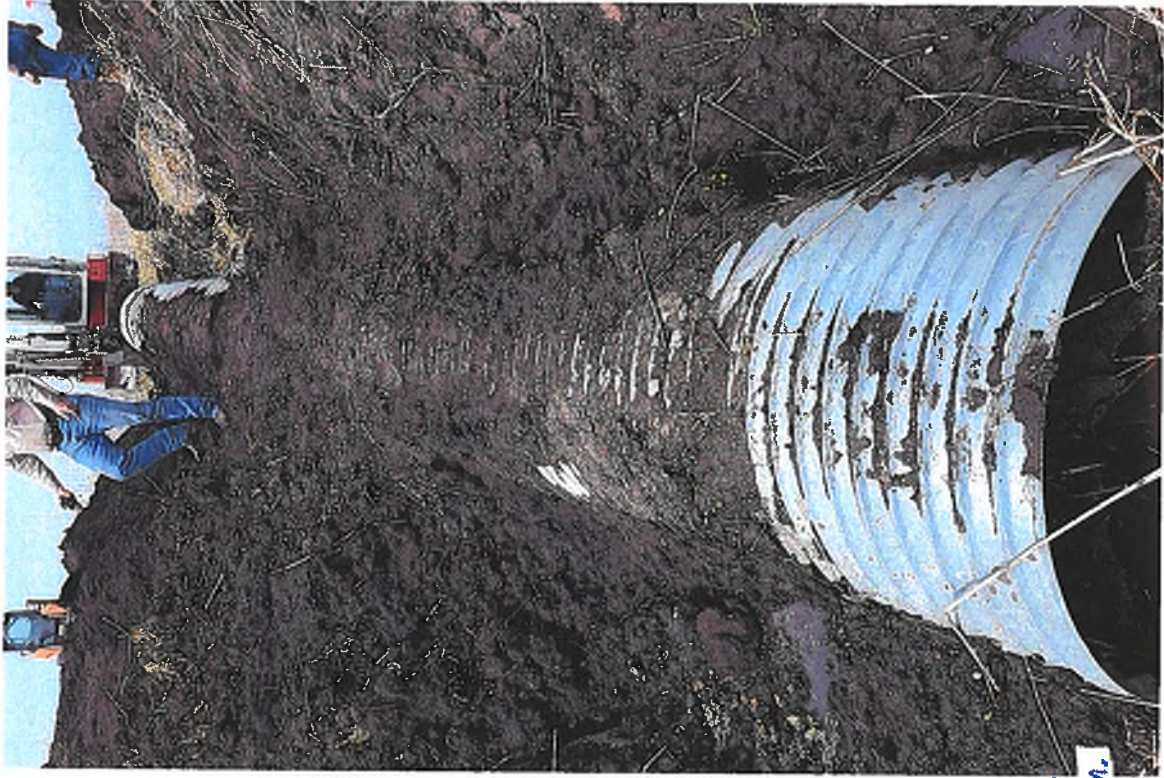
PICTURE #10 IS LOOKING SOUTH SHOWING GREW STRIPING OFF TOPSOIL FROM AROUND 36" CMP SURFACE DRAIN



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.



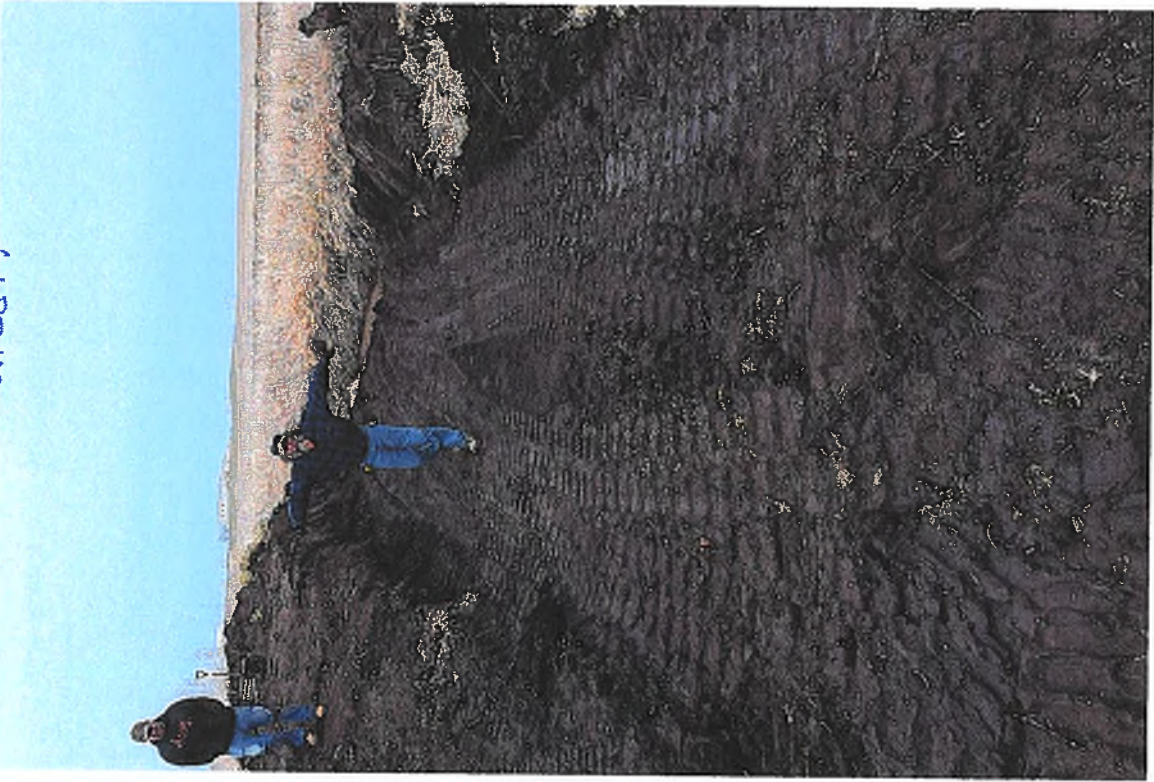
04/16/2020
3:07 P.M.

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,



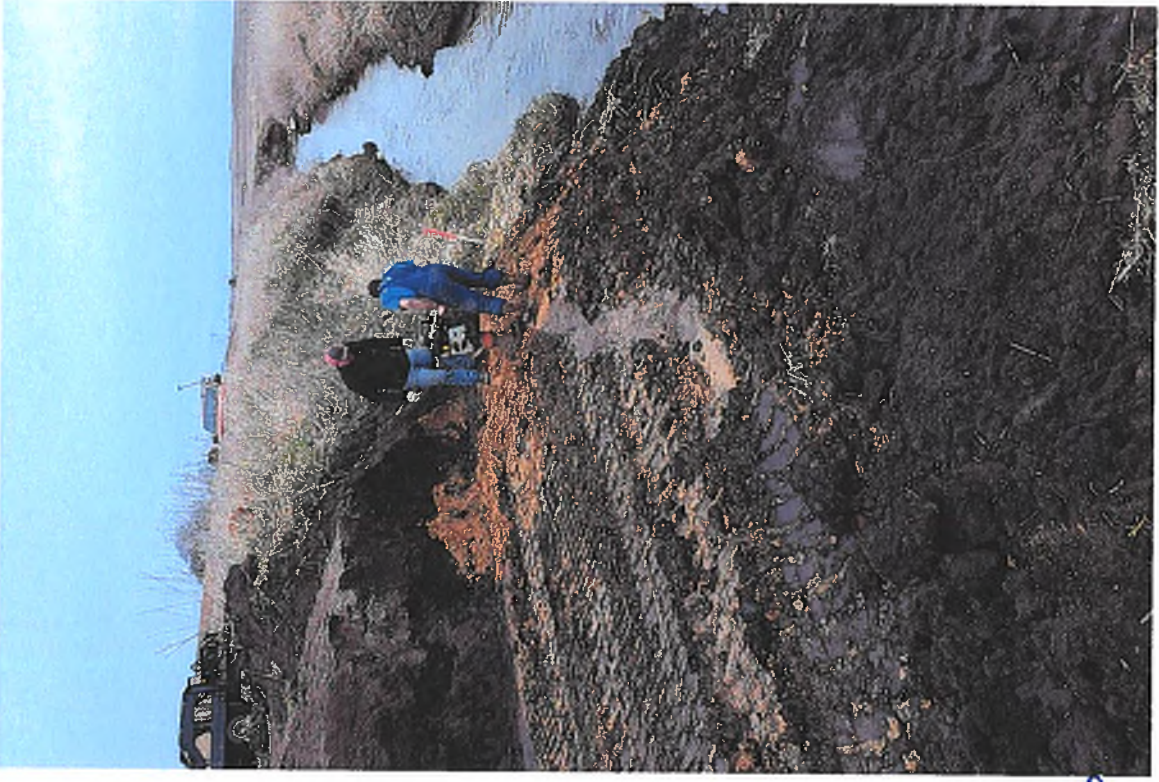
04/16/2020
4:11P.M

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



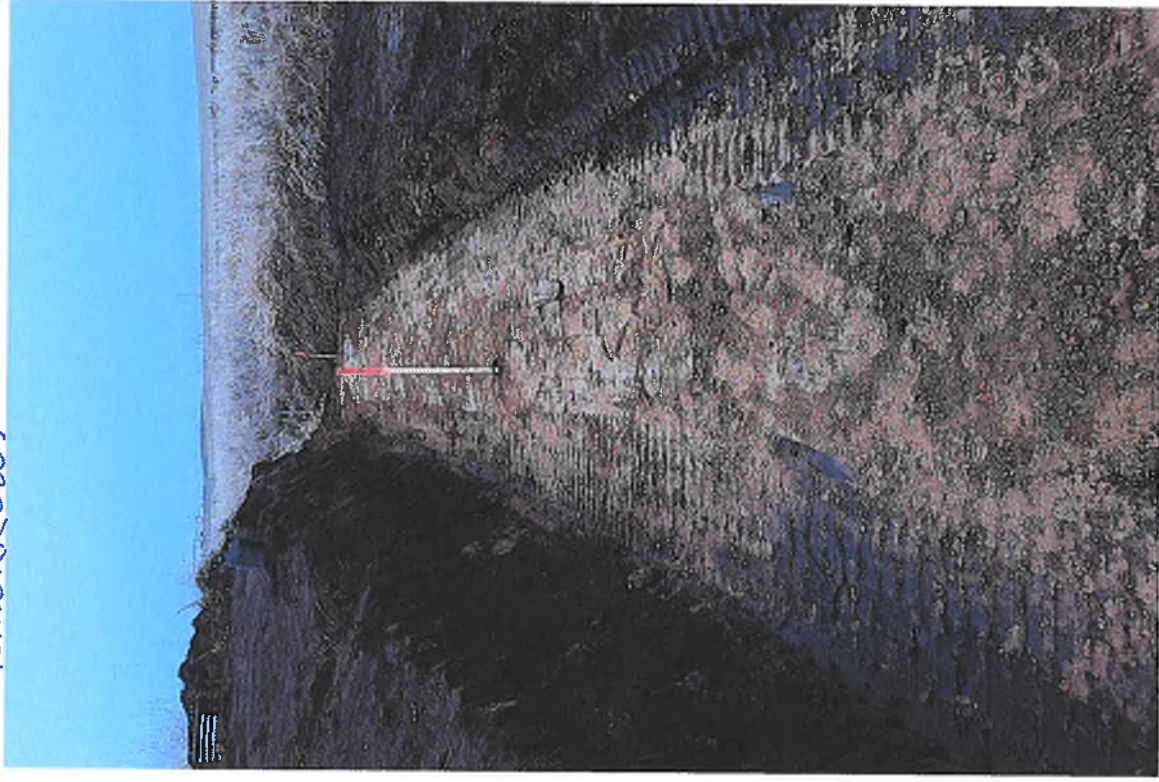
04/16/2020
5:09 P.M.

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 @ S

SHEET NO.

2 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

- 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 & PICTURE # 3377 SEE PICTURE FOR DETAILS
- 11:43 A.M.
- 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

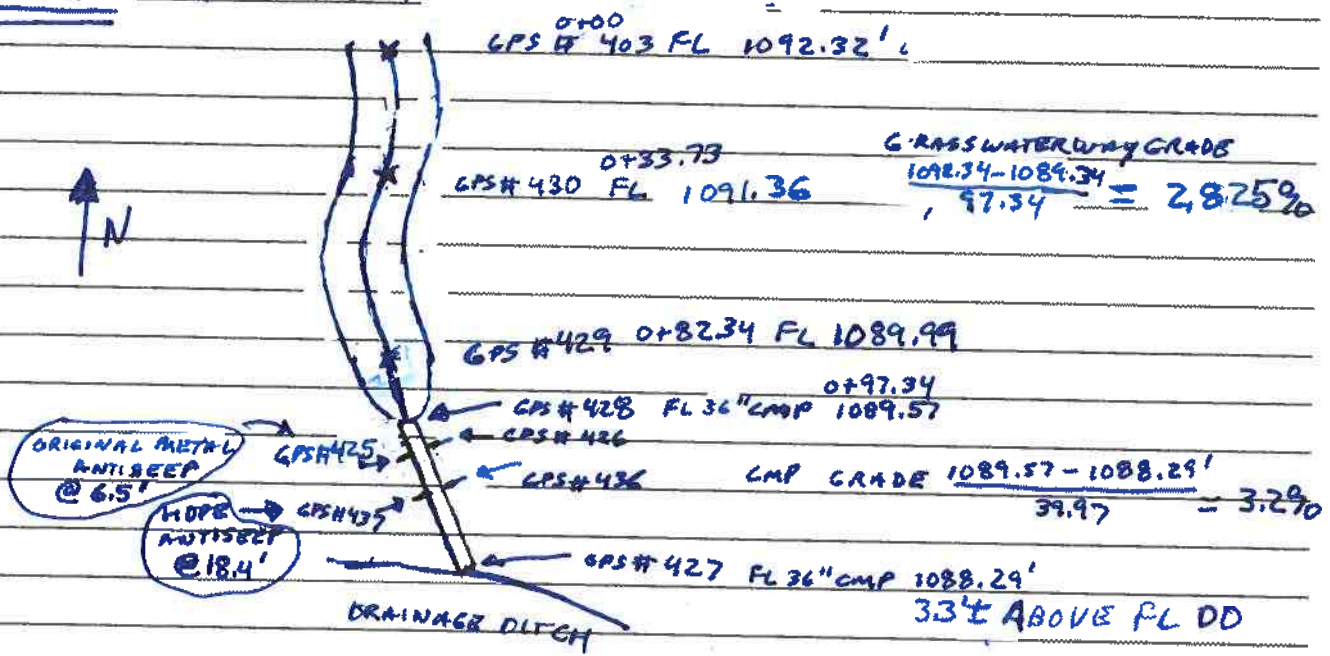
DAYS OF WEEK: S M T W T @ S
SHEET NO. 3 OF 3

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 NORTHEAST
END 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' WIDEX 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

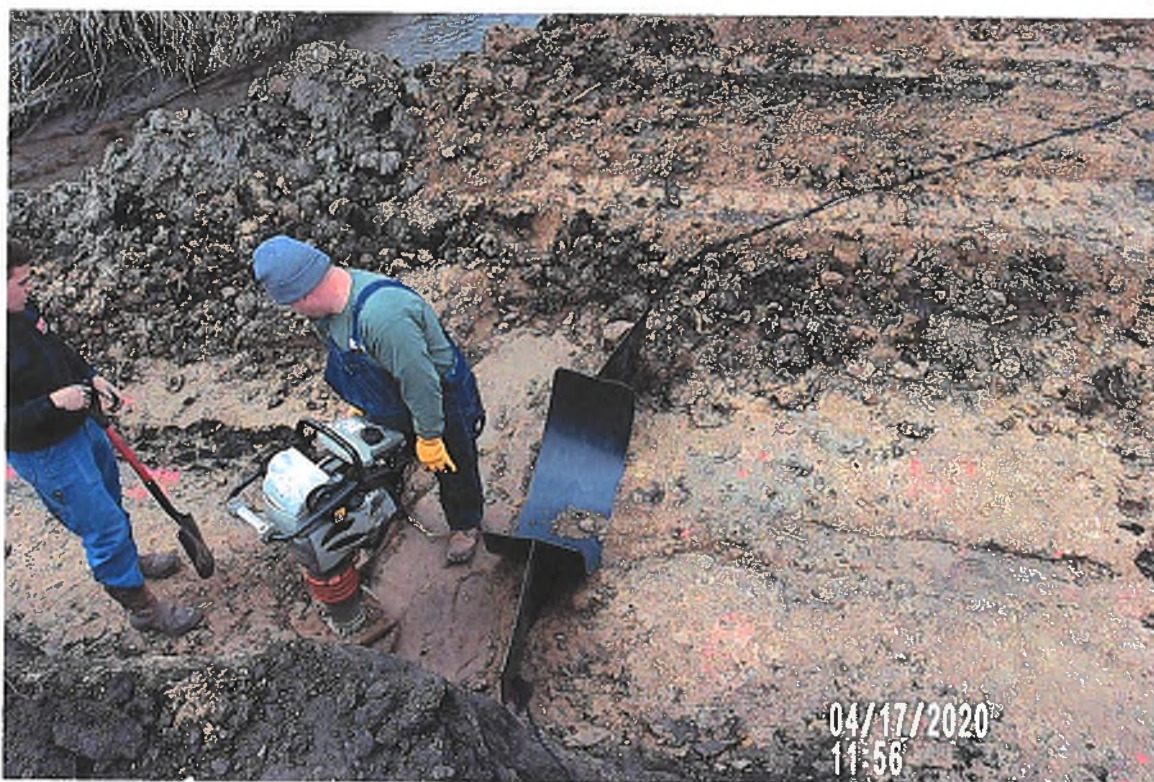
PICTURE # 3377 IS LOOKING SW AT BACK FILL SOIL JUMPING JACK COMPACTED AROUND HOPE ANTISEEP COLLAR 7.0' ± SE OF NORTH END OF SURFACE DRAIN BEFORE SURFACE DRAIN INSTALLED.



GPS# 425 TOP OF METAL ANTISEEP COLLAR



GPS# 426 TOP OF METAL ANTISEEP COLLAR



GPS# 437 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.



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



GPS# 429 GRADE STAKE

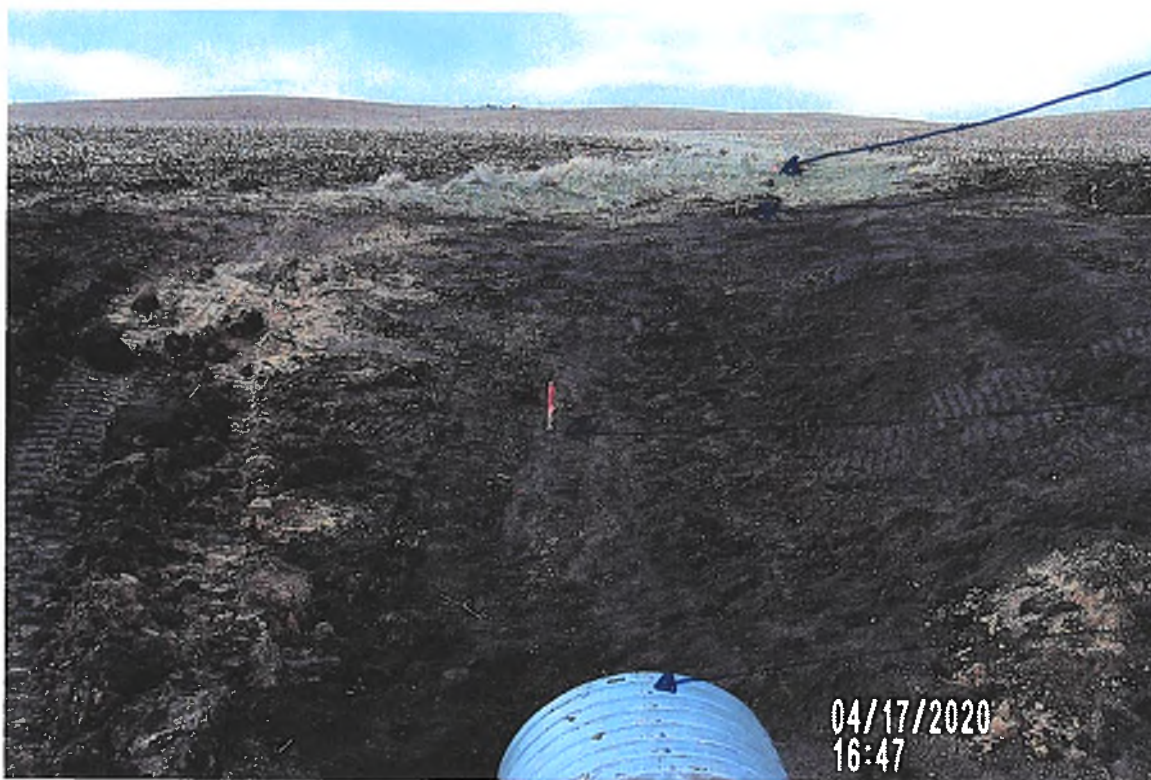


GPS# 428
TOP 36" CMP



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

1,3602676.898,4993688.886,1115.916,ALUMDISK USGS8044
2,3608004.217,4988361.487,1119.137,IRF 3/4 IN CONC
3,3611327.273,4988329.498,1128.375,IRS 5/8
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
6" ASB
300,3611328.734,4988331.460,1128.168,CPT 34 IR
400,3613626.247,4986822.289,1092.289,cmp 36" 3.0'toptofl
401,3613590.040,4986838.297,1087.672,cmp 36" 3.0'toptofl
402,3613720.443,4986839.906,1094.536,gs flag
403,3613721.152,4986821.509,1092.316,gs flag
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
408,3613910.705,4986785.675,1096.879,gs flag
409,3613907.516,4986768.266,1095.962,gs flag
410,3613903.006,4986752.460,1097.030,gs flag
411,3613636.774,4986817.142,1090.690,fl swale
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 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

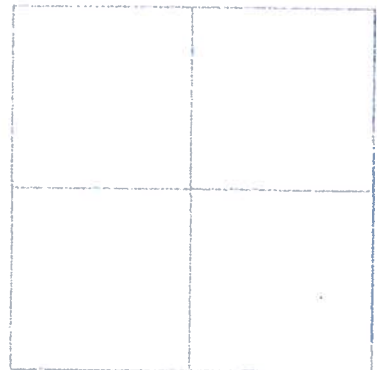
Repair Requested By Tim Burton
Address _____ Phone (515) 689-3658

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: _____



Hardin County Auditor's Office



Date: 11/11/2017



The Data is provided "as is" without warranty or any representation of accuracy, fitness or completeness. The burden for determining accuracy, completeness, fitness, 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.

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		

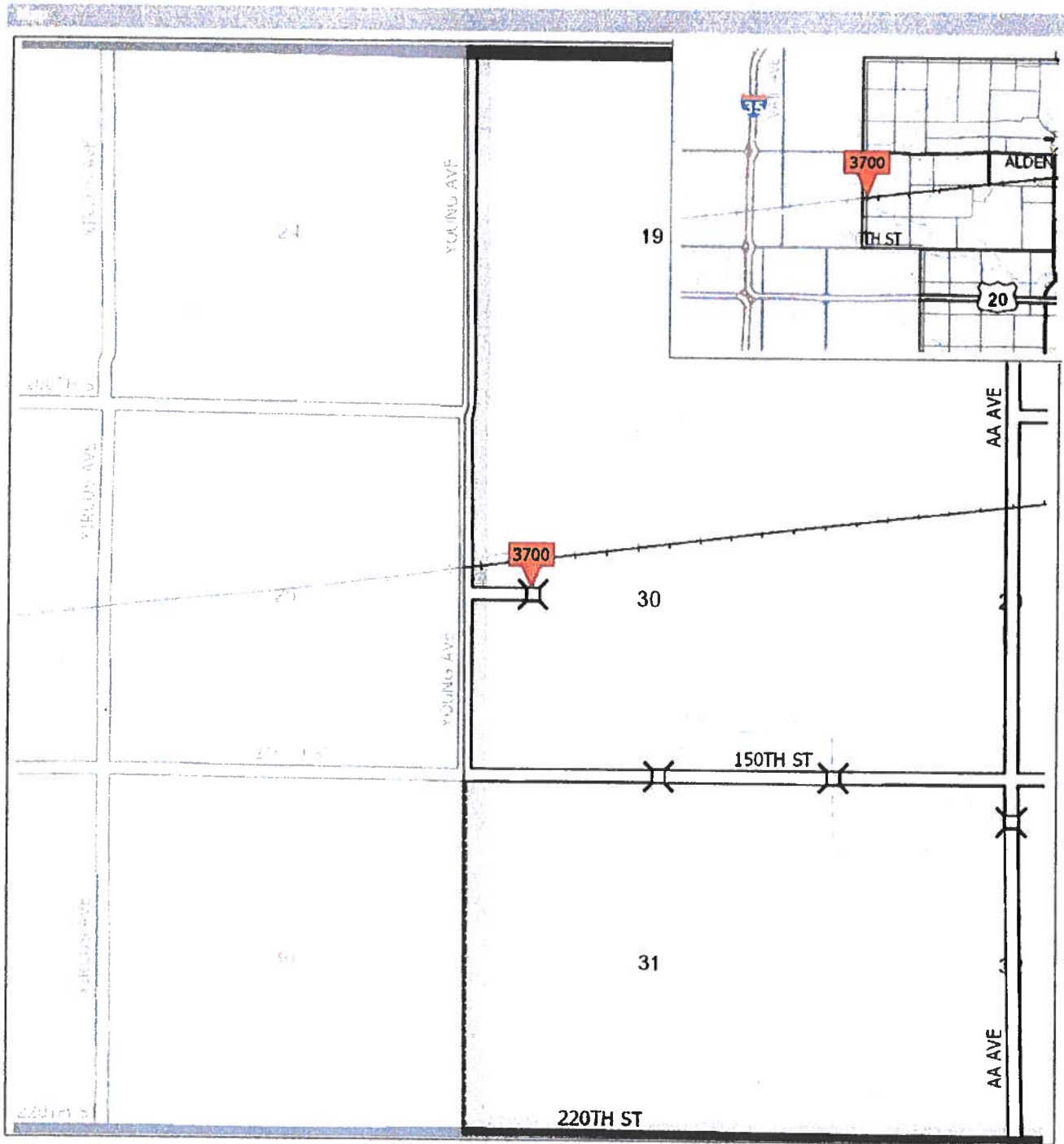
Type	Informational Message	Sub-Type	
-------------	-----------------------	-----------------	--

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.

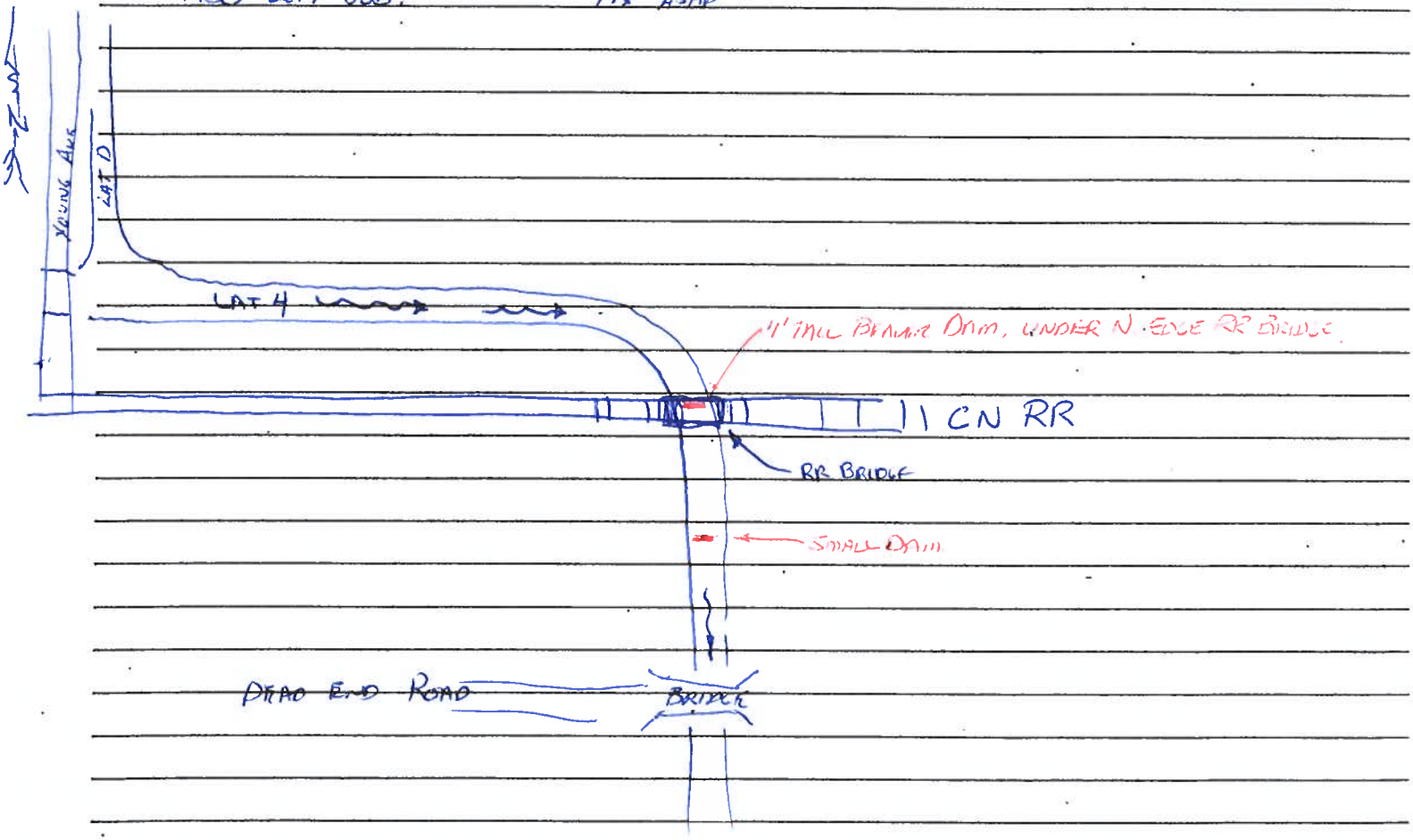
1 OF 1

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 are living N. of this.
Ditch is deep enough that extending a 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]

Date Prepared:

11/27/17

Reviewed by: _____

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

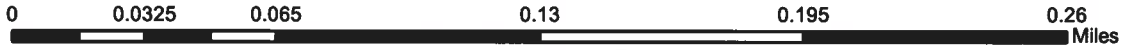
Approved: _____ **Date:** _____



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) COVER ON SITE.

5/20/18; Sunny, 50°, DRYING CONDITIONS, BIG 4 DITCH IS 1/2 FULL (HIGH).
MET BRIAN HANDBCKER @ 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 CMPS. 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: [Signature]

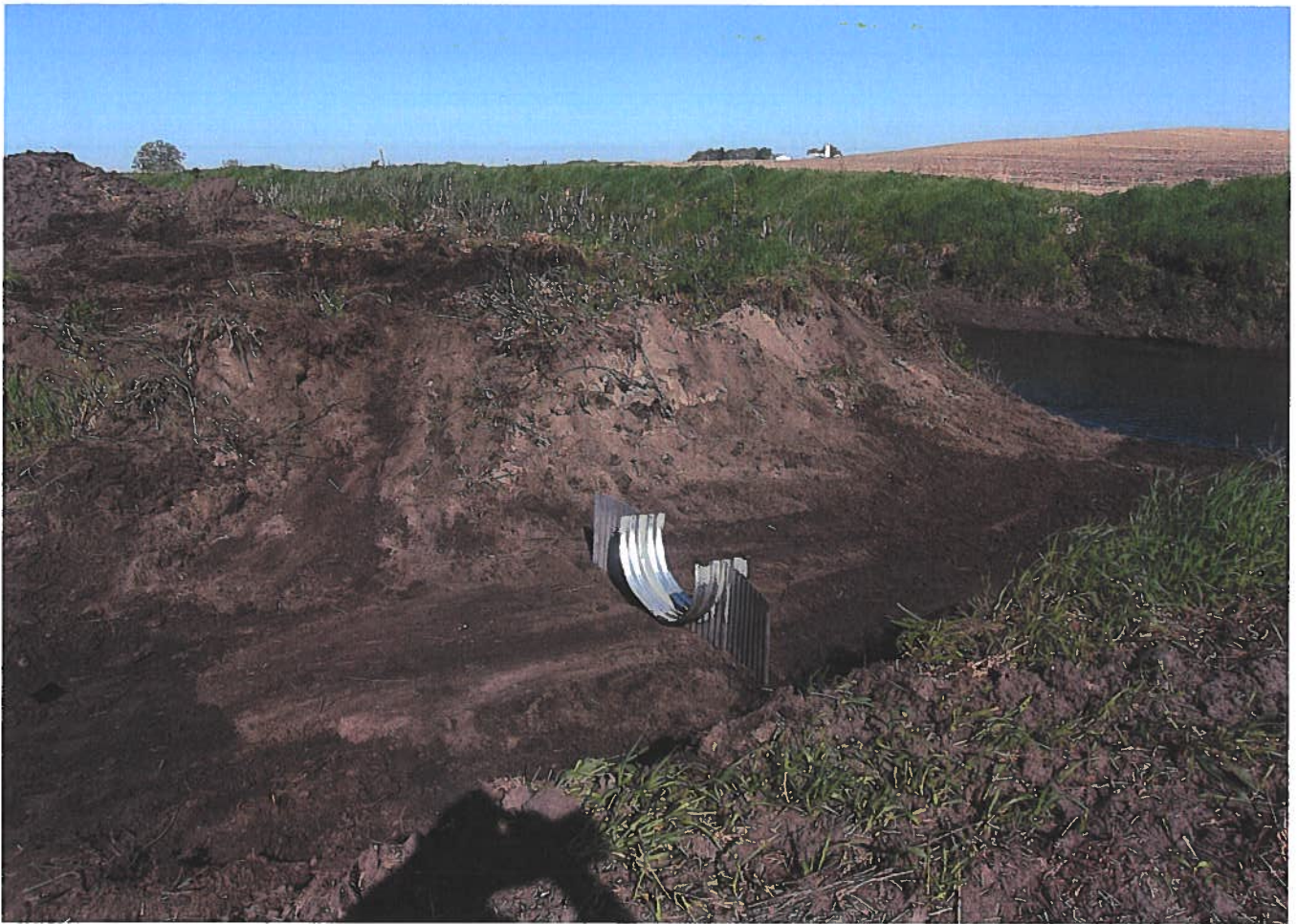
Date Prepared: 5-17-2019

Reviewed by: _____

Engineer

Date Reviewed _____





CONSTRUCTION ENGINEERING
OBSERVATION REPORT

DATE:

2019-8-5

PROJECT NUMBER:

5734.1

DAYS OF WEEK:

S M T W T F S

COUNTY, ROUTE, ROAD:

Big Y

SHEET NO.

1 OF 1

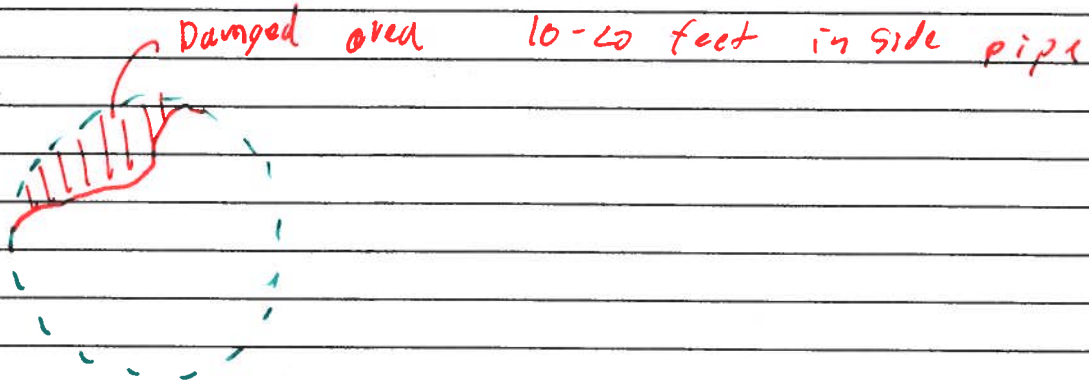
LOCATION:

C AVE

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:

[Signature]

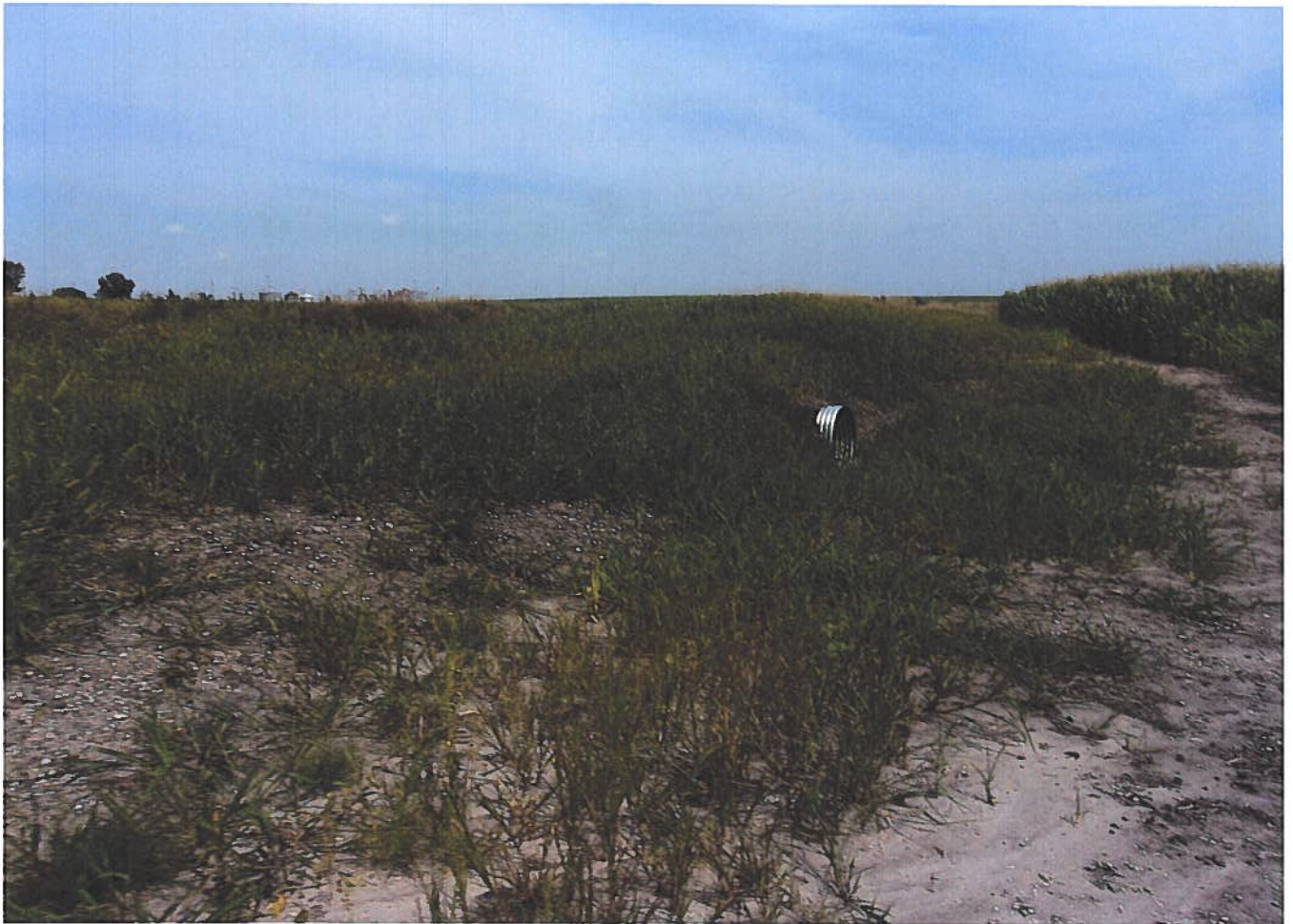
Date Prepared:

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

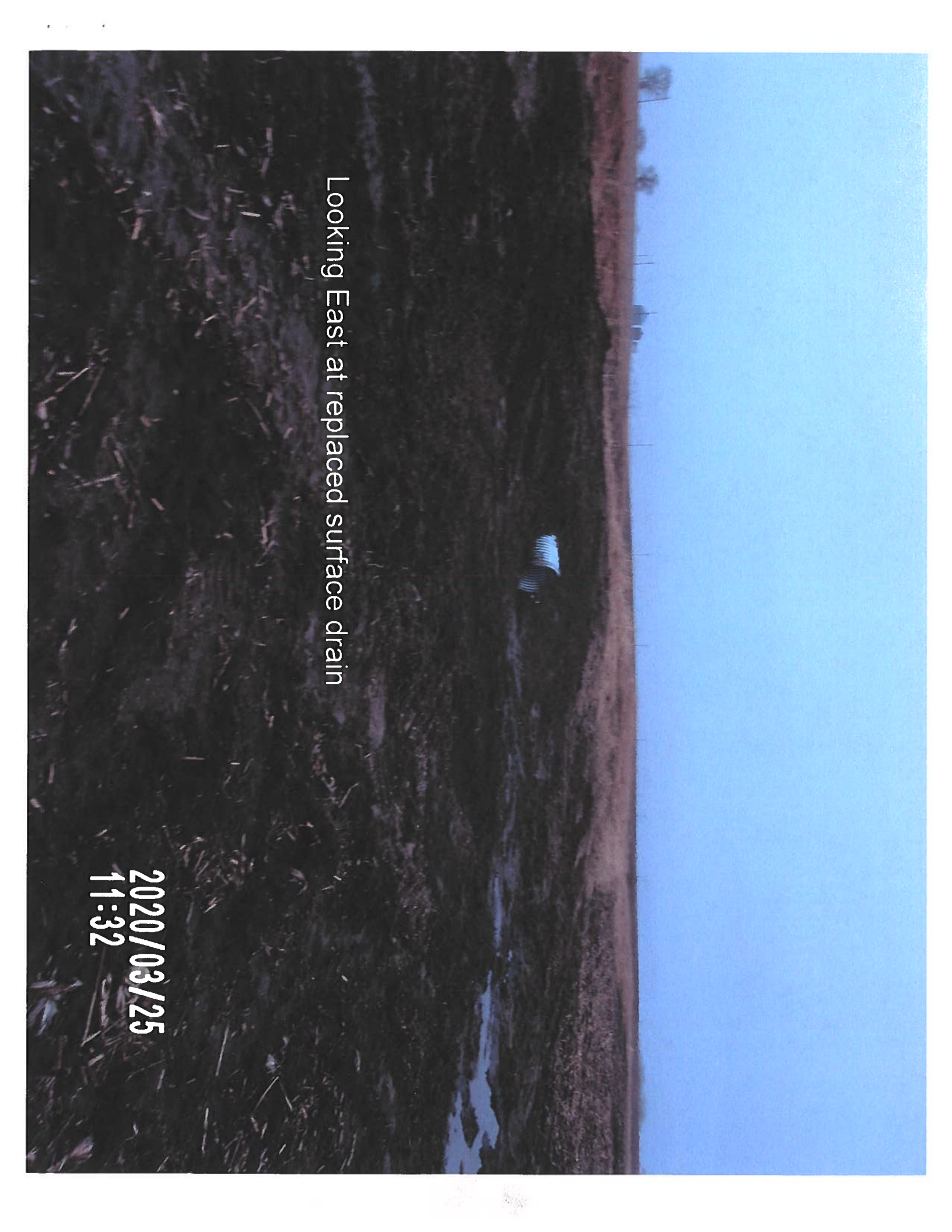
Date Prepared:

3-25-20

Reviewed by:

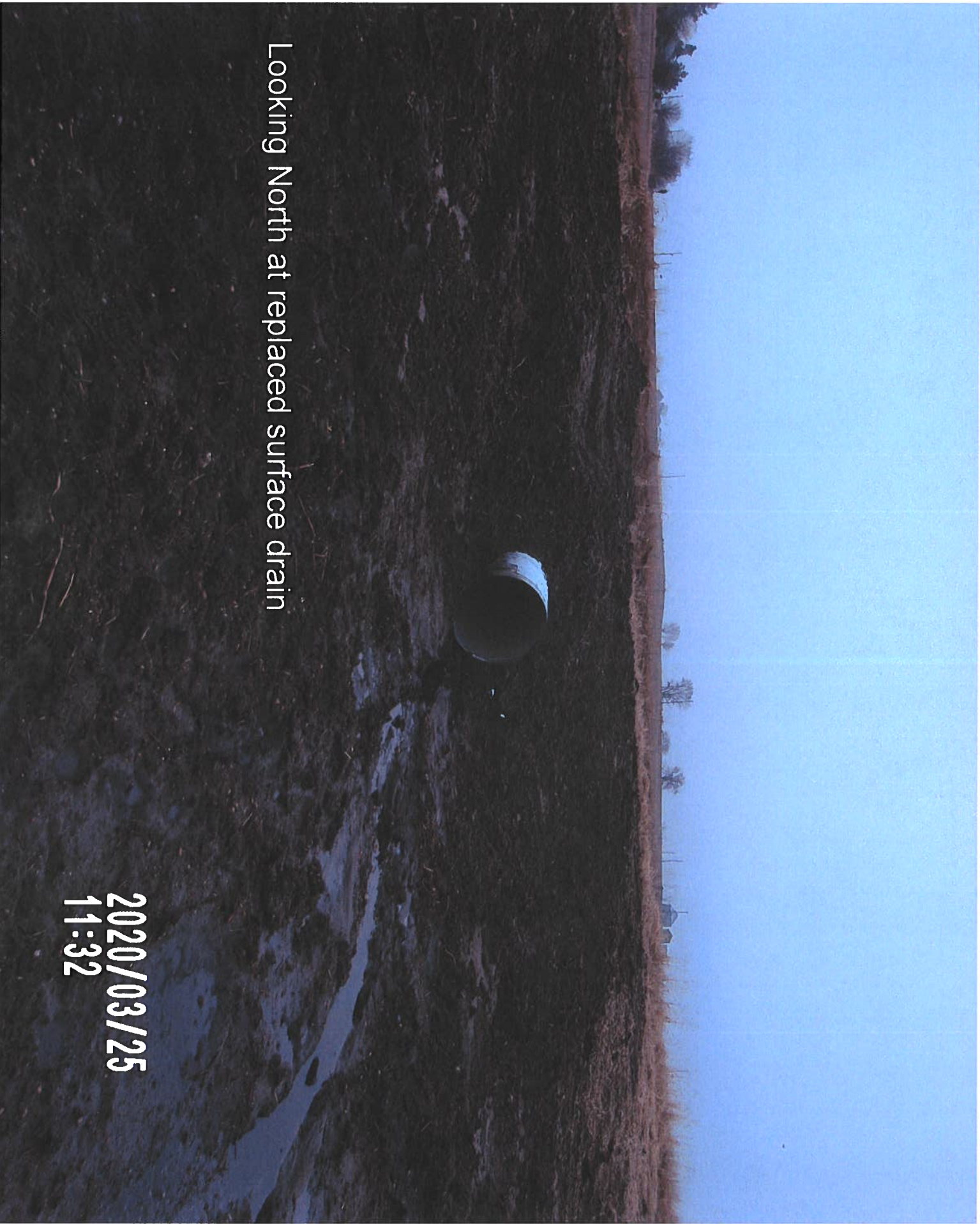
Engineer

Date Reviewed



Looking East at replaced surface drain

2020/03/25
11:32

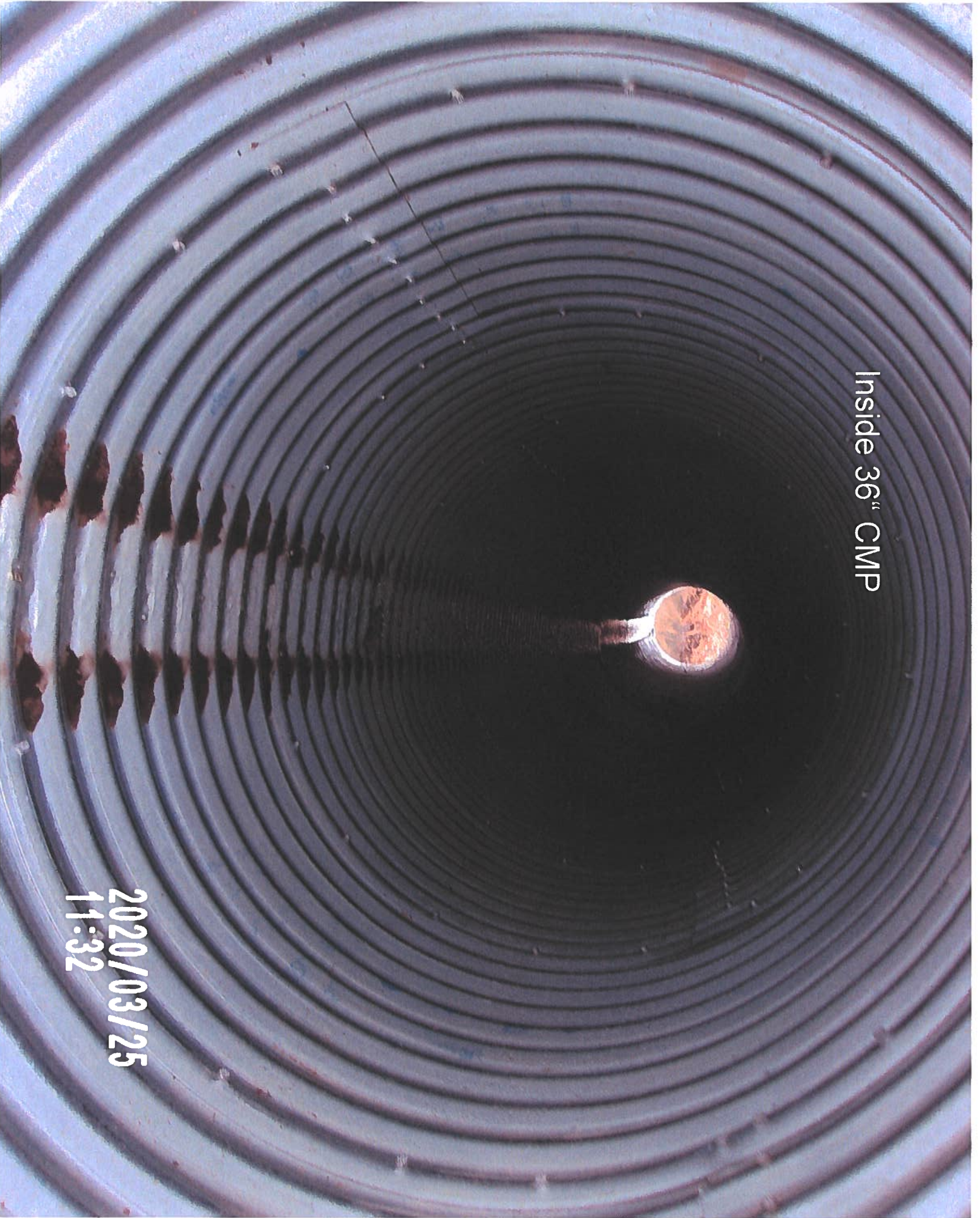


Looking North at replaced surface drain

2020/03/25
11:32

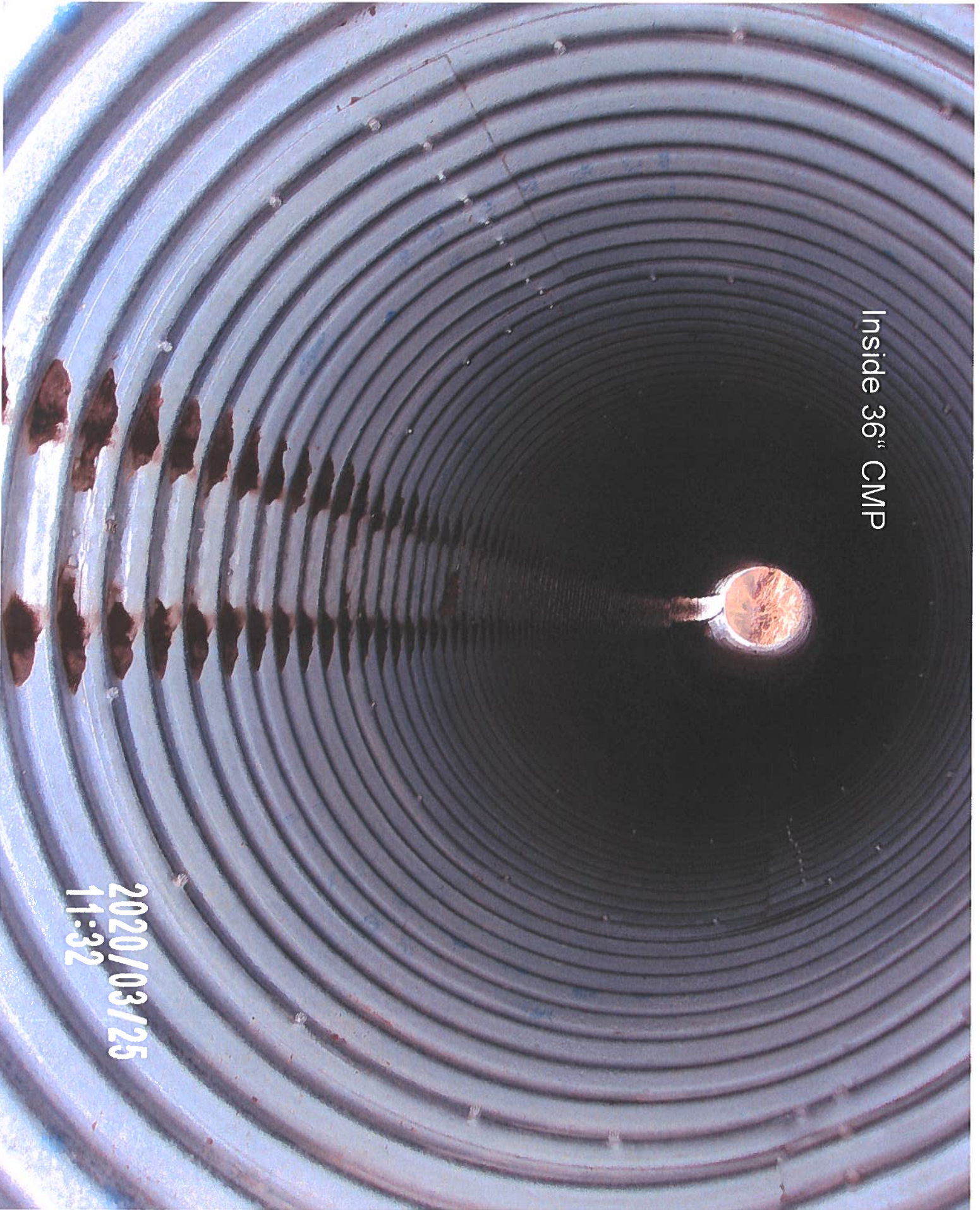
Inside 36" CMP

2020/03/25
11:32



Inside 36" CMP

2020/03/25
11:32



Inside 36" CMP

2020/03/25
11:32



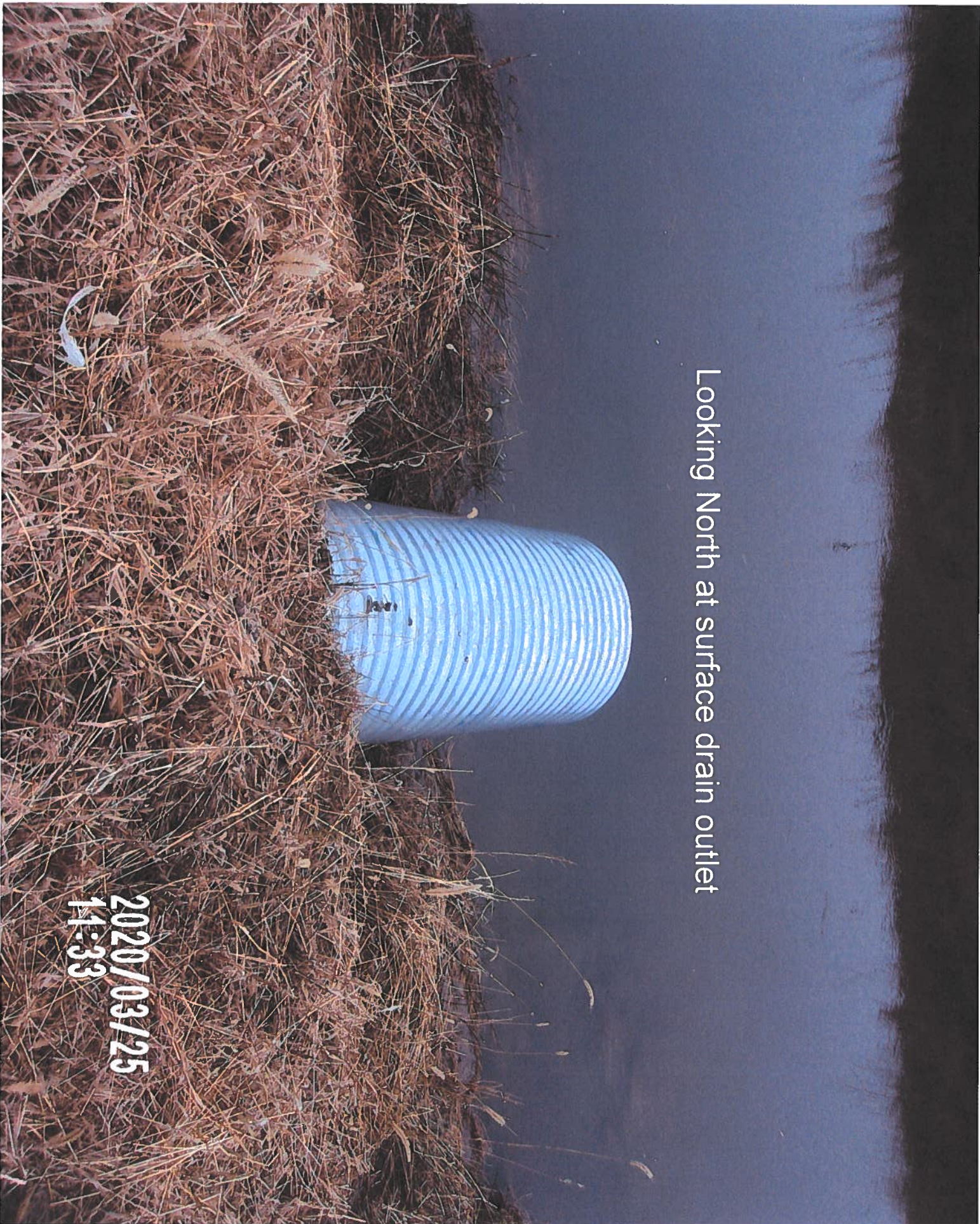


Looking Northwest at surface drain outlet

2020/03/25
11:33

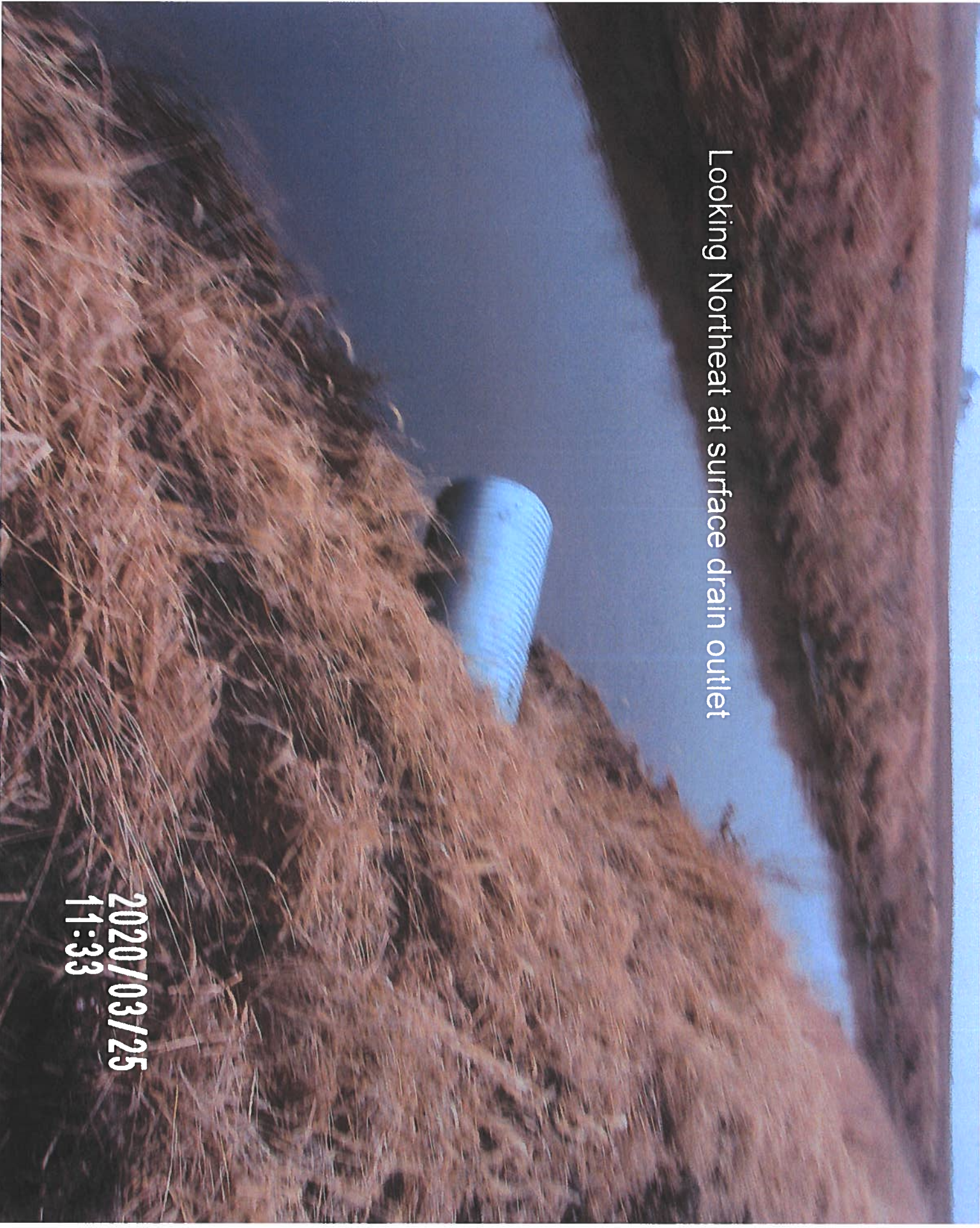
Looking North at surface drain outlet

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:** _____



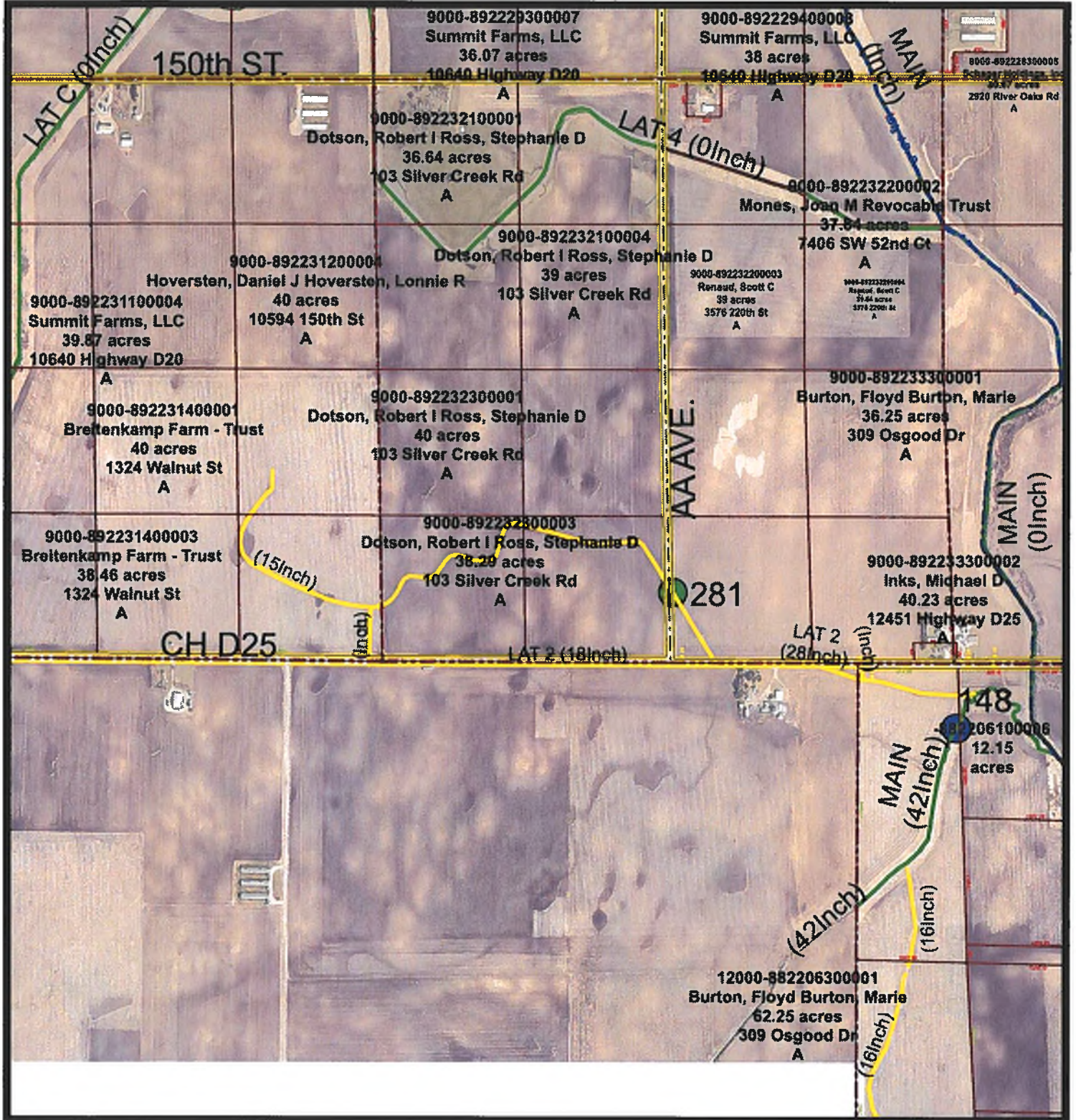
Drainage Tiles

- Lateral
- Main
- Open Ditch
- Private Tile

Hardin County Auditor's Office



Date: 12/9/2019



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:

#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 COM WY 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 COM WY 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 MAG 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

REPAIR BLOWOUT / PLUG ON BRANCH 2B

& BREEZY

JOB # 8778 HWY 118-232 SURVEY

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 025 DRIVE & SOUTH SIDE OF HWY 025, 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

SUNNY MID 60'S TO MID 80'S

REPAIR BLOWOUT / PLUG ON BRANCH 2B

& 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 HOPE TILE. CREW WILL HAVE TO ENCASE IT IN CONCRETE ALONG WITH 6" SPIRAL C/P TO 8" SPIRAL C/P 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

JOB # 8778 AA/118-232 SURVEY

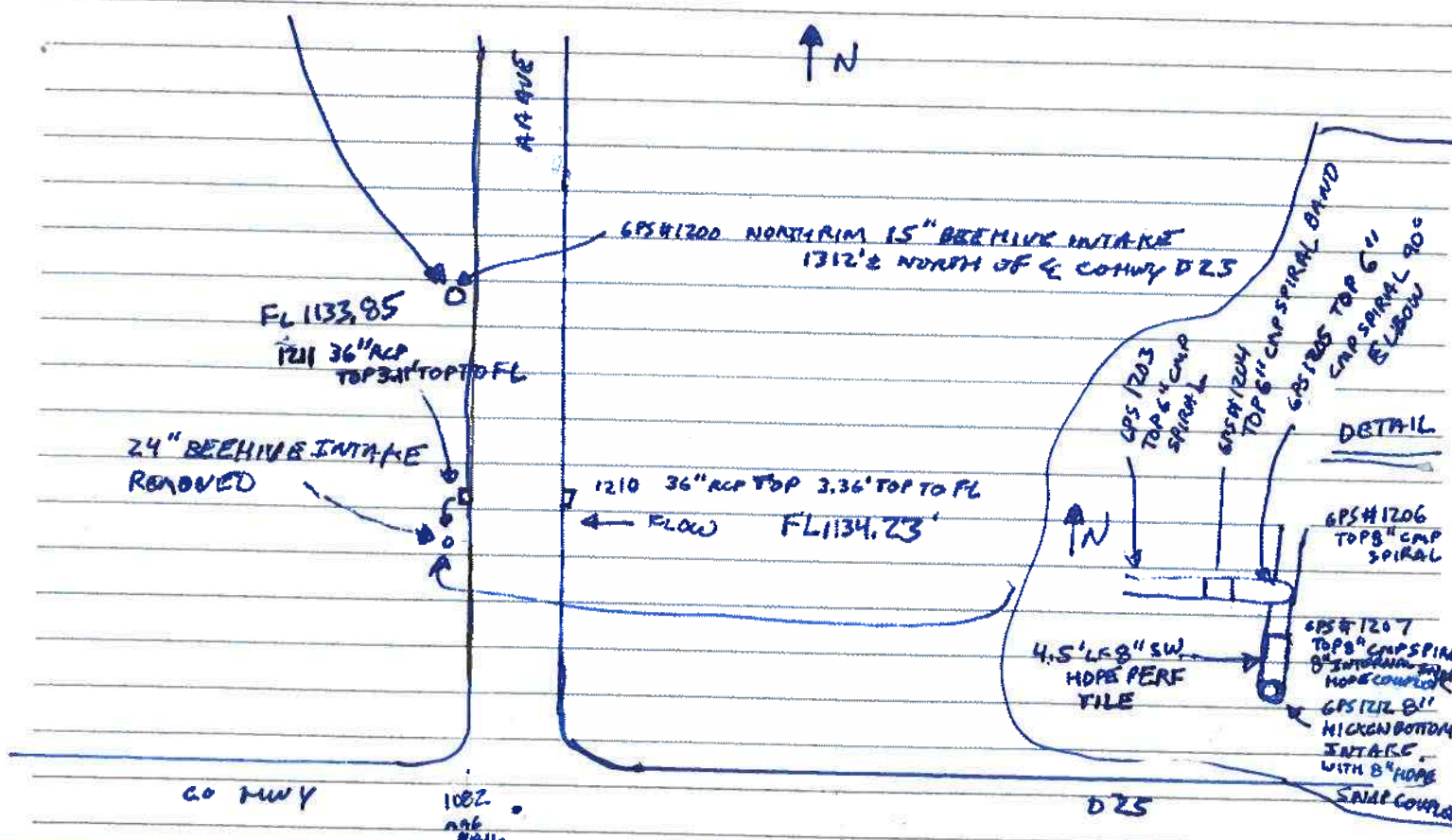
DESCRIPTION OF WORK AND MATERIAL USED FOR EACH OPERATION, INCLUDING CONTRACTOR/SUB NAME, ITEM NO. AND LOCATION



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

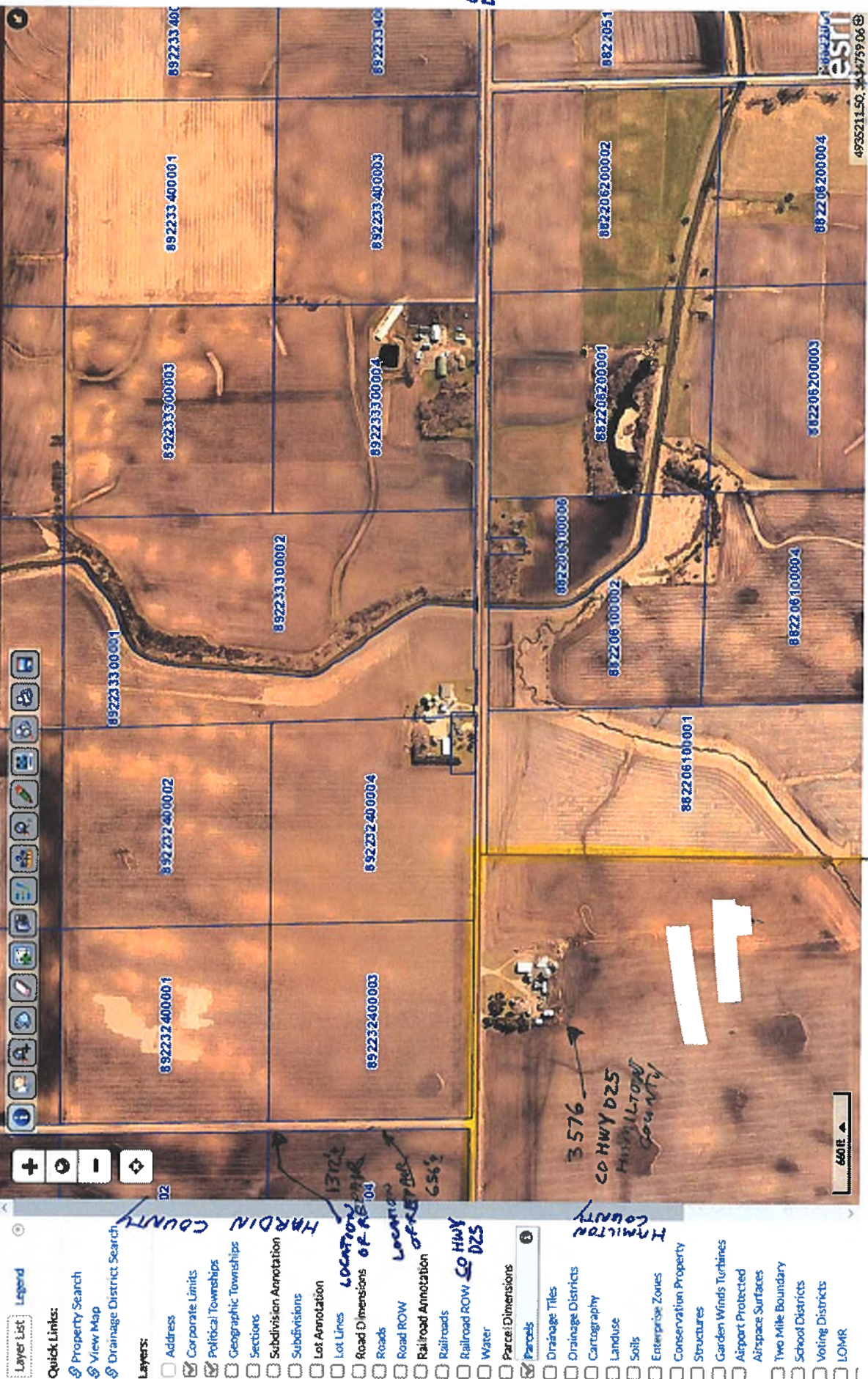
I Certify that the work described in this report was incorporated into this contract unless otherwise noted.

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

Reviewed by: _____ Engineer _____ Date Reviewed: _____

Beacon™ Hardin County, IA

Layers Map Search Comp Search



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

CO HWY D25

CAVE

HARDIN COUNTY

HAMILTON COUNTY

3576
CO HWY D25
HAMILTON COUNTY

LOCATION OF REPAIR
65%

HARDIN COUNTY

60 FT

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

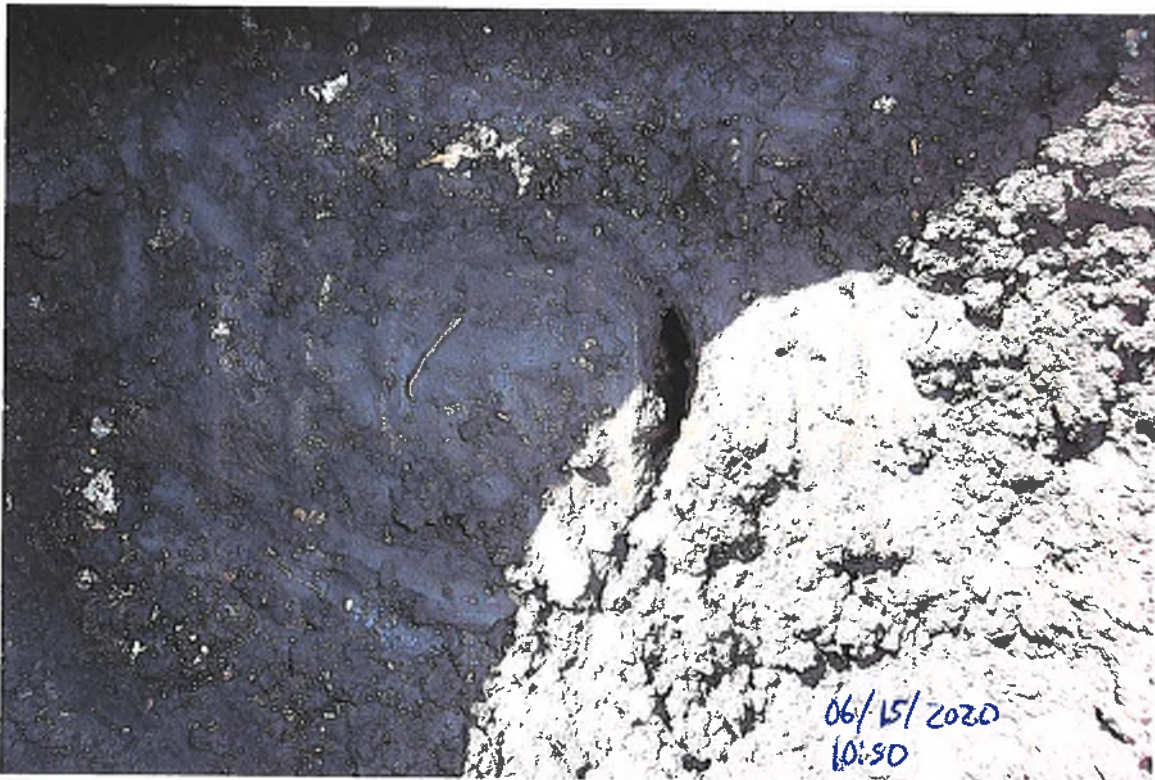


PICTURE# 3737 IS LOOKING SOUTH AT 15" BEEHIVE INTAKE IN WEST DITCH OF AA AVE 1312' ± NORTH OF CO HWY D25 WITH BLOWOUT ON WEST SIDE AT ONE TIME AND NOT DRAINING PROPERLY

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 GAPS.

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



GPS# 1207
TOP 8" CMP
SPIRAL



06/15/2020
17:41



GPS# 1205 TOP 6" SPIRAL
CMP



06/15/2020
18:09

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

SHEET NO.

.1 OF 2

COUNTY, ROUTE, ROAD:

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

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 M/ 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 .32/
TOP ROCK @ 8" HICKEN BOTTOM -7.38 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 Penny

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

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

A42512
 HARDIN AGG

TRUCK NO. CHEK CASH MONTH DAY YEAR

SOLD TO *Adam Seward* 6 16 20

ADDRESS _____

DELIVERED TO _____

ADDRESS _____

1 1/2" EA WASHED SAND	GROSS	16,600	7/20/20	12/11-5	10 L
FILL SAND	07:13				
BURFACING	26480				
PEA GRAVEL					
1 1/2" GRAVEL					
OVERSIZE					
OTHER					
NET		13600			
TAKE					
NET		12880			

PAID P.U. NET

TRUCK MAKE TONS

DATE SALES TAX

DRIVER SIGNATURE *[Signature]* HAULING

AMOUNT TONNAGE

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
7,3657106.553,4930416.401,1139.154,CP 3/4IR
8,3657097.498,4930364.985,1128.290,CL 378+75
9,3657101.981,4930357.157,1128.498,TOE
10,3657094.457,4930371.142,1128.181,TOE
11,3657033.587,4930325.569,1128.299,CL 378+00
12,3657037.746,4930317.450,1128.295,TOE
13,3657030.660,4930334.887,1128.649,TOE
14,3656939.319,4930292.019,1127.931,CL 377+00
15,3656941.669,4930286.807,1128.744,TOE
16,3656944.854,4930277.833,1130.834,TOE
17,3656936.430,4930297.778,1128.017,TOE
18,3656846.843,4930253.786,1128.196,CL 376+00
19,3656843.606,4930260.820,1128.171,TOE
20,3656850.260,4930247.300,1128.095,TOE
21,3656756.838,4930210.162,1128.150,CL 375+00
22,3656759.687,4930202.950,1128.433,TOE
23,3656753.859,4930217.409,1128.146,TOE
24,3656664.170,4930172.700,1128.075,CL 374+00
25,3656661.248,4930179.975,1127.665,TOE
26,3656669.985,4930165.005,1128.411,TOE
27,3656569.590,4930139.830,1127.977,CL 373+00
28,3656566.330,4930146.985,1127.855,TOE
29,3656571.104,4930135.128,1127.808,TOE
30,3656571.471,4930134.081,1129.187, TB
31,3656573.247,4930127.254,1129.744, TOE
32,3656477.052,4930101.777,1128.073,CL 372+00
33,3656480.274,4930092.911,1127.717,TOE
34,3656472.520,4930110.078,1128.339,TOE
35,3656384.223,4930064.409,1128.041,CL 371+00
36,3656388.574,4930055.099,1128.159,TOE
37,3656381.719,4930072.084,1127.981,TOE
38,3656293.770,4930021.800,1127.994,CL 370+00
39,3656291.101,4930031.065,1128.070,TOE
40,3656298.545,4930012.651,1128.425,TOE
41,3656199.996,4929987.216,1127.831,CL 369+00
42,3656196.715,4929994.849,1127.623,TOE
43,3656202.321,4929981.412,1127.926,TOE
44,3656107.857,4929948.378,1127.815,CL 368+00
45,3656104.933,4929955.565,1127.723,TOE
46,3656110.331,4929940.604,1127.898,TOE
47,3656014.271,4929913.177,1127.605,CL 367+00
48,3656012.043,4929922.044,1127.806,TOE
49,3656015.777,4929907.308,1126.960,TOE

8778 DD#118-232

50,3655916.943,4929890.118,1127.665,CL 366+00
51,3655915.617,4929897.933,1127.495,TOE
52,3655917.996,4929882.680,1127.801,TOE
53,3655867.426,4929883.204,1127.402,CL 365+50
54,3655817.567,4929886.815,1127.419,CL 365+00
55,3655819.349,4929895.235,1127.457,TOE
56,3655815.865,4929880.808,1127.660,TOE
57,3655746.270,4929910.253,1127.163,CL 364+25
58,3655748.866,4929916.679,1127.203,TOE
59,3655745.331,4929902.743,1127.709,TOE
60,3655627.704,4929950.009,1127.275,CL 363+00
61,3655629.774,4929957.538,1127.587,TOE
62,3655625.118,4929942.441,1127.852,TOE
63,3655531.974,4929979.059,1127.892,CL 362+00
64,3655534.567,4929989.155,1127.912,TOE
65,3655528.123,4929968.916,1127.927,TOE
66,3655517.074,4929947.112,1140.830,TB
67,3655509.476,4929929.969,1139.165,GS
68,3655491.200,4929893.663,1139.330,GS
69,3655602.794,4929828.300,1140.171,GS
70,3655620.355,4929871.956,1139.080,GS
71,3655622.462,4929899.680,1138.482,GS
72,3655625.810,4929916.191,1138.540,GS
73,3655698.998,4929902.910,1142.208,BRDG
74,3655699.452,4929953.741,1142.129,BRDG
75,3655726.834,4929943.425,1142.120,BRDG
76,3655726.335,4929892.560,1142.164,BRDG
77,3655737.863,4929869.191,1136.927,GS
78,3655740.829,4929894.182,1135.501,TB
79,3655817.956,4929864.196,1138.716,GS
80,3655811.393,4929818.000,1139.861,GS
81,3655912.662,4929797.576,1138.809,GS
82,3655918.841,4929836.530,1138.211,GS
83,3655919.497,4929860.779,1137.703,TB
84,3656018.213,4929886.654,1138.300,TB
85,3656030.991,4929844.837,1137.940,GS
86,3655661.853,4929980.017,1139.108,CP 5/8IR
87,3655625.618,4929976.216,1138.653,TB
88,3655637.576,4930022.059,1137.922,GS
89,3655535.599,4930067.215,1137.342,GS
90,3655528.871,4930007.355,1138.256,TB
91,3655436.868,4930010.641,1127.227,CL 361+00
92,3655434.817,4930003.789,1127.688,TOE
93,3655439.111,4930017.275,1127.411,TOE
94,3655340.834,4930039.155,1127.208,CL 360+00
95,3655337.726,4930031.789,1127.395,TOE
96,3655341.896,4930045.770,1127.647,TOE
97,3655246.893,4930073.473,1127.645,CL 359+00
98,3655243.161,4930063.964,1128.596,TOE

8778 DD#118-232

99,3655251.382,4930084.583,1127.763,TOE
100,3658401.764,4921413.760,1148.100,temp pt
101,3666236.295,4921419.743,1152.624,cp#2-gps 8001
102,3650568.863,4921454.961,1147.646,cp#1-gps 8002
103,3651878.872,4921556.532,1148.209,cp 103 58 ir
104,3651556.430,4926740.156,1162.604,cp 104 58 ir
105,3653116.628,4934644.558,1147.215,cp 105 58 ir
106,3650516.980,4937347.906,1154.498,cp106hcgpsmn8018
107,3655809.970,4921459.329,1144.464,cp 107 58 ir
108,3655814.742,4921345.515,1140.875,cp 108 magtopcmp
109,3658452.073,4921412.790,1147.006,cp 109 58 ir
110,3661050.677,4921317.254,1145.087,cp110magtp24"rcp
111,3655155.829,4930114.763,1128.689,CL 358+00
112,3655152.549,4930104.067,1127.430,TOE
113,3655164.232,4930128.221,1128.287,TOE
114,3655075.577,4930174.467,1127.612,CL 357+00
115,3655070.796,4930169.352,1127.419,TOE
116,3655080.222,4930179.910,1127.609,TOE
117,3654997.408,4930236.877,1127.651,CL 356+00
118,3654992.087,4930229.699,1127.131,TOE
119,3655004.970,4930244.773,1128.344,TOE
120,3654922.289,4930302.908,1127.368,CL 355+00
121,3654915.649,4930294.446,1127.636,TOE
122,3654927.311,4930311.426,1128.187,TOE
123,3654836.932,4930355.060,1126.830,CL 354+00
124,3654831.764,4930346.175,1127.296,TOE
125,3654842.889,4930364.674,1127.735,TOE
126,3654749.453,4930403.674,1127.552,CL 353+00
127,3654745.182,4930395.161,1127.401,TOE
128,3654754.540,4930409.988,1127.508,TOE
129,3654655.299,4930437.412,1127.230,CL 352+00
130,3654651.992,4930422.884,1128.705,TOE
131,3654660.154,4930450.483,1127.514,TOE
132,3654555.664,4930446.710,1127.186,CL 351+00
133,3654555.851,4930437.426,1126.898,TOE
134,3654558.527,4930457.820,1127.810,TOE
135,3654455.682,4930450.069,1127.111,CL 350+00
136,3654454.801,4930437.826,1128.158,TOE
137,3654455.144,4930460.340,1127.023,TOE
138,3654355.608,4930450.595,1127.531,CL 349+00
139,3654355.060,4930442.287,1126.719,TOE
140,3654356.568,4930467.565,1128.083,TOE
141,3654255.776,4930456.818,1127.121,CL 348+00
142,3654254.881,4930446.262,1127.030,TOE
143,3654255.026,4930466.659,1126.485,TOE
144,3654155.747,4930455.704,1127.321,CL 347+00
145,3654155.546,4930445.089,1127.082,TOE
146,3654155.652,4930466.593,1127.535,TOE
147,3654055.920,4930461.274,1127.015,CL 346+00

8778 DD#118-232

148,3654055.410,4930450.086,1126.897,TOE
149,3654056.398,4930469.888,1127.083,TOE
150,3653955.908,4930463.402,1126.410,CL 345+00
151,3653955.325,4930454.400,1126.084,TOE
152,3653956.810,4930472.600,1126.816,TOE
153,3653856.155,4930470.051,1126.810,CL 344+00
154,3653855.340,4930459.303,1127.080,TOE
155,3653855.071,4930480.568,1126.347,TOE
156,3653756.381,4930463.353,1126.715,CL 343+00
157,3653755.291,4930452.053,1126.834,TOE
158,3653755.923,4930473.929,1126.441,TOE
159,3653656.728,4930471.806,1126.944,CL 342+00
160,3653655.461,4930455.204,1128.149,TOE
161,3653656.317,4930482.660,1126.596,TOE
162,3653556.887,4930477.436,1127.052,CL 341+00
163,3653556.923,4930462.001,1127.140,TOE
164,3653557.917,4930490.206,1126.810,TOE
165,3653456.918,4930481.146,1126.575,CL 340+00
166,3653455.332,4930468.944,1126.960,TOE
167,3653456.593,4930493.683,1126.747,TOE
168,3653356.964,4930477.818,1126.644,CL 339+00
169,3653357.154,4930465.164,1126.636,TOE
170,3653357.980,4930489.356,1126.449,TOE
171,3653357.915,4930489.641,1126.547,TOE
172,3653356.997,4930465.246,1126.542,TOE
173,3653257.067,4930482.457,1126.423,CL 338+00
174,3653256.467,4930471.164,1126.351,TOE
175,3653258.827,4930494.840,1126.863,TOE
176,3653157.107,4930486.666,1126.452,CL 337+00
177,3653156.851,4930474.210,1126.638,TOE
178,3653157.914,4930497.398,1126.423,TOE
179,3653057.094,4930486.709,1126.497,CL 336+00
180,3653057.663,4930476.222,1126.269,TOE
181,3653058.032,4930498.988,1126.396,TOE
182,3652957.061,4930489.060,1126.109,CL 335+00
183,3652957.279,4930478.301,1126.577,TOE
184,3652955.820,4930498.854,1126.163,TOE
185,3652907.357,4930483.445,1126.123,CL 334+50
186,3652860.811,4930465.139,1126.130,CL 334+00
187,3652864.820,4930455.915,1125.969,TOE
188,3652856.381,4930473.044,1125.918,TOE
189,3652816.812,4930441.293,1126.077,CL 333+50
190,3652776.262,4930412.032,1125.958,CL 333+00
191,3652782.574,4930403.793,1125.905,TOE
192,3652770.346,4930418.382,1126.077,TOE
193,3652701.374,4930345.772,1126.045,CL 332+00
194,3652709.357,4930338.347,1125.829,TOE
195,3652693.248,4930352.056,1125.953,TOE
196,3652638.553,4930267.910,1125.859,CL 331+00

8778 DD#118-232

197, 3652647.378, 4930260.602, 1125.800, TOE
198, 3652629.690, 4930272.020, 1125.505, TOE
199, 3652613.123, 4930281.282, 1137.814, TB
200, 3652584.552, 4930308.347, 1134.925, GS
201, 3652651.841, 4930395.980, 1134.693, GS
202, 3652687.187, 4930368.424, 1137.820, TB
203, 3652758.788, 4930430.216, 1138.005, TB
204, 3652730.102, 4930469.387, 1134.504, GS
205, 3652816.058, 4930534.486, 1134.601, GS
206, 3652846.945, 4930484.320, 1137.794, TB
207, 3652956.915, 4930514.606, 1138.883, TB
208, 3652953.533, 4930567.540, 1134.517, GS
209, 3653059.542, 4930577.216, 1135.266, GS
210, 3653060.241, 4930518.566, 1140.037, TB
211, 3653157.978, 4930516.657, 1140.066, TB
212, 3653159.981, 4930569.322, 1135.309, GS
213, 3653266.519, 4930572.084, 1135.316, GS
214, 3653259.375, 4930512.705, 1139.064, TB
215, 3653356.956, 4930507.697, 1136.919, TB
216, 3653361.041, 4930561.917, 1134.961, GS
217, 3653461.212, 4930557.703, 1135.558, GS
218, 3653458.470, 4930506.813, 1138.382, TB
219, 3653556.545, 4930506.454, 1139.150, TB
220, 3653558.749, 4930546.020, 1137.320, GS
221, 3653656.054, 4930548.093, 1139.226, GS
222, 3653659.336, 4930501.073, 1140.879, TB
223, 3653752.670, 4930501.681, 1142.869, TB
224, 3653757.454, 4930548.261, 1140.244, GS
225, 3653856.004, 4930548.418, 1139.065, GS
226, 3653855.951, 4930500.199, 1142.105, TB
227, 3653956.506, 4930502.254, 1140.130, TB WASHOUT
228, 3653959.852, 4930530.785, 1138.563, GS
229, 3653961.798, 4930560.378, 1138.782, GS
230, 3654066.838, 4930548.090, 1139.250, GS
231, 3654059.679, 4930493.004, 1141.086, TB
232, 3654155.618, 4930491.407, 1142.520, TB
233, 3654158.859, 4930537.559, 1140.368, GS
234, 3654255.496, 4930547.159, 1141.157, GS
235, 3654257.179, 4930509.551, 1140.719, GS
236, 3654258.435, 4930488.633, 1143.245, TB
237, 3654355.790, 4930485.317, 1136.530, TB
238, 3654356.324, 4930512.995, 1135.646, GS
239, 3654359.226, 4930544.290, 1136.305, GS
240, 3654386.132, 4930502.934, 1134.633, GS WASHOUT
241, 3654454.152, 4930543.950, 1135.010, GS
242, 3654454.788, 4930480.117, 1139.330, TB
243, 3654556.458, 4930476.613, 1140.319, TB
244, 3654560.541, 4930534.813, 1136.370, GS
245, 3654667.296, 4930526.652, 1136.530, GS

246,3654659.747,4930466.844,1139.346,TB
247,3654757.020,4930430.747,1141.052,TB
248,3654789.687,4930488.155,1136.257,GS
249,3654872.157,4930439.494,1135.705,GS
250,3654844.845,4930386.899,1140.610,TB
251,3654933.122,4930326.727,1139.218,TB
252,3654963.274,4930362.099,1136.112,GS
253,3655040.787,4930297.364,1136.589,GS
254,3655014.176,4930264.359,1139.023,TB
255,3655093.948,4930201.675,1139.634,TB
256,3655126.620,4930237.033,1137.023,GS
257,3655206.688,4930189.696,1136.904,GS
258,3655174.638,4930139.937,1138.741,TB
259,3655259.207,4930103.102,1139.219,TB
260,3655281.852,4930144.528,1137.446,GS
261,3655378.724,4930110.320,1137.112,GS
262,3655356.926,4930065.553,1138.628,TB
263,3655449.749,4930033.394,1138.683,TB
264,3655462.997,4930070.651,1136.887,GS
265,3655748.382,4929977.041,1139.156,GS
266,3655745.636,4929938.776,1137.515,TB
267,3655826.021,4929929.768,1139.742,TB
268,3655820.179,4929906.586,1133.945,TB
269,3655822.888,4929916.114,1134.790,TOE
270,3655829.753,4929958.825,1139.256,GS
271,3655927.139,4929976.335,1139.264,GS
272,3655920.527,4929925.628,1140.696,TB
273,3656008.709,4929941.970,1139.325,TB
274,3655998.407,4929983.409,1138.441,GS
275,3656081.956,4930019.223,1138.910,GS
276,3656097.944,4929978.431,1138.886,TB
277,3656184.801,4930016.212,1140.568,TB
278,3656169.624,4930051.797,1139.998,GS
279,3656252.225,4930090.797,1141.770,GS
280,3656267.088,4930053.851,1141.631,TB
281,3656356.375,4930090.015,1140.615,TB
282,3656348.933,4930111.286,1140.815,GS
283,3656339.951,4930143.617,1142.146,GS
284,3656438.427,4930190.843,1140.569,GS
285,3656454.924,4930168.319,1139.233,GS
286,3656469.581,4930136.722,1140.531,TB
287,3656543.636,4930187.601,1136.908,GS WASHOUT
288,3656551.960,4930167.894,1138.192,TB
289,3656536.906,4930230.138,1138.830,GS
290,3656634.816,4930258.606,1138.512,GS
291,3656642.933,4930235.945,1137.851,GS
292,3656650.462,4930205.125,1138.629,TB
293,3656736.288,4930241.091,1139.283,TB
294,3656719.659,4930276.125,1138.360,GS

295,3656808.786,4930319.821,1139.148,GS
296,3656826.881,4930277.648,1140.189,TB
297,3656921.852,4930320.629,1139.483,TB
298,3656910.861,4930357.696,1139.257,GS
299,3656992.889,4930408.164,1139.753,GS
300,3657021.869,4930356.851,1139.868,TB
301,3657077.320,4930395.883,1141.013,TB
302,3657058.543,4930423.093,1139.664,GS
303,3657121.635,4930371.567,1128.371,CL 379+00
304,3657123.547,4930366.036,1128.488,TOE
305,3657122.359,4930378.585,1128.418,TOE
306,3657121.951,4930380.991,1129.012,GS
307,3657119.869,4930385.439,1127.029,TOE LAT1
308,3657117.215,4930390.048,1127.099,CL LAT1
309,3657113.593,4930394.684,1127.418,TOE LAT1
310,3657216.614,4930402.934,1128.405,CL 380+00
311,3657218.305,4930397.564,1128.253,TOE
312,3657214.569,4930410.276,1128.675,TOE
313,3657313.664,4930427.105,1128.694,CL 381+00
314,3657314.894,4930419.880,1128.576,TOE
315,3657313.684,4930433.281,1128.608,TOE
316,3657413.472,4930432.138,1128.592,CL 382+00
317,3657413.081,4930425.559,1128.709,TOE
318,3657413.911,4930437.910,1128.415,TOE
319,3657463.363,4930428.559,1128.579,CL 382+50
320,3657511.416,4930414.616,1128.768,CL 383+00
321,3657509.842,4930407.803,1128.516,TOE
322,3657514.781,4930423.184,1128.568,TOE
323,3657558.197,4930396.902,1128.920,CL 383+50
324,3657599.944,4930369.349,1128.932,CL 384+00
325,3657604.707,4930375.397,1128.722,TOE
326,3657596.428,4930363.350,1128.740,TOE
327,3657677.954,4930306.769,1128.919,CL 385+00
328,3657670.714,4930298.682,1129.989,TOE
329,3657684.525,4930313.030,1129.291,TOE
330,3657747.432,4930234.792,1128.821,CL 386+00
331,3657742.959,4930230.301,1128.874,TOE
332,3657752.577,4930238.663,1128.877,TOE
333,3657818.578,4930164.521,1128.844,CL 387+00
334,3657811.855,4930156.927,1129.806,TOE
335,3657816.041,4930161.516,1129.692,GS
336,3657823.641,4930167.742,1128.689,TOE
337,3657886.778,4930091.364,1129.653,CL 388+00
338,3657884.598,4930089.155,1128.907,GS
339,3657881.790,4930086.042,1129.025,TOE
340,3657892.935,4930094.955,1129.452,TOE
341,3657957.769,4930020.869,1128.673,CL 389+00
342,3657961.739,4930025.444,1127.731,TOE
343,3657954.364,4930018.267,1129.644,GS

344,3657950.150,4930014.025,1130.365,TOE
345,3658028.708,4929950.421,1129.286,CL 390+00
346,3658023.732,4929945.559,1129.254,TOE
347,3658036.215,4929954.473,1128.921,TOE
348,3658099.730,4929880.007,1129.737,CL 391+00
349,3658096.430,4929876.425,1129.812,TOE
350,3658106.865,4929887.725,1129.184,TOE
351,3658167.411,4929806.375,1129.020,CL 392+00
352,3658162.305,4929801.616,1129.200,TOE
353,3658171.711,4929809.630,1130.587,GS
354,3658177.952,4929815.010,1131.141,TOE
355,3658236.862,4929734.407,1129.481,CL 393+00
356,3658232.345,4929729.671,1129.421,TOE
357,3658241.446,4929739.622,1129.536,TOE
358,3658306.709,4929662.818,1129.643,CL 394+00
359,3658301.822,4929658.827,1129.520,TOE
360,3658312.285,4929669.520,1129.761,TOE
361,3658376.941,4929591.615,1129.580,CL 395+00
362,3658371.334,4929585.872,1129.844,TOE
363,3658382.353,4929596.485,1129.524,TOE
364,3658447.217,4929520.410,1129.649,CL 396+00
365,3658440.574,4929513.535,1129.848,TOE
366,3658453.205,4929524.767,1129.449,TOE
367,3658517.249,4929449.008,1129.686,CL 397+00
368,3658513.283,4929445.183,1129.511,TOE
369,3658522.549,4929455.509,1129.195,TOE
370,3658584.971,4929375.420,1129.806,CL 398+00
371,3658579.648,4929370.684,1129.461,TOE
372,3658592.047,4929380.396,1130.065,TOE
373,3658657.131,4929306.177,1129.713,CL 399+00
374,3658652.006,4929300.609,1129.381,TOE
375,3658661.849,4929310.384,1129.542,TOE
376,3658727.102,4929234.702,1130.414,CL 400+00
377,3658721.403,4929228.070,1129.654,TOE
378,3658732.737,4929238.878,1129.043,TOE
379,3658796.200,4929162.380,1129.788,CL 401+00
380,3658790.773,4929158.031,1129.632,TOE
381,3658801.849,4929168.005,1130.252,TOE
382,3658866.440,4929091.195,1129.849,CL 402+00
383,3658861.026,4929085.808,1129.884,TOE
384,3658870.912,4929094.860,1129.840,TOE
385,3658936.645,4929019.983,1129.793,CL 403+00
386,3658932.160,4929015.877,1129.490,TOE
387,3658940.174,4929024.132,1129.965,TOE
388,3659006.742,4928948.634,1129.908,CL 404+00
389,3659002.222,4928944.498,1129.659,TOE
390,3659012.818,4928952.524,1129.736,TOE
391,3659075.364,4928875.822,1129.718,CL 405+00
392,3659070.821,4928871.090,1129.735,TOE

8778 DD#118-232

393,3659079.045,4928879.317,1129.509,TOE
394,3659145.162,4928804.225,1130.035,CL 406+00
395,3659140.056,4928799.297,1129.473,TOE
396,3659150.359,4928808.780,1129.807,TOE
397,3659211.456,4928729.331,1130.073,CL 407+00
398,3659206.707,4928725.173,1129.452,TOE
399,3659216.494,4928732.905,1129.823,TOE
400,3659243.433,4928690.855,1129.536,CL 407+50
401,3659287.294,4928666.761,1129.808,CL 408+00
402,3659284.305,4928660.888,1129.834,TOE
403,3659290.719,4928671.807,1129.478,TOE
404,3659377.668,4928623.755,1130.111,CL 409+00
405,3659375.386,4928617.270,1130.036,TOE
406,3659379.189,4928629.817,1129.535,TOE
407,3659468.625,4928582.198,1129.901,CL 410+00
408,3659466.498,4928576.068,1129.964,TOE
409,3659471.555,4928586.598,1129.866,TOE
410,3659562.394,4928547.421,1130.051,CL 411+00
411,3659560.217,4928542.709,1130.019,TOE
412,3659566.168,4928553.527,1129.857,TOE
413,3659654.148,4928507.525,1130.311,CL 412+00
414,3659651.943,4928501.511,1130.482,TOE
415,3659656.187,4928514.095,1130.022,TOE
416,3659744.559,4928464.762,1130.047,CL 413+00
417,3659741.972,4928459.347,1129.887,TOE
418,3659745.897,4928469.085,1130.029,TOE
419,3659838.205,4928429.621,1130.215,CL 414+00
420,3659835.562,4928423.634,1130.469,TOE
421,3659840.182,4928434.384,1130.073,TOE
422,3659930.604,4928391.322,1130.277,CL 415+00
423,3659928.417,4928386.752,1130.199,TOE
424,3659931.990,4928396.459,1130.441,TOE
425,3660021.505,4928349.588,1130.501,CL 416+00
426,3660018.926,4928341.912,1129.996,TOE
427,3660023.601,4928354.907,1130.675,TOE
428,3660032.684,4928379.556,1142.704,TB
429,3660057.315,4928425.670,1139.165,GS
430,3659967.437,4928465.545,1139.687,GS
431,3659943.121,4928416.945,1142.603,TB
432,3659850.802,4928456.309,1143.056,TB
433,3659876.129,4928507.295,1139.523,GS
434,3659777.046,4928548.804,1139.395,GS
435,3659760.198,4928497.297,1142.859,TB
436,3659671.786,4928533.208,1142.301,TB
437,3659697.451,4928590.507,1139.008,GS
438,3659597.168,4928629.756,1138.582,GS
439,3659575.869,4928571.130,1141.525,TB
440,3659486.594,4928609.851,1140.464,TB
441,3659508.118,4928651.926,1137.645,GS

442,3659417.203,4928694.377,1139.343,GS
443,3659394.777,4928650.917,1142.050,TB
444,3659303.300,4928694.207,1142.437,TB
445,3659332.763,4928730.070,1140.158,GS
446,3659260.760,4928797.528,1140.329,GS
447,3659229.014,4928760.442,1141.365,TB
448,3659163.652,4928829.001,1140.928,TB
449,3659198.965,4928864.814,1140.041,GS
450,3659129.455,4928932.595,1139.400,GS
451,3659094.537,4928900.697,1139.514,TB
452,3659027.426,4928968.216,1140.482,TB
453,3659064.327,4929001.794,1138.999,GS
454,3658991.650,4929069.695,1139.239,GS
455,3658957.556,4929038.381,1141.257,TB
456,3658888.754,4929106.920,1139.551,TB
457,3658925.968,4929141.494,1139.115,GS
458,3658852.240,4929211.973,1139.036,GS
459,3658816.353,4929179.319,1139.500,TB
460,3658747.913,4929249.919,1138.900,TB
461,3658780.118,4929279.219,1139.426,GS
462,3658709.869,4929345.192,1139.403,GS
463,3658678.229,4929321.854,1139.078,TB
464,3658608.025,4929393.146,1138.034,TB
465,3658640.837,4929421.856,1138.494,GS
466,3658645.134,4929408.531,1139.733,FE N S
467,3658574.917,4929487.536,1139.228,GS
468,3658538.815,4929464.251,1139.958,TB
469,3658469.135,4929534.335,1140.005,TB
470,3658504.251,4929567.527,1138.407,GS
471,3658434.718,4929637.108,1138.199,GS
472,3658395.414,4929606.432,1139.218,TB
473,3658328.639,4929676.401,1139.568,TB
474,3658364.317,4929708.506,1137.904,GS
475,3658296.714,4929777.951,1138.311,GS
476,3658261.312,4929749.773,1140.620,TB
477,3658187.676,4929824.959,1140.070,TB
478,3658225.651,4929858.913,1138.352,GS
479,3658159.215,4929929.139,1137.670,GS
480,3658116.721,4929896.376,1139.684,TB
481,3658047.598,4929967.160,1140.350,TB
482,3658090.025,4930001.930,1137.932,GS
483,3658018.223,4930071.894,1137.416,GS
484,3657978.961,4930034.413,1139.918,TB
485,3657908.579,4930107.553,1139.455,TB
486,3657947.261,4930141.687,1137.379,GS
487,3657878.052,4930210.954,1137.666,GS
488,3657839.986,4930177.452,1139.905,TB
489,3657768.157,4930251.203,1139.303,TB
490,3657805.163,4930285.959,1137.002,GS

8778 DD#118-232

491, 3657741.818, 4930356.682, 1136.649, GS
492, 3657695.888, 4930322.257, 1139.317, TB
493, 3657619.032, 4930386.262, 1140.211, TB
494, 3657652.576, 4930425.934, 1136.819, GS
495, 3657559.644, 4930477.872, 1136.650, GS
496, 3657526.851, 4930431.460, 1139.540, TB
497, 3657422.486, 4930453.128, 1139.559, TB
498, 3657426.213, 4930499.510, 1137.198, GS
499, 3657330.846, 4930501.546, 1136.978, GS
500, 3657319.137, 4930449.197, 1139.164, TB
501, 3657215.437, 4930425.210, 1138.167, TB
502, 3657209.530, 4930440.762, 1139.054, GS
503, 3657207.123, 4930452.281, 1137.848, TB LAT1
504, 3657174.618, 4930408.117, 1136.587, TB
505, 3657149.478, 4930398.417, 1135.296, TB
506, 3657148.680, 4930400.835, 1135.104, TB LAT1
507, 3655421.497, 4929981.222, 1140.423, TB
508, 3655406.911, 4929941.480, 1138.646, GS
509, 3655308.027, 4929955.734, 1139.168, GS
510, 3655328.713, 4930011.734, 1138.388, TB
511, 3655284.043, 4930007.547, 1138.077, GS WASHOUT
512, 3655228.863, 4930044.949, 1137.370, TB
513, 3655199.969, 4929997.203, 1139.962, GS
514, 3655102.124, 4930040.505, 1140.242, GS
515, 3655141.498, 4930087.854, 1138.903, TB
516, 3655070.932, 4930151.763, 1137.004, TB
517, 3655061.924, 4930138.695, 1139.276, GS
518, 3655042.978, 4930148.204, 1138.504, GS WASHOUT
519, 3655039.278, 4930073.784, 1140.443, GS
520, 3654959.656, 4930131.597, 1141.321, GS
521, 3654988.388, 4930206.412, 1140.081, TB
522, 3654906.397, 4930264.949, 1142.324, TB
523, 3654865.136, 4930216.763, 1139.540, GS
524, 3654771.847, 4930275.473, 1137.813, GS
525, 3654816.821, 4930327.446, 1139.956, TB
526, 3654727.124, 4930372.866, 1140.705, TB
527, 3654697.098, 4930316.352, 1137.026, GS
528, 3654594.967, 4930338.615, 1136.652, GS
529, 3654633.761, 4930402.104, 1140.101, TB
530, 3654545.190, 4930414.699, 1139.357, TB
531, 3654536.975, 4930353.098, 1136.543, GS
532, 3654437.197, 4930359.119, 1136.275, GS
533, 3654451.657, 4930418.257, 1139.201, TB
534, 3654353.424, 4930419.390, 1139.462, TB
535, 3654351.164, 4930363.524, 1135.853, GS
536, 3654249.383, 4930370.625, 1135.917, GS
537, 3654252.521, 4930421.379, 1140.293, TB
538, 3654152.644, 4930426.968, 1139.364, TB
539, 3654144.071, 4930365.678, 1136.176, GS

8778 DD#118-232

540,3654038.900,4930368.941,1135.907,GS
541,3654052.021,4930429.481,1139.603,TB
542,3653954.168,4930432.204,1139.865,TB
543,3653945.525,4930362.177,1135.479,GS
544,3653851.252,4930364.122,1135.374,GS
545,3653858.496,4930431.505,1139.970,TB
546,3653753.288,4930434.393,1140.561,TB
547,3653746.553,4930374.579,1135.801,GS
548,3653646.576,4930376.640,1134.856,GS
549,3653656.565,4930438.631,1138.805,TB
550,3653559.300,4930436.566,1133.517,GS WASHOUT
551,3653584.878,4930439.083,1138.077,TB
552,3653529.146,4930444.035,1136.015,TB
553,3653537.379,4930382.267,1134.531,GS
554,3653437.639,4930384.717,1134.960,GS
555,3653448.968,4930446.633,1138.396,TB
556,3653356.680,4930446.013,1138.963,TB
557,3653353.012,4930384.162,1135.705,GS
558,3653250.405,4930385.120,1137.942,GS
559,3653260.424,4930448.426,1140.427,TB
560,3653157.862,4930451.218,1141.828,TB
561,3653157.211,4930397.188,1138.939,GS
562,3653051.802,4930393.473,1138.345,GS
563,3653053.083,4930454.460,1141.937,TB
564,3652959.167,4930450.155,1140.985,TB
565,3652960.840,4930389.510,1137.874,GS
566,3652886.850,4930368.502,1136.760,GS
567,3652870.784,4930428.509,1139.383,TB
568,3652804.352,4930387.666,1138.625,TB
569,3652834.812,4930344.017,1136.462,GS
570,3652766.352,4930267.222,1135.867,GS
571,3652720.338,4930310.091,1138.763,TB
572,3652659.760,4930237.659,1138.836,TB
573,3652705.874,4930201.700,1135.372,GS
574,3656124.961,4929921.114,1137.964,TB
575,3656143.604,4929883.153,1137.495,GS
576,3656242.975,4929922.005,1137.803,GS
577,3656221.573,4929959.997,1137.885,TB
578,3656283.015,4929971.885,1137.279,TB WASHOUT
579,3656309.089,4929998.918,1138.129,TB
580,3656328.580,4929958.265,1137.634,GS
581,3656424.119,4929997.781,1137.396,GS
582,3656404.096,4930036.569,1138.594,TB
583,3656494.296,4930075.311,1139.062,TB
584,3656512.169,4930036.995,1137.762,GS
585,3656602.005,4930077.748,1138.044,GS
586,3656584.318,4930115.112,1138.259,TB
587,3656680.347,4930152.706,1137.766,TB
588,3656701.867,4930116.568,1137.442,GS

8778 DD#118-232

589,3656789.141,4930152.225,1136.884,GS
590,3656771.430,4930188.492,1138.034,TB
591,3656853.015,4930207.811,1135.801,TB WASHOUT
592,3656860.707,4930227.670,1137.420,TB
593,3656878.327,4930187.398,1136.315,GS
594,3656966.561,4930234.189,1137.423,GS
595,3656952.736,4930265.981,1138.507,TB
596,3657045.374,4930300.084,1138.963,TB
597,3657068.080,4930264.658,1137.392,GS
598,3657162.176,4930298.323,1137.208,GS
599,3657145.754,4930347.395,1138.496,TB
600,3657243.155,4930376.793,1138.823,TB
601,3657260.077,4930324.938,1137.575,GS
602,3657333.935,4930330.793,1137.584,GS
603,3657315.507,4930396.462,1139.860,TB
604,3657407.128,4930397.831,1139.275,TB
605,3657405.864,4930351.004,1138.171,GS
606,3657470.157,4930331.371,1138.152,GS
607,3657461.598,4930391.403,1138.938,TB
608,3657503.278,4930381.392,1139.194,TB
609,3657585.478,4930344.640,1139.115,TB
610,3657550.594,4930306.146,1138.318,GS
611,3657623.445,4930244.199,1138.274,GS
612,3657661.787,4930288.020,1138.322,TB
613,3657728.092,4930215.957,1139.212,TB
614,3657688.162,4930187.741,1138.950,GS
615,3657754.559,4930116.477,1139.851,GS
616,3657795.549,4930142.502,1139.772,TB
617,3657869.585,4930072.426,1140.268,TB
618,3657830.406,4930038.489,1140.366,GS
619,3657899.634,4929962.282,1139.507,GS
620,3657942.804,4929997.267,1140.253,TB
621,3657991.257,4929927.769,1138.171,TB WASHOUT
622,3658019.584,4929922.320,1140.072,TB
623,3657971.551,4929887.441,1139.337,GS
624,3658046.253,4929807.304,1139.945,GS
625,3658084.938,4929854.082,1141.094,TB
626,3658151.759,4929787.630,1138.889,TB
627,3658120.258,4929761.455,1139.299,GS
628,3658177.703,4929682.348,1138.495,GS
629,3658219.844,4929716.829,1139.091,TB
630,3658291.619,4929642.978,1140.071,TB
631,3658262.952,4929620.769,1138.561,GS
632,3658335.851,4929546.064,1138.773,GS
633,3658363.079,4929568.306,1140.087,TB
634,3658424.254,4929500.143,1140.641,TB
635,3658406.577,4929481.546,1138.205,GS
636,3658467.758,4929405.169,1138.125,GS
637,3658499.235,4929429.188,1138.750,TB

8778 DD#118-232

638,3658565.443,4929358.915,1138.454,TB
639,3658530.932,4929328.430,1138.097,GS
640,3658591.562,4929252.569,1138.373,GS
641,3658635.842,4929291.209,1139.794,TB
642,3658708.193,4929216.188,1139.904,TB
643,3658672.916,4929186.379,1138.387,GS
644,3658734.322,4929116.119,1138.827,GS
645,3658771.832,4929147.919,1139.804,TB
646,3658844.211,4929071.531,1140.298,TB
647,3658813.940,4929038.565,1138.624,GS
648,3658877.961,4928969.262,1138.065,GS
649,3658916.666,4929001.393,1139.971,TB
650,3658983.476,4928932.146,1139.663,TB
651,3658949.813,4928899.066,1138.066,GS
652,3659019.258,4928830.715,1138.226,GS
653,3659055.778,4928856.119,1139.799,TB
654,3659123.008,4928786.361,1139.864,TB
655,3659092.661,4928758.398,1138.580,GS
656,3659156.991,4928689.664,1138.676,GS
657,3659187.033,4928715.042,1140.329,TB
658,3659261.552,4928650.049,1139.856,TB
659,3659245.287,4928616.771,1138.671,GS
660,3659334.077,4928571.294,1139.046,GS
661,3659354.170,4928602.289,1140.572,TB
662,3659447.953,4928564.848,1140.650,TB
663,3659426.429,4928517.139,1138.194,GS
664,3659521.268,4928478.225,1137.889,GS
665,3659542.508,4928526.951,1139.759,TB
666,3659630.175,4928487.079,1140.471,TB
667,3659611.708,4928445.471,1138.173,GS
668,3659691.119,4928403.319,1138.775,GS
669,3659722.975,4928446.722,1141.354,TB
670,3659811.653,4928410.212,1141.319,TB
671,3659793.170,4928365.918,1139.072,GS
672,3659878.390,4928330.663,1139.410,GS
673,3659896.886,4928375.759,1141.660,TB
674,3660007.715,4928328.339,1141.657,TB
675,3659989.902,4928288.334,1139.993,GS
676,3650397.281,4929413.603,1123.948,FL CL LAT W
677,3650597.227,4929415.267,1124.388,FL CL
678,3650797.068,4929406.710,1123.733,FL CL
679,3650997.490,4929408.504,1124.437,FL CL
680,3651198.320,4929402.210,1124.112,FL CL
681,3651326.614,4929401.299,1124.530,FL CL
682,3651332.965,4929402.407,1127.157,BEAVER DAM
683,3651531.947,4929398.654,1124.295,FL CL
684,3651731.635,4929440.345,1124.132,FL CL
685,3651928.793,4929509.782,1124.312,FL CL
686,3652124.159,4929660.198,1124.533,FL CL

8778 DD#118-232

687,3652306.760,4929862.394,1125.114,FL CL
688,3652442.344,4930028.142,1125.113,FL CL
689,3650245.122,4929412.025,1123.454,FL CL
690,3650150.988,4929412.780,1122.314,FL CL
691,3650331.784,4929361.121,1145.869,BRASS PLUG
692,3649816.313,4929436.594,1132.829,CP IRS
693,3649873.641,4929450.170,1132.169,TB
694,3649865.831,4929427.243,1133.182,GS
695,3649947.293,4929363.967,1130.953,GS
696,3649953.034,4929414.044,1132.448,TB
697,3650046.831,4929400.858,1132.957,TB
698,3650044.499,4929359.257,1131.127,GS
699,3650152.586,4929343.075,1131.304,GS
700,3650154.113,4929392.308,1133.357,TB
701,3650245.164,4929391.420,1133.093,TB
702,3650244.913,4929346.742,1131.681,GS
703,3650303.911,4929334.880,1133.389,GS
704,3650298.819,4929367.962,1137.919,GS
705,3650297.444,4929386.043,1137.120,TB
706,3650332.622,4929362.091,1143.286,BRDG
707,3650356.530,4929363.872,1143.348,BRDG
708,3650377.887,4929351.436,1139.806,TB
709,3650376.807,4929371.161,1138.498,TB
710,3650373.733,4929383.347,1137.608,TB
711,3650366.899,4929388.300,1137.225,TB
712,3650365.424,4929364.342,1140.843,GS
713,3650394.792,4929364.056,1124.503,TOE
714,3650404.426,4929364.513,1125.574,TOE
715,3650426.007,4929349.977,1138.083,TB
716,3650421.657,4929382.923,1140.729,TB
717,3650492.510,4929381.224,1138.083,TB
718,3650497.349,4929381.363,1137.949,TB
719,3650501.203,4929333.577,1133.785,GS
720,3650595.127,4929325.525,1132.751,GS
721,3650597.357,4929381.828,1136.083,TB
722,3650697.144,4929380.225,1136.490,TB
723,3650698.018,4929336.319,1133.830,GS
724,3650793.167,4929341.961,1134.697,GS
725,3650795.924,4929380.186,1137.002,TB
726,3650897.670,4929377.962,1138.210,TB
727,3650895.763,4929332.898,1135.697,GS
728,3650996.982,4929332.482,1137.759,GS
729,3650998.688,4929376.886,1140.754,TB
730,3651096.637,4929377.257,1140.135,TB
731,3651097.724,4929331.966,1138.965,GS
732,3651198.267,4929334.034,1136.502,GS
733,3651198.026,4929376.055,1136.629,TB
734,3651326.821,4929375.130,1137.440,TB
735,3651324.836,4929329.741,1135.046,GS

736,3651431.046,4929324.519,1134.382,GS
737,3651432.464,4929374.610,1136.797,TB
738,3651531.236,4929370.688,1137.211,TB
739,3651534.359,4929330.865,1134.816,GS
740,3651622.273,4929331.998,1134.486,GS
741,3651620.060,4929379.783,1136.368,TB
742,3651743.370,4929408.538,1136.718,TB
743,3651760.454,4929368.746,1135.012,GS
744,3651859.298,4929411.684,1135.241,GS
745,3651844.925,4929457.952,1136.600,TB
746,3651938.687,4929490.780,1136.111,TB
747,3651966.535,4929451.284,1134.759,GS
748,3652056.768,4929504.780,1135.446,GS
749,3652028.274,4929543.713,1136.962,TB
750,3652134.857,4929633.663,1136.526,TB
751,3652166.347,4929600.626,1134.752,GS
752,3652266.004,4929678.974,1134.142,GS
753,3652220.313,4929722.181,1136.410,TB
754,3652318.284,4929831.898,1136.882,TB
755,3652358.060,4929795.185,1134.467,GS
756,3652463.216,4929900.915,1134.224,GS
757,3652415.183,4929952.691,1136.859,TB
758,3652469.452,4930013.679,1137.870,TB
759,3652507.208,4929980.167,1134.823,GS
760,3652601.534,4930061.726,1134.891,GS
761,3652552.306,4930101.096,1139.299,TB
762,3652608.284,4930175.663,1138.352,TB
763,3652647.079,4930146.525,1135.712,GS
764,3652406.905,4929956.964,1136.904,BRDG
765,3652401.675,4929949.986,1136.654,BRDG
766,3652371.984,4929978.497,1137.244,BRDG
767,3652377.818,4929985.065,1137.486,BRDG
768,3652567.718,4930216.278,1138.201,TB
769,3652557.259,4930222.964,1138.702,GS
770,3652550.029,4930226.929,1135.950,GS
771,3652524.781,4930245.017,1134.675,GS
772,3652458.987,4930172.190,1135.013,GS
773,3652500.937,4930140.680,1136.308,TB
774,3652430.846,4930055.896,1138.023,TB
775,3652396.621,4930080.382,1135.646,GS
776,3652344.485,4930017.473,1136.224,GS
777,3652377.120,4929988.849,1137.764,TB
778,3652303.419,4929900.360,1138.448,TB
779,3652274.912,4929922.480,1138.125,GS
780,3652200.822,4929837.039,1136.919,GS
781,3652198.100,4929778.072,1137.038,TB
782,3652109.042,4929682.160,1137.192,TB
783,3652076.242,4929715.926,1135.071,GS
784,3651976.844,4929641.313,1133.866,GS

785,3652008.403,4929598.470,1135.899,TB
786,3651899.576,4929536.914,1135.443,TB
787,3651881.898,4929576.261,1135.191,GS
788,3651781.824,4929537.216,1135.016,GS
789,3651799.288,4929495.877,1137.155,TB
790,3651710.544,4929462.475,1137.617,TB
791,3651696.316,4929501.352,1134.948,GS
792,3651591.081,4929462.069,1135.092,GS
793,3651593.863,4929434.481,1136.873,TB
794,3651530.505,4929428.655,1136.987,TB
795,3651528.711,4929468.829,1134.523,GS
796,3651428.843,4929465.975,1134.542,GS
797,3651432.597,4929430.300,1136.554,TB
798,3651325.262,4929430.951,1135.706,TB
799,3651323.826,4929469.765,1133.992,GS
800,3651200.637,4929478.465,1134.398,GS
801,3651197.149,4929434.835,1136.435,TB
802,3651095.896,4929435.404,1137.806,TB
803,3651097.646,4929485.041,1133.731,GS
804,3650990.351,4929491.438,1133.554,GS
805,3650996.325,4929438.003,1138.033,TB
806,3650897.207,4929436.446,1136.590,TB
807,3650895.090,4929483.213,1134.117,GS
808,3650799.392,4929483.575,1132.974,GS
809,3650797.209,4929437.010,1134.358,TB
810,3650696.941,4929437.902,1136.312,TB
811,3650697.440,4929481.906,1133.721,GS
812,3650597.369,4929485.852,1136.474,GS
813,3650597.728,4929442.731,1136.523,TB
814,3650496.833,4929445.288,1138.709,TB
815,3650498.173,4929493.583,1140.100,GS
816,3650396.923,4929490.141,1141.851,GS
817,3650397.778,4929455.275,1142.460,TB
818,3650400.927,4929454.210,1143.844,RR SPK WCP
819,3650389.431,4929458.106,1142.039,TB
820,3650371.273,4929473.690,1138.454,GS
821,3650367.257,4929447.278,1136.247,TB
822,3650347.995,4929474.564,1143.406,BRDG
823,3650324.218,4929472.564,1143.381,BRDG
824,3650309.850,4929471.964,1140.145,GS
825,3650310.171,4929450.003,1137.394,TB
826,3650296.251,4929445.622,1134.133,TB
827,3650280.466,4929444.510,1137.718,TB
828,3650245.079,4929444.923,1137.894,TB
829,3650240.483,4929487.326,1136.961,GS
830,3650151.030,4929485.020,1134.792,GS
831,3650151.964,4929442.386,1135.793,TB
832,3650045.051,4929447.392,1134.351,TB
833,3650044.329,4929484.088,1133.750,GS

8778 DD#118-232

834,3649961.882,4929518.666,1133.713,GS
835,3649960.245,4929467.832,1134.867,TB
836,3649957.203,4929425.673,1124.179,EOW
837,3649965.608,4929439.494,1123.576,EOW
838,3649961.053,4929433.561,1123.064,CL FL
839,3650043.895,4929420.700,1122.248,CL FL
840,3650042.800,4929413.891,1123.693,EOW
841,3650046.148,4929427.147,1123.790,EOW
842,3650148.833,4929420.097,1123.818,EOW
843,3650149.296,4929406.715,1123.764,EOW
844,3650245.376,4929404.421,1123.644,EOW
845,3650243.984,4929419.696,1123.962,EOW
846,3650400.484,4929425.252,1124.918,EOW
847,3650405.772,4929399.475,1124.748,EOW
848,3650389.656,4929403.348,1124.710,EOW
849,3650395.742,4929390.234,1124.774,EOW
850,3650402.074,4929389.979,1124.718,EOW
851,3650495.871,4929425.725,1124.834,EOW
852,3650497.559,4929404.658,1124.855,EOW
853,3650497.858,4929399.340,1125.252,TOE
854,3650497.062,4929414.985,1124.424,CL FL
855,3650598.692,4929426.867,1125.214,EOW
856,3650596.784,4929403.373,1125.154,EOW
857,3650597.083,4929394.948,1126.345,TOE
858,3650696.044,4929400.488,1124.896,EOW
859,3650695.644,4929420.634,1125.162,EOW
860,3650696.149,4929409.734,1124.323,CL FL
861,3650796.519,4929398.014,1124.935,EOW
862,3650796.632,4929418.090,1125.134,EOW
863,3650895.054,4929410.609,1125.027,CL FL
864,3650896.008,4929419.767,1125.131,EOW
865,3650894.818,4929398.942,1124.949,EOW
866,3650997.841,4929399.520,1125.136,EOW
867,3651000.523,4929418.438,1125.177,EOW
868,3651094.554,4929400.939,1125.327,EOW
869,3651095.023,4929418.579,1125.286,EOW
870,3651095.215,4929410.478,1123.552,CL FL
871,3651197.680,4929393.554,1125.370,EOW
872,3651198.775,4929418.303,1125.586,TOE
873,3651197.987,4929406.167,1125.314,EOW
874,3651326.314,4929396.730,1125.141,TOE
875,3651329.651,4929415.257,1125.256,EOW
876,3651432.324,4929386.883,1127.101,EOW
877,3651435.212,4929408.760,1127.150,EOW
878,3651434.557,4929397.206,1124.346,CL FL
879,3651530.910,4929387.647,1127.155,EOW
880,3651529.985,4929406.766,1127.113,EOW
881,3651594.043,4929412.784,1127.018,EOW
882,3651596.971,4929388.965,1127.238,EOW

8778 DD#118-232

883,3651595.344,4929401.522,1124.580,CL FL
884,3651738.877,4929431.068,1127.283,EOW
885,3651729.757,4929455.629,1127.310,EOW
886,3651803.894,4929483.276,1127.315,EOW
887,3651814.137,4929460.750,1127.233,EOW
888,3651808.651,4929470.643,1124.193,CL FL
889,3651933.085,4929500.214,1127.163,EOW
890,3651924.175,4929520.652,1127.119,EOW
891,3652013.783,4929585.610,1127.200,EOW
892,3652027.914,4929567.932,1127.228,EOW
893,3652020.295,4929577.042,1124.817,CL FL
894,3652130.611,4929653.006,1127.150,EOW
895,3652115.413,4929666.809,1127.163,EOW
896,3652207.605,4929768.156,1127.170,EOW
897,3652223.756,4929756.615,1127.136,EOW
898,3652216.446,4929762.449,1124.663,CL FL
899,3652315.897,4929856.563,1126.993,EOW
900,3652299.154,4929867.946,1127.120,EOW
901,3652405.390,4929964.326,1127.345,EOW
902,3652389.313,4929978.838,1127.285,EOW
903,3652397.096,4929971.477,1125.049,CL FL
904,3652434.957,4930038.260,1127.298,EOW
905,3652454.557,4930024.550,1127.179,EOW
906,3652509.863,4930133.898,1127.348,EOW
907,3652530.815,4930114.015,1127.266,EOW
908,3652521.573,4930122.483,1126.022,CL FL
909,3652599.927,4930192.662,1127.274,EOW
910,3652578.360,4930210.492,1127.323,EOW
911,3652589.123,4930201.471,1125.596,CL FL
912,3652507.046,4930095.109,1123.682,ROCK DAM
913,3652511.239,4930100.512,1125.936,ROCK DAM
914,3652529.414,4930117.167,1126.516,ROCK DAM
915,3652511.848,4930135.250,1126.501,ROCK DAM
916,3652494.990,4930112.616,1125.881,ROCK DAM
917,3652497.060,4930103.151,1123.165,ROCK DAM
918,3653577.217,4930335.872,1134.204,GS
919,3653563.841,4930371.408,1134.237,GS
920,3653550.480,4930406.646,1134.428,GS
921,3653536.703,4930445.273,1135.326,TB
922,3653534.457,4930455.292,1132.696,GS
923,3653532.960,4930465.149,1127.507,GS
924,3653532.388,4930471.828,1124.873,TOE
925,3653508.811,4930475.179,1124.821,TOE
926,3653507.198,4930448.160,1136.324,TB
927,3653502.332,4930412.608,1135.725,GS
928,3653497.613,4930382.742,1134.813,GS
929,3653555.972,4930444.472,1134.411,TB
930,3653606.384,4930441.199,1137.798,TB
931,3653608.390,4930467.664,1124.581,TOE

8778 DD#118-232

932,3653552.303,4930469.915,1125.056,TOE
933,3653553.115,4930460.287,1128.139,TOP 12"CMPTILE
934,3653553.024,4930460.938,1126.724,GS
935,3653554.864,4930451.600,1131.628,GS
936,3653597.756,4930405.504,1135.463,GS
937,3653606.664,4930379.058,1134.444,GS
938,3655277.203,4930025.483,1136.994,TB
939,3655282.774,4930041.619,1129.418,GS
940,3655288.208,4930053.606,1125.443,OE
941,3655314.353,4930043.923,1125.607,OE
942,3655312.264,4930034.356,1128.509,GS
943,3655262.085,4930064.333,1125.585,TOE
944,3655258.686,4930056.614,1128.288,GS
945,3655253.862,4930036.444,1136.969,TB
946,3655246.761,4930022.892,1137.832,GS
947,3655235.289,4930002.001,1138.499,GS
948,3655260.604,4929988.458,1138.744,GS
949,3655298.522,4929975.861,1138.556,GS
950,3655300.566,4929986.906,1138.289,GS
951,3655310.189,4930019.118,1137.071,TB
952,3655270.610,4930012.596,1137.618,GS
953,3657952.629,4929906.649,1139.267,GS
954,3657978.561,4929879.119,1139.404,GS
955,3657937.782,4929921.649,1139.338,GS
956,3657956.057,4929941.132,1139.312,GS
957,3657974.715,4929922.026,1139.348,GS
958,3658001.337,4929895.480,1139.208,GS
959,3658025.179,4929918.802,1139.401,TB
960,3657998.087,4929945.592,1138.914,TB
961,3657975.349,4929967.012,1139.182,TB
962,3657988.375,4929982.854,1131.998,TOE
963,3658012.982,4929960.708,1127.248,TOE
964,3658036.639,4929934.914,1127.201,TOE
965,3656883.857,4930099.480,1136.337,GS
966,3656926.883,4930116.635,1136.244,GS
967,3656843.082,4930086.855,1137.055,GS
968,3656822.887,4930140.613,1136.188,GS
969,3656866.807,4930160.023,1135.985,GS
970,3656911.836,4930174.809,1135.826,GS
971,3656893.506,4930244.647,1137.924,TB
972,3656846.810,4930225.757,1136.667,TB
973,3656802.435,4930204.856,1137.417,TB
974,3656796.029,4930222.348,1126.637,TOE
975,3656838.735,4930242.270,1126.542,TOE
976,3656868.381,4930254.880,1126.540,TOE
977,3656274.966,4929989.298,1137.292,TB
978,3656319.070,4930006.467,1137.328,TB
979,3656313.006,4930023.974,1126.243,TOE
980,3656267.247,4930007.254,1126.239,TOE

8778 DD#118-232

981, 3656221.324, 4929988.869, 1126.445, TOE
982, 3656225.296, 4929968.717, 1136.445, TB
983, 3656236.516, 4929934.080, 1137.651, GS
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

8778 DD#118-232

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

8778 DD#118-232

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

8778 DD#118-232

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

8778 DD#118-232

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

8778 DD#118-232

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

8778 DD#118-232

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
9142,3632963.107,4936732.705,1125.549,GS KEY
9143,3632951.972,4936722.640,1125.339,GS KEY
9144,3632948.372,4936708.823,1124.908,GS KEY
9145,3632955.092,4936696.475,1124.935,GS KEY
9146,3632964.092,4936690.347,1124.605,GS KEY
9147,3632977.368,4936686.931,1125.277,GS KEY
9148,3632987.128,4936683.639,1125.436,GS KEY
9149,3632988.351,4936701.281,1119.433,TOE
9150,3632992.513,4936713.878,1119.182,TOE
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
9155,3632931.561,4936753.187,1127.364,GS
9156,3632906.964,4936688.284,1125.803,GS
9157,3632914.259,4936705.846,1126.238,GS ROCKCOR
9158,3633028.671,4936725.522,1114.455,GS ROCKCOR
10001,3639955.984,4927801.673,1147.981,IP 58
10002,3634440.716,4936206.539,1163.310,CPT 3/4 .5DEEP
30000,3655728.205,4929891.780,1140.196,BR SEAT
30001,3657909.966,4932022.326,1140.015,BR SEAT
30002,3659863.862,4937336.431,1148.684,BR SEAT
30003,3659865.389,4937337.321,1152.343,CUT SQ
30004,3659770.925,4934732.133,1142.007,IR 58
30005,3659814.537,4934684.565,1141.685,SPK BP
30073,3660617.096,4934703.728,1136.654,TOE
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
40313,3657751.076,4931054.897,,Intersection
40314,3657689.035,4930989.698,,Cogo
40315,3657763.184,4931144.079,,Cogo
40316,3657927.114,4932351.497,,Intersection

8778 DD#118-232

40317,3657927.114,4932351.497,,Intersection
40318,3657880.027,4932004.679,,Cogo
40319,3658277.007,4932360.118,,Cogo
40320,3658326.992,4932361.350,,Cogo
40321,3657873.300,4931955.133,,Cogo
40322,3657885.880,4932047.793,,Cogo
40323,3658065.983,4932354.919,,Intersection
50188,3659866.038,4937316.055,1150.432,irs 34
70001,3638581.610,4931343.800,,Intersection
70003,3638897.730,4930824.992,,Intersection
70006,3639402.492,4929206.020,,Intersection
70008,3639452.453,4929131.161,,Cogo
70009,3639768.716,4928657.289,,Intersection
70010,3639616.057,4928886.025,,Cogo
70011,3639507.285,4928571.974,,Cogo
70012,3639035.380,4928424.415,,Intersection
70013,3639130.823,4928454.259,,Cogo
70014,3638965.621,4928352.766,,Cogo
70015,3638256.684,4927624.615,,Intersection
70016,3638389.226,4927760.750,,Cogo
70017,3638395.627,4927495.020,,Cogo
70018,3639041.022,4926893.045,,Intersection
70019,3638960.582,4926968.074,,Cogo
70020,3639150.997,4926890.684,,Cogo
70021,3640913.662,4926852.078,,Intersection
70022,3640513.758,4926860.836,,Cogo
70023,3640810.389,4926465.639,,Cogo
70024,3640896.890,4926789.316,,Intersection
70025,3640584.714,4926831.406,,Cogo
70026,3640815.562,4926484.996,,Cogo
70027,3640624.356,4926826.061,,Cogo
70028,3640825.890,4926523.640,,Cogo
70029,3640568.145,4925559.180,,Intersection
70030,3640599.126,4925675.111,,Cogo
70031,3640604.081,4925444.687,,Cogo
70032,3640593.963,4925655.789,,Cogo
70033,3640598.092,4925463.769,,Cogo
70034,3641231.596,4923444.315,,Intersection
70035,3641209.543,4923516.000,,Cogo
70036,3641278.061,4923385.443,,Cogo
70037,3641625.253,4922945.535,,Intersection
70042,3643146.406,4922230.155,,Intersection
70043,3643084.472,4922233.000,,Cogo