

**AGENDA**  
**DRAINAGE DISTRICT 3 CONTINUATION OF PUBLIC HEARING ON ENGINEERS REPORT ON**  
**REPAIRS OR IMPROVEMENTS TO MAIN TILE TO DD 3**  
**Monday, November 29, 2021 10:00 am**  
**Large Conference Room**

**This meeting will be held electronically and in-person.**  
**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. Introductions/Attendance
4. Approve Minutes

Documents:

[DD 3 - PUBLIC HEARING MINUTES 11-01-21.PDF](#)

5. DD 3 - Discuss W Possible Action - Engineer's Report On Repairs & Improvements To Main Tile Of DD 3 - Supplement To Engineer's Report - DD 3 Engineer's Right Of Way Report Main Open Ditch Reconstruction

Documents:

[DD 3 ENGINEERS REPORT ON REPAIRS AND IMPROVEMENTS TO MAIN TILE 05\\_17\\_21.PDF](#)  
[DD 3 - SUPPLEMENT TO ENGINEERS REPORT 6904.4 - 09\\_03\\_21.PDF](#)  
[DD 3 ENGINEERS RIGHT OF WAY REPORT MAIN OPEN DITCH.PDF](#)

6. DD 3 WO 304- Discuss W Possible Action - Landowner Request For Update
7. DD 3 WO 304 - Discuss W Possible Action - Contractor Concerns
8. Comments/Discussion

9. Possible Action
10. Other Business
11. Adjourn Meeting

**DRAINAGE DISTRICT 3 CONTINUATION OF PUBLIC HEARING ON ENGINEER'S REPORT ON REPAIRS OR IMPROVEMENTS TO MAIN TILE OF DD 3**

**Monday, November 03, 2021 10:00 am**

**Large Conference Room**

**This meeting was held electronically and in-person.**

11/1/2021 - Minutes

1. Open Meeting

Drainage District 3 Chairperson Gary Rabe opened the meeting. Also present were Trustee Jeff Heinzerth; Trustee Dennis Prochaska; Dave Johnson, Attorney; Lee Gallentine, Clapsaddle-Garber Associates (CGA); Mike Nissly; Michael Pearce, Network Specialist; Diane Hamilton; Scott Hamilton; Tim Broer; Jon Bartlett; Paul Bartlett; Pete Bartlett; George Loerger; and Michelle Kuechenberg, Drainage Clerk.

2. Approve Agenda

Motion by Rabe to approve the agenda. Second by Heinzerth. All ayes. Motion carried.

3. Approve Minutes

Motion by Heinzerth to approve the minutes of Continuation of Public Hearing Drainage Meeting dated 08/16/21. Second by Rabe. All ayes. Motion carried.

4. Introductions/Attendance

Introductions were made and attendance verified.

5. DD 3 - Discuss W Possible Action - Engineer's Report On Repairs & Improvements To Main Tile Of DD 3 & Supplement To Engineer's Report

Gallentine asked everyone to direct their attention to the Supplemental Report. Gallentine stated we are here to talk about the part in the Supplemental Report, the Main tile starting at the existing open ditch, southeast of the intersection of JJ and 150<sup>th</sup>. Gallentine stated at the headwall and moving upstream where it goes to the railroad, in the Supplemental Engineers Report, CGA suggested taking the section and replacing it with an open ditch. Gallentine stated originally, when this district was created in the early 1900s, it was an open ditch. Gallentine stated in about the teens they decided to fill that portion in and put tile in. Gallentine stated CGA is proposing to go back to that previous design, Gallentine added that this decision resulted from another report farther upstream that was authorized at the last meeting. Gallentine stated that one had quite a few cases of tile that was in bad condition and quite a history on it, Gallentine added this one didn't have quite as much history. Gallentine summarized the concerns of the county. Gallentine stated the concerns of the Secondary Roads Department, at the T intersection, Iowa code says that the cost for road crossings out of the Secondary Roads authority and they were concerned about two crossings, especially at an angle because it added up to quite a cost, Gallentine added if he remembers right, it was about \$860,000. Gallentine stated that CGA suggested going along the blue route in the Supplemental Engineers Report instead, and maybe even extending it a little bit west and then coming up so there is just one crossing in 90 degrees and it saves them quite a bit of money. Gallentine stated that if we do that, what is NRCS going to determine that. Gallentine stated that NRCS typically allows you to go back to your best existing design prior to 1985-1985 without having impacted jurisdictional. Gallentine stated that he's been emailing NRCS back and forth on that issue and he does not have a firm answer from them yet. Gallentine stated the last email he received from them was last Thursday and they wanted to know if work was done on along the blue route in the Supplemental Engineers Report and leave the tile in place then NRCS will have issues because they've improved Drainage. Gallentine explained to NRCS that they're misunderstanding what is being done. Gallentine added the tile would either be disabled, as in removed, or filled with concrete or something. Gallentine stated only flow through the Main open ditch would happen. Gallentine stated he has not heard back from them yet. Gallentine addressed another question that was asked, "does the tile actually follow this route?" Gallentine stated this is a 100-year-old map, CGA went out with tile locators, Gallentine added the tile actually does follow that route. Gallentine stated that it runs about at that kind of angle maybe a little closer to the intersection. Gallentine stated that they ran a tile locator up it, that's where it follows, when CGA was out there they saw a very small sinkhole starting at the northeast quadrant of that intersection. Gallentine stated that the tile follows the red line on the Supplemental Engineers Report. Gallentine stated those are the two updates he has.

Gallentine stated that he knows another concern was with a private crossing, so landowners were not isolated. Gallentine added that CGA ran a few numbers, with material prices being so crazy, CGA thinks a private crossing would be about \$50,000. Gallentine stated that Dave brought up in previous meetings that details about the private crossing will have to be worked out long term whether the maintenance on that is on the landowner or the district. Gallentine stated that some agreement needs to be in place. Gallentine stated that he believes only one landowner has come forward with that concern. Gallentine stated in addition to the cost we've got in the Supplemental Report, the District would be adding about \$50,000 for a private crossing. Gallentine stated that CGA went through the records to see if the ROW had been purchased, Gallentine noted it's getting difficult. Gallentine stated they can find records where people are filing claims for damages. Gallentine stated people are saying, "hey, I'm going to be damaged for this", typically for a ROW is what they're filing claims for. Gallentine stated what CGA hasn't found is whether or not they've been paid. Gallentine stated we know people have asked for money for a ROW, we just don't know what they got paid and if they got paid. Gallentine stated that maybe the Drainage Clerk would be able to find more on this. Gallentine stated that the thing that doesn't help this at all is that the establishment of this district was spread out over several years, Gallentine added that we've got different maps with different names. Gallentine stated that the person who filed the damage claim may not be the one who ended up getting paid for it. Gallentine stated they're still in process on the ROW stuff too. Gallentine asked if there were any questions. Rabe asked if we were planning on with the railroad just going over that again. Gallentine stated that the way the reports were set up were not touching anything inside of railroad ROW, Gallentine added the way the thought process there is the open ditch upstream, the water comes down and gets to the railroad ROW, the tile would still be there, the swale would still be there where the railroad bridge is. Gallentine stated as long as the tile can handle it, it would flow through the tile to the open ditch on the other side. Gallentine stated if the tile isn't big enough it would rise to a level, go through the swale, and then drop back down into the open ditch. Gallentine stated that CGA can change that if the Trustees wanted, CGA just did it mainly just as history we were doing this up here and this down here. Gallentine stated if the district wants to have more continuity of flow, we can run through the process with the railroad, Gallentine noted that it wasn't a quick process. Gallentine added that what we are designing, constructing, and installing here, this is a 100-year system plus. Gallentine stated that we want to make sure it's actually right, acceptable, and adequate for everybody too. Gallentine stated as of right now we're not touching anything inside of railroad right of way but that could change. A landowner asked, "so when it washes the railroad out, who's problem is that, theirs?" Johnson stated if we decided to go under them and put a new tile or an open ditch then it would make it very expensive. Johnson stated the last time this was done the railroad wanted \$100,000 to go under their bed. Johnson stated that if it was left alone, the question then becomes, "is that tile under the railroad performing." Johnson stated that if it's not performing, if it's broken down, the railroad can come in and tell us to fix it by Iowa code. Johnson stated then we get sucked into their high cost of going under the rail bed. Johnson stated that this was also a culvert that exists in that location. Johnson stated technically it's a bridge, all the more reason why they're responsible for that cost just like the roads would be. Johnson stated that district 3 is in a pretty good position as it relates to the railroad because if it is a bridge or a culvert, they have to pay for it. Johnson stated that he does not think the railroad is going to come knocking on the door saying they want all that work done. Johnson stated that if the railroad claims that we're washing them out, then we will say that they need to improve their bridge. Gallentine stated that the other thing is, when we're not inside of the ROW we're going to stop short of the ROW distance, we're going to armor that bank to try and protect that from washing out. Gallentine stated that anytime you take water from an open ditch and take it out of a tube or put it in a tube, the difference in flow always creates some currents and there's potential for erosion. Gallentine stated that we'll do the best we can under the current proposal, if we need to change it, we can. Johnson stated that under common law if you change the flow of water and it erodes the down grade, they could have a cause of action against you for eroding their railroad bed. Johnson stated that in this case because of the statutes involved under chapter 468 I still think we can go back to the fact that it is a bridge and it's their responsibility and not ours. Gallentine added that it's not like we are taking an open ditch and sliding it over 400 feet to where it's never been, we're keeping it where it was, Gallentine noted that it makes a difference under code. John Bartlett asked what if you plugged the tile? Bartlett stated that the effect of having that tile run underneath the railroad is the exact as, you might as well dig a hole in the bottom in the ditch, and that hole will fill up with water and water will go over the top. Bartlett stated that's what it would be like with that tile, it won't do a thing, it will just open ditch and as soon as it hits that dam underneath the tracks it's just going to fill that tile and come up over the top. Bartlett added you might as well just dig a hole in the ground, what would happen if you did plug the tile, so it comes up over that dam? Johnson stated he does not like the appearance of that, 'plugging the tile', it makes it look like we're doing something wrong. Gallentine stated that he doesn't like it because it will encourage siltation at that lower end, if you have a small flow that doesn't get deep enough to come over the top, it will just sit there and be stagnant, Gallentine added any silt or dirt that is in there will just drop out.

Gallentine stated that he also understands the concern of going open ditch to a tile back to an open ditch. Bartlett stated he was just thinking out loud. Gallentine stated he appreciates it. Gallentine stated there is no simple easy solutions with railroads, mainly because they're hard to interact with. Rabe asked on the rains that we've had maybe 3 or 4 inches, how full does that tile on the upper hand corner underneath the bridge get. Rabe asked if it was half full, three quarters of the way full, whole way full? A landowner stated that it gets pretty scary full. Another landowner stated that it becomes a river. Gallentine stated he doesn't know how much the tile currently carries because it's so broke on the upper end, Gallentine added that if you have an open ditch feeding it, it will fill up quickly. John Bartlett stated when you open it up, you will uncover all of the outlet tiles that are silted over, so it will fill up that much faster. Gallentine stated that any private tile that is connected to this main for both projects, once you put in a main open ditch, they will have a free-flowing outlet. Gallentine added that they will just dump in there no matter what. Gallentine stated right now the only time they go in is if they're under enough pressure once that tile is filled up. Johnson stated that you didn't design this system but when the engineer designed it back when they were supposed to take into consideration all that water going to the tile, going to the railroad. Johnson asked if it was an undersized tile line. Gallentine stated for the standards of the day it wasn't undersized, probably for the expectation of a half inch drainage coefficient, it probably isn't going to do that. Hamilton stated that with all the tile that has been added to it, and then if you take and fix that section, prior to what this picture is then potentially you are putting a lot more pressure on the system. Gallentine stated that the drainage area is the same, you're probably putting at this location at a faster rate than before. A landowner stated that when the bottom end was opened up 2 years ago or whatever it was, all those tile that come in there, come in above the bottom of the ditch. The landowner stated that he assumes all the tile that is laid there now is going to be the bottom of the open ditch, so all the tile coming in are going to outlet at the bottom of the ditch. Gallentine stated that the bottom 2 feet. Gallentine stated he just did a history of that cleanout, there were quite a few tile that were actually submerged or down below the silt line that were out letting in, Gallentine added once we cleaned out the silt and pulled off the metal sections they started flowing again. Gallentine stated that it was surprising. Gallentine stated that if we deepen this ditch deeper than what the flow line existing tile is he knows what NRCS is going to say, they will say it's going to impact jurisdictional wetland. Gallentine stated that he has a few answers but not all the answers that we were hoping for by this meeting. Rabe stated we haven't even heard from the railroad. Rabe stated he's sure they have all of this information, they obviously have to be concerned, well maybe. Rabe stated what if we approve this and do that, they have all the information, what if they come back on us. Johnson stated that they have to object in order for them to appeal. Johnson stated assuming that we gave them notice, mailed it to them, and they were listed as a landowner in that publication, they have not filed any motions to date that I'm aware of. Kuechenberg stated that they were given notice and she has not heard anything. The law says if you don't object, you waive your objection because if you're supposed to let us know what your problem is so we can fix it. Johnson stated if you don't object, we can move forward, and they waive their objections. Johnson stated that they can complain after the fact, but they really can't bring in action after the fact if they didn't file an objection.

Hamilton asked that if they go through and do what the upstream part of it and it makes it worse for the lower section, what recourse do those landowners have against the drainage district or the county? Gallentine stated that he does not think they would have any recourse against the county because it is a drainage district and not a county project. Johnson asked the landowner to run the scenario by him again. Hamilton stated if you go through and you fix the part that is upstream (the part west of the railroad) and it makes the drainage even worse because all of the sudden the flow going through is greater, this land and the laterals that are in there don't drain at all then what recourse do those landowners have? Johnson stated that they could go to the board of Trustees and say we think the system is broken and we want it repaired. Johnson stated if it's the tile, you might have to put in a new tile or you could put in a new open ditch like you're thinking about doing. Johnson stated that the recourse is to ask for it to work properly. Johnson stated that if they don't do something that you think they legally should do, then you ask the district court to tell them to do it. Hamilton asked if that takes 2 or 3 years for that to happen, what happens for the loss and revenue that's been incurred because of that? Johnson stated that you normally do not get damages because you claim that the drainage is not as good as it should have been. Johnson stated that you just have to assert your rights at these meetings to get done what you think needs to be done as soon as possible. Johnson stated so, I hear you're concerned about more water coming down on the east side of the railroad and that tile not being fast enough under compacity and you're not draining. Hamilton stated that its already having problems draining some of that property right now, for whatever reason. Hamilton asked Paul Bartlett to back him up. Hamilton stated that one of the biggest wet spots that is up there has tile running through it and it is almost sitting on top of that ditch not draining. Hamilton stated that if you start pushing more water through that, potentially if there is enough pressure, he could see water backing up into the tile. Johnson stated he thinks that's why we're here because we're trying to determine if that tile should be replaced with an open ditch. Johnson stated we are looking into what Hamilton's concerns are. Hamilton stated that he remembers them talking about that last

meeting and he asked if it's been inspected over the years, there could be plugs in the tile. Paul Bartlett stated it was a good tile it just has to wait until everything up above goes and then it goes out just fine. Paul Bartlett stated that it has a French drain in it, it goes fine, it has to wait. Paul Bartlett stated the setup they have now, is if you open the upper end, on Petes farm, there's a big low spot there that now sits full of water, it goes and then this goes. Paul stated that if you open that up and don't open this then it's all going to come down there and it will sit there. Gallentine asked if the private tile that drains the wet spot connected to the main tile or if it outlets into the waterway. Bartlett stated it went into the main tile, Bartlett added that it pushes water up from above, the pressure from the upper end.

Bartlett stated that for him, if you decide to open the upper end, you've decided that it needs to be an open ditch. Bartlett stated because you can't leave a mile in the middle. Gallentine stated that would be very unusual, he would agree. John Bartlett stated that they think its good to open up the west end, and they've already opened up the east end, Bartlett would like to know why the middle section wouldn't be opened. John Bartlett asked if cost was the primary reason. Rabe stated because they've never had a complaint on that, Rabe added that's why they worked on the west part of it first. Rabe stated that's where we seen all of the broken tile. John Bartlett stated where we're at now, knowing what we know, the east is already open, and you've already approved the west. Rabe stated that we're having this meeting today because it was voted upon that we get more answers. Rabe stated he is not opposed; he is more than likely going to do it. Heinzeroth stated that they were trying to do it right, Heinzeroth added that he doesn't even know if it can be voted on being as they're trying to go across the ditch, and they do not have the approval. Gallentine stated that he'd sure like something more in writing from them. Heinzeroth stated that it is probably something that will happen, but we cannot proceed until we get the go ahead from the NRCS. Gallentine stated that the NRCS will not ever tell you that you can't do it, what they'll do is they'll say, "oh the Drainage District did this so individual producers now you've impacted jurisdictional wetlands, you're going to lose your farm benefits." Gallentine stated that they will beat the landowners with a stick for the district's decision. Heinzeroth stated so anyone that has a wetland could be in trouble. Gallentine stated yes, that is typically how it goes, Gallentine added there is time before that, just because you're contemplating a project NRCS isn't going to do that tomorrow. Gallentine stated that they would wait until after construction happens, they're a reactive system, not a proactive system. Heinzeroth stated if the tile is on the bottom of the ditch, it doesn't mean that it will not drain, Heinzeroth added you can have pressure. Heinzeroth stated that he has a ditch, and his tiles are all on the bottom and still drain. Gallentine stated that once a tile gets full, it goes from a gravity system to a pressure system. Gallentine stated that until a tile gets full, for all new water coming down, you need that much air going back up so its an even flow, Gallentine added it becomes a pressure system once it gets full, who's got the highest elevation to put the most pressure on it. Gallentine stated that it will do that somewhat after the open ditch is put in, it's just a lot easier to fill up the area inside the open ditch than it is to shove up a 6-inch tile. Gallentine stated that he wished he had more answers from NRCS. Johnson stated that if you approved it today, they might come back later and say you affected the. Heinzeroth stated so we need to delay it. Johnson stated that is the prudent thing to do, it takes discipline and patience to do it that way but that's the way you should do it. Johnson stated that he would be shocked if they said it was an improvement if we're just using the same system and going down the road once. Johnson added he could see how they would be concerned if we were going to go two lines, that would be an improvement. Johnson stated we're going to refer to this project as a repair until we go to an open system, then the word improvement starts to creep in. Gallentine stated that when we've done these, the reports are titled tile repair or improvements just to cover bases, typically when they do construction plans CGA calls them reconstruction. Johnson stated that when NRCS sees us go from a tile to an open ditch then their discretion has to commence to whether or not that will increase the flow and change the determinations. Gallentine stated NRCS probably, as long as you go back to that original design, will not say that increases the flow, Gallentine added that it does increase over the tile, but it gets you back to the best system you had prior to 1984. Johnson stated so we have that to fall back on. Gallentine stated that if it wasn't for the fact that this was an open ditch before this would be a whole different conversation.

Heinzeroth asked when we put this through the ditch, along the gravel road, do you think we're going to have to buy property, or do you think we can do it in the ROW? Gallentine stated he would assume that in the blue area outlined on the Supplemental Engineers Report, the district will have to buy more ROW just to be safe. Gallentine stated that we can talk to the county engineer, most engineers, due to the federal traffic standards, don't want an open ditch in their road ditch. Gallentine stated that the engineers could say no. Heinzeroth asked so then we would be back to where they would have to pay \$800,000 to put a culvert through there. Gallentine stated that that was the balance part, Gallentine added that he wouldn't be surprised if they would say, "hey we would really like you just to put it on private property and not inside our ROW." Gallentine stated that it may be something where that's part of the deal, you talk to the county say, "we can change this crossing but we're going to need more ROW, are you willing to buy this ROW for us, is that an option?" Johnson stated that he doesn't know if we would be able to negotiate with the county for moving it onto private, Johnson

added that you really don't want it in that right of way, you drive by those and wherever they exist they just scare the heck out of you. Johnson stated somebody can go off of the road. Gallentine stated the worst ones are in the winter when there is snow and you do not realize they're there. Johnson asked how many, what is he talking an acre of right of way. Gallentine stated he has not calculated it, maybe a couple of acres. Johnson stated that you're reducing the cost of the projects from \$880,000 down to \$170,000. Heinzeroth stated that somebody did go off of the road there a few years ago, he doesn't remember what it was anymore, but it is steep. Rabe stated that when you come down that hill and around that corner, it is kind of a tricky corner. Johnson stated that you're looking out for the county which is nice because there use to be immunity but then they did away with that so they can still be sued now. Gallentine stated that he doesn't think that he has talked to a county engineer yet that has an existing open ditch inside of their right of way right off of their road ditch and open ditch that hasn't said, "man I wish I could get rid of that." Gallentine stated that usually when they're put there it was due to convenience or landowner objecting or something because of the chances of the low spot running parallel with the road are pretty slim. Johnson stated that it seems to him that we should be having a debate whether we want this to be a tile that stays the same, a tile that is replaced, or we have an open ditch because if we come back in a month and NRCS says we're fine, we have to have that conversation then. Johnson asked if we should have that debate now. Johnson stated that it sounds like we're going to have that debate and the landowner basically has to show that there is either the need or the desire for something to be done. Johnson stated that sometimes things are necessary because they're just not draining, sometimes you want or desire better drainage, so you want a 1-inch coefficient instead of a half. Johnson stated that it could either be need or it could be desire. Johnson stated that if enough landowners say they really want a more expensive system because we want it to drain more water faster. Johnson stated there is need or desire, the third question you want to ask is if it is feasible. Johnson stated that a million-dollar crossing under the road doesn't seem too feasible to him so he's glad that we're looking at a solution to that. Johnson asked Gallentine if he put together projected costs for this option, we're looking at right now. Gallentine stated that the only option that CGA suggested was open ditch due to continuity. Johnson asked about the cost. Gallentine stated that it was in the report. Gallentine stated that the cost of the open ditch was in the red on the Supplemental Engineers Report. Gallentine stated that it would be \$466,490 plus the \$50,000 for a private crossing. Gallentine stated that you're right over \$500,000. Gallentine stated that the road crossing for the red route, not the blue, you're at \$863,000.

Johnson asked Gallentine to refresh his memory where that private land crossing was going. Gallentine stated that the landowners will have to refresh them. Bartlett asked what that crossing would be. Gallentine pointed to a section on the map where the property crosses. Bartlett asked if it was a big culvert. Hamilton stated that most of that land was Dorthey's land but some of it is Bartletts land. Hamilton asked if one private crossing would be enough. Bartlett stated that it was all Dorthey's land. Gallentine referred to the map and stated so Dorthey owns that narrow piece and these two 40's. Bartlett stated that Dorthey owns all there 40's on the map where the private crossing would go. Johnson asked if anyone could explain the need to cross, right now you can get over the tile, I mean you can take equipment over it. Bartlett stated that the ditch is filled in and the tile is underneath, and the ditch is filled in over the top of the tile, so we just drive across. Bartlett stated that we have rock over that. Johnson asked if they're getting from the west farm to the east farm. Hamilton stated from the east to the west. Johnson stated that she owns land on both sides. Bartlett stated that we come off of the road and there is a lane that we use to get to the two fields but then when this becomes an open ditch, we have to have a bridge across to get out to the one field. Johnson stated that one issue that always gets really sticky is if the private crossing becomes a district asset or does that become something that the landowner has to maintain. Johnson stated that different county supervisors take different approaches to that because the code is not helpful on that, so Johnson thinks we need to have a discussion and consider if we want that to be a drainage district asset that the district maintain. Johnson stated because when that bridge collapses in 75 years and a landowner comes in and asks for it to be replaced, the district can say that is your private land bridge, you repair it and then the landowner says well you put that in so you can put the ditch in to make things right for me to get to the other side. Johnson stated that he thinks we need to have a very clear understanding and agreement whether this is going to be a private land bridge in the future or whether this is going to be a drainage district asset. Bartlett stated we need to decide now instead of waiting 100 years. Johnson stated that people have different opinions on whether it should be a district asset. Johnson stated that an argument could be made but for the open ditch you wouldn't have needed that private crossing, so it was kind of created by the district. Johnson stated that so if you're the landowner you say so the district needed that in so I can have access to the ground they should always be responsible for that in the future. Johnson stated that at least we're not talking about a huge bridge, some of them can be \$200,000 to replace. Johnson stated that if it's not a large one, it's a little easier for the district to say that they'll take responsibility for it. Johnson stated that he thinks if we go down that road, we definitely want to make it a clear understanding who's responsible for it. Bartlett stated that it would be helpful to know what they did originally when it was open, what they agreed upon back then. Johnson stated that someone different may have farmed the west

side of it and someone different farmed the east side of it. Gallentine stated that he thinks that land split has been odd for a while, he's got a map for it at the office. Johnson stated that at least it is a \$50,000 item and not a \$250,000 item for a 14-foot-deep ditch. Gallentine stated that when this district was created, he's not quite sure how those folks even accessed this because it was all one owner. Gallentine stated granted 100 years ago they were crossing a lot of different stuff; you get a team of horses and a little bit of equipment, and you'd be good. Hamilton asked if the ditch ran just north of the intersection, then there might have been a driveway straight into it to get at that western part without having to go across the ditch. Gallentine stated that back then for whatever reason the person who owned this 40 also owned the other 40, they owned both sides of the road.

Johnson asked if we had a relatively recent assessment schedule for DD 3. Gallentine stated that the assessment was done when we cleaned out the open ditch, we also did a reclassification. Johnson asked if there were projections based on both sides being an open ditch the landowners can see how much might be assessed to them. Gallentine asked Kuechenberg if she had that spreadsheet. Kuechenberg stated she did, everyone got a spreadsheet when they came in. Johnson asked if the project was still desirable when they see how much it will cost. Johnson stated that if you have a pretty good idea of what you will be assessed, be careful what you ask for because you might get it. Heinzeroth stated that everyone in the room had land that is affected on the top end, all of the bottom end people are not here. Rabe stated that he had land on the bottom. Heinzeroth stated that you're the only one, everyone else has ground above. Heinzeroth stated that no one from the bottom is complaining. Rabe stated that according to the spreadsheet, the project will cost him \$70,000. Heinzeroth stated that he understands. Rabe stated that is the way it is. Rabe stated that when the other ditch was done, it cost the bottom half, it is what it is, it's part of the district. Johnson asked what they mean when they refer to the bottom half. Rabe stated the open ditch on the east. Johnson stated that a lot of people in attendance are for the red line area on the Engineers Report. Johnson stated to make it more complicated, if you just did the west of it, how would you assess that? Johnson asked if the people on the upper end would be assessed. Gallentine stated that you would keep it as a main. Johnson stated that it is unusual to fix the upper half and not the middle. Gallentine stated he agrees. Heinzeroth stated that he thinks everyone is for it but we just want to do it right. Rabe stated that we got the wetland, and you start getting in there. Rabe stated that we got a lot, it's like what they're doing in Washington, pass the bill and then we'll decide what we're going to spend the money on.

Gallentine stated to make the discussion simpler, if it wasn't for the road crossing, is everyone ok with the project plus one private crossing. Heinzeroth stated that was an easy answer but his question to the road crossing, it's \$800,000 that goes out to the whole county. Heinzeroth asked what that would be per person. Gallentine stated that he doesn't think it's per person big of deal as much as it really hurts his budget because he would spend it all in one year and that hurts what he can do on other things as the county engineer. Heinzeroth stated that the whole Hardin County would pay for a portion of that crossing. Gallentine stated yes, it would be all of Hardin County, but depending on what type of funds he can tap out of he could possibly use federal so it would be the whole U.S. Gallentine stated that he was just trying to say if it wasn't for the road crossing and everyone was for it, at least we know that there is a desire, want, and need feasibility of the drainage project. Johnson asked if the Trustees could entertain a motion approving the open ditch on the west and the open ditch on the east subject to one condition that the NRCS comes back and says that the single crossing will not affect the wetland determination. Johnson stated then we wouldn't have to have another meeting a month or two from now. Gallentine stated you could, the west project has already been approved so you only have to approve the east project. Johnson stated that it would be a good idea to get them both approved or not approved at the same time. Gallentine stated that one has already been approved, so however you want to do it. Johnson stated that before assessments go out is all he's saying, it would be nice to know. Jon

Bartlett asked to clarify for the NRCS thing if that was just only tied to the road crossing, right? Gallentine stated that if NRCS deems that you moved this, you've improved your jurisdictional wetland, that's everyone upstream. Jon Bartlett stated so it's just tied to that one crossing. Johnson stated so you're just being extremely cautious, aren't you? Johnson stated that it is hard for them to say that we're going to increase the drainage of wetlands just by them moving a crossing. Gallentine stated that he just wants to get their answer ahead of time because he doesn't want to assume something, build it, and landowners get letters saying they're losing all of their farms. Gallentine stated that he's been on those projects trying to fix someone else's issues and it's not fun. Johnson stated that if the board approved the projects subject to one condition that the NRCS responds by saying this does not affect the wetland determination then you wouldn't have to have another meeting. Johnson stated you could get that letter in a day, a week, or a month, whenever you get it, that satisfies that condition, and the project could be bid, and we could move forward. Gallentine stated theoretically we could get that letter tomorrow, if we do, we wouldn't have to wait a month to do anything. Johnson stated that if we do another hearing, we have to schedule it in advance and announce the date and



time, so we don't have to send out new notices to everyone, so right now we're following the code by scheduling new meetings and announcing the next one. Johnson stated and again, so far, no one has filed an objection on behalf of the railroad. Johnson stated that if you open up the ditch they might come in and complain that their tile is not working, but if we could say that the tile is fine and if there is surface water running close to that bridge then you guys have to fix that bridge. Johnson stated that we don't want to have to ask them permission to go under their bridge. Rabe stated that it would put an obstruction right on their own bridge because the tile runs right in the middle of the ditch there. Gallentine stated that they don't really care. Gallentine stated that as long as the trains still show up in Omaha. Rabe stated or do you just say screw it and use that \$800,000 make the whole county pay for it. Gallentine stated that you have that authority. Johnson stated he thinks the county could object, and they have. Johnson stated that they could say that it's not feasible. Heinzeroth stated that they have like a \$150,000 annual budget, he didn't like to disapprove it, did he. Gallentine stated he can't, he doesn't have that authority to disapprove it, he just has the authority to object. Johnson stated that the county can say we don't want to incur that much of a road expense. Johnson stated that when he read that letter from the engineer, he said it's a diplomatic way of objecting. Johnson stated that if they brought suit against this district then we would have to argue that they didn't object, a judge will say that letter is sufficient to be an objection it was just politely stated, they've got grounds to sue you. Johnson stated that if you push it through for and \$880,000 road, they could bring suit and get a judge to rule that this is not a feasible project. Gallentine stated that he would prefer to go the route of lets just get the answer from NRCS because he's pretty sure they will be ok with it. A landowner stated that he recalls the engineer threatening to close that JJ avenue rather than having to spend that kind of money. Gallentine stated that he does have the authority to do that. Johnson stated that ends their responsibility to put in a crossing. Gallentine stated that it would.

A landowner asked if the drainage district had the authority to take new right of way. Gallentine stated, yes. A landowner stated so that's not an obstacle really, if they object too bad. Heinzeroth stated it would be nice if the county would pay for it because we're trying to do them a favor. A landowner stated that if thing moves ahead, under those conditions now, it has to be determined who's private crossing that is now, correct. Gallentine stated that would be the other hoop to jump through is who maintains that crossing. Gallentine stated that is a tough one, the question is how they accessed it 100 years ago. Gallentine stated that they dealt with it in some manor back then, but we don't know how. A landowner asked how necessary it was to change it, that it seems pretty good, when we get rain, it is a ditch and goes through them big culverts. Gallentine asked if the landowner was saying that we stop the project short and treat it like we are the railroad. The landowner stated they were just throwing it out there because it seems pretty good now. The landowner stated that the culverts there now always handle the water. Pete Bartlett stated that they will be 5 feet above the bottom of the ditch. Gallentine stated it was an option, he's truthfully confident that the NRCS will come back and say we can shift. A landowner stated that it needs to be done right. Johnson stated that one crossing is better than two, you might as well set it right for the next 100 years and get it right. A landowner asked if it was an open ditch if we thought it would wash the culverts out. Gallentine stated he doesn't think it will do them any favors. Johnson stated that we don't have a study as to the specific right of way acreage. Gallentine asked Johnson if there was potential to approve the project pending NRCS's decision. Johnson stated subject to that condition that the NRCS responds that it will not affect wetland determinations. A landowner asked if we know that there is enough right of way along the entire ditch, or if it's possible that it spreads out. Johnson stated that it was tricky because when it was originally done the engineer didn't provide the specs that they provide today. The landowner asked if it could change. Gallentine stated that it could. Johnson stated that the question then becomes how much you have to compensate the landowner for that additional right of way. Johnson stated are you going to have 50 more feet along that entire open ditch and will that equate to three acres or four. A landowner referred to the map and stated that the way it runs now, the ditch runs along the fence on the north side there is a whole bunch of right of way with a lane that goes clear along the side of it. The landowner asked if it was possible that ditch would move south. Gallentine stated it was possible. Gallentine stated that the NRCS will require us to put an open ditch wherever that main tile is. Gallentine stated that if that main tile isn't in that same spot as the waterway, we're going where the tile is. A landowner stated that the ditch today is above the tile by a couple of feet so when you go to the bottom and apply the grade that angle is probably going to extend further than it does today. Gallentine stated that we have to follow the original design, if he remembers right, it's a one to one, for every foot you go up you got a foot. Gallentine stated that its really steep, a lot steeper than what he would like it but that's what we're stuck with. Gallentine stated that there are two questions with the right of way: (1) when they did it originally did, they buy right of way, and (2) do we need more right of way than what they bought. Gallentine stated that we do not know what we have for right of way. Gallentine stated that we're having difficulty, we know people filed damages, but we don't know if they got paid or if someone else got paid. Gallentine stated that when they filed their claims for damages, they also filed their claims for remonstrance, it was a dual document. Johnson stated it was hard to ask people just to waive their right of way because not everyone will do it. Johnson stated

that some might say I want it, I don't care if it takes another two acres of my ground because it's going to improve the other acres that much. Johnson stated that the people in the room might waive the damages for the right of way, but other people may not. A landowner asked if their assessment might be double. Gallentine stated he doesn't know about double. Kuechenberg stated if we do both projects, we're up to \$876,000. Gallentine stated and it could be another \$876,000 for right of way. Johnson stated and that figure was what with what put down for the road crossing. Kuechenberg stated that was with both projects. Gallentine stated that this was just landowner costs, not road crossing. A landowner stated that especially the west portion you got space and the ditch is not particularly deep. Johnson asked if that landowner was ok with a field entrance off of County Road. The landowner stated he was ok with that, no private crossing but a field drive to the road. Johnson stated that there is someone in Franklin County that is demanding damages because they say that their land was separated but they actually have crossings on both sides to get into it. Johnson stated that we don't know exactly how much the additional right of way will cost, it might be \$100,000. A landowner asked who determines that. Johnson stated that it is usually the fair market value of ground. Gallentine stated on another project we're doing easements; he determines fair market value if you want to go that route.

Johnson stated that one issue that this Board of Trustees has to discuss and decide is if a private land bridge is put in, should the district assume responsibility for that in the future in perpetuity or should you try to shift some of the responsibility to the landowners. Johnson stated that there was two sides to that debate, (1) the landowner says I can get across my land now, if you put in an open ditch preventing me from getting across it, so it's kind of like eminent domain, you're causing a loss of income and I can't get to it, and (2) we're going to put it in for you know and it should last for 50, 75, or even 100 years but after that we're going to designate it as a private land bridge for the landowner to maintain. Johnson stated that I guess you Trustees can talk amongst yourself or you can invite input on that issue for debate. Heinzeroth stated that he knows what a couple of guys would say. Heinzeroth asked any of the attending landowners if they have an opinion. Bartlett asked what the rest of the landowners in the room would say if they were in that spot. Bartlett stated they would probably say that, "we can't get to our ground over there and it's a drainage district crossing." Rabe stated that we're talking about the maintenance of it. Heinzeroth stated that we want to know how you feel about it, the maintenance part of it. Bartlett asked what is maintenance, keeping it so it's not muddy or when it blows out and washes out, it's not the districts anymore it's the landowner? Rabe stated that he would assume the landowner would keep it up so they can get to the other side. Gallentine stated that he doesn't know of a district out there, even if they own the crossing, that would put rock on the top of it. Bartlett stated that he was just saying, what is maintenance. Gallentine stated to me, that's not even in the realm. Bartlett stated that when we say maintenance we're talking about when it washes out it's not the districts problem. Jon Bartlett asked what was done in the project to the east, did you run into that in any situations there. Gallentine stated that those were all private because that has always been an open ditch. Johnson stated that sometimes the private land bridges will come in after the district has been established and that would make it purely private if someone just elected to put it in there simply because they want easier access. Johnson stated that one point for the landowner is that culvert or the land around it washes out fills in that open ditch is that open ditch won't work, it's detrimental to everyone in the district so they should share in the cost of getting it fixed. Johnson added maybe not just one landowner because it happens to cross their ground, it's easier to pay for things when you divide it over the entire assessment schedule. Jon Bartlett asked if he was referring to a culvert or a rail car. Gallentine stated he would say a culvert or a tanker car. Gallentine stated he prefers a tanker car because they're cheaper material wise and lifespan they will last longer than at least a metal culvert will. Johnson stated that from a legal perspective, in order to decrease the chances of being sued, it would be better for the district to maintain responsibility for it and make it a district asset. Johnson stated that if you don't do that then in 75 years from now if it erodes and falls in a landowner three generations from now comes in and states they shouldn't be responsible for it and you have a lawsuit. Johnson stated that several hundred thousand dollars could be spent arguing about it. Johnson stated that if the district maintains responsibility for it, no one will complain. Johnson stated that from his perspective that makes the legal side of things better because you take away grounds to object or to be sued. Johnson stated that the price tag right now is \$50,000. Johnson stated that if it were \$200,000 to cross to get to 17 acres like it is in another county dispute, those circumstances it's different. Johnson recommends that because the district is changing the lay of the land and taking out a tile to put in an open ditch which would sever a landowner from east to west, equity or fairness would favor spreading that cost across the entire district. Heinzeroth asked if the Trustees would need a motion. Johnson stated that the Trustees would do a motion at some point. Johnson stated that the Trustees would do a motion or a resolution stating that the district shall be responsible for this crossing. Gallentine stated that he was assuming that the location of this crossing was fixed. Johnson asked if he meant fixed or legally described. Gallentine stated that it won't change. Gallentine stated he doesn't know how this driveway exists. Gallentine pointed to the map and asked if the landowner owned all of the ground or a portion of it. Gallentine asked what if part of the property was sold off and the landowner wanted to build a new driveway. Gallentine stated that he doesn't think the district should have to pay to build a crossing in a

different location due to a change in land ownership. Johnson stated that he agrees. Johnson stated that if that parcel is sold to a different landowner and they want to get from north to south they kind have to take notice of the fact that there's a district when they buy property. Gallentine stated that he assumes that it would have to be put on paper that it is one spot and one location. Johnson stated that was all that was really being requested from any landowner in attendance. Rabe asked if we could put that in a motion.

Johnson stated that the last issue is then if everyone is comfortable moving forward not knowing the exact amount of right of way moving forward. Johnson stated that like Gallentine stated you don't know until you know but you've got a rough idea of how much we have here. Johnson asked if we were talking about one- or two-miles total by how many additional feet and width. Johnson asked Gallentine to calculate some square footage for us. Gallentine stated that he could not answer that right now. Jon Bartlett stated that Pearce is on the west side, who was on the east side of the crossing (blue line) on the Supplement Engineers Report. Bartlett stated that you would be dealing with one person. Johnson stated that him and Gallentine were talking about what the range of what the right of way could cost and if it is 50 feet now and we want it to be 100 times approximately two miles, we would need 15 acres. Johnson asked if it was 60 CSR2. Johnson stated that it would be 10,000 for \$150,000 on an \$880,000 dollar project. Gallentine stated you know attorney there's some things you don't want to do but they make you, you made me calculate that number. Johnson stated that disclaimer that it is rough. Heinzeroth if that was for both sides. Gallentine stated that it's assuming that we have 50 feet of right of way, and we need another 50. Johnson stated that this will give us permission to go on at any time without permission and not have to pay any damages for doing anything on that 100-foot area. Gallentine stated that was a rough number to start the conversation. Gallentine stated that it may be especially on the upper end. Gallentine stated that we might only need 50 feet on the upper end where Bartlett is. Bartlett stated that it seems like a lot. Gallentine asked Bartlett how deep the waterway is where is he. Bartlett stated that through CRP there's no ditch currently there. Bartlett stated that it might be 4 feet to the top. Gallentine stated that you're talking 6 foot down to the bottom, 6 on each side, 12, the top of the bank should have less than 20 feet. Gallentine stated that you may only need 50 feet right of way total. Gallentine pointed to the map and asked how deep the waterway is at that point. Bartlett stated that it was 8-12 feet down. Gallentine stated that he knows we're going deeper, but NRCS is going to require us to stay with those really steep side slopes so if that waterway right now is as deep but if the slopes are flat enough you can drive through it, we may not end up getting any wider, Gallentine didn't know. Gallentine asked if it was flat enough to drive through. Bartlett stated that it was not, just at the one bend. Johnson stated that if any of the landowners is not comfortable moving forward on the row factor, we would have to hold off and task lee to prepare that report. Litigants can get really technical and say that we don't have a written report prepared from an engineer that says the right of way and the cost. Johnson stated that if anyone in the room is uncomfortable because they do not know exactly how much the right of way would cost them, say I don't want to proceed until we have an engineers report that lays that out. Johnson stated that the board would have to task CGA to go do that and continue a hearing. Johnson stated that if you say you're not comfortable knowing some of these things and want a report, because the code does really require a report to take action on unless everyone is comfortable proceeding without it. Johnson stated that from his perspective he would rather see an engineers report and have him find out the answer to these questions on: (1) what is the present right away that can be best calculated, (2) how much more are we going to need, (3) how much that might cost, and (4) how much will that add to the project to plug into the projected schedules. Rabe stated that way we might have the answers from the NRCS too. Johnson stated that we don't have to make a decision on the crossing yet, the Trustees can think about it. Hamilton asked what the projected cost of the extra study doing to get the answers to the questions that you're posing. Johnson stated that it has to be done no matter what if the project is passed. Gallentine stated that it would have to be done no matter what. Gallentine stated the key was to get answers so we can have a bid letting this winter. Gallentine stated that he preferred to bid let it in the winter. Gallentine stated that we haven't done that portion of the report yet because if we show up to the meetings and no one wants to do it, why would we spend the money. Johnson stated that's what is good about Lee. Johnson stated he's dealt with other districts and some of the engineers come in they about have it ready to bid and it hasn't been approved yet, so they get carried away. Johnson stated that Gallentine tends to be really economical, and he appreciates that about his work. Johnson stated that from a legal perspective he prefers to know what the right of way is and how much it will cost.

Johnson stated that he could throw out what the motion would be and if they agree with it the Trustees could say as stated. Heinzeroth asked how many days' notice, what is the time frame that we don't have to renotify? Heinzeroth asked if we could say in December and still be good. Johnson stated right. Johnson stated that when people come to these meetings they come to find out when the next meeting will be, and it will be published in our minutes as well. Johnson stated that there is a record. Rabe asked Gallentine how much time he will need. Gallentine stated that he has already started on figuring out if there is right of way period. Heinzeroth asked if he wanted to go sooner than a month. Gallentine stated that he did not, with Thanksgiving

and everything. Heinzeroth stated that he would have a problem, but it could be done without him. Heinzeroth stated that he would not be open December 13<sup>th</sup>. Heinzeroth stated he could not be at a computer. Gallentine stated that we did not have to do it on a Monday. Heinzeroth stated the 6<sup>th</sup> or 7<sup>th</sup> of December would work for him. Gallentine stated that would work for him. Johnson stated that he has something scheduled he is trying to cancel on that day, but he could do it by phone. Heinzeroth asked when this room was open. Kuechenberg stated she would look at the calendar to see if the Large Conference Room was open. Gallentine asked if they had a problem with November 29<sup>th</sup>. Everyone in the room was ok with the 29<sup>th</sup> of November. Kuechenberg stated the room was open. Johnson stated the Trustees could move to continue the hearing on the proposed project in order to task Lee Gallentine to determine the current right of way and calculate what additional right of way would be necessary for an open ditch.

Motion by Heinzeroth to continue the hearing on the proposed project in order to task Lee Gallentine to determine the current right of way and calculate what additional right of way would be necessary for an open ditch. Second by Rabe.

Motion by Heinzeroth to have a meeting on November 29, 2021, in the Large Conference Room. Second by Rabe. All ayes. Motion carried.

#### 6. DD 3 WO 304- Discuss W Possible Action - Landowner Request For Update

Rabe stated that Kuechenberg has the information on this. Kuechenberg stated that Denise forwarded her an email thread between herself, Gary Rabe, Honey Creek Land Improvement, and Jon Bartlett. Kuechenberg stated that she attached a copy of the email to the Trustees agenda packet. Kuechenberg stated that Jon reached out to her asking for an update on when the project can begin. Kuechenberg stated that she spoke with Jon the other day and he discussed the project with Jacob Handsaker with Hands on Excavating, Jacob told Bartlett that they would be able to start the project in the spring. Kuechenberg stated that she forwarded those concerns onto Rabe, and he contacted Jacob from Hands On as well. Rabe stated he did talk with Jacob but ultimately, he decided to go with Honey Creek Land Improvement like planned. Rabe stated that Adam with Honey Creek is going to meet with Kuechenberg to start the paperwork for the railroad right of way. Rabe stated that Kuechenberg should stay on him. Rabe asked Kuechenberg to call him tomorrow. Kuechenberg stated that she would do that. Kuechenberg stated that she spoke with Adam, and they agreed to meet later on in the week either Thursday or Friday. Kuechenberg stated that Denise will also be available. Rabe asked Kuechenberg to stay on Adam. Jon Bartlett asked Kuechenberg if he indicated to her that he was going to do it. Jon Bartlett stated that was not what Adam indicated last time, Adam said he would not be able to get to it. Rabe stated that Adam is doing his own farming. Rabe stated Adam wanted to wait until the first of November when he was done with his farm business. Bartlett stated that was what Adam said originally but then he would only be able to work within a certain window that the railroad gave him, and he wouldn't be able to commit to that. Rabe stated that apparently Adam has done some research on it because he was talking about jacking and boring and directional tubing and stuff. Gallentine stated that his only caution is to make sure he is aware of the bid threshold. Gallentine stated that if you start jacking and boring you could easily hit the bid threshold. Gallentine stated that hopefully you can get by with the other solution you talked about. Rabe stated I think that is where it stands right now. Rabe asked if the landowners were satisfied. Bartlett stated that as long as something is moving forward. Bartlett stated that it is a fine line for him, he doesn't want to stick his nose in too far but would like to keep the ball moving. Kuechenberg stated that she will stay on him, she already has informational paperwork printed out and ready to go for Adam.

#### 7. Discuss W Possible Action - New Work Order Requests

Rabe stated he just found out about the beaver dam. Rabe stated that he wishes Kuechenberg would've come to the Trustees. Rabe stated that he has a guy in place that they use when they have issues with beaver dams. Kuechenberg stated that she has not sent anyone out for the beaver dams. Kuechenberg stated that she created a work order in the system to track the project, it hasn't been approved by the Trustees, so no action has been taken on it. Kuechenberg stated she received a call last week from Jeff Farris in district 3. Rabe stated the Trustees have a trapper that they use. Kuechenberg stated ok, so you have your own trapper. Rabe stated so we contact him, this is the first he's heard of the dams. Rabe stated that he will get a hold of the trapper to see if he can do it. Kuechenberg stated if you look on Beacon from the 2020 flyover you can see the dams. Kuechenberg stated she's attached the map to the agenda with the work order. Gallentine stated that the beaver dams are located on DNR property. Gallentine stated that it has been a problem in the past. Gallentine suggested getting rid of the beavers and then getting the dams out. Kuechenberg stated that the landowner was just concerned he would have some flooding issues on his neighboring property if these dams were not

removed. Rabe stated that he would get a hold of his trappers and go from there. Rabe stated that they usually pay their trappers like \$40 when they present the beaver tail. Bartlett asked how often has the district dealt with beaver dams? Rabe stated that before when we had trees it was a problem. Rabe stated that he's had several in his area. Gallentine stated the big thing is if you can get rid of the trees. Gallentine stated they still will build with corn stocks and other stuff but not as much. Rabe stated that in our stretch where they took the trees out, Scott Hoover took 8 beavers out of that stretch. Rabe stated if you get rid of the trees, you get rid of the beavers. Gallentine stated the area where they're at is right next to the interstate, and he thinks when they turned that over to the DNR they did some tree planting. Heinzeroth stated so it's going to be a problem. Gallentine stated that it will be a problem.

8. Comments/Discussion

9. Possible Action

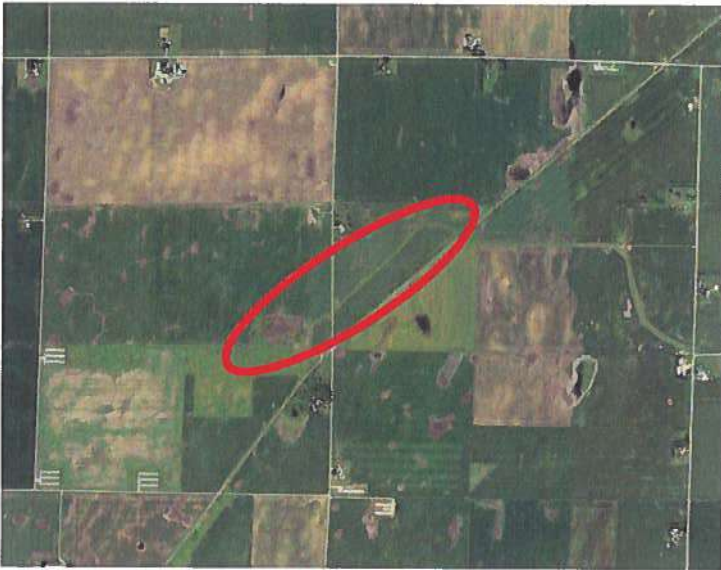
10. Other Business

11. Adjourn Meeting

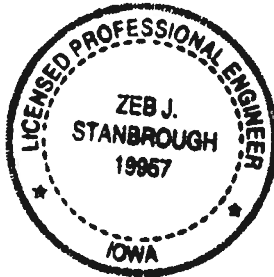
Motion by Heinzeroth to adjourn the meeting. Second by Rabe. All ayes. Motion carried.

**HARDIN COUNTY, IOWA**

**2021**



**ENGINEER'S REPORT  
ON REPAIRS AND  
IMPROVEMENTS TO  
THE MAIN TILE  
DRAINAGE DISTRICT  
NO. 3  
HARDIN COUNTY,  
IOWA**



I HEREBY CERTIFY THAT THIS ENGINEERING DOCUMENT WAS PREPARED BY ME OR UNDER MY DIRECT PERSONAL SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF IOWA

ZEB J. STANBROUGH, P.E.

DATE

LICENSE NUMBER: 19957  
MY LICENSE RENEWAL DATE IS DECEMBER 31, 2021  
PAGES OR SHEETS COVERED BY THIS SEAL:  
SHOWN ON TABLE OF CONTENTS

5-17-2021



**CLAPSADDLE-GARBER ASSOCIATES OFFICE LOCATIONS**

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

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

**Engineer's Report on Repairs and Improvements  
to the Main Tile, Drainage District No. 3  
Hardin County, Iowa**

<b>Table of Contents</b>	Pg. 1
<hr/>	
<b>Report</b>	
Introduction	Pg. 2
District History	Pg. 3-6
Investigation	Pg. 6
Discussion and Conclusions	Pg. 7
Repair Method	Pg. 7
Improvement Method	Pg. 8
Opinion of Probable Construction Costs	Pg. 9
Ownership and Classifications	Pg. 9
Recommendations	Pg. 10
<hr/>	
<b>Appendices</b>	
Observation Report with Pictures	App. A
Map – Investigation, Repair and Improvement Map	App. B
Opinion of Probable Construction Costs - Repair	App. C
Opinion of Probable Construction Costs – Improvement	App. D

# **Engineer's Report on Repairs and Improvements To the Main Tile, Drainage District No. 3 Hardin County, Iowa**

## **1.0 INTRODUCTION**

- **SCOPE OF WORK** – The District Trustees, requested Clapsaddle-Garber Associates to investigate and report concerning repairs and improvements to the Main Tile of Drainage District No. 3. This report will detail the feasibility of said repairs and improvements, and present opinions of probable construction costs associated with said repairs and improvements. In November 2020, the District Trustees requested Clapsaddle-Garber Associates to move ahead with an investigation and report concerning repairs and improvements to the Main Tile after deficiencies with had been identified.
  
- **LOCATION** – The area of investigation was limited to a portion of Main tile. Said Main tile is located in Sections 27 and 28, Township 89 North (T89N), Range 21 West (R21W), Hardin County, Iowa. Specifically, the downstream limit of investigation for the Main tile is upstream of the railroad right of way in Section 27 approximately ½ mile west of I Avenue and ½ mile south of the 140<sup>th</sup> Street. Going upstream, the tile then proceeds northwesterly for a short run before turning southwesterly across Section 27. It crosses I Avenue approximately 1 mile south of 140<sup>th</sup> Street. The tile then continues southwesterly across Section 28 for ¼ mile and then turns westerly, with the upstream limits of the investigation being approximately ¼ mile west of I Avenue. For reference, a map showing the limits of investigation is included in Appendix B.



2.0 DISTRICT HISTORY – The following is a brief summary of the pertinent history of Drainage District No. 3 as obtained from the Hardin County Engineer’s Field Books and the Hardin County Auditor’s drainage minutes and records.

- 1906, Mar. 5 Original petition filed in the County Auditor's Office.
- 1906, Aug. 7-14 "The Iowa falls Sentinel" published Notice of petition.
- 1906, Sept. 4 Hearing
- 1906, Oct. 13 "THE SEMI-WEEKLY HERALD" published Notice for Drain District.
- 1906, Nov. 12 Hearing for damages
- 1907, Jan. 21 Amended and substituted petition was filed for a Drainage District No. 3.
- 1907, Feb. 2 Engineer's Report by Geo L. Mechem was filed.
- 1907, Nov. 7 Board of Supervisors - resolved to establish Drainage District No. 3.
- 1908, Mar. 4 Board of Supervisors rerecorded November 7, 1907 minutes, proceedings, and resolutions to fix errors in the establishment of Drainage District No. 3.
- 1908, Mar. 20 Commissioner Report of the permanent survey of Drainage District No. 3
- 1908, Apr. 23 Notice to Contractors for construction of Drainage District No.3 - Total Cu.Ydr. 209,654.
- 1908, Jun. 28 C.H. Sternbery & Sons Drainage Contractors bid submitted.
- 1908, Jun. 30 Indiana Drainage County bid submitted.
- 1908, Jul. 22 Northern Construction Company request to withdraw bid
- 1908, Jul. 23 Letter from County Auditor's Office to Elkhart Ind. stating they could not consider their bid.
- 1908, Oct. 14 Notice of assessment for Drainage District No. 3.
- 1908, Nov. 9 Awarded Construction Contract to Dilley & Berdine
- 1908, Nov. 14 Hearing for assessment for Drainage District No. 3.
- 1908, Dec. 11 Contract with Dilley & Berdine signed.
- 1912, Aug. 3 Letter from Clerk of the District Court to E.L. Marriage about fixing the upper end of the Drainage Ditch.
- 1913, Jan. 7 Engineer's Report by S.B. Gardner - Drainage Ditch needs to be deepened to drain properly.
- 1913, Aug. 3 Petition to change upper end of Drainage District from Station 352 to Station 476.
- 1913, Aug. 9 Drain Bound - Bond for Costs
- 1913, Oct. 7 Engineer's Report by S.B. Gardner - Cleaning from Station 80 to Station 338+50 and from Station 338+50 to Station 485.
- 1913, Nov. 28 Notice published in "HARDIN COUNTY CITIZEN" to convert the upper end of the Drainage District No. 3 from open ditch to tile.
- 1913, Dec. 16 Claim of Damages - \$1000
- 1913, Dec. 17 Claim of Damages - \$1000
- 1913, Dec. 22 Claim of Damages - \$300
- 1913, Dec. 22 Claim of Damages - \$500
- 1913, Dec. 22 Claim of Damages - \$1000
- 1913, Dec. 22 Claim of Damages - \$1000
- 1913, Dec. 22 Claim of Damages - \$200
- 1913, Dec. 27 Hearing for the notice for drain district and drain to convert the upper end of the Drainage District No. 3 from open ditch to tile.
- 1913, Dec. 29 Received list of damages for the reconstruction of the Drain District No. 3.
- 1914, Jan. 7 Engineer's Report by S.B. Gardner - Clean ditch from Station 80 to Station 315 & open ditch converted into closed drain from station 351 to station 185

1914, Jan. 7 Specifications for Drainage District No. 3. Improvements  
 1914, Jan. 7 Agreement to Pay Damages on Account of Ditch.  
 1914, Jan. 12 Notice to Contractors for reconstruction of Drainage District No. 3.  
 1914, Jan. 15-22 Notice to Contractors for reconstruction of Drainage District No. 3 published  
 in "The Eldora Herald"  
 1914, Feb. 3 Bids to be open for reconstruction of Drainage District No. 3  
 1914, Feb. 3 Contract for Construction of Drains  
 1914, Feb. 3 Proposal Bond \$2300 from Lion Bonding Surety Co.  
 1914, Feb. 21 Tile Contract - What Cheer Clay Products Company - \$11607.50  
 1914, Mar. 7 Loin Bonding & Surety County Bond No. 26218 - \$1000  
 1914, Mar. 7 Drain Tile Bond - \$2902  
 1914, Jun. 3 Letter to William & Huff, Attorneys from What Cheer Clay Products  
 1914, Jun. 3 Letter to O.L. Olson (winning bidder for drainage work) from Williams &  
 Huff (attorneys)  
 1914, Jun. 11 Letter to O.L. Olson (winning bidder for drainage work) from William & Huff  
 (attorneys) - demanding work to start on the 20th or forfeit the contract.  
 1915, Jan. 13 Notice of Labor Lien on improvement in Drainage District No. 3.  
 1915, Feb. 8 Final Settlement with What Cheer Clay Products having completed their  
 contract.  
 1915, Feb. 15 O.L. Olson has sublet a portion of his contract to Hogan & Badgerow.  
 1915, Apr. 1 Warrant Issued.  
 1915, Mar. 12 O.L. Olson assign \$768.00 to E.P. Davis for completion of Contract.  
 1915, Mar. 20 Notice of Claim and Lien by H.A. Kline on Drainage Ditch No. 3.  
 1915, Apr. 1 Lion Bonding & Surety County No. 12775 - \$1000  
 1915, Apr. 21 S.B. Gardner resigns as Engineer in charge  
 1915, May 5 E.W. Edwards (civil engineer), William Dunning and J.B. Starr Jr. were  
 appointed Commissioners to assess benefits on the repair of drainage district  
 No. 3  
 1915, Jul. 2 Official Bond No. 38488 - \$1000 - the Fidelity & Deposit Company of  
 Maryland.  
 1915, Jul. 2 Final Report by Engineer G.B. Gardner - E.W. Edwards appointed engineer in  
 charge.  
 1915, Sep. 29 Subcontract accepted from O.L. Olson to Hogan & Badgerow.  
 1915, Oct. 18 Engineer (E.W. Edwards) does not recommend that the work be accepted and  
 steps need to taken to make him complete the work.  
 1915, Dec. 16 E.W. Edwards resigns as Engineer for Drainage District.  
 1915, Dec. 17 W.S. Porter was appointed Engineer for Drainage District.  
 1916, Jan. 1 Official Bond - W.S. Porter Construction Engineer \$500  
 1916, Apr. 17 Commission to inspect Drainage District - W.S. Porter  
 1916, Jun. 8 Notice to Proceed with work on "Cleanout Work " to O.L. Olson (principal  
 contractor) or show cause why the work should not be relet.  
 1916, Jun. 13 O.L. Olson was request to appear before the board to show cause why the  
 work should be delayed, if not it would be relet for bid.  
 1916, Jun. 16 Notice to Contractors for reconstruction of Drainage District No. 3.  
 1916, Jun. 29 Notice to Contractors for reconstruction of Drainage District No. 3 published  
 in "The Eldora Herald"  
 1916, Jul. 10 Proposal on Drainage District No. 3 - received.  
 1916, Jul. 12 Notice to Contractors for reconstruction of Drainage District No. 3.  
 1916, Jul. 13-7 Notice to Contractors for reconstruction of Drainage District No. 3 published  
 in "The Eldora Herald"

1916, Jul. 27 Proposal on Drainage District No. 3 - received.

1916, Jul. 27 Contract for Construction of Drains - A.S. White - \$10,150.00

1916, Jul. 27 Contractor's Drainage Bond - A.S. White - \$2,536.00

1916, Dec. 28 Engineer's Report - W.S. Porter - Bulk-head at tiles ends is being undermined and needs to be replaced.

1916, Dec. 28 Engineer's Report - W.S. Porter - C.R.I & P Railway put piling through 28" tile line and destroyed the drain. Company to attend to this matter at once.

1916, Dec. 29 District Court of Iowa - Lion Bonding & Surety Co. pay \$1,724.00 for bond NO. 27618

1917, Aug. 6 Engineer's Report - W.S. Porter - Reconstruction work by A.S. White has been completed - full payment of \$10,150.00

1917, Aug. 8 Official Bond - W.S. Porter - Preliminary Engineer - \$1000 - for Drainage District No. 3.

1917, Aug. 17 Petition for Drainage District and Drain - Sections 31 & 32, Township 89 North, Range 20 West.

1917, Nov. 8 Engineer's Report - W.S. Porter - unfinished construction on the land of Mr. Geo. Robertson, to be fix at once.

1918, May 25 Court Decree - Plaintiffs: Lois W. Bloomquist and Fannie W. Emeny VS. Board of Supervisors and Drainage District No. 3 - Findings - Reduce assessments by 33 1/3%

1932, Jul. 30 Engineer's Report - J.R. Mahur - repairs need for Drainage District No. 3 in Section 27, Township 89 North, Range 21 West. - Remove trees, fix tiles and Bulk heads.

1943, Jul. 21 Request for Drainage Repairs - The open ditch from the tile outlet be cleaned.

1945, Apr. 3 Contract - Drainage Cleanout - Howard O. Young (contractor) - \$4,000.00

1956, Dec. 17 Engineer's Report - F.J. Reigles - Recommend tree removal, stumps be sprayed and some clean out work be done - estimate \$2,000.00.

1956, Dec. 18 Notice to Bidders - Clearing trees, brush and cleaning out Drainage District No. 3.

1956, Dec. 28 Notice published in "THE HARDIN COUNTY INDEX" for Bidders on Clearing trees, brush and cleaning out Drainage District No. 3.

1957, Jan. 9 Minutes of Board Meeting - Accepted A.L. Bock bid of \$3,802.87 solely for trees and Brush removal and did not include cleaning out the ditch.

1957, Dec. 23 Contract for Excavation- Wesley McDaniel - Excavate 800 Cubic Yards in Section 7, Township 88 North, Range 20 West - \$480.00

1958, Feb. 3 Contract for Excavation - Wesley McDaniel - Excavate 500 Cubic Yards in Section 8, Township 88 North, Range 20 West - \$375.00

1958, Mar. 4 Minutes of Board Meeting - \$6,000.00 was deemed necessary to pay for completion of repairs to Drainage District No. 3 and assessment of 30%.

1983, Apr. 1 Notice of Drainage Hearing - Hollis E. Ryken (Engineer) - recommends repairs or improvement to Drainage District.

1983, Jun. 30 Notice for Construction of Drainage Repair - (Main Open Channel) Clear, spray and dispose of all brush and trees in drainage ditch.

1983, Jun. 30 Notice published in "THE ACKLEY WORLD-JOURNAL" for Construction of Drainage Repair of Drainage District No. 3.

1983, Oct. 19 Engineer's Report - Hollis E. Ryken - Repairs are needed to Drainage District No. 3

1983, Nov. 28 Notice of Report by Hollis E. Ryken (Engineer) - regarding repairs of Drainage District No. 3.

- 1983, Dec. 7 Notice published in "THE IOWA FALLS CITIZEN" regarding repairs of Drainage District No. 3.
- 1984, Jan. Notice to Contractors - for restoration of 0.4 miles to Drainage District No. 3.
- 1984, Jan. 18-25 Notice published in "THE IOWA FALLS CITIZEN" regarding construction repairs to Drainage District No. 3 - restoration of 0.4 miles.
- 1984, Apr. 7 Petition - Request to proceed to advertise for bids on the repairs that Hollis E. Ryken stated in his October 19, 1983 Engineer's Report.
- 1984, Apr. 12 Proceeding of Trustees - No bids were received for construction repairs to Drainage District No. 3 - "Latch Outlet" in Section 8, low bid was Robert Gherke \$2,750.00
- 1984, Apr. 25 Drainage District No. 3 Clerk's Record, Proceedings of Trustees  
 - Center of Section 7 - Blown out tile lines, Trees growing over tile & surface water cutting ground - Robert Gherke to repair for \$1,500-\$1,700  
 - Bank wash out repair on the M.G. Clark farm at district expense  
 - tree cutting is into penalty period  
 - DD #149 has received no bids and would have to use other less expensive means.
- 1996, Aug. 19 Board of Trustees Meeting Held - maintain 5-year interval spraying the ditch
- 1997, Dec. 22 Board of Trustees Meeting Held  
 - Sub 1 repairs made on Bernie Miller farm  
 - Main tile checked for cotton wood roots (found) - \$280.41  
 - Repair blow out D.D. 3 main tile - Meade Martlett farm Section 28, Alden Township - \$341.54  
 - Removing Silt for D.D. 3 main ditch at Sub 149 main tile outlet - \$525.0  
 - Bill from Control Services Inc. Spraying brush along length of D.D. 3 - \$3,900.00  
 - Assess D.D. 3 \$8,000 to pay outstanding bills.
- 1998, Dec. 17 Board of Trustees Meeting Held  
 - Repair Blow sub district #111 - \$234.60  
 - Tile repair of sub district #64 - \$745.35  
 - Place Concrete rip-rap on Main ditch bank of D.D. 3 Thelke farm Section 1, Ellis Township - \$1,672.5  
 - Purchase 15 feet of tile to repair sub district #64 - \$70.50  
 - Levy sub district #64 \$1,100.00

3.0 **INVESTIGATION** – Review of the district history indicates that the Main tile of Drainage District 3 has had few previous repairs. It is assumed that there have been more repairs, but the details of them have just been lost to time. The field investigation for this report was performed at the request of the Drainage District Trustees. Said investigation was limited to visual observation (with limited excavation) along with survey data, and pictures gathered. During the investigation, there were 5 sinkholes found on the Main tile along with the Main tile being in various states of collapse over the course of 4,745± feet. For reference, a copy of the observation report with pictures is included in Appendix A and a map showing the investigation limits is included in Appendix B.

4.0 DISCUSSION AND CONCLUSIONS – Based on the above, it is obvious that the existing Main tile, in the area of investigation is in various states of collapse and is restricting drainage capacity in the area. If repairs or improvements are not performed, the Main tile will continue to have poor drainage performance, the upstream landowners will continue to experience overland flow, ponding, and additional sinkholes will form over the Main tile. This will continue to affect productivity of the farmed ground upstream of these issues and will get worse as the tile ages. When all these issues are combined, it will lead to further reduced drainage and liability exposure by the drainage district.

5.0 REPAIR METHOD – To repair the existing Main tile, the following option is the most straight forward available:

Partial Tile Replacement

- Remove and replace the entire Main tile for the entire investigation limits with new Main tile of equal or comparable size.
- Typically, the replacement Main tile would be in the same location as the existing Main tile in order to locate and reconnect private tile and district lateral tile. For reference, the route and locations are shown on the map included in Appendix B.

With the above-mentioned repair method, the following should be noted:

- The pipe sizes used are those that are currently manufactured that most closely meet or exceed the current Main tile size.
- The Partial Tile Replacement option would allow for lower maintenance costs in the future as the entire Main tile is new.
- The Partial Tile Replacement option would remove all soil and debris in the existing Main tile.
- Repairs have historically been viewed as not having an impact on jurisdictional wetlands. As such, individual landowners should consult with applicable staff at the Hardin County NRCS offices to verify the existence of said jurisdictional wetlands and that there will be no impact on them.

Per Iowa Code Chapter 468.126, any of the above actions that do not increase capacity would be considered a repair. As such, Subsection 1, paragraph c of Chapter 468.126 states "If the estimated cost of the repair does not exceed fifty thousand dollars, the board may order the work done without conducting a hearing on the matter. Otherwise, the board shall set a date for a hearing. . ." The opinion of probable construction cost contained in the next section of this report exceeds said \$50,000 limit. Therefore, a hearing will be required. Per Iowa Code Chapter 468.126.1.g, the right of remonstrance does not apply to the proposed repairs.

6.0 IMPROVEMENT METHOD – To improve the drainage capacity for the existing Main tile, the following option is the most straight forward available:

Open Ditch

- Remove and replace 4,745± feet of the Main tile with a Main Open Ditch.
- Typically, the Main Open Ditch would be in the same location as the existing Main tile in order to locate and outlet private tile and district lateral tile. For reference, the route and locations are shown on the map included in Appendix B.
- Outlet all private and lateral tile encountered to discharge into the Main Open Ditch.

With the above-mentioned possible improvement, the following should be noted in addition to the notes in repair methods section:

- This option would probably involve obtaining of right of way.
- The replacement of the Main tile with a Main Open Ditch increases drainage capacity, which has traditionally fit the Iowa Code definition of improvement. However, the replacement is not being suggested to increase drainage capacity, but is being offered solely to extend the lifecycle of the district facility and the original design for the Main in this area was an open ditch. Legal counsel should be consulted to provide advice concerning this.
- If this option is deemed a repair by legal counsel, repairs have historically been viewed as not having an impact on jurisdictional wetlands. As such, individual landowners should consult with applicable staff at the Hardin County NRCS offices to verify the existence of said jurisdictional wetlands and that there will be no impact on them.
- If this option is deemed an improvement by legal counsel, improvements have historically been viewed as having an impact on jurisdictional wetlands. As such, individual landowners should consult with applicable staff at the Hardin County NRCS offices to verify the existence of said jurisdictional wetlands and what said impact may be on them.

If legal counsel considers the above option a repair, it is our opinion that the following is applicable. Subsection 1, paragraph c of Chapter 468.126 states "If the estimated cost of the repair does not exceed fifty thousand dollars, the board may order the work done without conducting a hearing on the matter. Otherwise, the board shall set a date for a hearing. . ." The opinion of probable construction cost contained in the next section of this report exceeds said \$50,000 limit. Therefore, a hearing will be required. Per Iowa Code Chapter 468.126.1.g, the right of remonstrance does not apply to the proposed repairs.

If legal counsel considers the above option an improvement, it is our opinion that the following is applicable. Subsection 4, paragraph c of Chapter 468.126 states "If the estimated cost of the improvement does not exceed fifty thousand dollars, the board may order the work done without conducting a hearing on the matter. Otherwise, the board shall set a date for a hearing on whether to construct the proposed improvement and whether there shall be a reclassification of benefits for the cost of the proposed improvement." The opinion of probable construction cost contained in the next section of this report exceeds said \$50,000 limit. Therefore, a hearing will be required. Per Iowa Code Chapter 468.126.4.e, the right of remonstrance may apply to the proposed improvements.

7.0 OPINION OF PROBABLE CONSTRUCTION COSTS – Using the above methods of repair and improvement, an itemized list of project quantities and associated opinions of probable construction cost for each option were compiled and are included in Appendices C and D of this report. A summary of said costs are as follows:

METHOD	TOTAL COST	CONSTRUCTION COST	ROAD CROSSING COST
Repair - Partial Tile Replacement	\$479,758.44	\$444,395.94	\$35,362.50
Improvement - Open Ditch	\$584,667.19	\$409,780.94	\$174,886.25

It should be noted that said costs include materials, labor, and equipment supplied by the contractor to complete the necessary repair or improvement and include applicable engineering, construction observation, and project administration fees by Clapsaddle-Garber Associates. However, said costs do not include any interest, legal fees, county administrative fees, crop damages, other damages, previous repairs, engineering fees to date, wetland mitigation fees, or reclassification fees (if applicable). As always, all costs shown are opinions of Clapsaddle-Garber Associates based on previous lettings on other projects. Said costs are just a guideline and are not a guarantee of actual costs.

8.0 OWNERSHIP AND CLASSIFICATIONS – Any and all information concerning ownership of lands and classifications of said lands within Drainage District No. 3 can be obtained from the Hardin County Auditor’s office.

It should be noted that Iowa Code Chapter 468.65 states “When, after a drainage . . . district has been established . . .” and “. . . a repair . . . has become necessary, the board may consider whether the existing assessments are equitable as a basis for payment of the expense of . . . making the repair . . .” and “If they find the same to be inequitable in any particular . . . they shall . . . order a reclassification . . .” Based on this, it is our opinion that a reclassification may be required if the repair were to move forward.

It should also be noted that Iowa Code Chapter 468.131 states “When an assessment for improvements . . . exceeds twenty-five percent of the original assessment and the original or subsequent assessment . . . did not designate separately the amount each tract should pay for the main ditch and tile lateral drains then the board shall order a reclassification . . .” Based on this, it appears that a reclassification separating laterals may be required if any of the above options were deemed to be an improvement, said improvement were to move forward, and the laterals had not already been separated. Since the proposed project does not involve the laterals, it is not clear if this portion of code is applicable, and it is our recommendation that the District Trustees seek advice from their legal counsel.

9.0 RECOMMENDATIONS – There is a definite need to perform one of the above-mentioned actions. The actions would remove the current restrictions to the Main tile and extend the lifespan of the same. Therefore, it is recommended that the District Trustees, should take action to accomplish the following:

- Approve the Engineer’s Report as prepared by Clapsaddle-Garber Associates.
- Seek advice from legal counsel as to whether the Open Ditch alternative is a repair or improvement.
- Hold the required hearing on the proposed repair or improvement.
- Adopt one of the recommendations of the Engineer’s Report.
- Direct plans and specifications for the proposed repair or improvement be prepared by Clapsaddle-Garber Associates.
- Proceed with receiving bids from interested contractors by Clapsaddle-Garber Associates.
- Award contract to the lowest responsible contractor.
- If desired or required by Iowa Code, proceed with reclassification proceedings after seeking legal advice concerning the same.



CONSTRUCTION ENGINEERING  
OBSERVATION REPORT

DATE:

11-17-20

DAYS OF WEEK:

S M T W T F S

SHEET NO.

1 OF

PROJECT NUMBER:

6490.4

COUNTY, ROUTE, ROAD:

I Ave & 155<sup>th</sup>

LOCATION:

Hardin County DD # 3

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

10:30 a.m. = Arrived at job site after locating control points and setting up GPS on C.P.T # 34. Checked into CPT # 38 Horizontal was good but vertical was off 0.23.

10:44 a.m. = Crew was exposing tile at Northern most sink hole, in surface ditch. 26" VCP removed, 1 section, took pictures upstream and down and shot top pipe. GPS Pt # 5550. Contractor replaced tile and placed fabric over joints

11:00 a.m. = Met foreman at southern most sink hole, which had been excavated previously. Point # ~~5551~~<sup>5551</sup>, took pictures, tile was completely collapsed upstream and downstream.

11:34 a.m. = Contractor is excavating approximately 100' +/- North west of Northern most sink hole West of I Ave. Pt. # 5552, Tile is broken and egg shaped upstream and downstream.

Shot top of tile at sink hole # 5553, could not get pictures.

1:30 p.m. = Crew removed tile at Pt # 5554, tile 24" ? broke into 3 pieces. 24" VCP upstream and downstream broke, and beginning to collapse.

1:35 p.m. = Crew is excavating further West, 24" VCP at Point # 5555 is oval shaped upstream and downstream. Took Pictures

2:00 p.m. = Discovered another sink hole, South of fence line and West of Pt # 5555. shot top of pipe # 5556 and took pictures.

2:30 p.m. = Crew excavated West of # 5556. Located tile end removed 1 section, Pt # 5557. 24" VCP appears to be in good condition looking West, possible 1 section cracked, the rest are in good condition as far as I could see. Looking East 24" VCP is oval shaped as far as visible. Not collapsing.

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

Observer's Signature:

James Van Hove

Date Prepared:

11-18-20

Reviewed by:

Engineer

Date Reviewed

CONSTRUCTION ENGINEERING  
OBSERVATION REPORT

DATE:

11-17-20

DAYS OF WEEK:

S M T W T F S

SHEET NO.

2 OF

PROJECT NUMBER:

6490.4

COUNTY, ROUTE, ROAD:

I Ave & 155<sup>th</sup>

LOCATION:

Hardin County DD #3

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

2:45 p.m. = Shot pts # 5558 and # 5559 directly south west of intake structure with sink hole around. GPS shots are top of 24" and 18" VCP connected to structure which has settled 0.5' to 0.75'. Structure is in very bad shape, may have originally had a bee hive intake now missing.

3:45 p.m. = shot top of pipe at sinkhole. Pt # 5560, could not get pictures.

4:00 p.m. = Crew exposed tile west of railroad ROW, and removed 1 section, section was cracked and broke into several pieces during removal. Pt # 5561 top 28" VCP, VCP is oval shaped both directions from # 5561, as far as C.O. could see. Crew repaired tile with 24" dual wall HDPE, placed fabric over joints and tile bats over new tile.

left for day and tore down G.P.S.

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

Observer's Signature:

James Van Hove

Date Prepared:

11-18-20

Reviewed by:

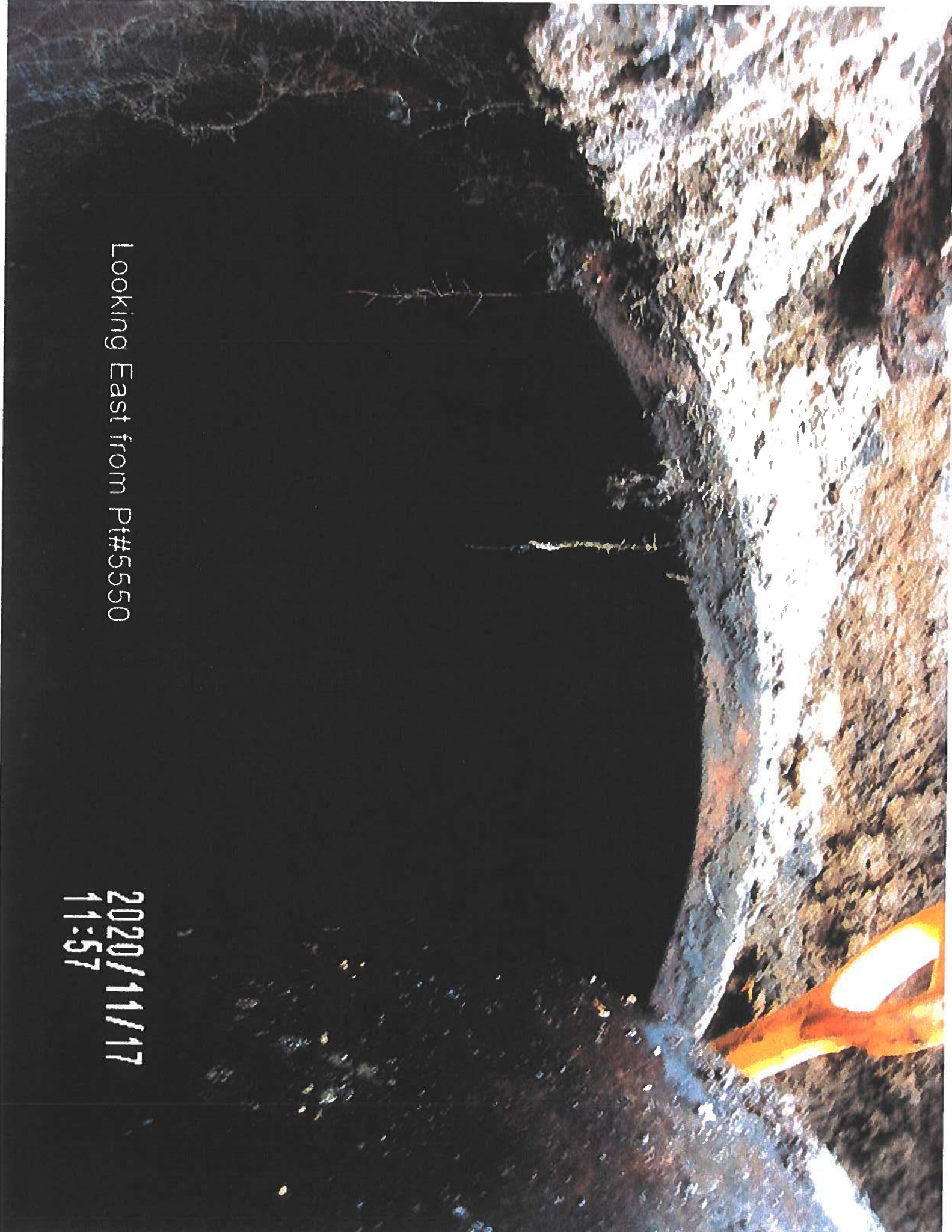
Engineer

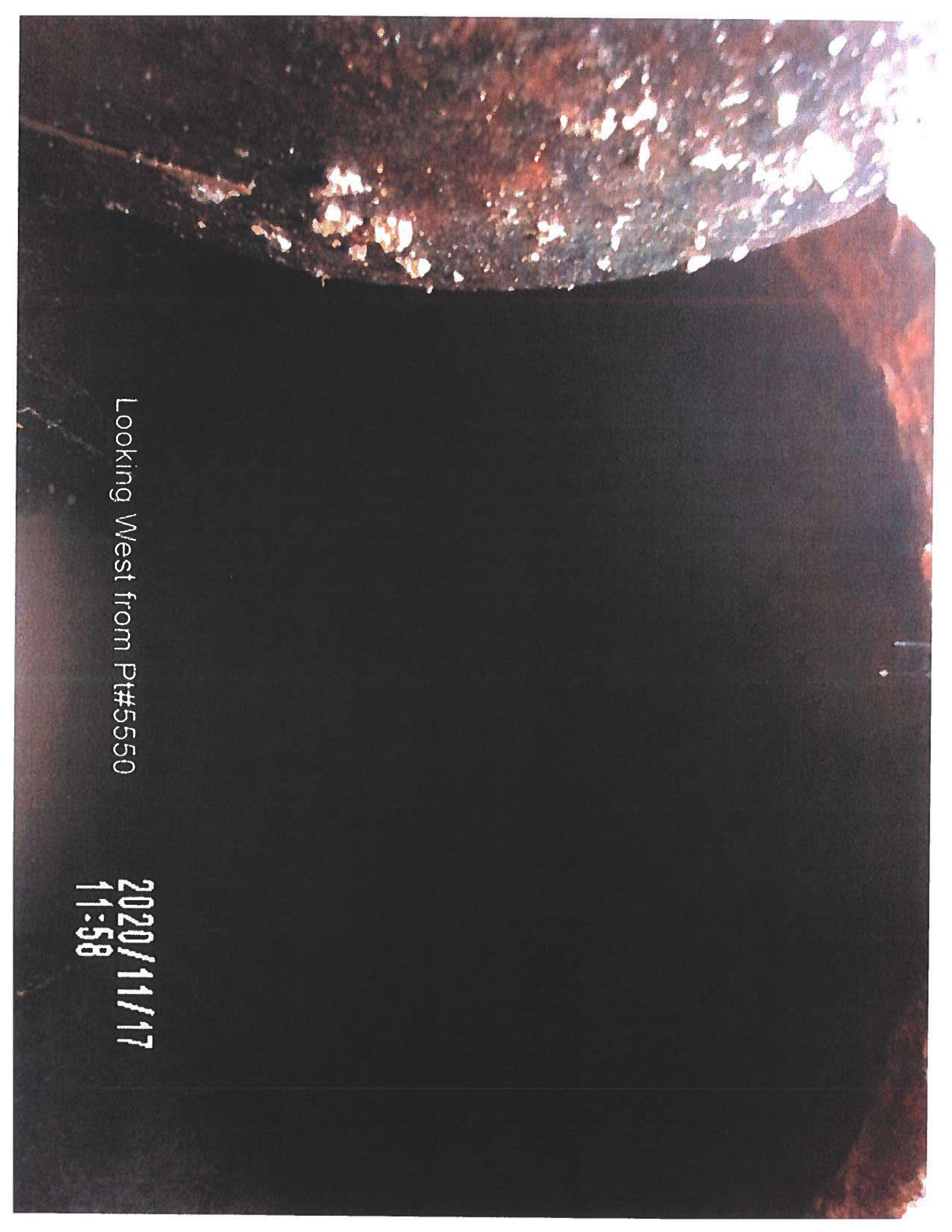
Date Reviewed



Looking East from Pt#5550

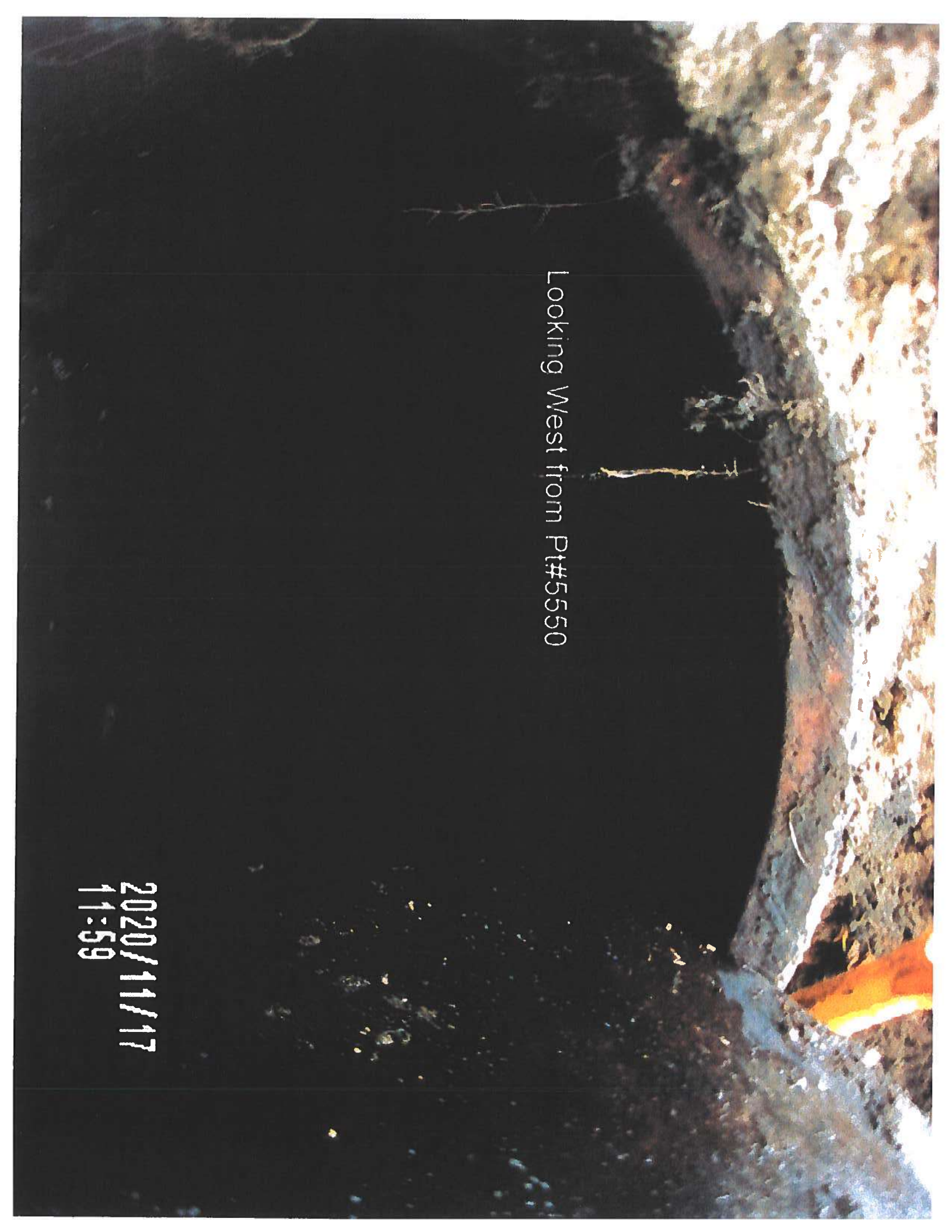
2020/11/17  
11:57



A night photograph showing a dark, silty landscape. In the upper right, a rocky ridge is illuminated, showing a mix of dark and light-colored rocks. The rest of the scene is mostly black, with some faint, distant lights visible on the right side.

Looking West from Pt#55550

2020/11/17  
11:58



Looking West from Pt#5550

2020/11/17  
11:59

Looking West from Pt#5550

2020/11/17  
11:59

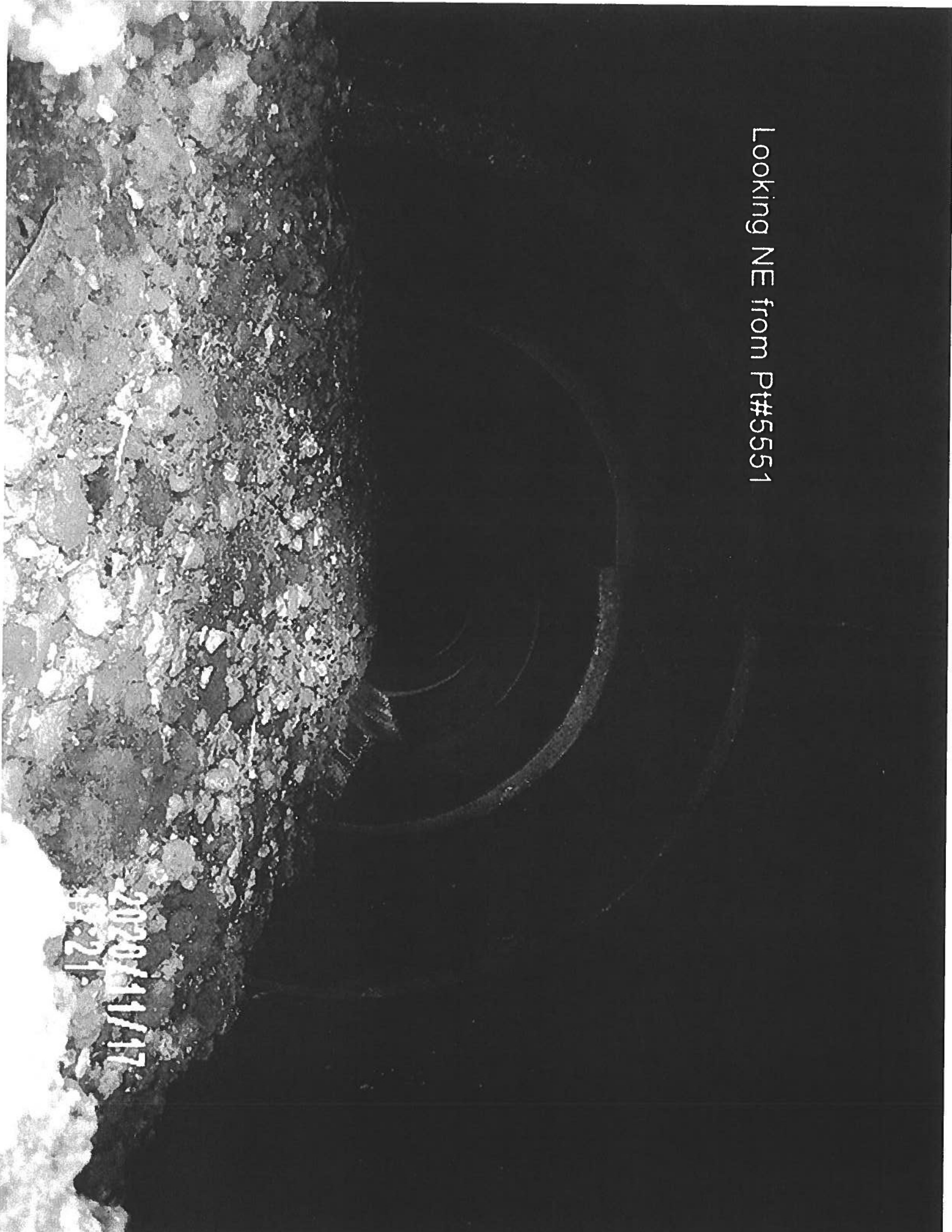
Looking NE from Pt#5551



2020/11/17  
12:29



Looking NE from Pt#5551



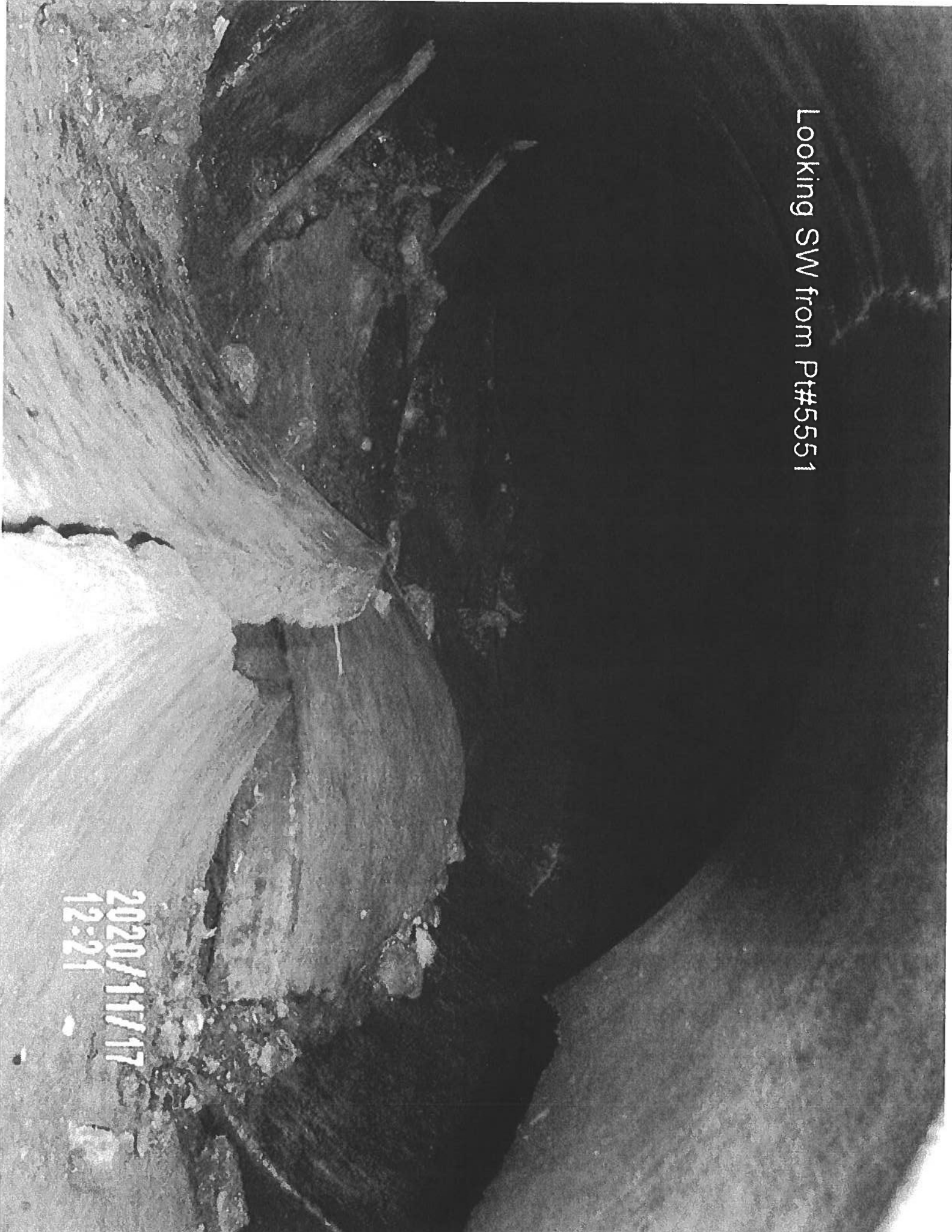
2020/11/17  
14:21

Looking SW from Pt#5551

2020/11/17  
12:21

Looking SW from Pt#5551

2020/11/17  
12:21



Looking SW from Pt#55553



Looking NE from Pt#5553

2020/11/17  
12:25

Looking Ne from Pt#5553

2020/11/17  
12:26



Looking West from Pt#5554

2020/11/17  
12:53

Looking West from Pt#5554

2020/11/17  
12:53





Looking East from Pt#55554

2020/11/17  
12:53



Looking East from Pt#55554

2020/11/17  
12:53

Looking East from Pt#55555

2020/11/17  
14:26



Looking East from Pt#55555

2020/11/17  
Pt#26

Looking West from Pt#55555

2020/11/17  
14:26

Looking West from Pit#5555

2020/11/17  
14:26

Looking East from Pt#55556

2020/11/17  
14:48



Looking East from Pt#55556

2020/11/17  
14:48





Looking West from Pt#55556

2020/11/17  
14:48

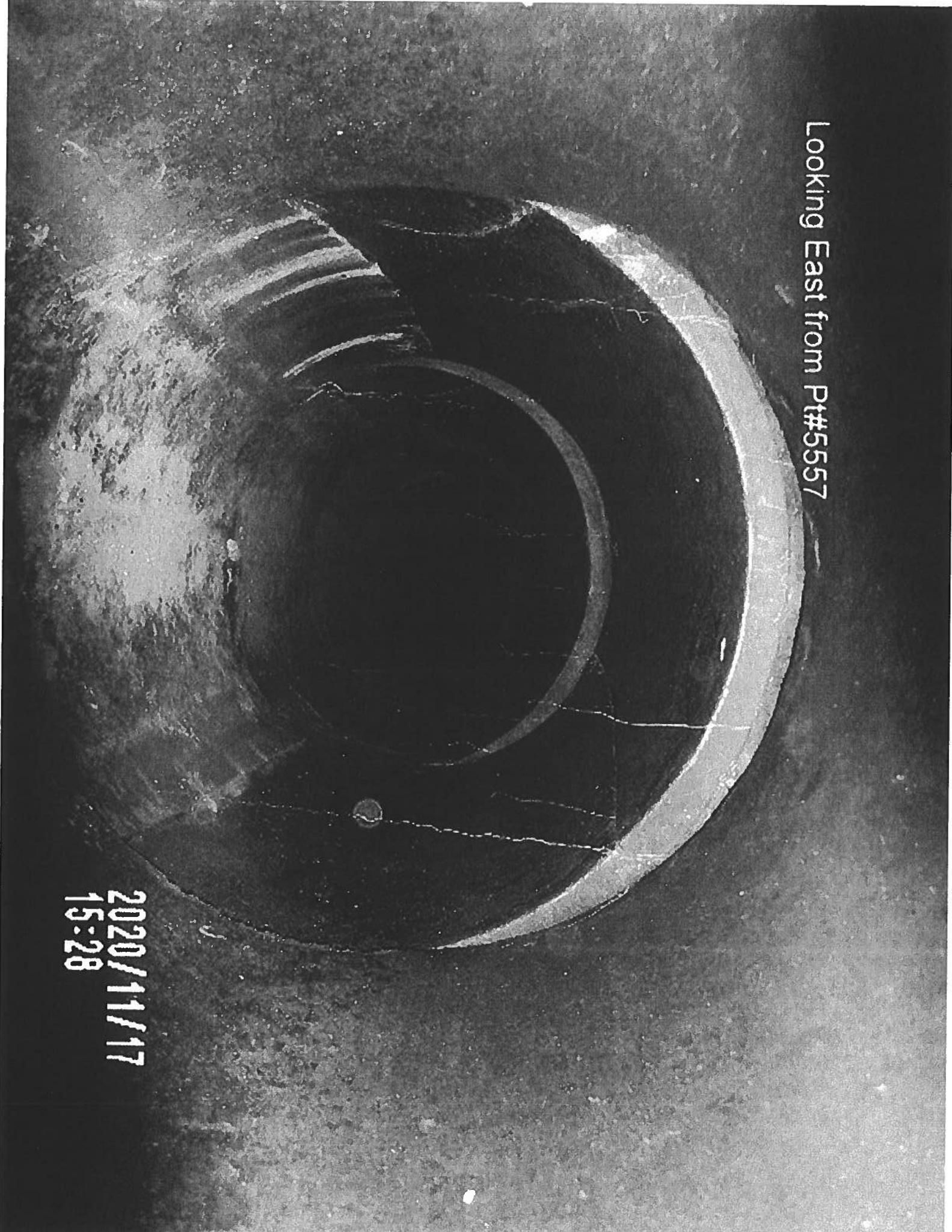


Looking West from Pt#55556

2020/11/17  
14:49

Looking East from Pt#5557

2020/11/17  
15:28

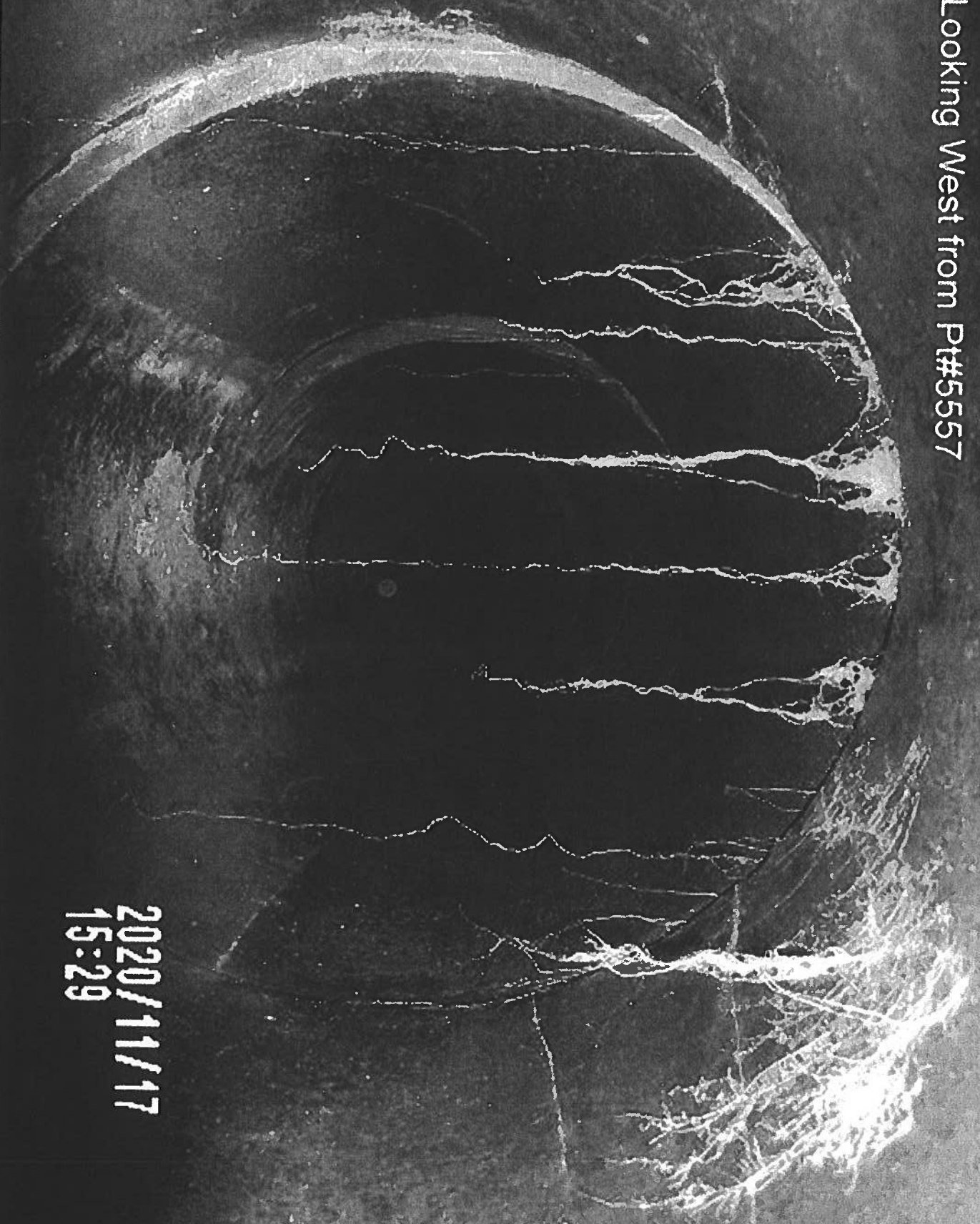


Looking East from Pt#55557

2020/11/17  
15:28

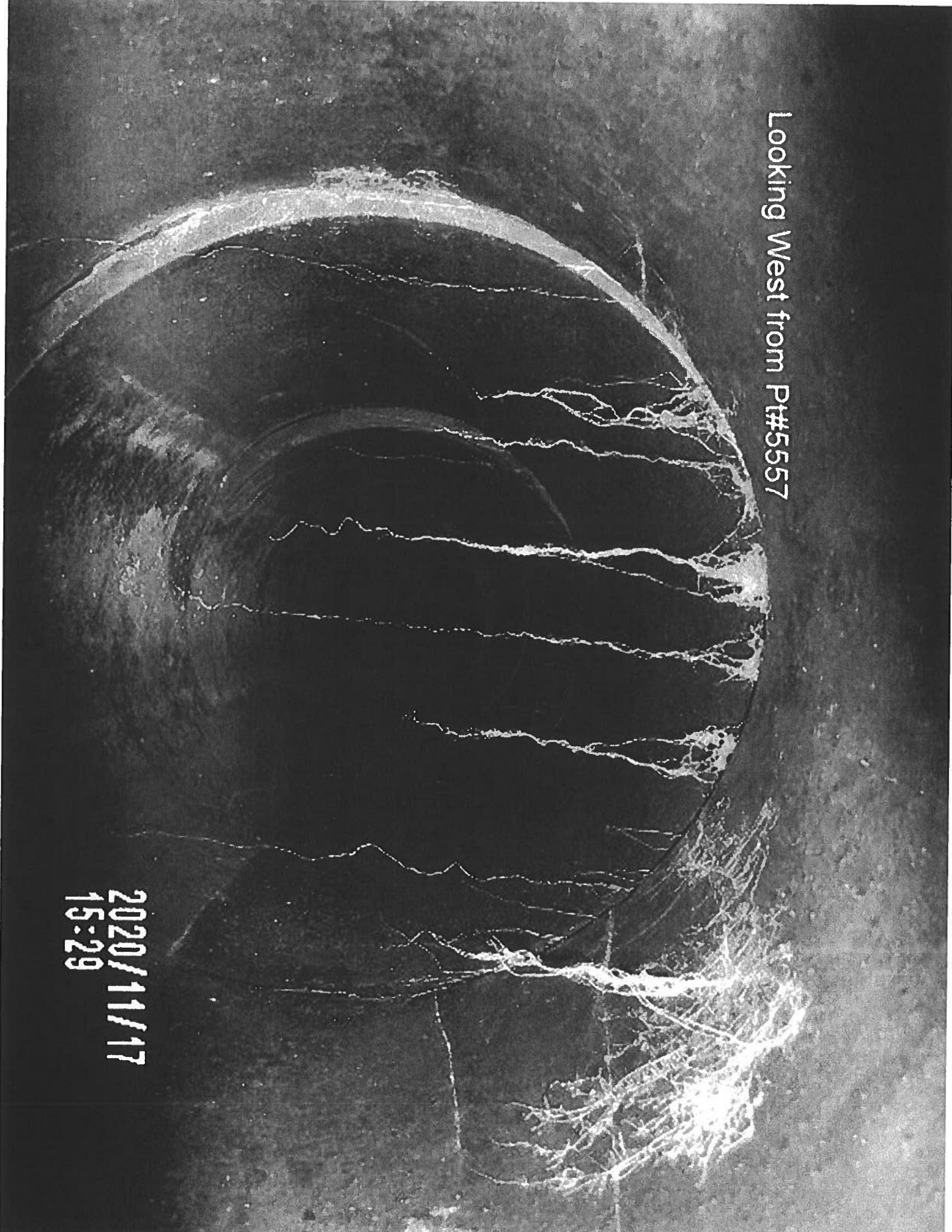
Looking West from Pt#5557

2020/11/17  
15:29



Looking West from Pt#55557

2020/11/17  
15:29



Top of intake maybe beehive by PI 5558

2020/11/17  
15:55



Hydake structure at P#55558

2020/11/17  
15:55





Intake structure at Pt#5559

2020/11/17  
15:55



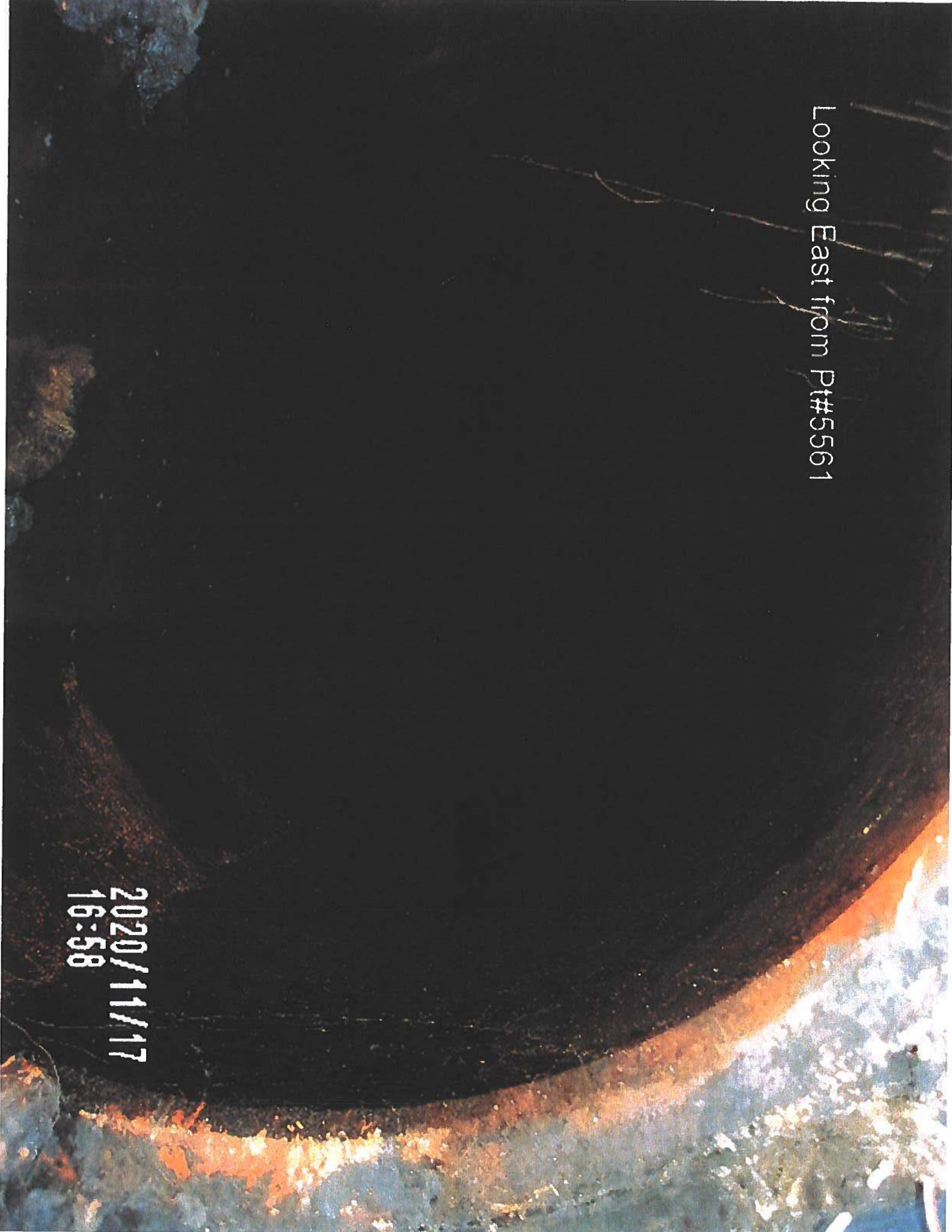
Intake structure at Pt#5558

2020/11/17  
15:55



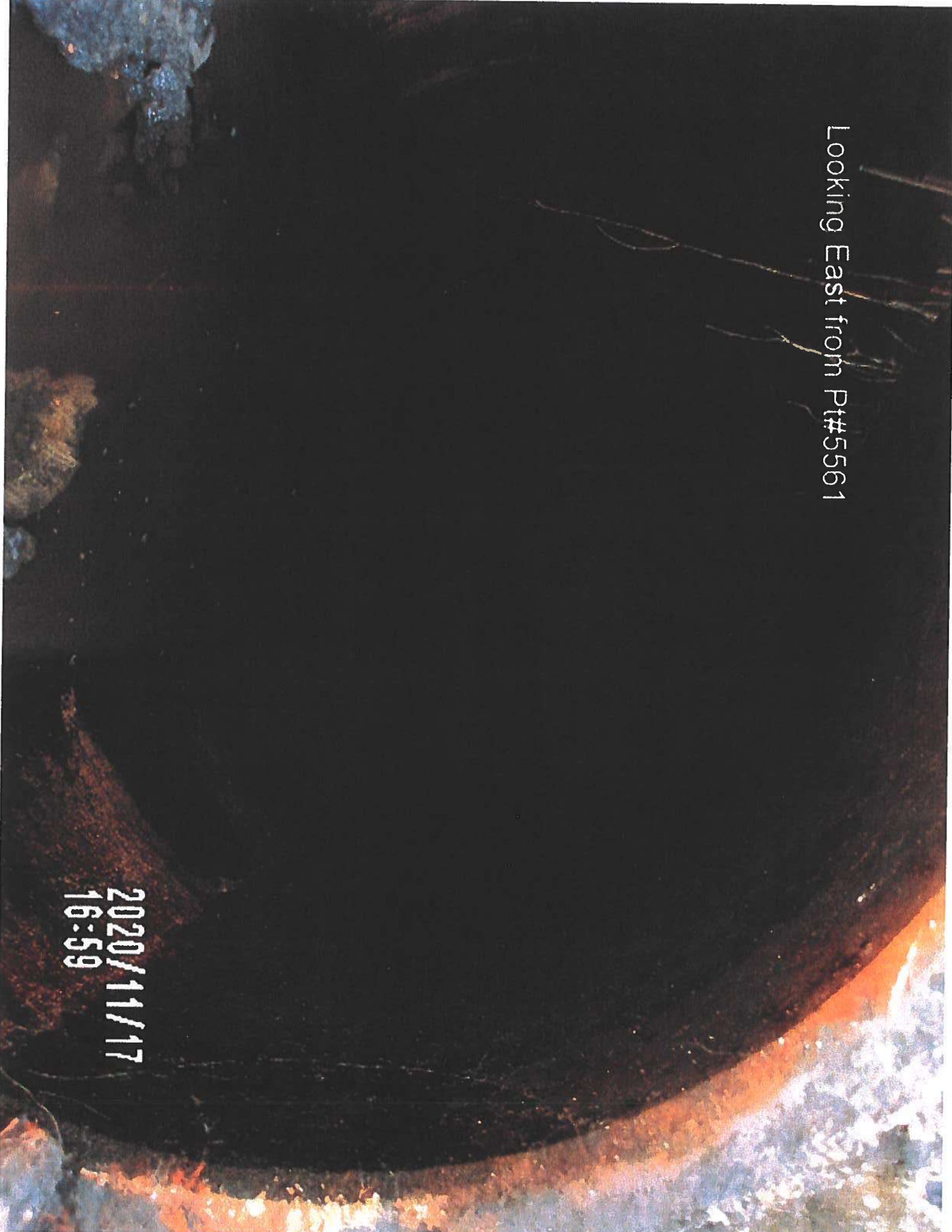
Looking East from Pt#5561

2020/11/17  
16:58



Looking East from Pt#5561

2020/11/17  
16:59



Looking West from Pt#5561

2020/11/17  
16:59

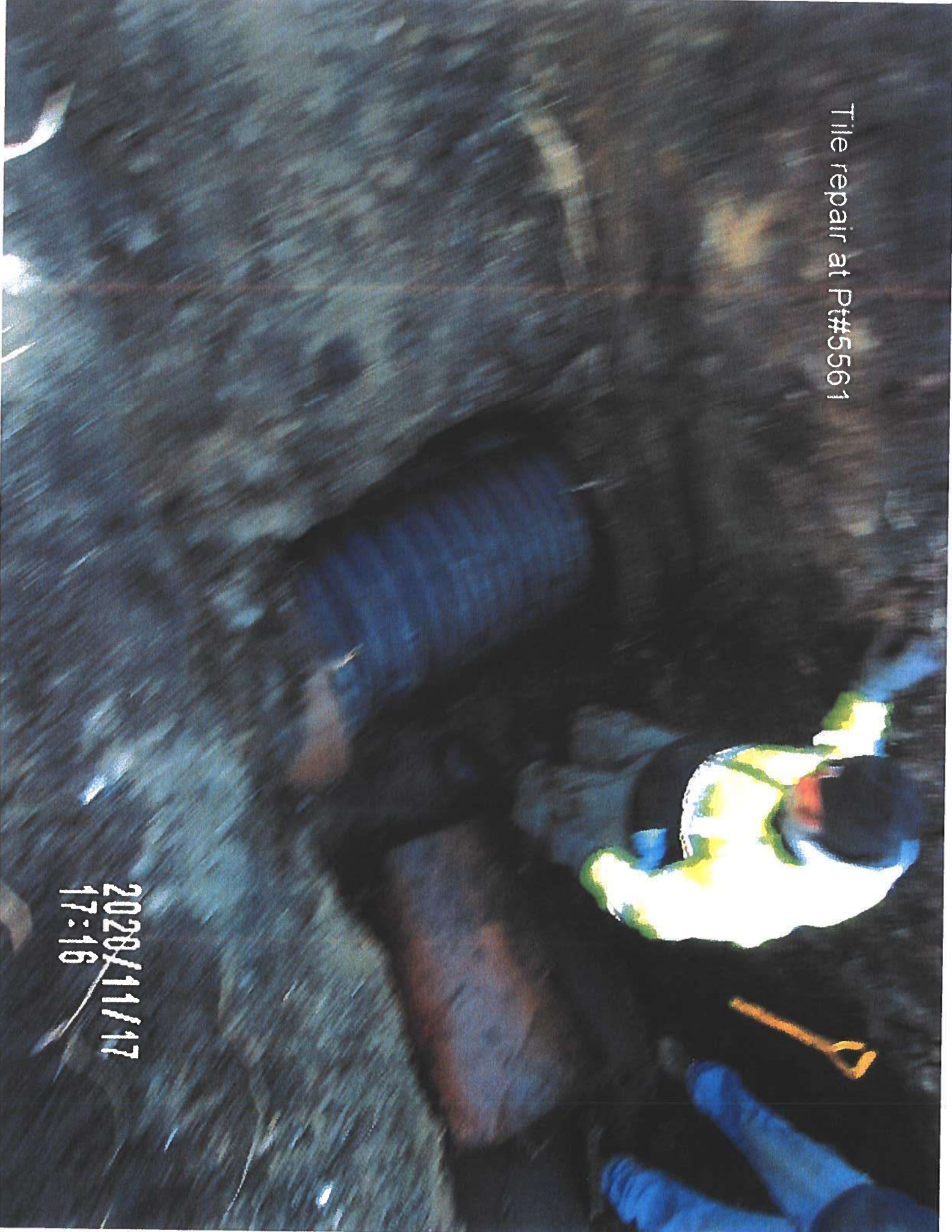
Looking West from Pt#5561

2020/11/17  
16:59



Tile repair at Pt#55561

2028/11/17  
17:16



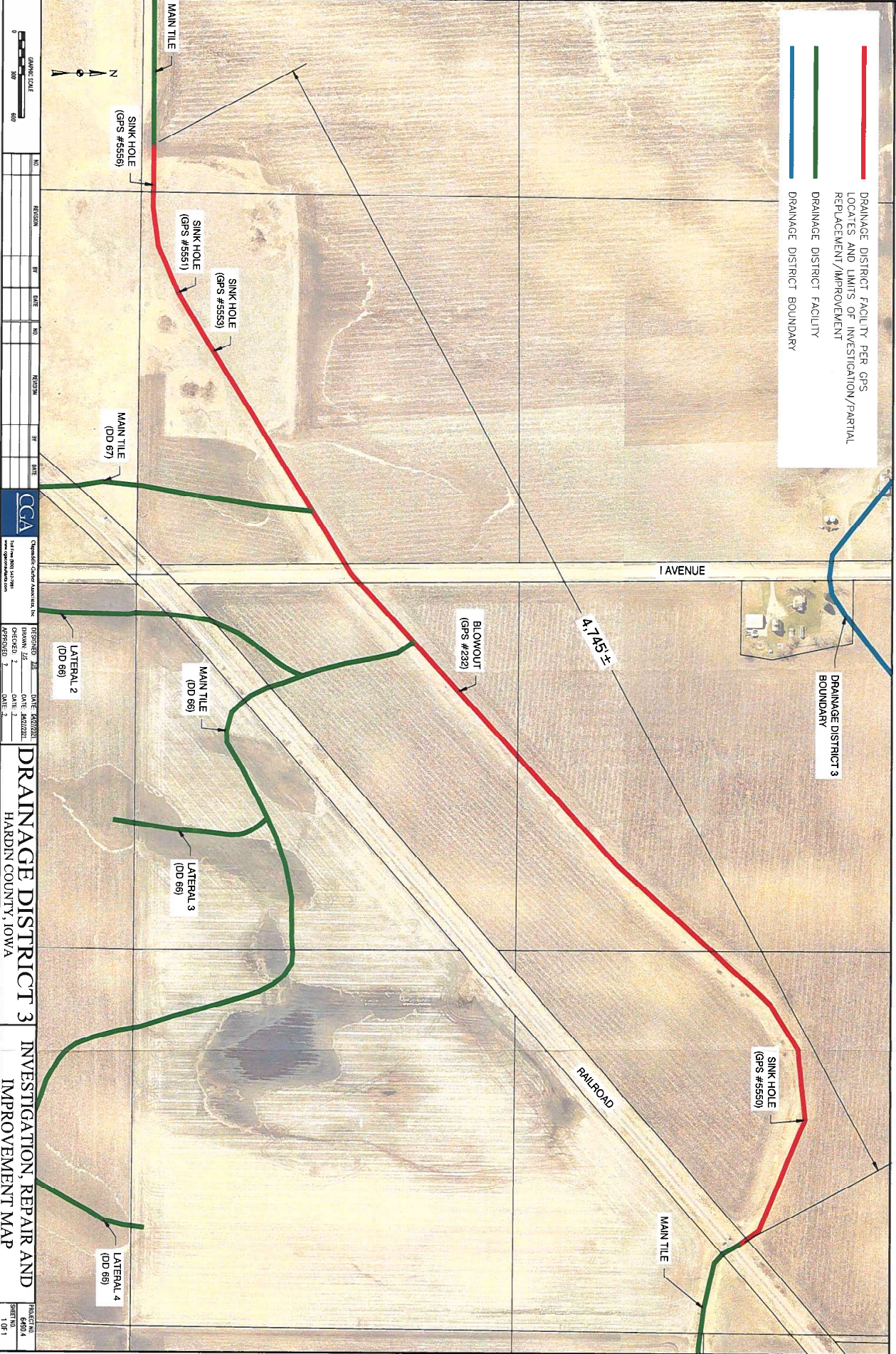


Tile repair at Pt#5561

2020/11/17  
17:21



— DRAINAGE DISTRICT FACILITY PER GPS  
— LOCATES AND LIMITS OF INVESTIGATION/PARTIAL REPLACEMENT/IMPROVEMENT  
— DRAINAGE DISTRICT FACILITY  
— DRAINAGE DISTRICT BOUNDARY



NO.	REVISION	BY	DATE	NO.	REVISION	BY	DATE



CONSULTANT: **CGA**  
 CONSULTANT: **CGA**  
 PROJECT NO.: **6490 4-1**  
 SHEET NO.: **1 OF 1**

**DRAINAGE DISTRICT 3**  
**HARDIN COUNTY, IOWA**  
**INVESTIGATION, REPAIR AND IMPROVEMENT MAP**

PROJECT NO. **6490 4-1**  
 SHEET NO. **1 OF 1**

**Engineer's Opinion of Probable Construction Cost**  
**Project: Main tile Repair for D.D. #3**  
 Location: Sections 27 and 28, T89N, R21W, Hardi County, Iowa

ITEM #	DESCRIPTION	Unit Cost	Units	Quantity	Units	Total Cost
<b>CONSTRUCTION COSTS</b>						
101	30" RCP OR DUAL WALL TILE	\$ 60.00	FT	3536	FT	\$ 212,160.00
102	24" RCP OR DUAL WALL TILE	\$ 40.00	FT	1143	FT	\$ 45,720.00
103	30" x 24" RCP OR DUAL WALL REDUCER	\$ 1,250.00	EA	1	EA	\$ 1,250.00
104	RCP OR DUAL WALL LATERAL CONNECTIONS	\$ 1,600.00	EA	2	EA	\$ 3,200.00
105	PRIVATE TILE CONNECTIONS	\$ 600.00	EA	20	EA	\$ 12,000.00
106	CONCRETE COLLARS	\$ 400.00	EA	4	EA	\$ 1,600.00
107	REMOVAL OF EXISTING TILE	\$ 7.00	LF	4745	LF	\$ 33,215.00
<b>CONSTRUCTION SUBTOTAL</b>						\$ 309,145.00
Contingency (15%)						\$ 46,371.75
<b>CONSTRUCTION TOTAL</b>						\$ 355,516.75
Engr. & Const. Observation (25%)						\$ 88,879.19
<b>TOTAL COST</b>						\$ 444,395.94
<b>ROAD CROSSING CONSTRUCTION COSTS</b>						
108	30" RCP OR DUAL WALL TILE (1 AVE.)	\$ 90.00	LF	66	LF	\$ 5,940.00
109	TILE REMOVAL	\$ 10.00	LF	66	LF	\$ 660.00
110	HICKENBOTTOM INTAKE	\$ 1,500.00	EA	2	EA	\$ 3,000.00
111	PERMANENT SEEDING AND WARRANTY	\$ 1,500.00	LOC	2	LOC	\$ 3,000.00
112	TRAFFIC CONTROL	\$ 4,000.00	LOC	3	LOC	\$ 12,000.00
<b>CONSTRUCTION SUBTOTAL</b>						\$ 24,600.00
Contingency (15%)						\$ 3,690.00
<b>CONSTRUCTION TOTAL</b>						\$ 28,290.00
Engr. & Const. Observation (25%)						\$ 7,072.50
<b>TOTAL COST</b>						\$ 35,362.50

Note: Per Iowa Code, road crossings (highlighted red) are not typically district expense

**Engineer's Opinion of Probable Construction Cost**  
**Project: Main tile Improvement for D.D. #3**  
 Location: Sections 27 and 28, T89N, R21W, Hardin County, Iowa


ITEM #	DESCRIPTION	Unit Cost	Units	Quantity	Units	Total Cost
<b>OPEN DITCH CONSTRUCTION COSTS</b>						
201	OPEN DITCH CONSTRUCTION	\$ 2,000.00	STA	46.55	STA	\$ 93,100.00
202	30" CMP OUTLET WITH RODENT GUARD	\$ 80.00	LF	40	LF	\$ 3,200.00
203	30" CMP INLET	\$ 75.00	LF	40	LF	\$ 3,000.00
204	30" CMP FLARDED END	\$ 500.00	EA	1	EA	\$ 500.00
205	SHEET PILE HEADWALL	\$ 35,000.00	EA	1	EA	\$ 35,000.00
206	RIP-RAP	\$ 50.00	TN	250	TN	\$ 12,500.00
207	SURFACE DRAINS	\$ 2,000.00	EA	12	EA	\$ 24,000.00
208	PRIVATE TILE OUTLETS	\$ 1,500.00	EA	20	EA	\$ 30,000.00
209	LATERAL TILE OUTLETS	\$ 2,000.00	EA	2	EA	\$ 4,000.00
210	PERMANENT SEEDING AND WARRANTY	\$ 1,000.00	STA	46.55	STA	\$ 46,550.00
211	TILE REMOVAL	\$ 7.00	LF	4745	LF	\$ 33,215.00
<b>CONSTRUCTION SUBTOTAL</b>						\$ 285,065.00
Contingency (15%)						\$ 42,759.75
<b>CONSTRUCTION TOTAL</b>						\$ 327,824.75
Engr. & Const. Observation (25%)						\$ 81,956.19
<b>TOTAL COST</b>						\$ 409,780.94
<b>ROAD CROSSING CONSTRUCTION COSTS</b>						
212	RCP BOX CULVERT (I AVE.)	\$ 2,000.00	LF	50	LF	\$ 100,000.00
213	TILE REMOVAL	\$ 10.00	LF	66	LF	\$ 660.00
214	SURFACE DRAINS	\$ 2,000.00	EA	4	EA	\$ 8,000.00
215	PERMANENT SEEDING AND WARRANTY	\$ 3,000.00	LOC	1	LOC	\$ 3,000.00
216	TRAFFIC CONTROL	\$ 10,000.00	LOC	1	LOC	\$ 10,000.00
<b>CONSTRUCTION SUBTOTAL</b>						\$ 121,660.00
Contingency (15%)						\$ 18,249.00
<b>CONSTRUCTION TOTAL</b>						\$ 139,909.00
Engr. & Const. Observation (25%)						\$ 34,977.25
<b>TOTAL COST</b>						\$ 174,886.25


OPEN DITCH REPLACEMENT

Note: Per Iowa Code, road crossings (highlighted red) are not typically district expense



**SUPPLEMENT TO  
ENGINEER'S REPORT  
ON IMPROVEMENTS TO  
THE MAIN TILE  
DRAINAGE DISTRICT  
NO. 3  
HARDIN COUNTY,  
IOWA**

	<p>I HEREBY CERTIFY THAT THIS ENGINEERING DOCUMENT WAS PREPARED BY ME OR UNDER MY DIRECT PERSONAL SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF IOWA</p>
	<p><i>Zeb J. Stanbrough</i>      <i>9-3-2021</i> ZEB J. STANBROUGH, P.E.      DATE</p> <p>LICENSE NUMBER: 19957 MY LICENSE RENEWAL DATE IS DECEMBER 31, 2021 PAGES OR SHEETS COVERED BY THIS SEAL: SHOWN ON TABLE OF CONTENTS</p>

	<p><b>CLAPSADDLE-GARBER ASSOCIATES OFFICE LOCATIONS</b> 16 East Main Street, PO Box 754   Marshalltown, IA 50158 1523 S. Bell Avenue, Suite 101   Ames, IA 50010 5106 Nordic Drive   Cedar Falls, IA 50613 739 Park Avenue   Ackley, IA 50601 511 Bank Street   Webster City, IA 50595</p>	<p><b>Project Office</b> 739 Park Avenue Ackley, IA. 50601 Phone: 641-847-3273 Fax: 641-847-2303</p>
---	--	--

**Supplement to Engineer's Report on Improvements  
to the Main Tile, Drainage District No. 3  
Hardin County, Iowa**

<b>Table of Contents</b>	Pg. 1
<hr/>	
<b>Report</b>	
Introduction	Pg. 2
Investigation	Pg. 3
Improvement Method	Pg. 3
Opinion of Probable Construction Costs	Pg. 4
Recommendations	Pg. 4
<hr/>	
<b>Appendices</b>	
Pictures and Coordinates	App. E
Map – Investigation and Improvement Map	App. F
Opinion of Probable Construction Cost – Improvement	App. G

# Supplement to Engineer's Report on Improvements To the Main Tile, Drainage District No. 3 Hardin County, Iowa

## 1.0 INTRODUCTION

- SCOPE OF WORK – The District Trustees, requested Clapsaddle-Garber Associates to investigate and report concerning improvements to the Main Tile of Drainage District No. 3. At the Public Hearing for the Engineer's report on repairs or improvements to Main Tile of Drainage District 3 held on August 16, 2021, the original Engineer's Report was discussed and reviewed by the District Trustees. As a result of this meeting, the District Trustees requested Clapsaddle-Garber Associates to move ahead with a supplemental report concerning reversion of a portion of the Main tile back to an open ditch.
- LOCATION – The area of investigation was limited to a portion of Main tile. Said Main tile is located in Sections 26, 27, and 35, Township 89 North (T89N), Range 21 West (R21W), Hardin County, Iowa. Specifically, the downstream limit of investigation for the Main tile is from the tile outlet in Section 35 approximately 70 feet south of 150<sup>th</sup> Street and 400 feet east of JJ Avenue. Going upstream, the tile then proceeds northwesterly and then crosses 150<sup>th</sup> Street approximately 220 feet east of JJ Avenue. The tile then continues northwesterly across Section 26 then crosses JJ Avenue approximately 75 feet north of 150<sup>th</sup> Street. The tile then continues northwesterly for approximately ½ mile across Section 26 before turning westerly across Section 27, approximately ¼ mile west of JJ Avenue and a ⅝ mile south of 140<sup>th</sup> Street. The tile then proceeds westerly across Section 27 for approximately ½ mile before turning northwesterly, with the upstream limits of the investigation ending at the south railroad right of way in Section 27, approximately ¾ mile west of JJ Avenue and ⅝ mile south of 140<sup>th</sup> Street. For reference, a map showing the limits of investigation is included in Appendix F.

2.0 INVESTIGATION –The field investigation for this report was performed at the request of the Drainage District Trustees. Said investigation was limited to visual observation only along with survey data and pictures gathered. No tile blowouts could be located as the entire length of the investigation area was covered with tall vegetation, hindering the investigation. For reference, a copy of the pictures is included in Appendix E and a map showing the investigation limits is included in Appendix F.

3.0 IMPROVEMENT METHOD – To improve the drainage capacity for the existing Main tile, the following option is the most straight forward available:

Open Ditch

- Remove and replace 5,682± feet of the Main tile with a Main Open Ditch.
- Typically, the Main Open Ditch would be in the same location as the existing Main tile in order to locate and outlet private tile and district lateral tile. For reference, the route and locations are shown on the map included in Appendix F.
- Outlet all private and lateral tile encountered to discharge into the Main Open Ditch.

With the above-mentioned possible improvement, the following should be noted in addition to the notes in repair methods section:

- This option would probably involve obtaining of right of way.
- The replacement of the Main tile with a Main Open Ditch increases drainage capacity, which has traditionally fit the Iowa Code definition of improvement. However, the replacement is not being suggested to increase drainage capacity, but is being offered solely to extend the lifecycle of the district facility and the original design for the Main in this area was an open ditch. Legal counsel should be consulted to provide advice concerning this.
- If this option is deemed a repair by legal counsel, repairs have historically been viewed as not having an impact on jurisdictional wetlands. As such, individual landowners should consult with applicable staff at the Hardin County NRCS offices to verify the existence of said jurisdictional wetlands and that there will be no impact on them.
- If this option is deemed an improvement by legal counsel, improvements have historically been viewed as having an impact on jurisdictional wetlands. As such, individual landowners should consult with applicable staff at the Hardin County NRCS offices to verify the existence of said jurisdictional wetlands and what said impact may be on them.

If legal counsel considers the above option a repair, it is our opinion that the following is applicable. A hearing will be required. Per Iowa Code Chapter 468.126.1.g, the right of remonstrance does not apply to the proposed repairs.

If legal counsel considers the above option an improvement, it is our opinion that the following is applicable. A hearing will be required. Per Iowa Code Chapter 468.126.4.e, the right of remonstrance may apply to the proposed improvements.

4.0 OPINION OF PROBABLE CONSTRUCTION COSTS – Using the above method of improvement, an itemized list of project quantities and associated opinions of probable construction cost for each option were compiled and are included in Appendix G of this report. A summary of said costs are as follows:

<b>METHOD</b>	<b>TOTAL COST</b>	<b>CONSTRUCTION COST</b>	<b>ROAD CROSSING COST</b>
Improvement - Open Ditch	\$1,330,240.94	\$466,490.31	\$863,750.63

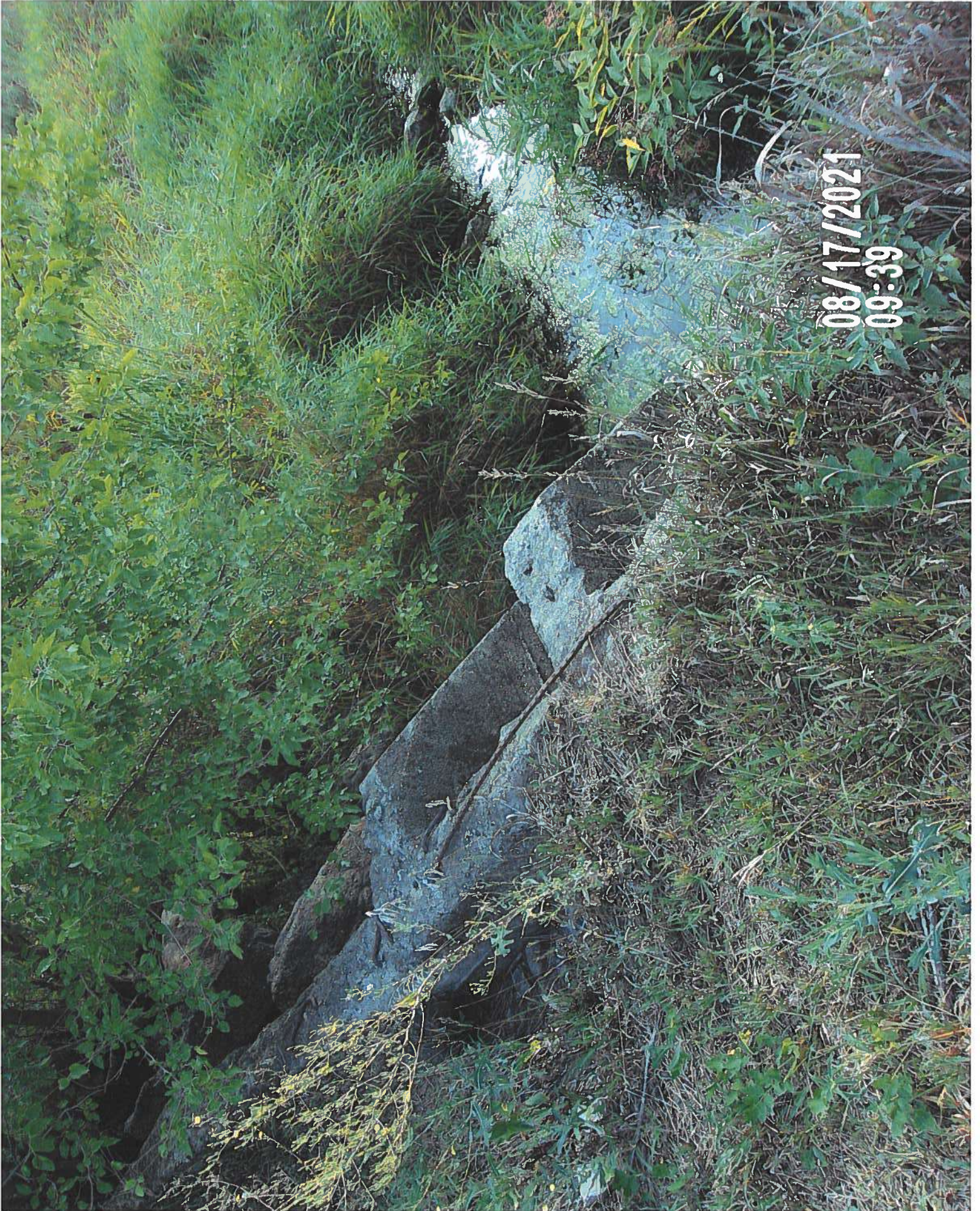
It should be noted that said costs include materials, labor, and equipment supplied by the contractor to complete the necessary repair or improvement and include applicable engineering, construction observation, and project administration fees by Clapsaddle-Garber Associates. However, said costs do not include any interest, legal fees, county administrative fees, crop damages, other damages, previous repairs, engineering fees to date, wetland mitigation fees, or reclassification fees (if applicable). As always, all costs shown are opinions of Clapsaddle-Garber Associates based on previous lettings on other projects. Said costs are just a guideline and are not a guarantee of actual costs.

5.0 RECOMMENDATIONS – There is a need to perform the above-mentioned actions. The actions would remove the current restrictions to the Main tile and extend the lifespan of the same. Therefore, it is recommended that the District Trustees, should take action to accomplish the following:

- Approve the Supplement Engineer’s Report as prepared by Clapsaddle-Garber Associates.
- Seek advice from legal counsel as to whether the Open Ditch is a repair or improvement.
- Hold the required hearing on the proposed improvement.
- Adopt of the recommendations of the Supplement Engineer’s Report.
- Seek advice from NRCS and the County Engineer to see if an alternate route from the Main Open ditch around the intersection of JJ Avenue and 150<sup>th</sup> Street is acceptable.
- Direct plans and specifications for the proposed improvement be prepared by Clapsaddle-Garber Associates.
- Proceed with receiving bids from interested contractors by Clapsaddle-Garber Associates.
- Award contract to the lowest responsible contractor.
- If desired or required by Iowa Code, proceed with reclassification proceedings after seeking legal advice concerning the same.



Top Old HOWL @ TIVE OUTLET



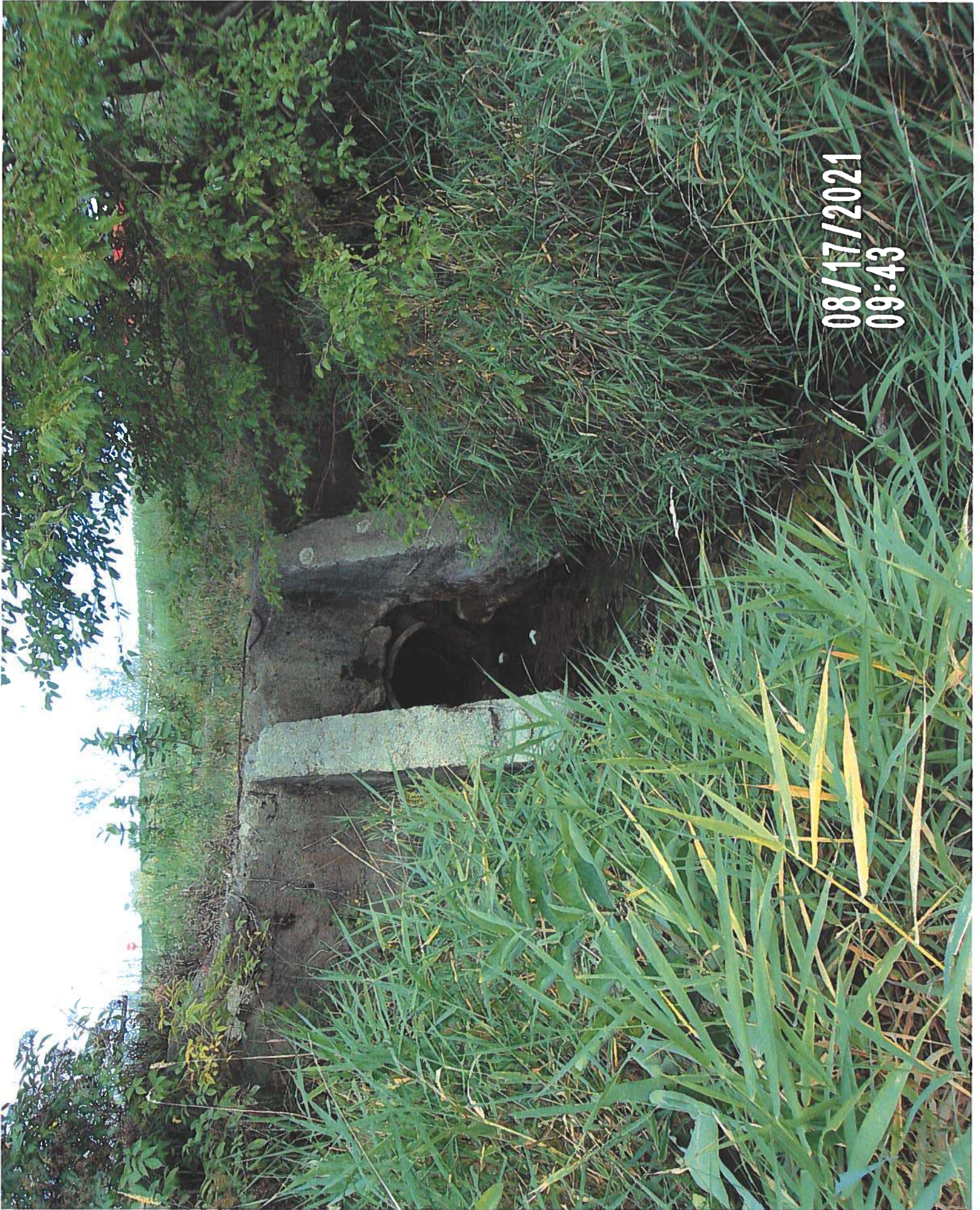
08/17/2021  
09:39

LOOKING DOWN @ OUTLET



TIDE OUTLET DD3 MAIN

08/17/2021  
09:43



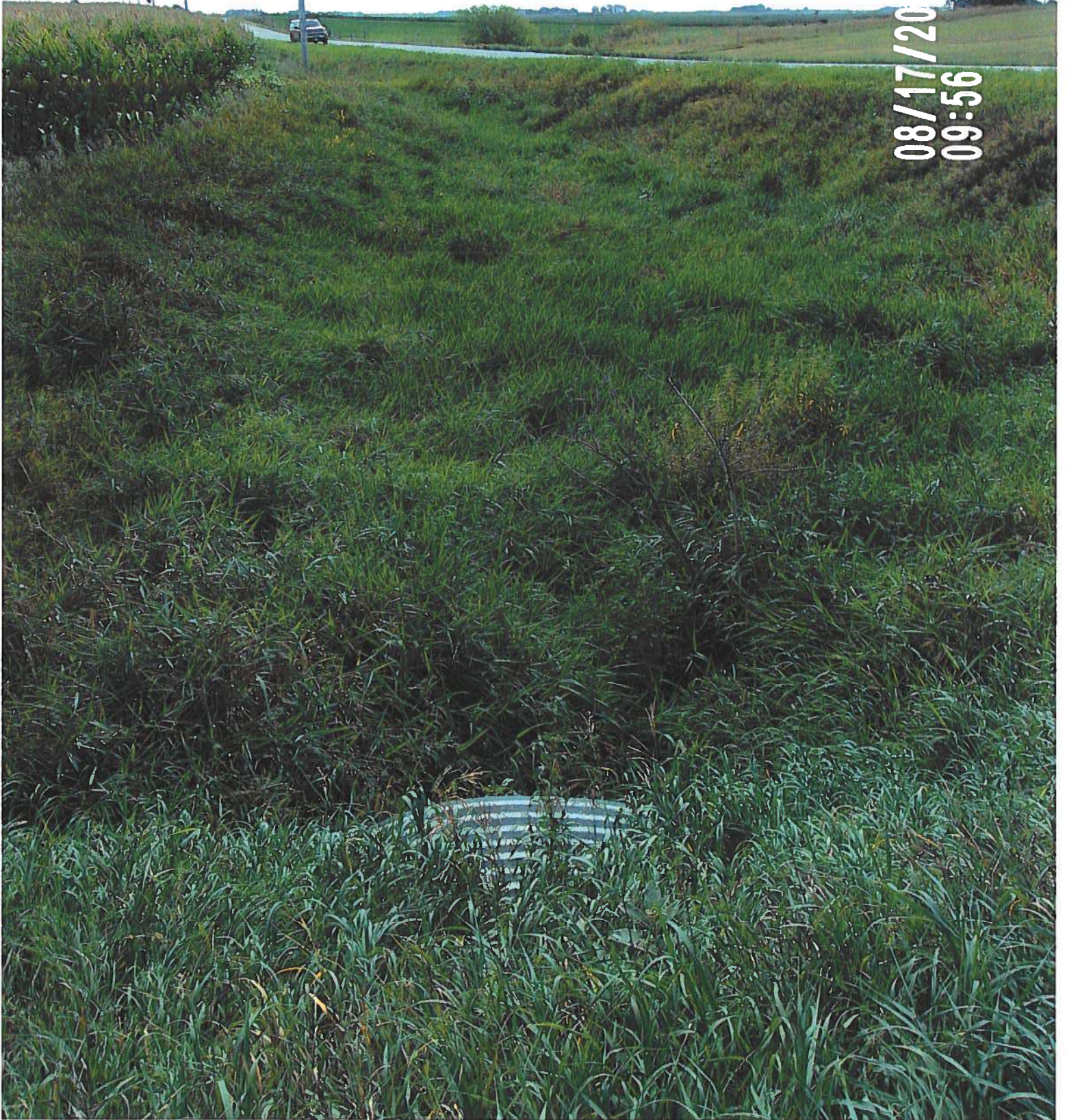
LOOKING UPSTREAM @ JJ AVE.



08/17/2021  
09:56

Looking downstream From JJ Ave.

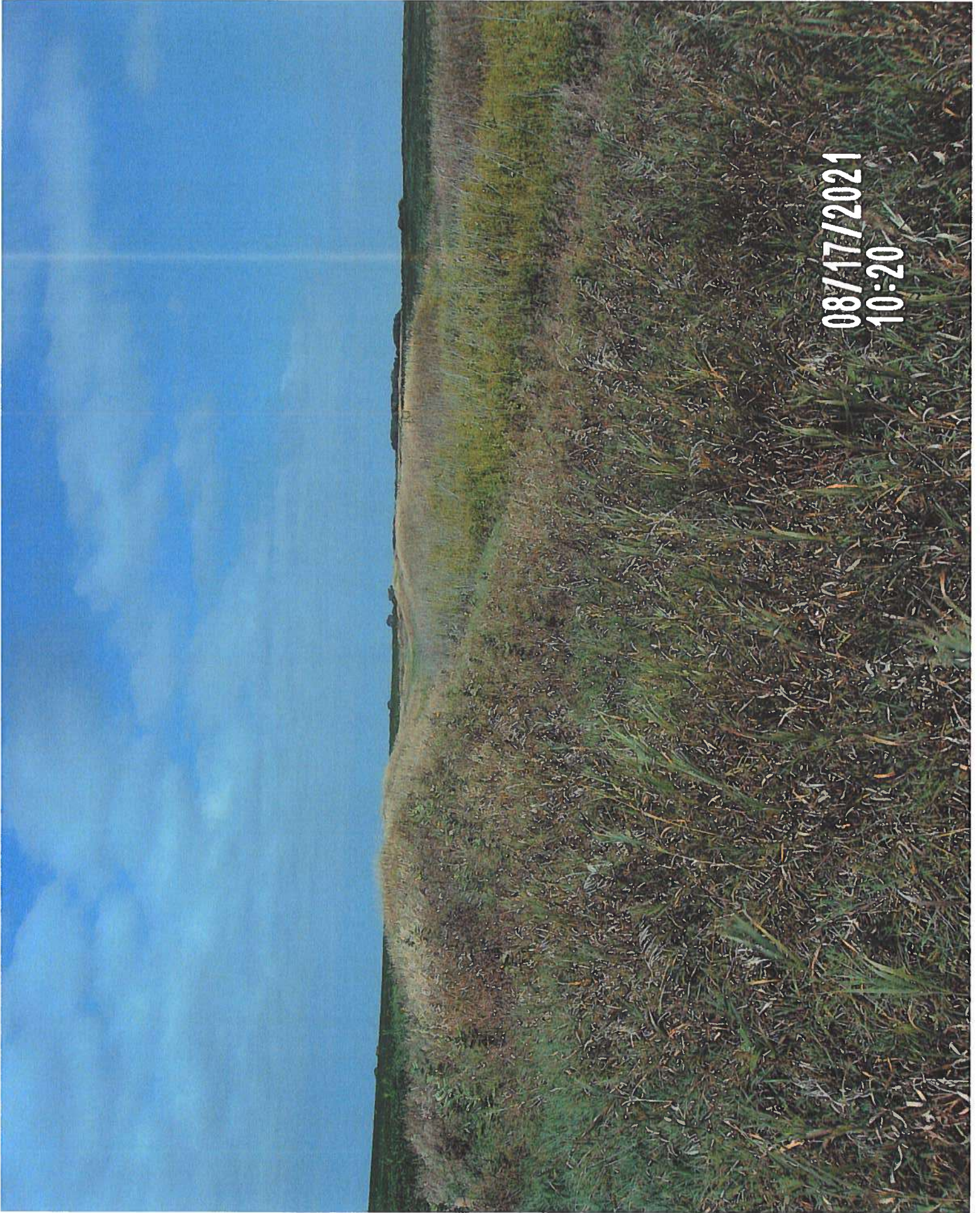
08/17/20  
09:56



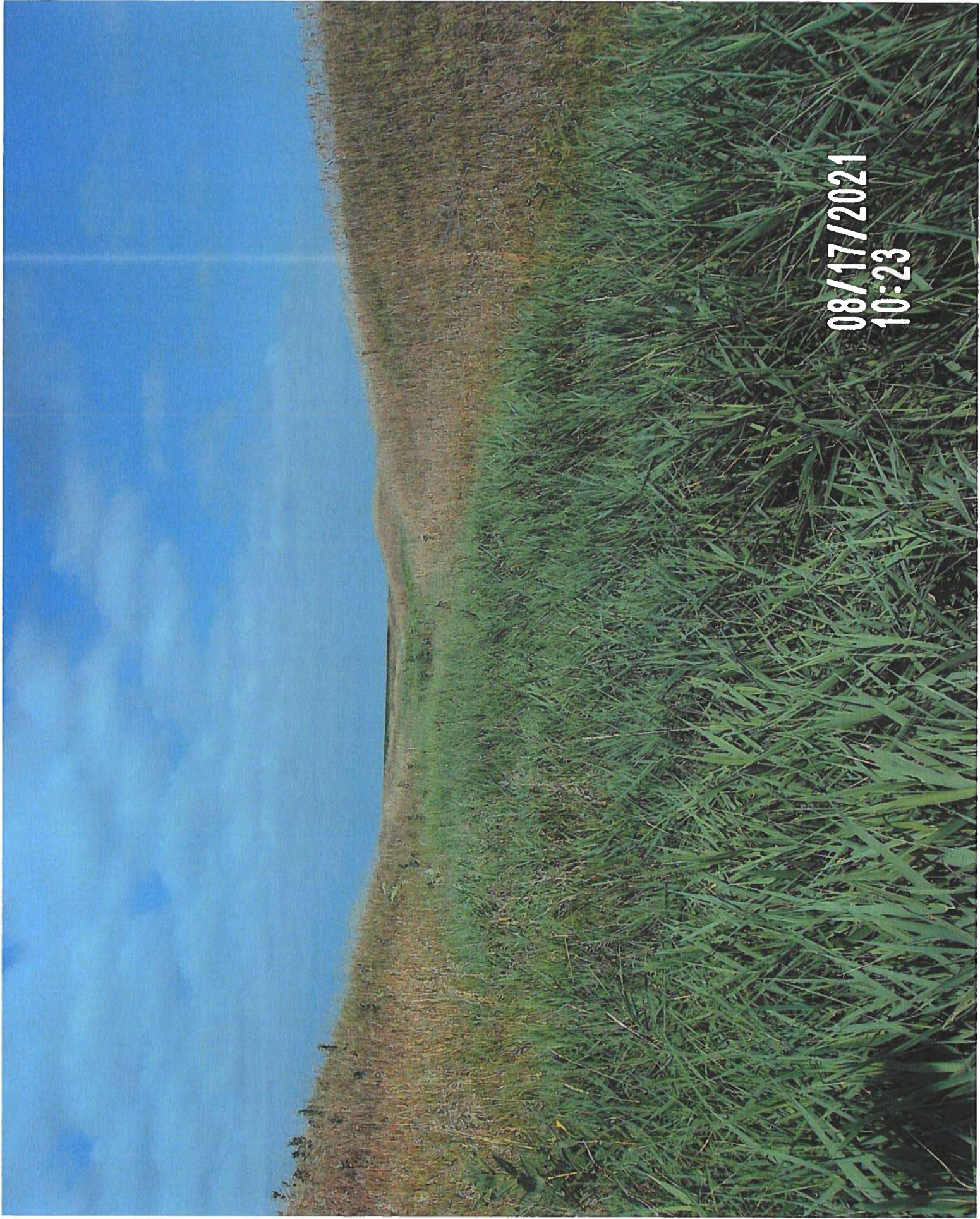
LOOKING UPSTREAM

08/17/2021  
10:17



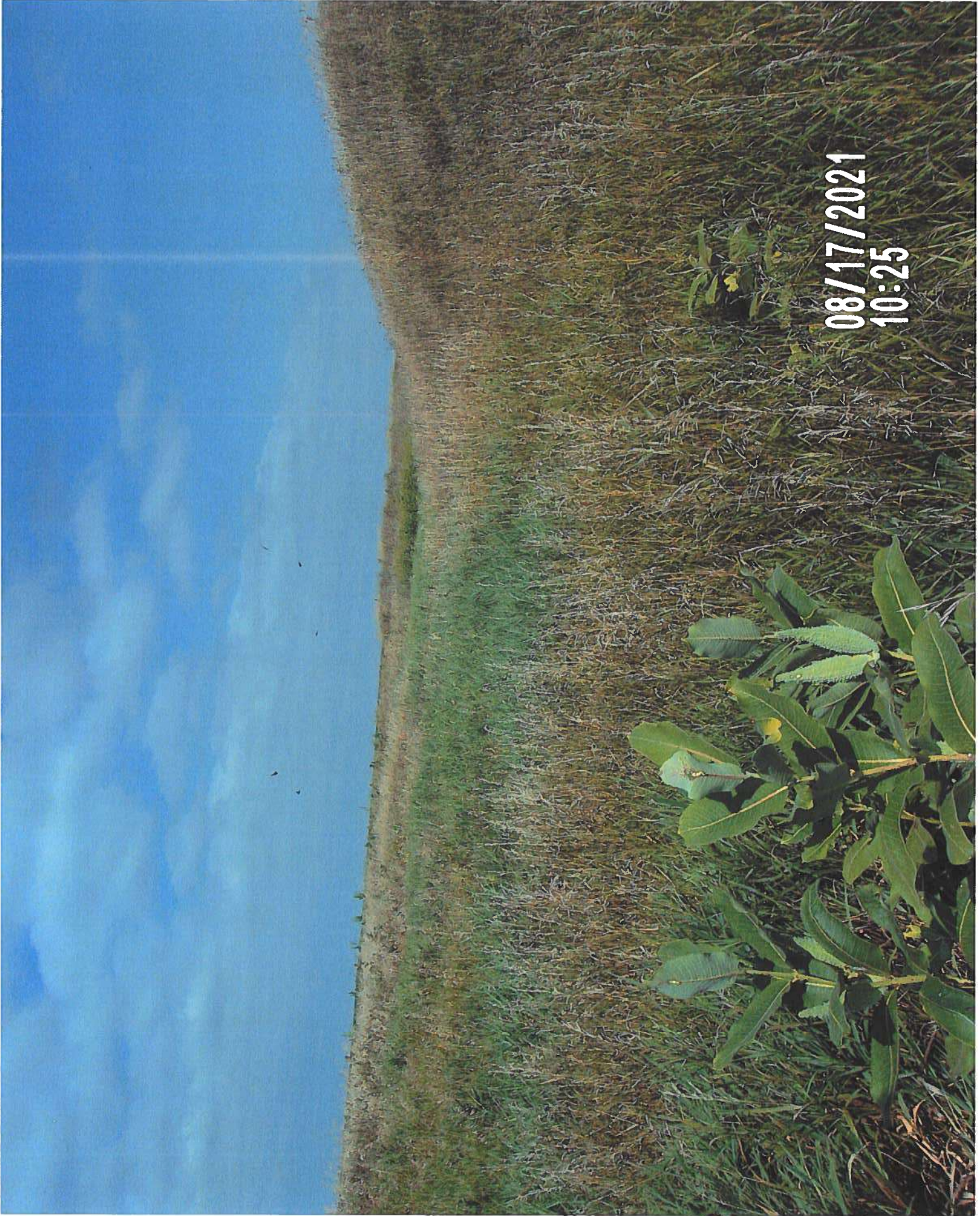


08/17/2021  
10:20

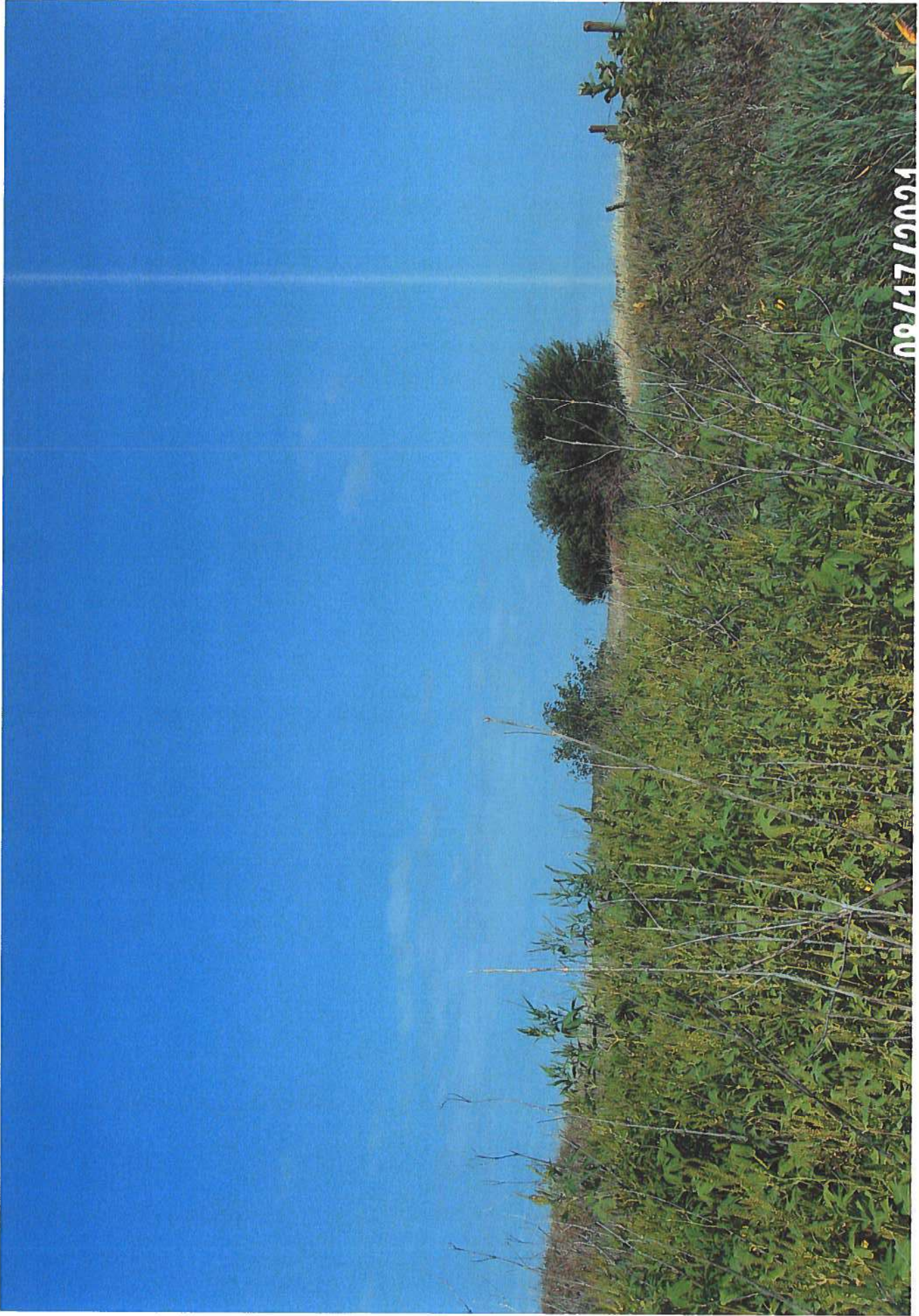


08/17/2021  
10:23





08/17/2021  
10:25

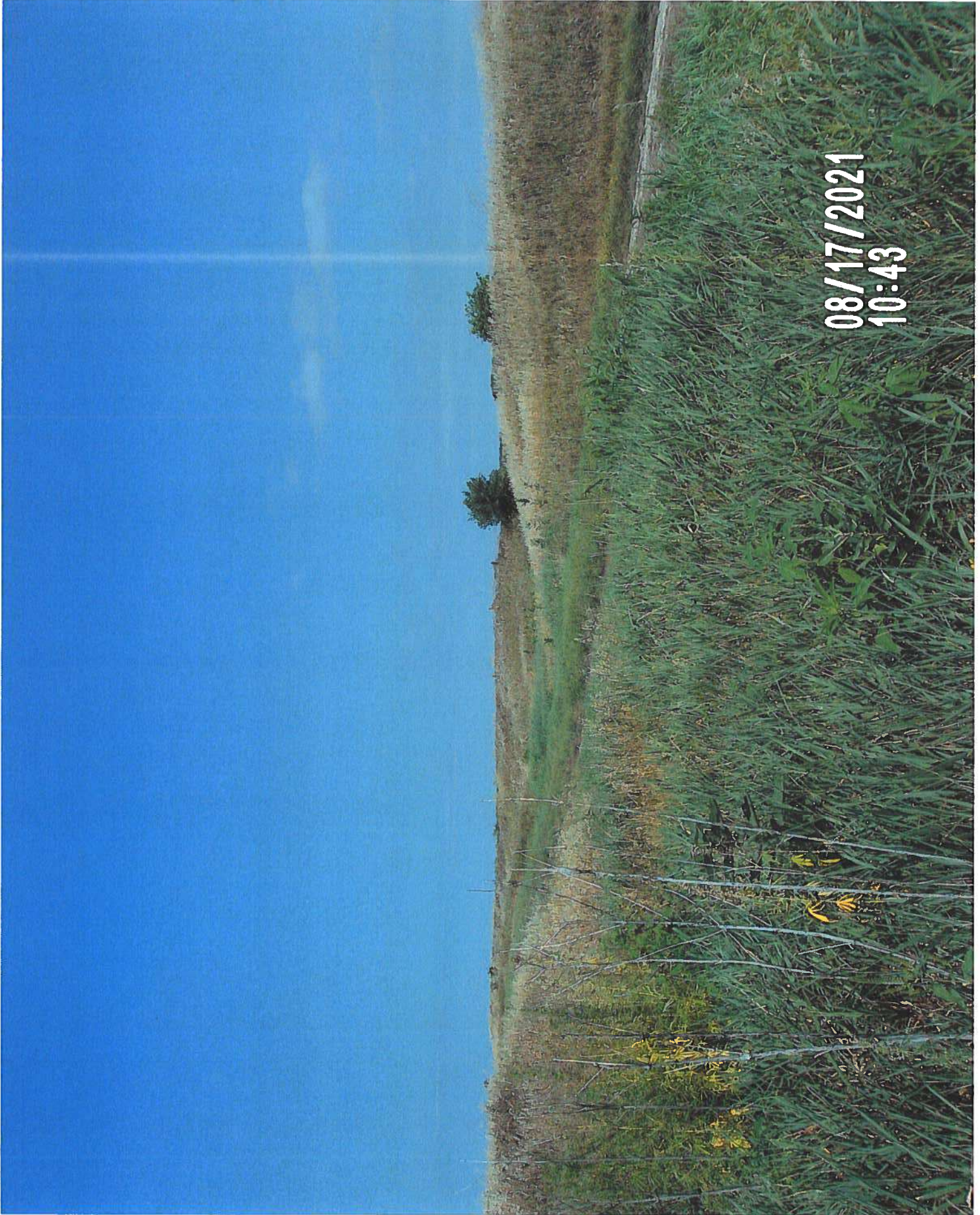


09/17/2021

08/17/2021  
10:41

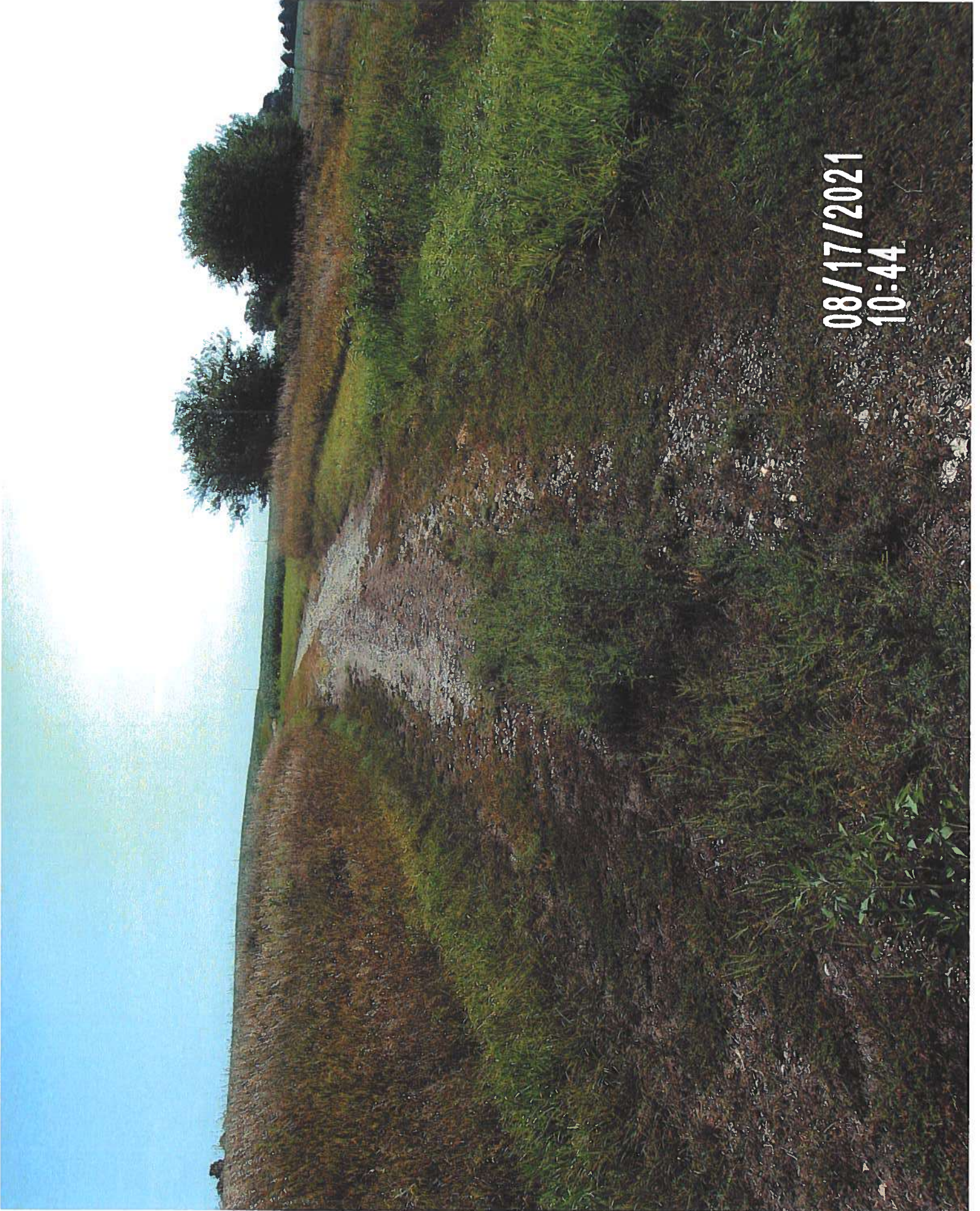


FIELD DRIVE (E-W) SOUTH OF TURN TO WEST



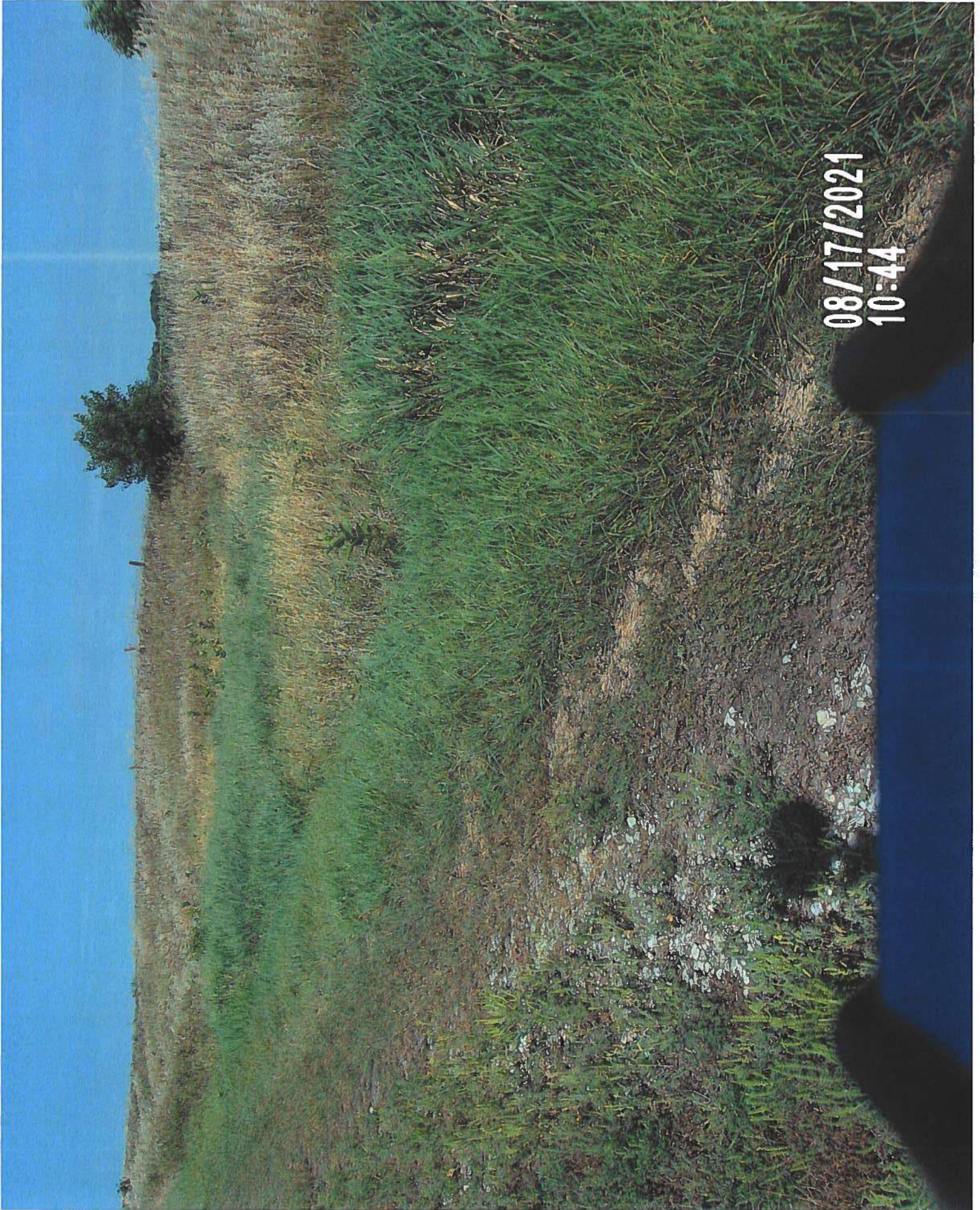
08/17/2021  
10:43

LOOKING EAST @ DRIVE



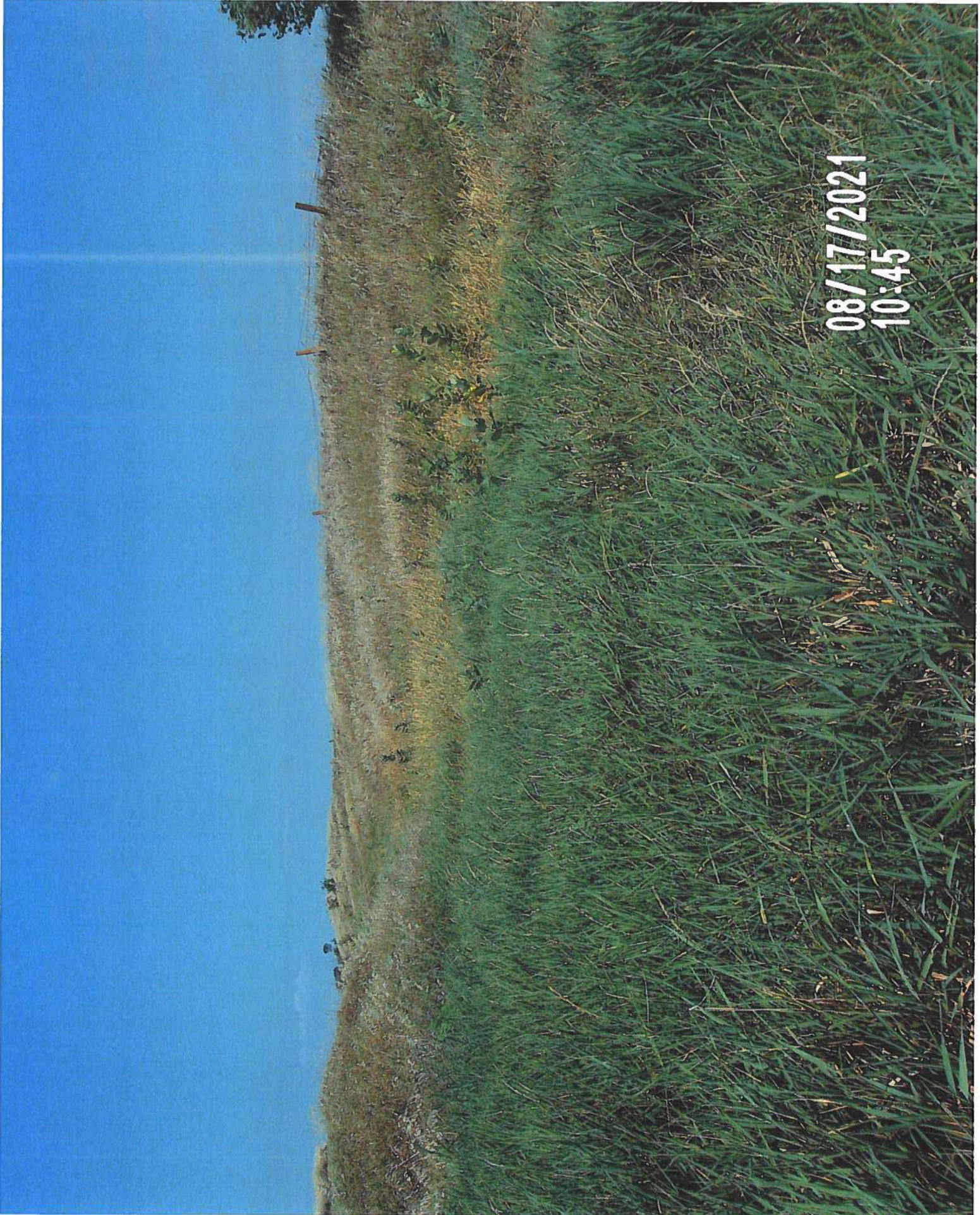
08/17/2021  
10:44

STANDING ON DRIVE LOOKING NW @ TURN TO WEST



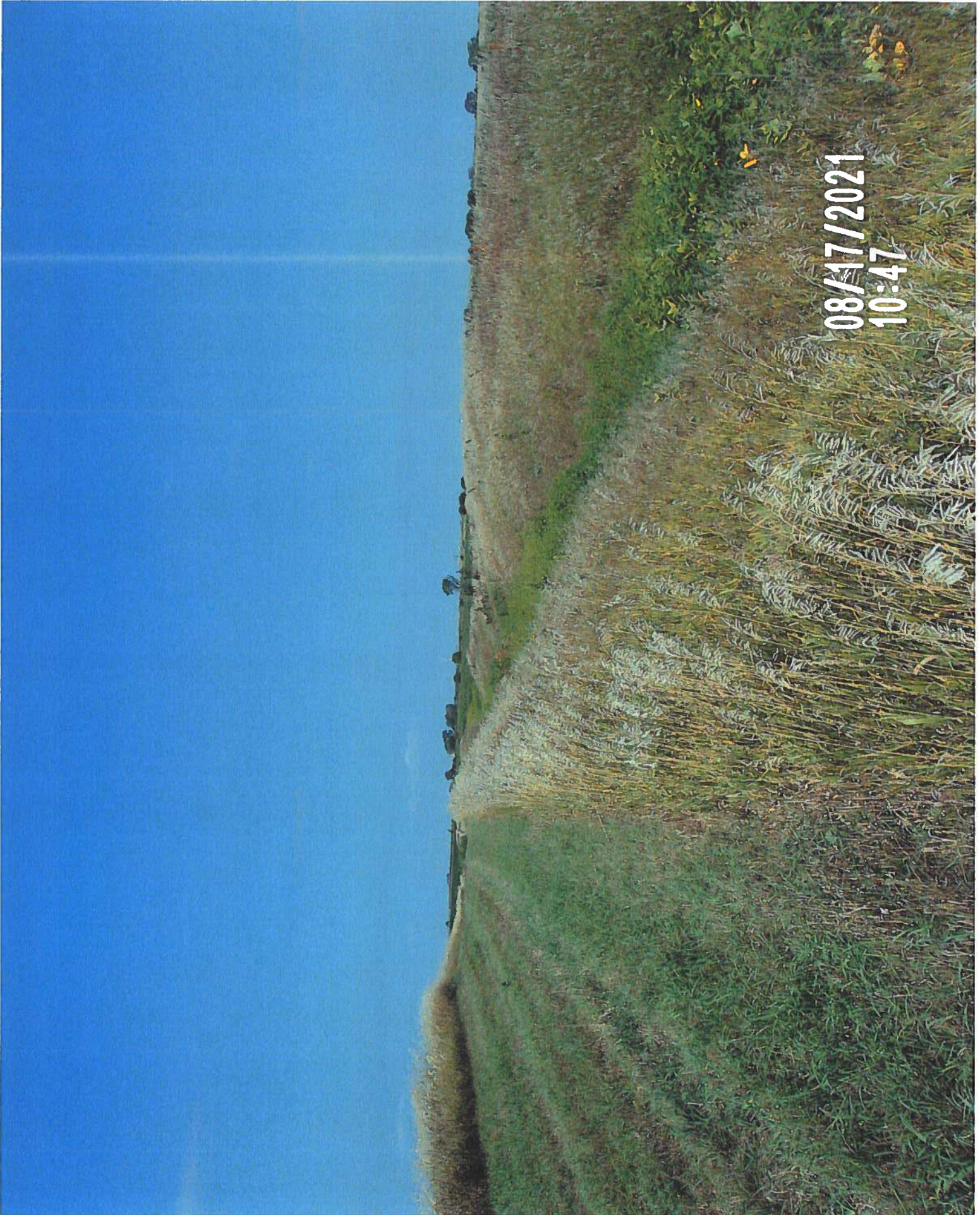
08/17/2021  
10:44

LOOKING due West, upstream



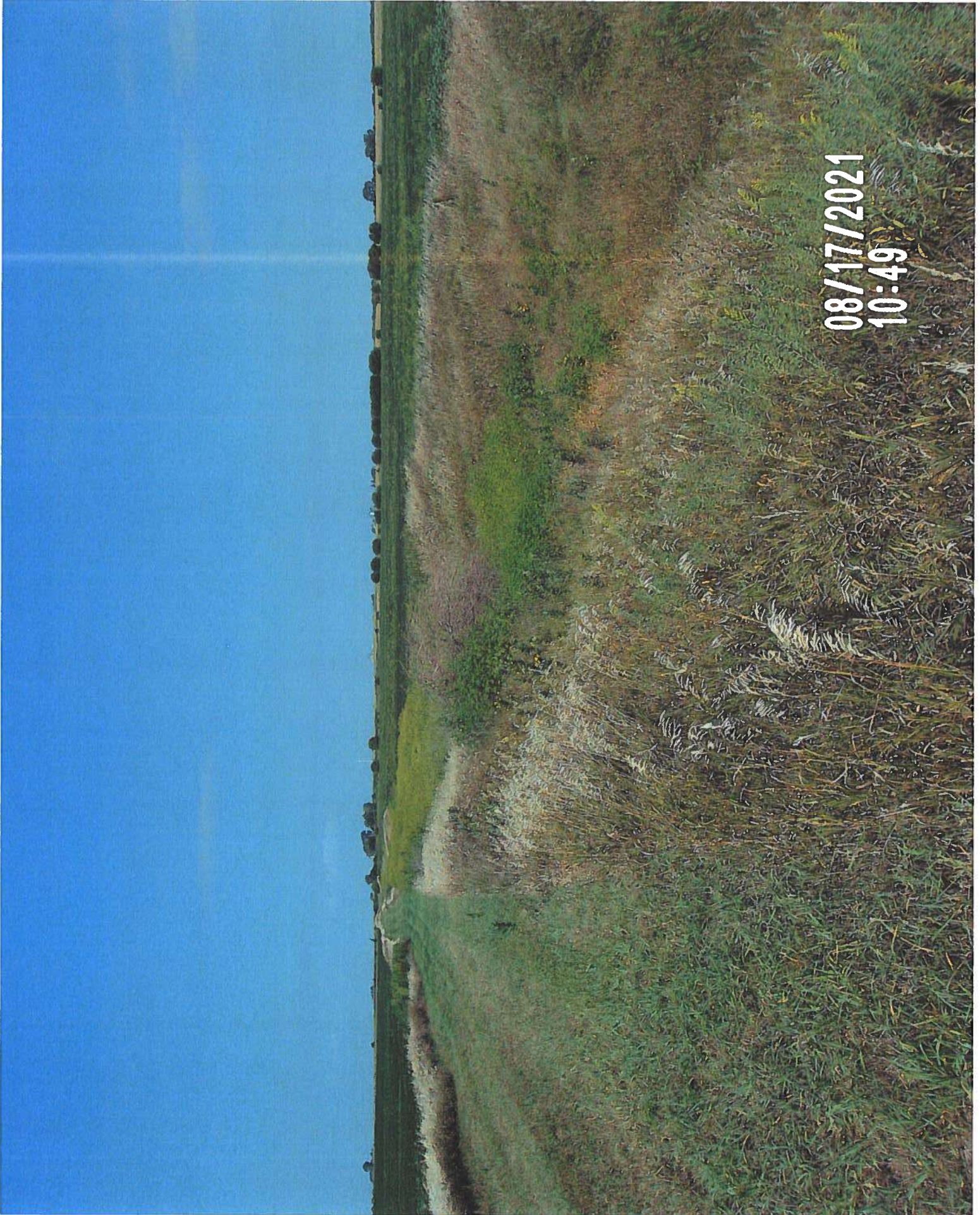
08/17/2021  
10:45

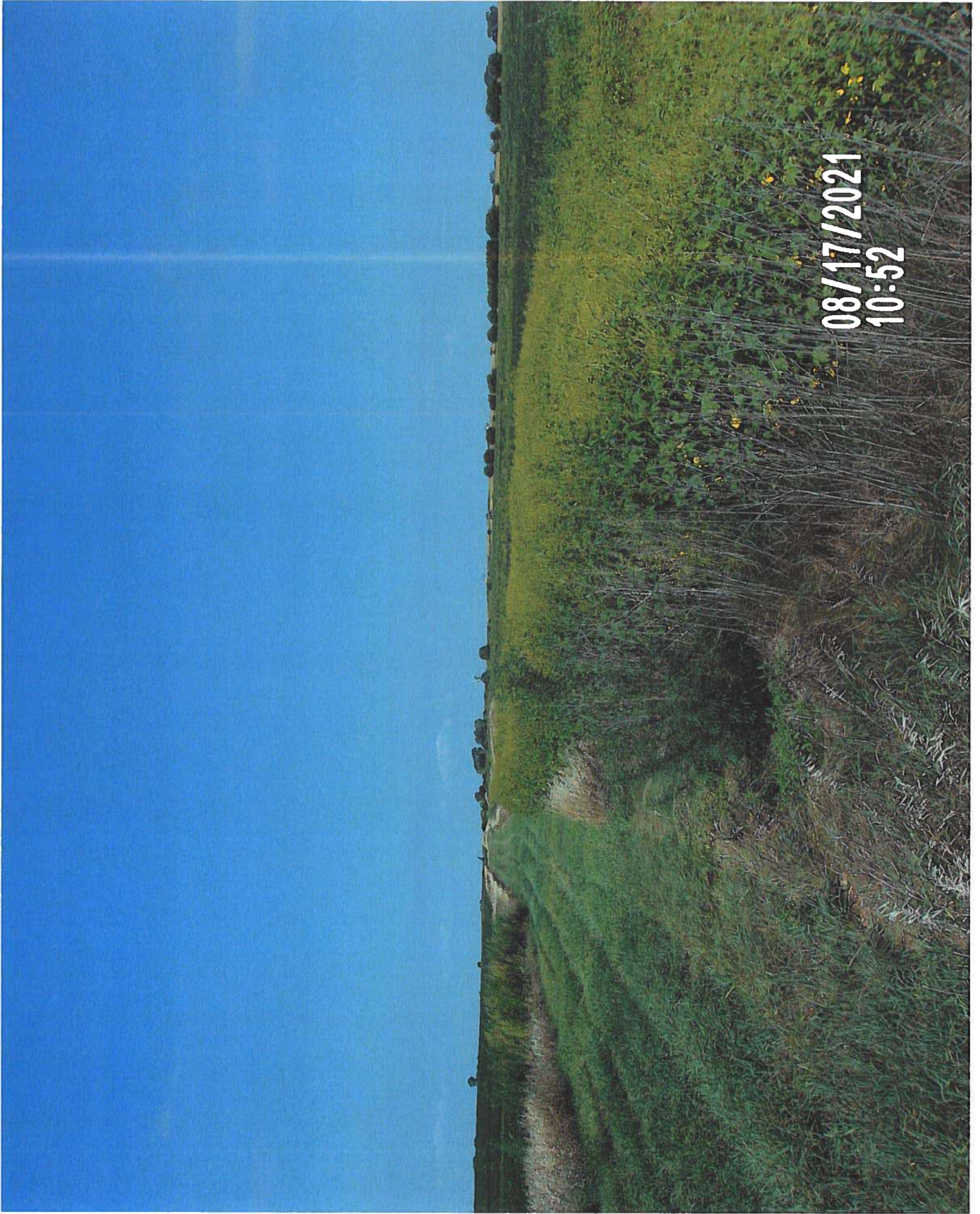
08/17/2021  
10:47





08/17/2021  
10:49



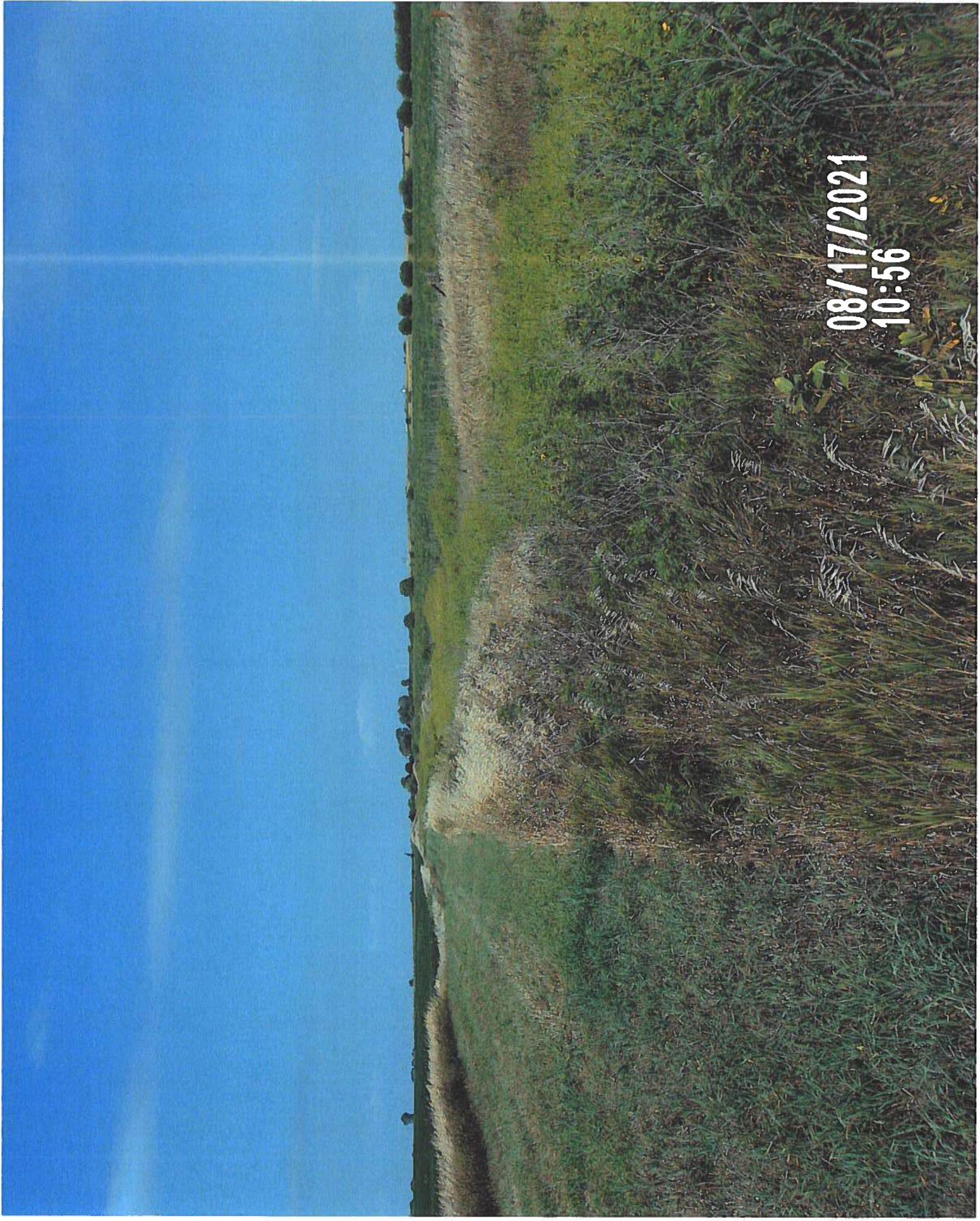


08/17/2021  
10:52



08/17/2021  
10:54

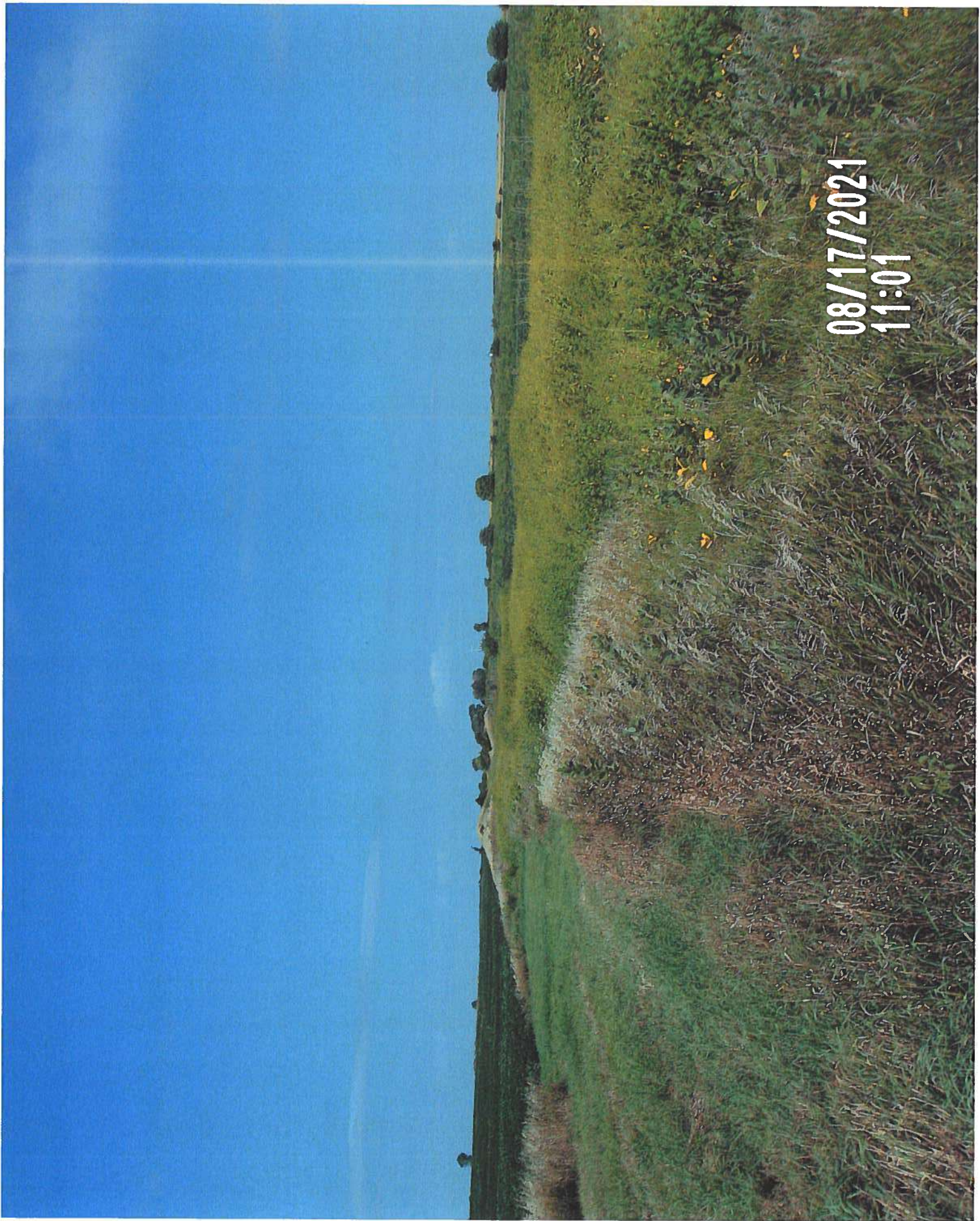
08/17/2021  
10:56



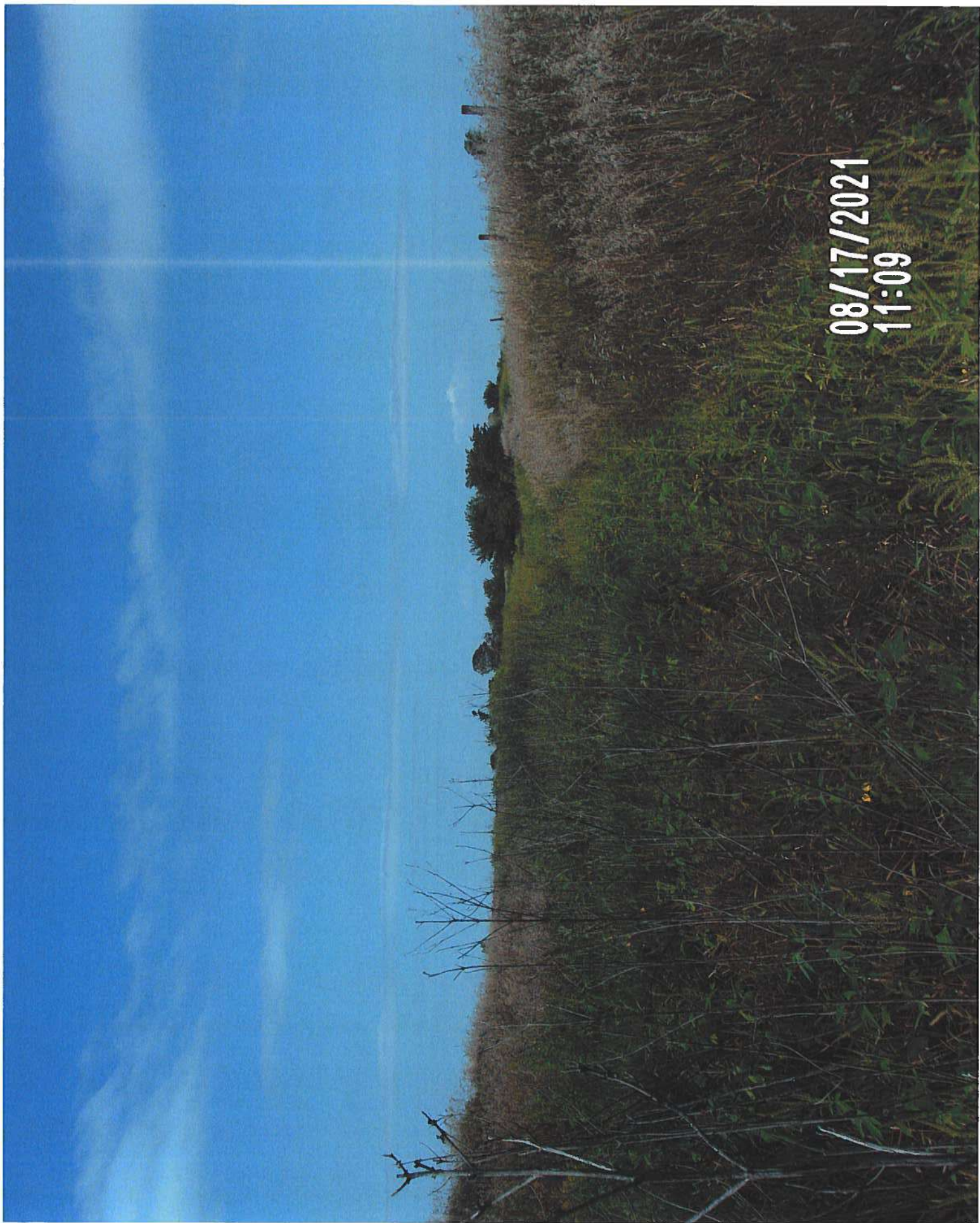
08/17/2021  
10:59



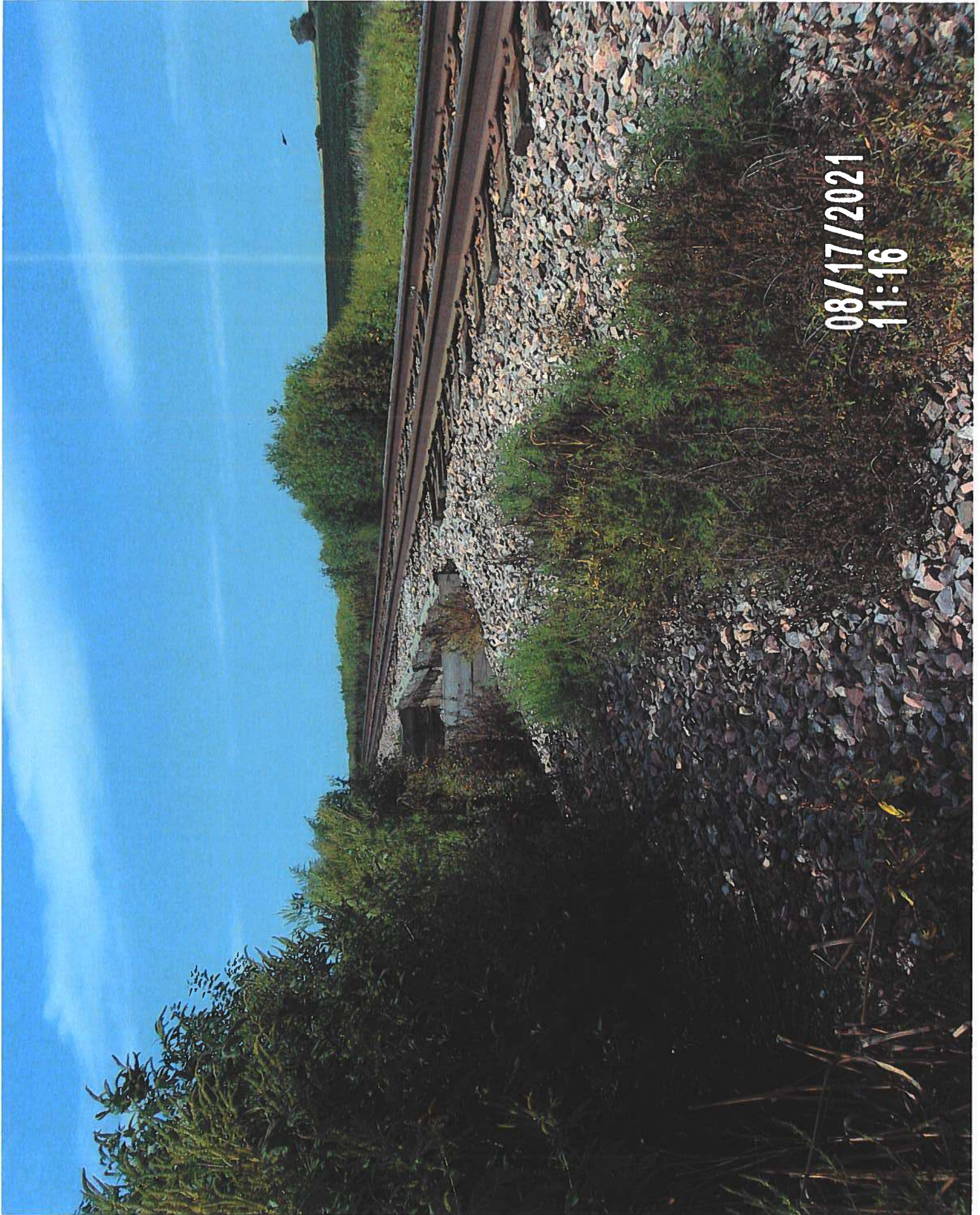
08/17/2021  
11:01



08/17/2021  
11:09



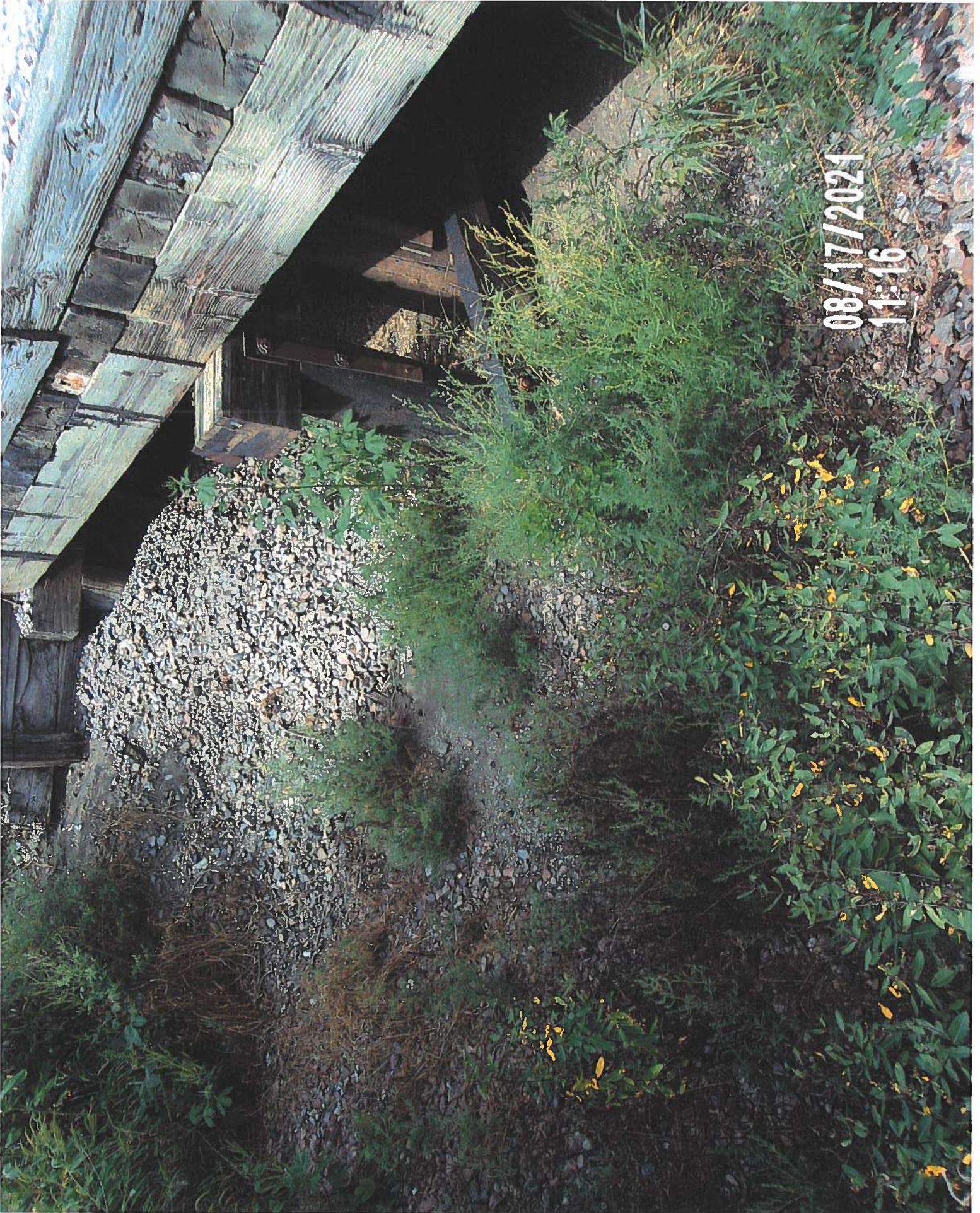
SOUTH SIDE OF RR BRIDGE



08/17/2021  
11:16

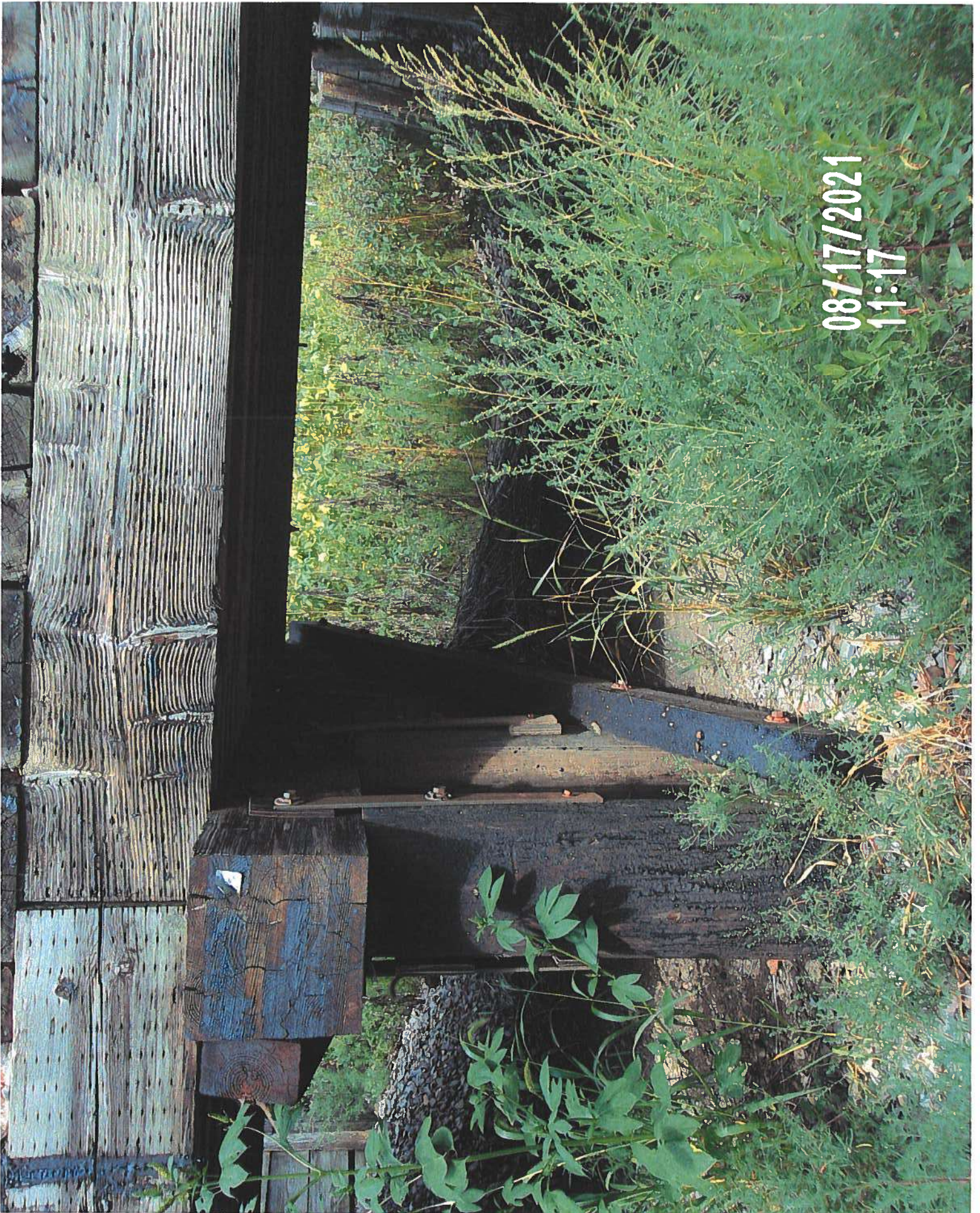


SOUTH SIDE RR BRIDGE



08/17/2021  
11:16

SE BENT, LOOKING UPSTREAM

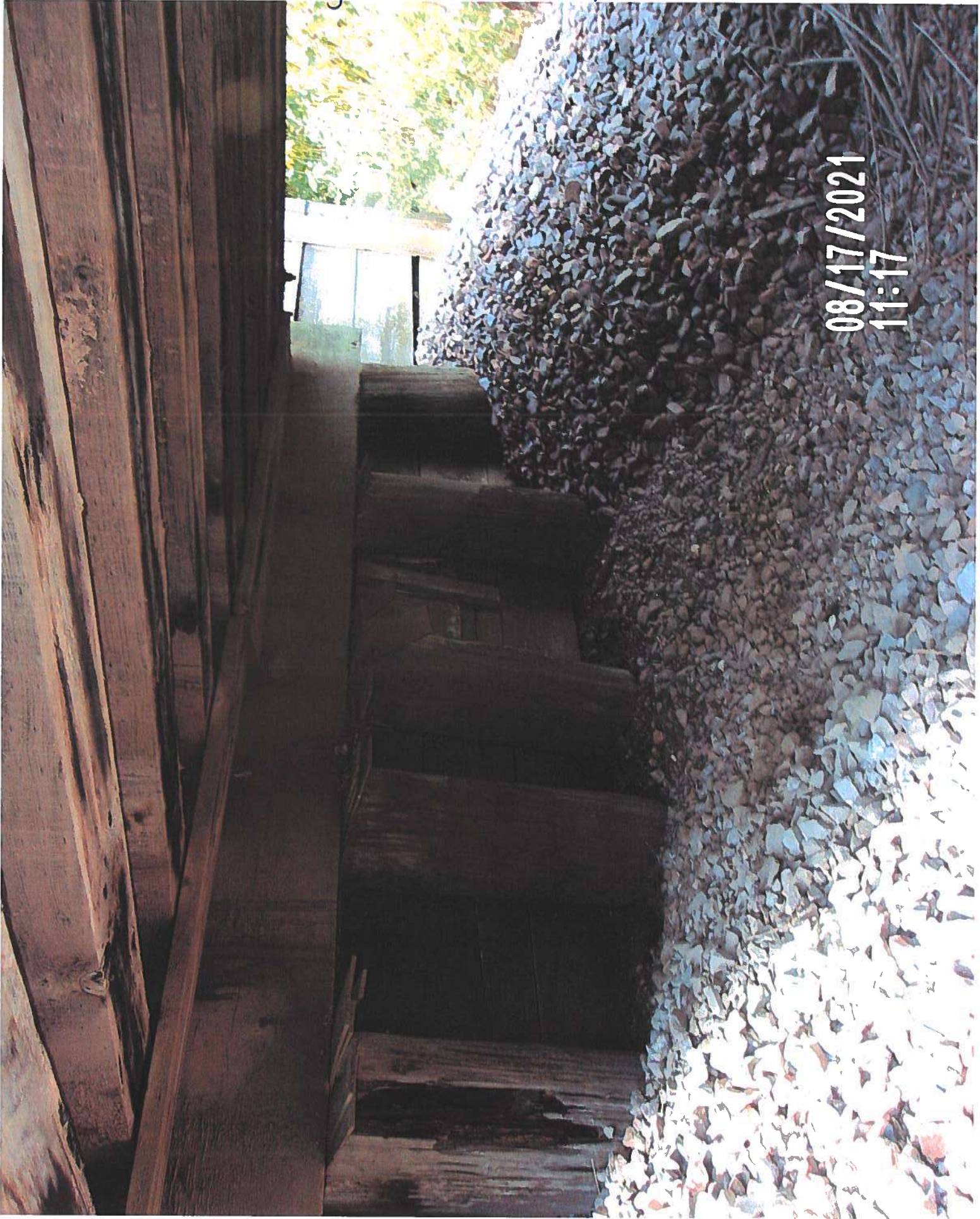


08/17/2021  
11:17

EASTERLY ABUTMENT

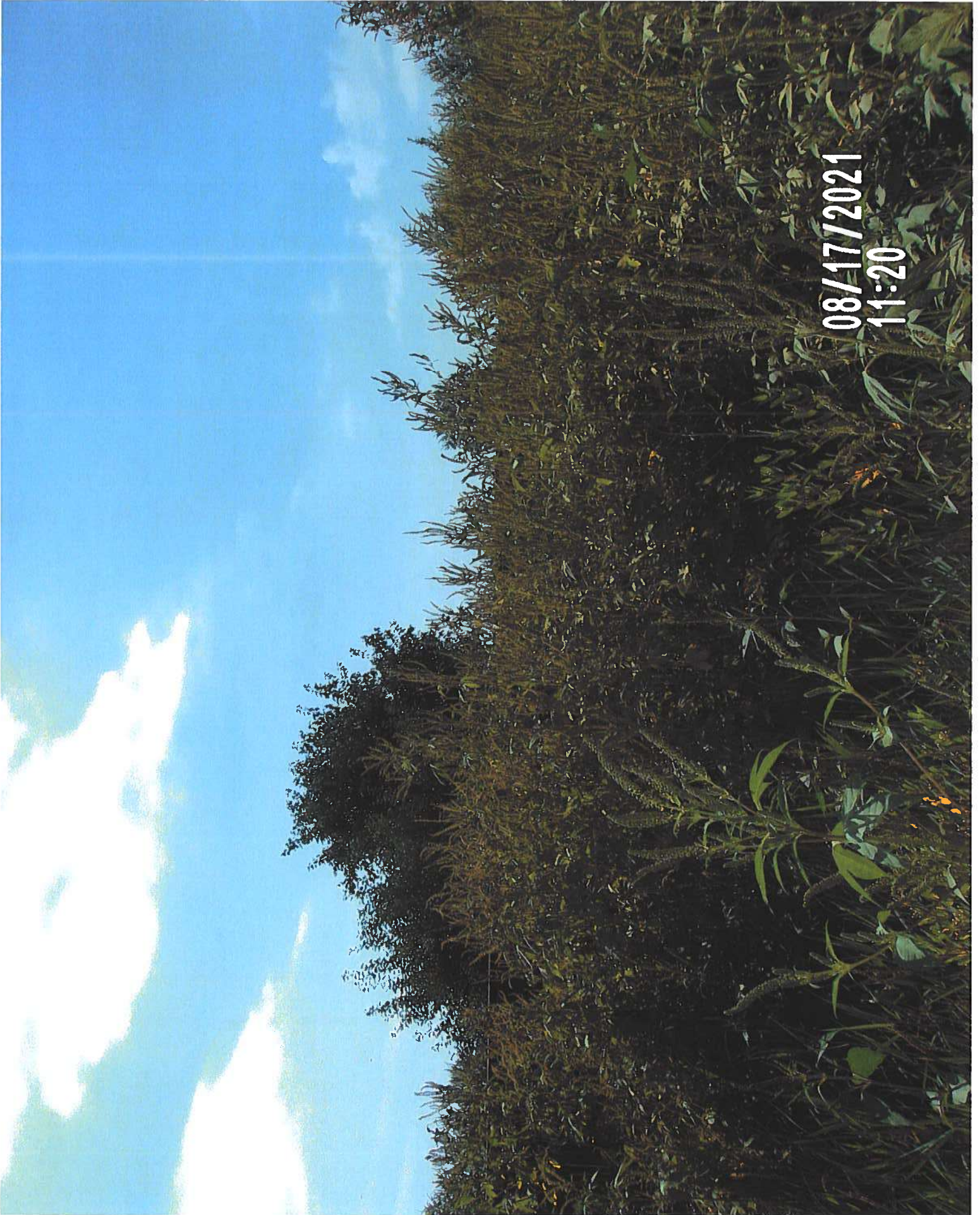


WESTERLY ACQUIMENT, BAD SHADE



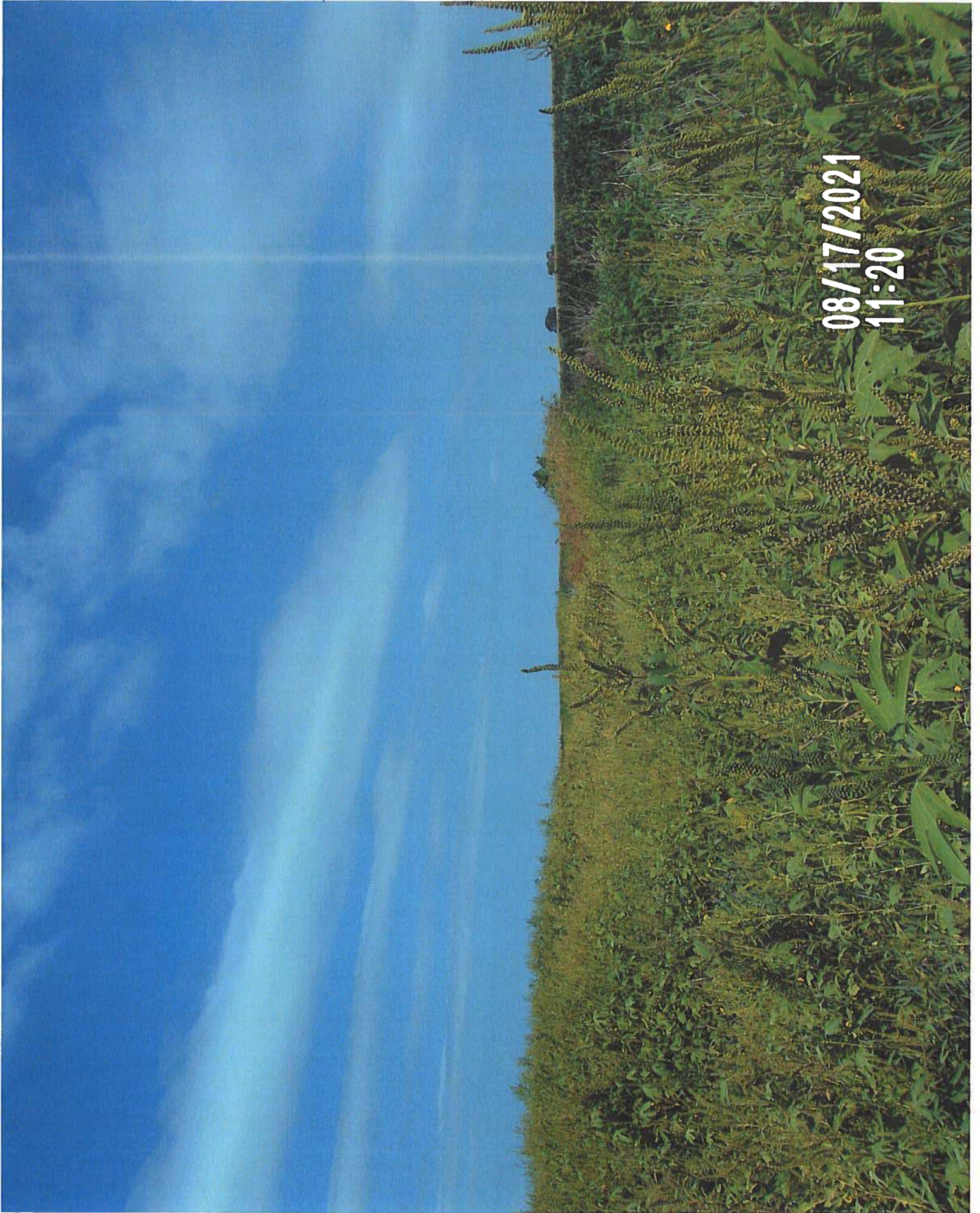
08/17/2021  
11:17

LOOKING DOWNSTREAM @ BRIDGE



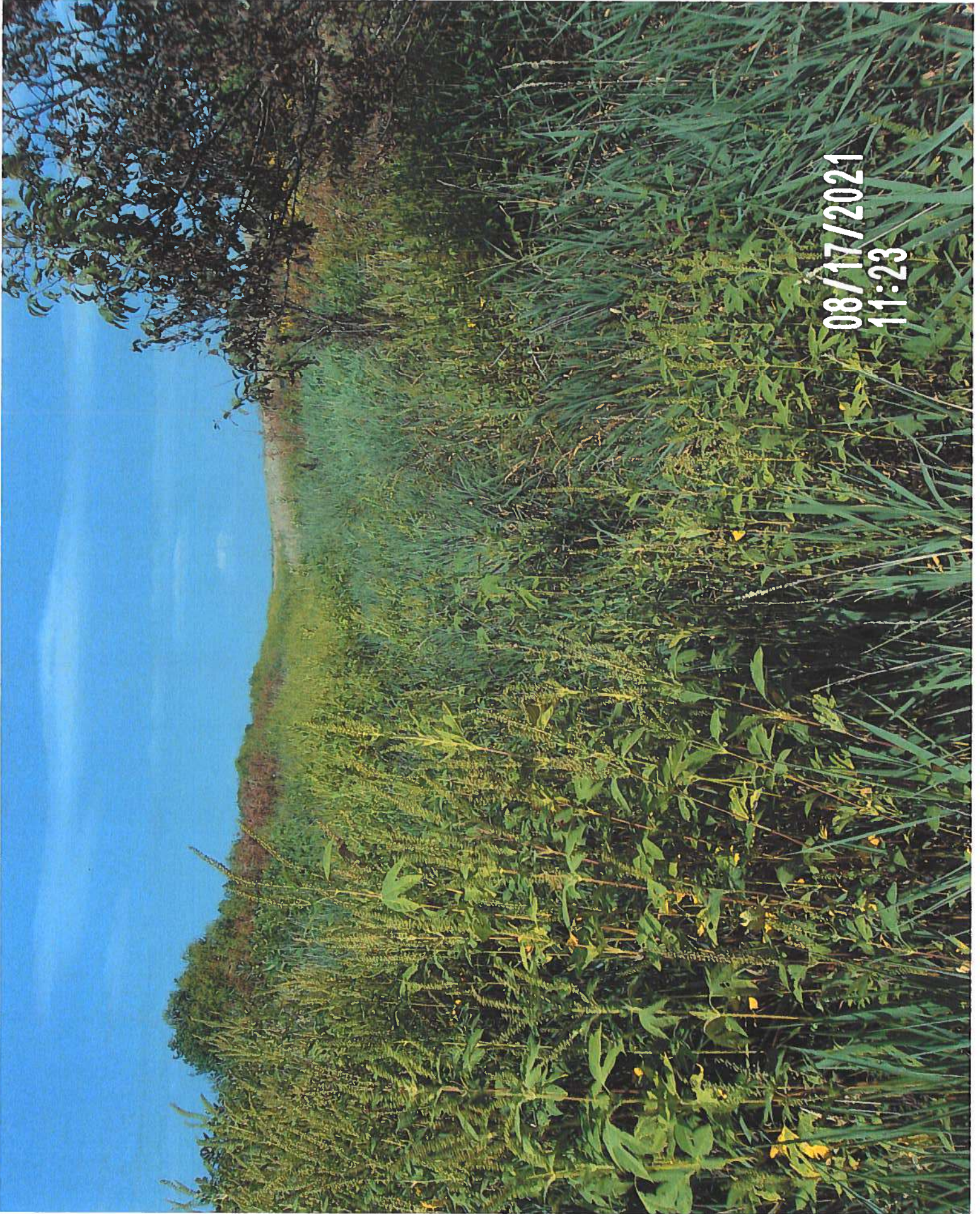
08/17/2021  
11:20

LOOKING UPSTREAM FROM BRIDGE



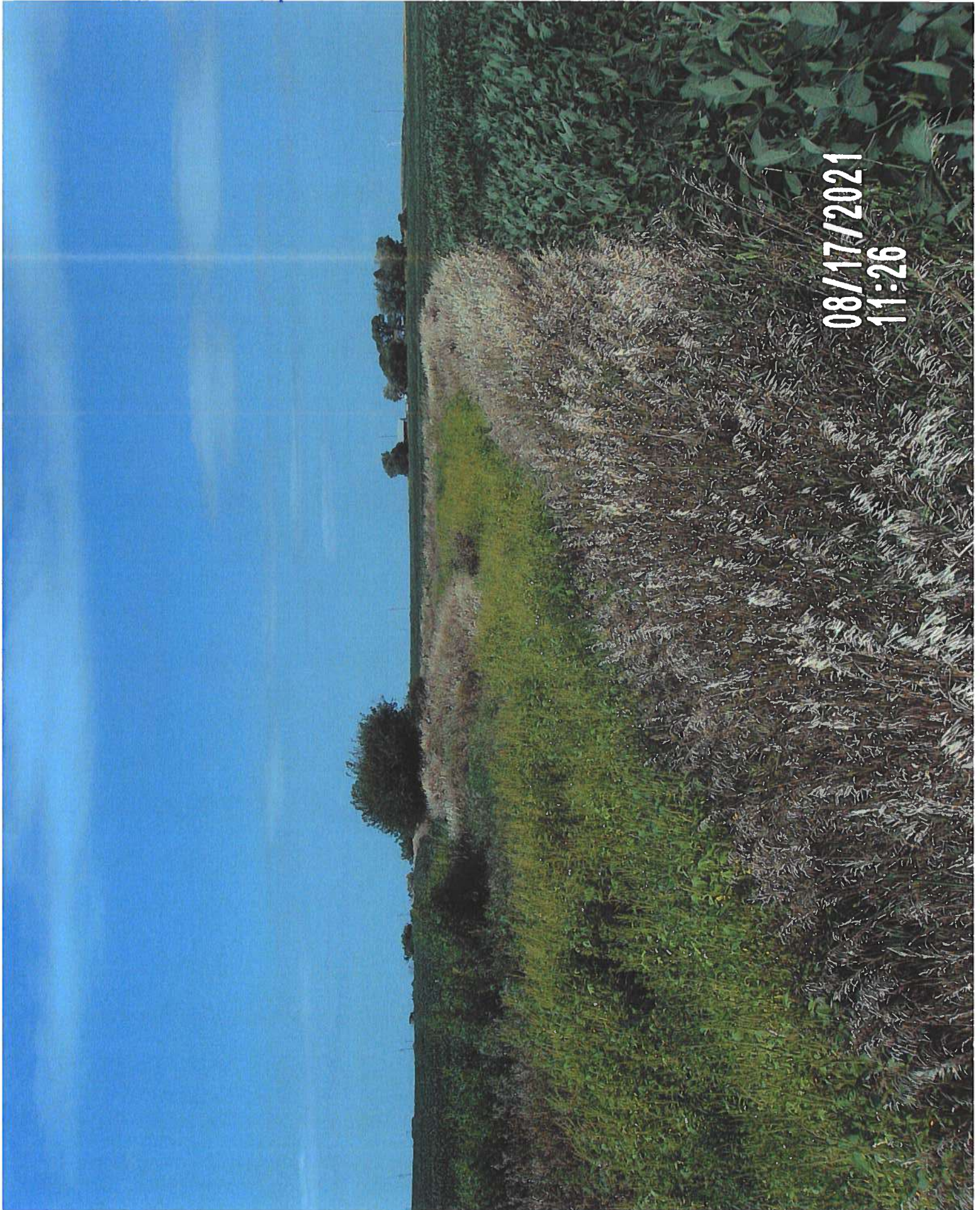
08/17/2021  
11:20

LOOKING UPSTREAM



08/17/2021  
11:23

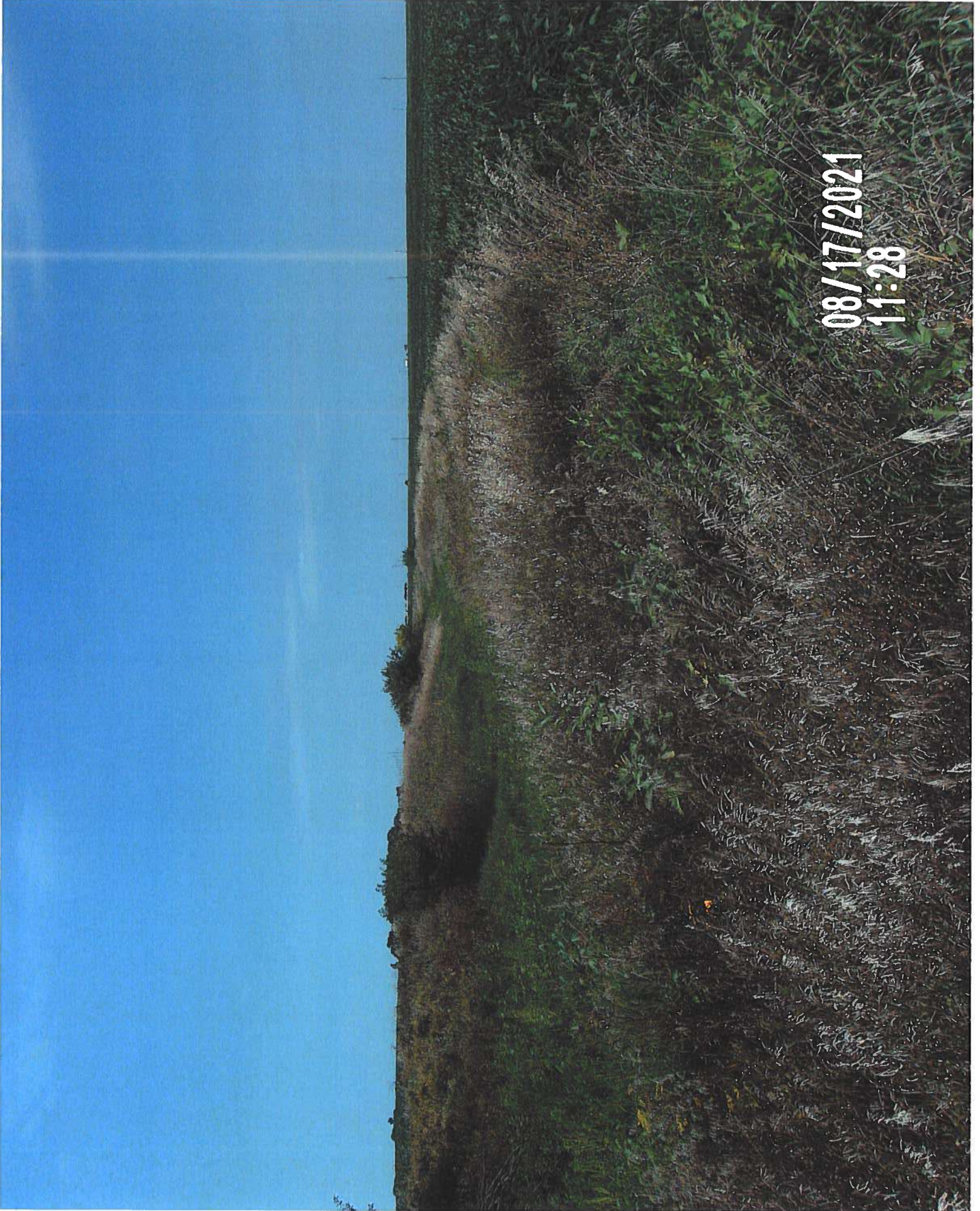
LOOKING UPSTREAM @ CURVE IN SWALE/TILE



08/17/2021  
11:26



CURVE TO SW



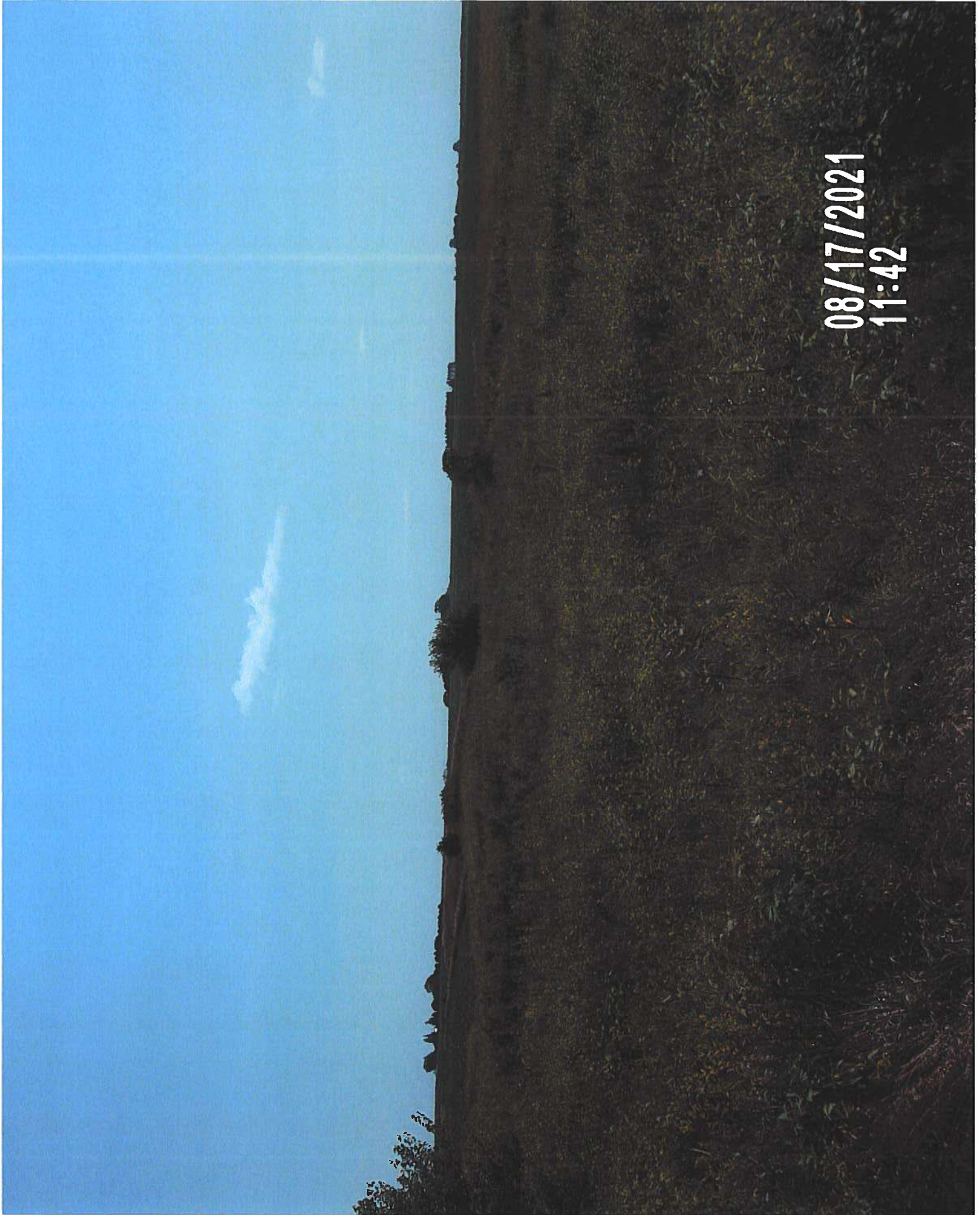
08/17/2021  
11:28

LOOKING SW down UPRR



08/17/2021  
11:42

Looking downstream From RR Bridge



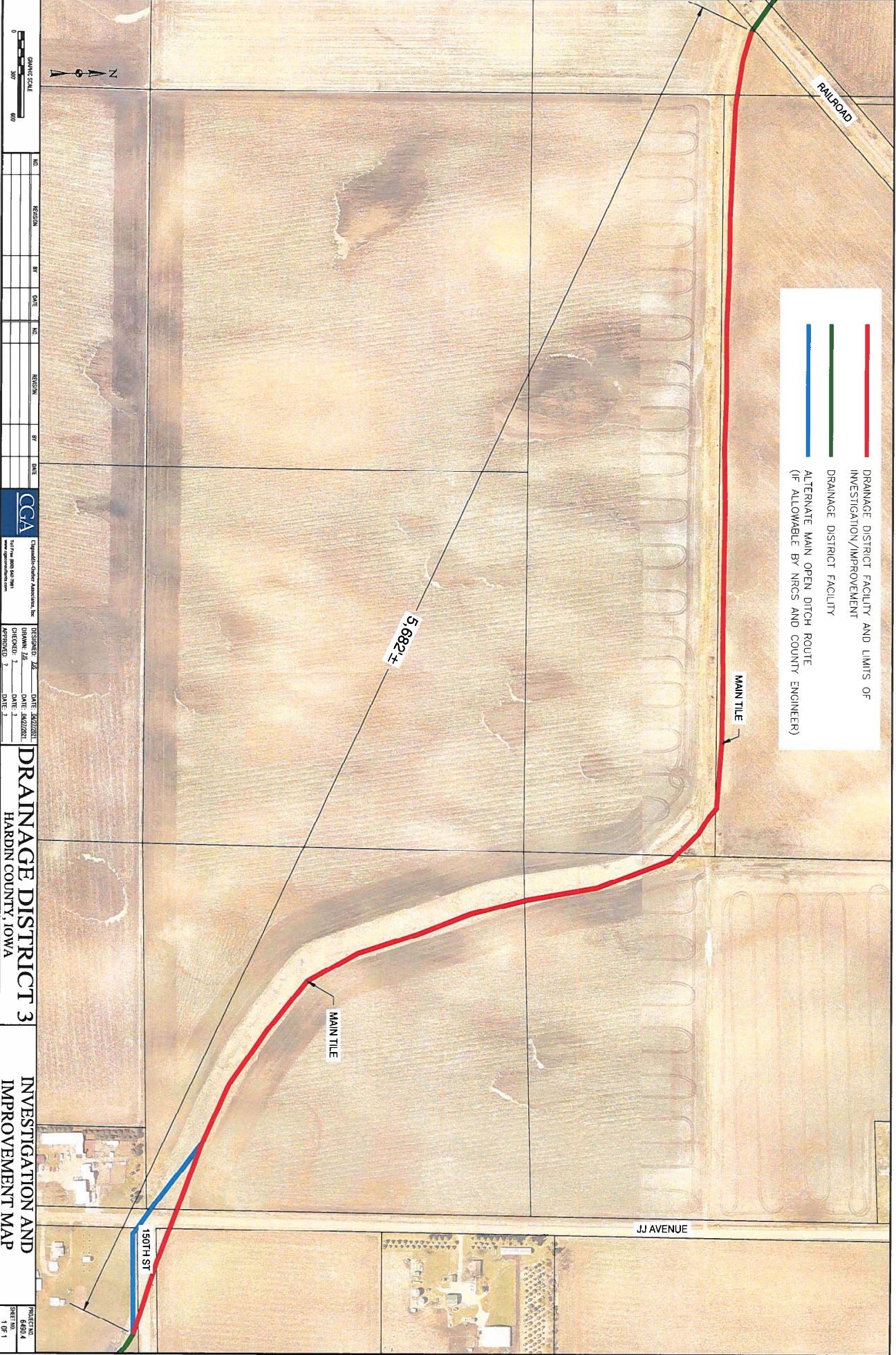
08/17/2021  
11:42

6490 DD3 8-17-21RB

4000,3639830.931,4976589.073,1125.992,507 FL TILE OUTLET  
4001,3639832.002,4976587.573,1131.451,751 TOP HDWL  
4002,3639845.722,4976556.059,1131.148,300 GS  
4003,3639863.701,4976509.410,1132.114,300 FNL N-S  
4004,3639883.305,4976462.137,1136.212,513 TOP CMP 48"ELIPT  
4005,3639890.449,4976457.116,1139.223,535 EOG  
4006,3639915.860,4976441.227,1139.534,535 EOG  
4007,3639924.039,4976436.191,1136.795,513 TOP CMP 48"ELIPT  
4008,3639912.541,4976345.777,1140.750,535 EOG  
4009,3639889.096,4976391.337,1139.648,535 EOG  
4010,3639879.511,4976407.273,1134.918,513 TOP 36"CMP  
4011,3639918.935,4976329.944,1135.962,513 TOP 36"CMP BENT  
4012,3639961.047,4976219.819,1141.938,535 EOG  
4013,3639956.828,4976234.652,1137.279,513 MAG TOP 54"ELIPT  
4014,3639968.444,4976186.312,1137.698,513 TOP 54"ELIPT  
4015,3639958.960,4976185.554,1136.483,513 CMP TOP 36"  
4016,3639946.054,4976238.363,1136.019,513 CMP TOP 36"  
4017,3639941.278,4976260.603,1133.122,300 GS  
4018,3639948.248,4976220.164,1142.294,535 EOG  
4019,3639955.445,4976196.002,1142.277, 535 EOG  
4020,3639988.543,4976147.678,1134.436,300 GS  
4021,3640070.288,4975927.530,1134.959,300 GS  
4022,3640165.315,4975717.690,1135.827,300 GS  
4023,3640293.210,4975535.434,1135.524,300 GS  
4024,3640433.982,4975362.268,1136.137,300 GS  
4025,3640610.974,4975263.310,1136.081,300 GS  
4026,3640822.928,4975194.758,1137.525,300 GS  
4027,3640999.425,4975128.047,1137.322,300 GS  
4028,3641198.681,4975077.915,1137.979,300 GS  
4029,3641443.492,4975036.376,1138.715,300 GS  
4030,3641602.648,4974999.957,1138.853,300 GS  
4031,3641699.719,4974938.548,1139.138,300 GS  
4032,3641796.065,4974842.143,1139.384,300 GS  
4033,3641831.337,4974785.368,1140.241,300 GS FIELD DR  
4034,3641857.530,4974756.266,1139.373,300 GS  
4035,3641875.028,4974530.044,1139.373,300 GS  
4036,3641878.304,4974335.470,1138.855,300 GS  
4037,3641877.331,4974162.555,1138.535,300 GS  
4038,3641880.983,4973903.041,1138.703,300 GS  
4039,3641884.174,4973709.048,1139.970,300 GS  
4040,3641881.025,4973503.644,1139.159,300 GS  
4041,3641888.116,4973306.827,1140.493,300 GS  
4042,3641886.959,4973073.481,1140.385,300 GS  
4043,3641895.963,4972880.146,1141.226,300 GS  
4044,3641897.812,4972689.944,1142.079,300 GS  
4045,3641907.050,4972491.544,1142.267,300 GS  
4046,3641915.137,4972308.330,1141.852,300 GS

6490 DD3 8-17-21RB

4047,3641941.027,4972145.310,1141.215,300 GS  
4048,3641971.156,4972044.992,1141.571,300 GS  
4049,3641994.161,4972041.711,1146.762,300 GS FO RISER  
4050,3641996.376,4971980.574,1142.339,300 GS CL BENT  
4051,3642008.915,4971969.472,1142.701,300 GS CL BENT  
4052,3642034.472,4971959.921,1143.119,300 GS  
4053,3642159.901,4971778.342,1142.742,300 GS  
4054,3642201.494,4971619.945,1142.592,300 GS  
4055,3642238.851,4971462.325,1143.274,300 GS  
4056,3642219.954,4971294.777,1142.446,300 GS



- DRAINAGE DISTRICT FACILITY AND LIMITS OF INVESTIGATION/IMPROVEMENT
- DRAINAGE DISTRICT FACILITY
- ALTERNATE MAIN OPEN DITCH ROUTE (IF ALLOWABLE BY NRCS AND COUNTY ENGINEER)

NO.	REGION	BR.	DATE	NO.	REGION	BR.	DATE

**CGA**  
 Certified Geomatics Associates, Inc.  
 1001 First Street, Suite 200  
 Des Moines, Iowa 50319  
 Phone: 515.281.1111  
 Fax: 515.281.1112

DESIGNER'S JOB	DATE	DATE
DRAWN: JES	DATE: 04/22/21	
CHECKED: J	DATE:	
APPROVED: J	DATE:	

**DRAINAGE DISTRICT 3**  
 HARDIN COUNTY, IOWA

**INVESTIGATION AND IMPROVEMENT MAP**

PROJECT NO.	6490 4
SHEET NO.	1 OF 1



By: Z.J.S.  
 Date: 9/1/2021  
 Checked By: L.O.G.  
 Date: 9/2/2021

**Engineer's Opinion of Probable Construction Cost**  
**Project: Main tile Improvement for D.D. #3**  
 Location: Sections 26, 27 and 35, T89N, R21W, Hardin County, Iowa

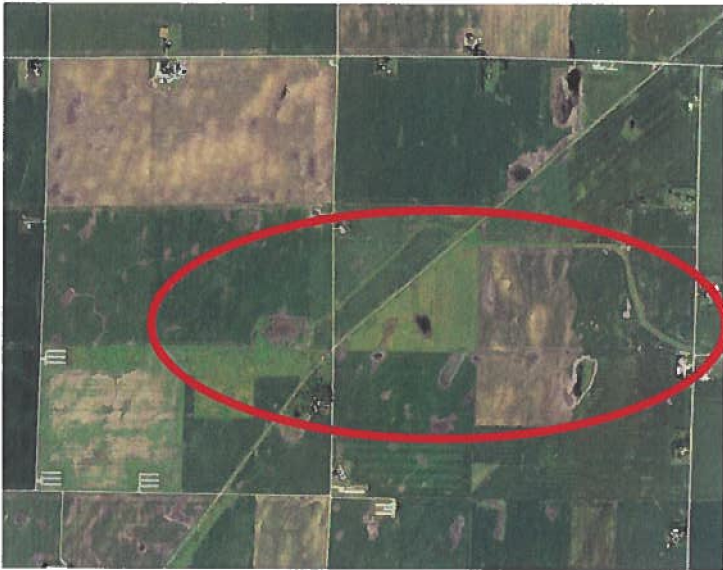
ITEM #	DESCRIPTION	Unit Cost	Units	Quantity	Units	Total Cost
<b>OPEN DITCH CONSTRUCTION COSTS</b>						
301	OPEN DITCH CONSTRUCTION	\$ 2,000.00	STA	53.15	STA	\$ 106,300.00
302	30" CMP OUTLET	\$ 75.00	LF	80	LF	\$ 6,000.00
303	SHEET PILE HEADWALL	\$ 35,000.00	EA	1	EA	\$ 35,000.00
304	RIP-RAP	\$ 50.00	TN	250	TN	\$ 12,500.00
305	SURFACE DRAINS	\$ 2,000.00	EA	16	EA	\$ 32,000.00
306	PRIVATE TILE OUTLETS	\$ 1,500.00	EA	26	EA	\$ 39,000.00
307	PERMANENT SEEDING AND WARRANTY	\$ 1,000.00	STA	53.95	STA	\$ 53,950.00
308	HEADWALL REMOVAL	\$ 2,000.00	EA	1	EA	\$ 2,000.00
309	TILE REMOVAL	\$ 7.00	LF	5395	LF	\$ 37,765.00
<b>CONSTRUCTION SUBTOTAL</b>						\$ 324,515.00
Contingency (15%)						\$ 48,677.25
<b>CONSTRUCTION TOTAL</b>						\$ 373,192.25
Engr. & Const. Observation (25%)						\$ 93,298.06
<b>TOTAL COST</b>						\$ 466,490.31
<b>ROAD CROSSING CONSTRUCTION COSTS</b>						
310	RCP BOX CULVERT (JJ AVE.)	\$ 2,000.00	LF	70	LF	\$ 140,000.00
311	RCP BOX CULVERT (150TH ST.)	\$ 2,000.00	LF	139	LF	\$ 278,000.00
312	OPEN DITCH CONSTRUCTION	\$ 2,000.00	STA	78	STA	\$ 156,000.00
313	TILE REMOVAL	\$ 10.00	LF	287	LF	\$ 2,870.00
314	SURFACE DRAINS	\$ 2,000.00	EA	4	EA	\$ 8,000.00
315	PERMANENT SEEDING AND WARRANTY	\$ 3,000.00	LOC	2	LOC	\$ 6,000.00
316	TRAFFIC CONTROL	\$ 5,000.00	LOC	2	LOC	\$ 10,000.00
<b>CONSTRUCTION SUBTOTAL</b>						\$ 600,870.00
Contingency (15%)						\$ 90,130.50
<b>CONSTRUCTION TOTAL</b>						\$ 691,000.50
Engr. & Const. Observation (25%)						\$ 172,750.13
<b>TOTAL COST</b>						\$ 863,750.63

OPEN DITCH REPLACEMENT

Note: Per Iowa Code, road crossings (highlighted red) are not typically district expense

**HARDIN COUNTY, IOWA**

**2021**



**ENGINEER'S  
RIGHT OF WAY  
REPORT  
MAIN OPEN DITCH  
RECONSTRUCTION  
DRAINAGE DISTRICT  
NO. 3  
HARDIN COUNTY,  
IOWA**



I HEREBY CERTIFY THAT THIS ENGINEERING DOCUMENT WAS PREPARED BY ME OR UNDER MY DIRECT PERSONAL SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF IOWA

*Zeb J. Stanbrough* PE      2021-11-24  
ZEB J. STANBROUGH, P.E.      DATE

LICENSE NUMBER: 19957  
MY LICENSE RENEWAL DATE IS DECEMBER 31, 2021  
PAGES OR SHEETS COVERED BY THIS SEAL:  
SHOWN ON TABLE OF CONTENTS



**CLAPSADDLE-GARBER ASSOCIATES OFFICE LOCATIONS**

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

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



**Right of Way Report  
Main Open Ditch Reconstruction  
Drainage District No. 3  
Hardin County, Iowa**

<b>Table of Contents</b>	Pg. 1
<b>Report</b>	
Background	Pg. 2
Main Open Ditch Right of Way History	Pgs. 2-3
Land to be Taken for Main Open Ditch Right of Way	Pgs. 4-6
Conclusion	Pg. 7
<b>Appendices</b>	
Map	App. A
Auction Table	App. B

# **Right of Way Report Main Open Ditch Reconstruction Drainage District No. 3 Hardin County, Iowa**

**Background:** The District Trustees appointed CGA to determine the right of way needs for a potential reconstruction of the Main Open Ditch of Drainage District No. 3. This action by the District Trustees was a result of comments received from landowners at the hearings for repairs and improvements proposed to the Main Tile of Drainage District No. 3. This report will summarize the background information gathered and the evaluation process used to determine said right of way and also present recommendations concerning the same.

**Main Open Ditch Right of Way History:** The following is a summary of the pertinent history of the Main Open Ditch right of way for Drainage District No. 3 for the area of proposed repairs and improvements. This was obtained from the Hardin County Auditor's drainage minutes and records as noted.

- 1906, Mar. 5 Original petition filed in the County Auditor's Office. – County Auditor's Drainage Record Book 1, Page 196-197.
- 1907, Jan. 4 Board of Supervisors – Approved damages for open ditch – County Auditor's Drainage Record Book 1, Pages 237-239.
- 1907, Oct. 26 Report of Appraisers for damages filed in the County Auditor's Office.
- 1907, Nov. 4 Board of Supervisors – Approved Appraiser report for damages – County Auditor's Drainage Record Book 1, Pages 379 – 381.
- 1909, Nov. 3 Deed for right of way – Section 26, Township 89 North, Range 21 West – County Recorder's Book 196, Page 423.
- 1912 A cleanout of the upper end of the Main Open Ditch was proposed, but did not happen. However, detailed charts of the existing width and depth of the Main Open Ditch are presented.
- 1916, Dec. 28 Board of Supervisors – Approved Assessment of Cost of Construction of Drainage District No 3. "...right of way having been restored to the owners" – County Auditor's Drainage Old Record Book 5, Pages 17-18 and 43-44.

Based on the above, it is apparent that there were two separate timeframes of right of way taking (i.e. 1907 and 1909) and timeframe of restoration (i.e. 1916) for the Main Open Ditch. The 1907 taking and the 1916 restoration were silent as to the area of right of way taken, but it was calculated using the data from the proposed 1912 cleanout. In addition, for the right of way that was restored in 1916 the dollar amount paid for the restoration matched that of the taking in 1907. So, it was quite apparent that the right of way to be restored in 1916 was intended to match that from the 1907 taking. In contrast, the 1909 taking clearly stated the area of right of way taken and none of it was restored in 1916. Additionally, it should be noted that the 1909 taking was for the area northeast of the intersection of 150<sup>th</sup> Street and JJ Avenue. The following are tables are summaries of these takings:

Tract #s	Landowners Purchased From	1907 \$ Paid for ROW Taking	Calculated 1912 Occupied ROW Area	1916 Land Restored to	1916 \$ Restored for	ROW retained by DD
269.1	Albert Lynk & Fred Baker	\$165 (total paid for Tracts 269, 269.1, & 270)	0.6 ac (area upstream of headwall only)	N/A	N/A	0.6 ac (area upstream of headwall only)
385	L.E. Jones	\$300	4.0 ac	W.S. Weston & Hollister L. Jones	\$300	0.00 ac
387	F.D. Peet	\$35	0.7 ac	N/A	N/A	0.7 ac
390	Mrs. W.S. Weston	\$200	4.9 ac	Kate R.D. Weston	\$200	0.0 ac
326, 327, & 328	N.D. Shivel	\$300	7.1 ac	N.D. Shivel	\$300	0.0 ac
348. & 350	Mrs. Estelle Skiff	\$250	4.2 ac	Frank I. Stowe	\$250	0.0 ac
290 & 291	Geo. Nolte	\$100		George Nolte	\$100	0.0 ac

Tract #s	Landowners Purchased From	1909 \$ Paid for ROW Taking	1909 Deed ROW Area	1916 Land Restored to	1916 \$ Restored for	ROW retained by DD
228	L.E. Jones & Jessie A Jones	\$38.20	0.382 ac	N/A	N/A	0.382 ac

**Land to be Taken for Main Open Ditch Right of Way:** For this report, we felt that the key pieces of data were the quantity of Main Open Ditch right of way to be acquired and the value of that right of way. To determine that, the following steps were taken:

- **Tract Verification** – For the sake of consistency, we felt that the same tract numbers as the current classification should be employed. So, a list of the tract numbers for each landowner was assembled for the tracts to be traversed by the reconstructed Main Open Ditch.
- **Required Right of Way Verification** – For landowner, the proposed area to be occupied by the Main Open Ditch and its spoil banks was calculated using existing topographic and location survey data, LIDAR data, and the preliminary design data for the reconstructed Main Open Ditch. For each landowner, this was calculated using the above information as follows:

Tract #s	Landowners	Required ROW
290 & 291	Barlow, Kathleen K Trust 1/2 & Barlow, John R Trust 1/2	0.5 ac
348 & 350	Bartlett, Peter & Kathy - 1/2 & Bartlett, Phyllis A - 1/2	2.6 ac
326, 327, & 328	Brauer, Steven R & Johnson, Laura A - 1/2 & Sielaff, William D - 1/2	6.2 ac
159	Neubauer, Kirk F	1.5 ac
387 & 390	Barhite, Dorothy H - Trust	6.2 ac
385	Bartlett, Inc	3.9 ac
247.5	Pearce, Kenneth R & Pearce, Pamela K L	0.8 ac
269.1	Schwyn, Ryan R & Cook, Emily M	1.2 ac

- **Existing Right of Way Verification** – We felt that the only Main Open Ditch right of way that would need to be acquired would be that which the Drainage District did not already have a historical right to and is at the same location as the proposed repairs/improvement. After researching the history of the district (as stated above) the following is a summary of the applicable Main Open Ditch right of way that was retained by the Drainage District:

Tract #s	Landowners	Retained Applicable ROW
387 & 390	Barhite, Dorothy H - Trust	0.7 ac
228	Bartlett, Inc	0.382 ac
269.1	Schwyn, Ryan R & Cook, Emily M	0.6 ac

- **Additional Right of Way Determination** – For each landowner, this was calculated using the above information as follows:

*Required Right of Way – Retained Applicable Right of Way = Additional Right of Way*

Using this method, the map in Appendix A and the following table was generated:

Tract #s	Landowners	Required ROW	Retained Applicable ROW	Add'l ROW
290 & 291	Barlow, Kathleen K Trust 1/2 & Barlow, John R Trust 1/2	0.5 ac	0.0 ac	0.5 ac
348 & 350	Bartlett, Peter & Kathy - 1/2 & Bartlett, Phyllis A - 1/2	2.6 ac	0.0 ac	2.6 ac
326, 327, & 328	Brauer, Steven R & Johnson, Laura A - 1/2 & Sielaff, William D - 1/2	6.2 ac	0.0 ac	6.2 ac
159	Neubauer, Kirk F	1.5 ac	0.0 ac	1.5 ac
387 & 390	Barhite, Dorothy H - Trust	6.2 ac	0.7 ac	5.5 ac
385	Bartlett, Inc	3.9 ac	0.0 ac	3.9 ac
247.5	Pearce, Kenneth R & Pearce, Pamela K L	0.8 ac	0.0 ac	0.8 ac
269.1	Schwyn, Ryan R & Cook, Emily M	1.2 ac	0.6 ac	0.6 ac

- **CSR2 Rating Verification** – We felt that the Iowa Corn Suitability Rating (CSR2) was a direct reflection of the value of the additional Main Open Ditch right of way. However, the CSR2 rating can be highly variable based on soil types through individual fields. So, the average CSR2 rating for the entire field was determined using on-line USDA soil surveys. It was added to the above table as follows:

Tract #s	Landowners	Required ROW	Retained Applicable ROW	Add'l ROW	Avg CSR2 Rating
290 & 291	Barlow, Kathleen K Trust 1/2 & Barlow, John R Trust 1/2	0.5 ac	0.0 ac	0.5 ac	76.7
348 & 350	Bartlett, Peter & Kathy - 1/2 & Bartlett, Phyllis A - 1/2	2.6 ac	0.0 ac	2.6 ac	76.5
326, 327, & 328	Brauer, Steven R & Johnson, Laura A - 1/2 & Sielaff, William D - 1/2	6.2 ac	0.0 ac	6.2 ac	82.1
159	Neubauer, Kirk F	1.5 ac	0.0 ac	1.5 ac	75.0
387 & 390	Barhite, Dorothy H - Trust	6.2 ac	0.7 ac	5.5 ac	82.8
385	Bartlett, Inc	3.9 ac	0.0 ac	3.9 ac	88

247.5	Pearce, Kenneth R & Pearce, Pamela K L	0.8 ac	0.0 ac	0.8 ac	86
269.1	Schwyn, Ryan R & Cook, Emily M	1.2 ac	0.6 ac	0.6 ac	78

- CSR2 Value Verification** – The dollar value per CSR2 rating point is typically variable depending on the strength of the agriculture market sector at any given time. We felt that the value per CSR2 rating point should be similar to that of the year in which construction was being proposed (i.e. 2021) as that was when the land would no longer be used by the landowners, but would be used by the Drainage District. We felt that usage of any other timeframe would be unfair to either the claimants or the Drainage District. Research yielded \$180.40 potential value per CSR2 point based on several 2021 auctions of Hardin County tillable land. For reference a copy of these auction results are included in Appendix B.
- Amount of Damage Claim** – For each claimant, this was calculated using the above information as follows:

$$\text{Additional Right of Way} \times \text{Avg CSR2 Rating} \times \text{CSR2 Value} = \text{Amount of Damage Claim}$$

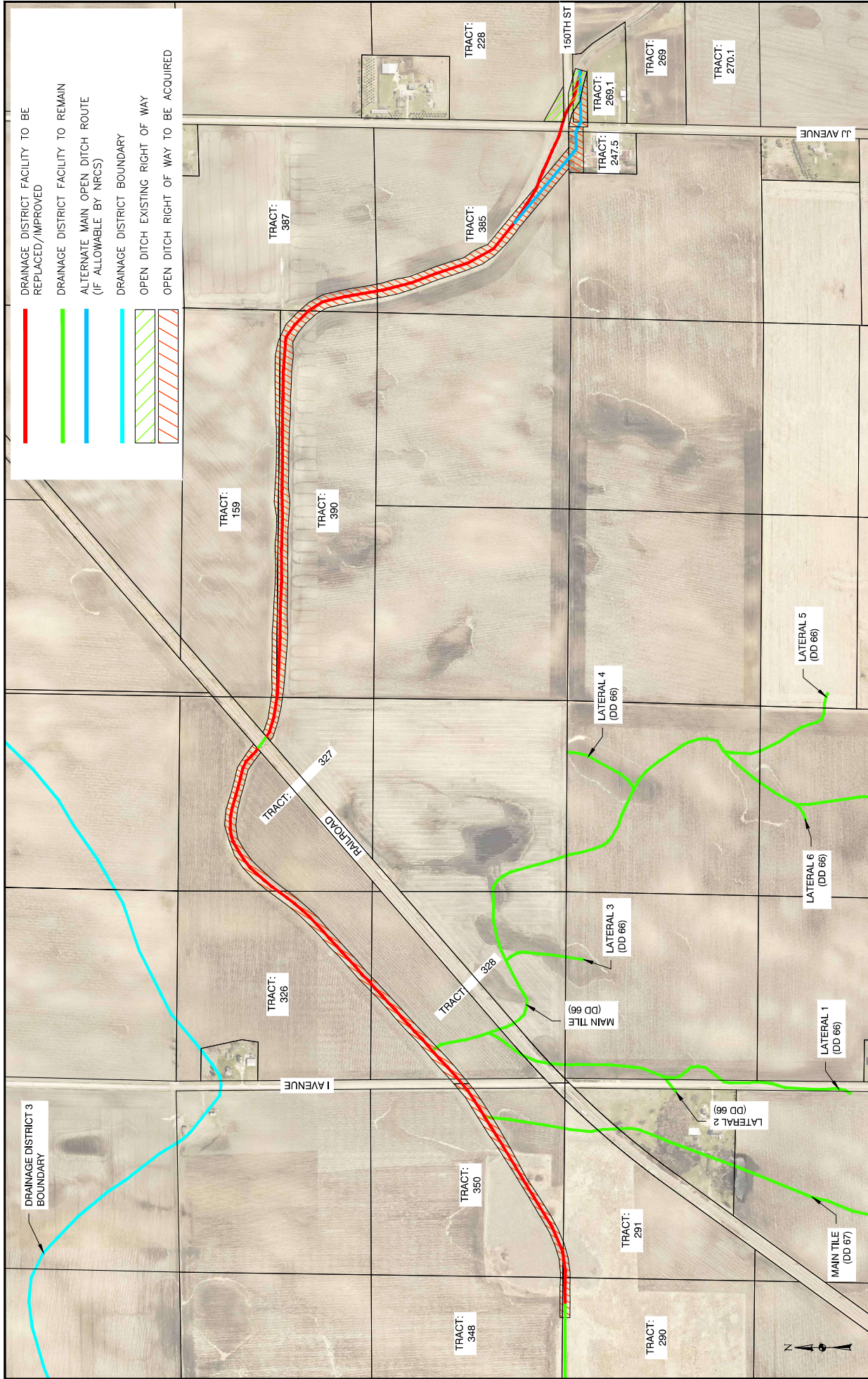
Using this method, the following table was generated:

Tract #s	Landowners	Add'l ROW	Avg CSR2 Rating	\$ per CSR2 Rating Point	\$ Amount of Right of Way
290 & 291	Barlow, Kathleen K Trust 1/2 & Barlow, John R Trust 1/2	0.5 ac	76.7	\$180.40	\$ 6,918.34
348 & 350	Bartlett, Peter & Kathy - 1/2 & Bartlett, Phyllis A - 1/2	2.6 ac	76.5	\$180.40	\$35,881.56
326, 327, & 328	Brauer, Steven R & Johnson, Laura A - 1/2 & Sielaff, William D - 1/2	6.2 ac	82.1	\$180.40	\$91,827.21
159	Neubauer, Kirk F	1.5 ac	75.0	\$180.40	\$20,295.00
387 & 390	Barhite, Dorothy H - Trust	5.5 ac	82.8	\$180.40	\$82,154.16
385	Bartlett, Inc	3.9 ac	88.0	\$180.40	\$61,913.28
247.5	Pearce, Kenneth R & Pearce, Pamela K L	0.8 ac	86.0	\$180.40	\$12,411.52
269.1	Schwyn, Ryan R & Cook, Emily M	0.6 ac	78.0	\$180.40	\$ 8,442.72

It should be noted that in addition to right of way, the landowners of tracts 247.5 and 269.1 may be entitled to additional damage claims since the area of additional right of way on these tracts is in areas other than row crop production (i.e. pasture, trees, or acreage).

**Conclusion:** Using all the above, we recommend moving forward that the District Trustees, should take action to accomplish the following:

- Acknowledge receipt of the Right of Way Report
- Hold any required hearings.
- If the reconstruction of the Main Open Ditch were to move forward, adopt the recommendations of this report and direct CGA to move forward with right of way acquisition in the amounts as shown above.



- DRAINAGE DISTRICT FACILITY TO BE REPLACED/IMPROVED
- DRAINAGE DISTRICT FACILITY TO REMAIN
- ALTERNATE MAIN OPEN DITCH ROUTE (IF ALLOWABLE BY NRCS)
- DRAINAGE DISTRICT BOUNDARY
- OPEN DITCH EXISTING RIGHT OF WAY
- OPEN DITCH RIGHT OF WAY TO BE ACQUIRED

**DRAINAGE DISTRICT 3**  
HARDIN COUNTY, IOWA

**RIGHT OF WAY -**  
**INVESTIGATION MAP**

DESIGNED BY	DATE	CHECKED BY	DATE	APPROVED BY	DATE

CGA  
Cedar Rapids  
1011 West 10th Street  
Cedar Rapids, IA 52403  
www.cgaia.com

GRAPHIC SCALE  
0 500 1000



Date	Total Acres	\$ per Total Acre	CSR2 Rating	Tillable Acres	\$ per CSR2 Point per Tillable Acre	Source
3/31/2021	147	\$13,900	86.8	143.6	\$164	Iowa Land Company
3/31/2021	147	\$13,900	86.8	143.6	\$164	Mid Iowa Auction
6/25/2021	80	\$14,300	85.4	78.57	\$170	Iowa Land Company
6/25/2021	80	\$14,300	85.4	78.57	\$170	Mid Iowa Auction
9/2/2021	160	\$13,600	89.4	152.06	\$160	Mid Iowa Auction
10/11/2021	340.34	\$13,217	76.6	263.69	\$173	Whitaker Marketing
11/17/2021	119.43	\$17,600	86.5	118.03	\$206	Iowa Land Company
11/17/2021	30.46	\$17,600	94.5	28.92	\$196	Iowa Land Company
11/17/2021	260	\$17,600	89	256.21	\$201	Iowa Land Company
11/17/2021	50	\$17,600	94	46.82	\$200	Iowa Land Company
<b>Year Average</b>					<b>\$180.40</b>	