



WATER
PROTECTION
BUREAU

Agency Use

Permit No.: MTG 010271

Date Rec'd 12.29.23

Amount Rec'd \$600.00

Check No. 7412

Rec'd By JMF

FORM
NOI-NMP
CAFO

Notice of Intent (NOI) and Nutrient Management Plan (NMP)
Concentrated Animal Feeding Operation General Permit
MTG010000

This application form is comprised of the NOI (Sections 1 – 5) and the NMP (Sections 6 – 10). Before completing the NOI-NMP form, Concentrated Animal Feeding Operation (CAFO) operators must read the CAFO General Permit. CAFO operators are also advised to read the attached NOI-NMP instructions before completing this form. You must print or type legibly; forms that are not legible, not complete, or unsigned will be rejected. You must maintain a copy of the completed NOI-NMP form for your records.

CAFO Status and Fee

Permit Authorization Number:

MTG 010271

Select Appropriate Fee:

☐ New Application: \$1200

☒ Renewal Application: \$600

☐ Permit Modification: \$600

Sections 1 through 5 consist of the NOI. The application form is to be completed by the owner or operator of a Concentrated Animal Feeding Operation (CAFO).

Section 1 – Facility/Site Information

Facility Name

Charley Creek Cattle Co Inc.

Location (Physical address or Directions)

15299 County Road 321

Nearest City or Town

Brockton

Zip Code, County

59213 Richland

Facility Latitude, Longitude

48.10983, -104.819957

Date facility began operation

October 2013

Status of Applicant

☐ Federal ☐ State ☐ No ☒ Private ☐ Other

Located on Tribal Lands?

☒ No ☐ Yes (If yes, obtain the permit through EPA, not DEQ)

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DEQ WATER QUALITY DIVISION

Section 2 – Representatives

2.1 Applicant (Owner/Operator)

The owner/operator assumes all liability for site discharges and compliance with the terms and conditions of the permit. The signatory/responsible official must meet certification requirements listed in the Certification Section at this end of this form.

Owner/Operator Formal Name Charley Creek Cattle Co. Inc.
Mailing Address 15299 County Road 321
City, State, Zip Code Brockton Mt. 59213
Signatory/Responsible Official Name Mark Casterline Title President
Contact Information Phone 406-480-1129 Email charleycreekcattle@hotmail.com

2.2 Authorized Representative

For future reports (including NetDMR) to be signed by anyone other than the signatory/responsible official, a duly authorized individual(s) or position must be identified. If one is not designated, then all reports must be signed by the signatory until such designation is made in writing [ARM 17.30.1232(2)].

Select Appropriate Box:

- ☐ No authorized representative for this permit is designated at this time (continue to Section 3)
☐ I designate the following duly authorized representative for this permit (provide the information below):

Authorized Representative Information:

Authorized Representative Name Carolyn Casterline Title Vice President
Company Name Charley Creek Cattle Co. Inc.
Mailing Address 15299 County Road 321
City, State, Zip Code Brockton Mt 59213
Contact Information Phone 406-480-0397 Email ccasterline@hotmail.com

Section 3 – Business Description

3.1 SIC Codes and NAICS Codes

Provide at least one Standard Industrial Classification (SIC) code and one North American Industry Classification System (NAICS) code which best reflects the products or services provided by the CAFO.

SIC Code	Description
(1) <u>211</u>	<u>Beef Cattle Feedlots</u>
(2)	
(3)	
(4)	

NAICS Code	Description
(1) <u>112112</u>	<u>Cattle Feedlots</u>
(2)	
(3)	
(4)	

SIC Code Examples:

- 211 Beef Cattle Feedlots
- 212 Beef Cattle, Except Feedlots
- 213 Hogs
- 214 Sheep and Goats
- 241 Dairy Farms
- 251 Broiler, Fryer and Roaster Chickens
- 252 Chicken Eggs
- 253 Turkeys and Turkey Eggs
- 254 Poultry Hatcheries
- 259 Poultry and Eggs, not elsewhere classified (Ducks)
- 272 Horses and other Equines

NAICS Code Examples:

- 112112 Cattle Feedlots
- 112111 Beef Cattle Ranching and Farming
- 11221 Hog and Pig Farming
- 11240 Sheep Farming
- 11212 Dairy Cattle and Milk Production
- 11232 Broilers and other Meat-Type Chickens
- 11234 Chicken Egg Production
- 11233 Turkey Production
- 11234 Poultry Hatcheries
- 112390 Other Poultry Production
- 112920 Horses and other Equine Production

3.2 Facility or Operation Description

Provide a brief description of the nature of the facility (feedlot, stockyard, sale barn, etc.)

Feedlot

3.3 Existing or Pending Permits, Certification, or Approvals

- ☐ None ☐ RCRA _____
- ☒ MPDES MTG 010271 ☐ Other _____
- ☐ PSD (Air Emissions) _____ ☐ Other _____
- ☐ 404 Permit (Dredge and Fill) _____

Section 4 – Outfalls

4.1 Receiving Water

For each outfall, provide the latitude and longitude (to the nearest decimal degree) and the name of the receiving water. If the receiving water/drainage is unnamed, indicate the closest named drainage it flows into (i.e., “unnamed tributary to Clear Creek”). Attach additional sheets if necessary for more outfalls. This section must not be left blank, and “N/A” is not acceptable.

Outfall	Latitude	Longitude	Name of Receiving Water
001	48.10975	-104.81781	Frog Coulee
002	48.11247	-104.81384	vegetative treatment strips

Section 5 – Characteristics

5.1 Impaired Waters 303(d)

Identify whether the receiving water is impaired for nutrients. Check the Clean Water Act Information Center database at <https://deq.mt.gov/water/resources> to determine if the receiving water is impaired for nutrients (total nitrogen and/or total phosphorus).

- ☐ The receiving water is impaired for nutrients
- ☒ The receiving water is NOT impaired for nutrients

Continue to Page 4

5.2 Animal Confinement

Report the maximum number of each type of animal confined at any one time in open confinement and/or housed under a roof.

Animal type	Number in Open Confinement	Number Housed Under Roof
Mature Dairy Cows		
Veal Calves		
Cattle including dairy Heifers	400	
Swine 55 lbs. or over		
Swine 55 lbs. or under		
Horses		
Sheep or Lambs		
Turkeys		
Chicken broilers –includes juveniles		
Chicken layers –includes juveniles		
Ducks		
Other Specify:		
Other Specify:		

5.3 Rain Gage Location

Identify the nearest gage station or onsite rain gage. Provide either the Station ID of the gage or a latitude and longitude.

Station ID _____ OR

Latitude, Longitude 48.10983, -104.819957

5.4 Containment Structures

Were the containment structures built after February 2006?

☒ Yes. Skip the following 3 questions and continue to the table below.

☐ No. Complete the questions and table below.

Do the livestock waste control facilities have 10 feet of separation between the pond bottom and any bedrock formations?

☐ Yes ☐ No

Do the waste containment structures have 4 feet of separation from the pond bottom to any ground water?

☐ Yes ☐ No

Do the livestock waste control facilities comply with the applicable well setbacks?

☐ Yes ☐ No

Continue to Page 5

Identify the type of containment/storage, the total capacity with units, and the number of days of storage in each:

Type of Containment/Storage	Total Capacity	Units (gallons or tons)	Days of Storage
Anaerobic Lagoon			
Storage Pond #1			
Storage Pond #2			
Storage Pond #3			
Storage Pond #4			
Storage Pond #5			
Above Ground Storage Tank #1			
Above Ground Storage Tank #2			
Above Ground Storage Tank #3			
Underfloor Pits			
Below Ground Storage Tank			
Roofed Storage Shed			
Concrete Pad			
Impervious Soil Pad			
Other Specify: <i>Vegetative Treatment Strips</i>	<i>2 acre feet</i>	<i>652000 gallons</i>	<i>N/A</i>
Other Specify:			

5.5 Sage Grouse Habitat

Visit the Montana Sage Grouse Habitat Conservation Program (Program) website at <https://sagegrouse.mt.gov/> to determine if the proposed operation is located in designated sage grouse core, general, or connectivity habitat.

- ☐ Yes. Submit an application to the Program and **attach the required consultation letter.**
☒ No. No additional information is required.

5.6 New Source/Operation

Is this a new source and/or operation? New sources must obtain analyses from the Montana Natural Heritage Program (MTNHP) and Montana State Historic Preservation Office (SHPO) demonstrating possible impacts to wildlife and cultural resources, respectively.

- ☐ Yes. Attach project review analyses from MTNHP and SHPO.
☒ No. No additional information is required

Continue to Page 6

Sections 6 through 10 consist of the Nutrient Management Plan (NMP). These sections are intended to help CAFO operators develop a site-specific NMP required by the CAFO General Permit. Your NMP must be kept at the operation. Attach additional pages as necessary, indicating the corresponding section number on this NMP form.

Section 6 – NMP Minimum Elements

Facility Photos and Maps

Facilities must attach photos and maps depicting the following:

- The production area that shows the locations of all animal confinement structures described in the **Animal Type, Storage Location, and Generation Rates Table**.
- The flow direction of storm water and wastewater for all animal confinement structures described in the **Animal Type, Storage Location, and Generation Rates Table**.
- Manure and wastewater handling and storage areas
- Raw material handling and storage areas
- Storage and disposal areas of chemicals or other contaminants handled on site
- All land application areas (include topography and soil types)
- Environmentally sensitive areas (sinkholes, wells, drinking water sources, tile drain outlets, etc.) for the production area
- Illustrate the facility/activity boundaries, receiving water, and major drainage patterns
- Identify the specific location of the production area and the land application area(s)

☒ I have attached photos and maps (aerial and topographic) that meet the above requirements.

6.1 Ensure Adequate Storage Capacity

Complete the table below: Be sure to identify each type of animal confined at this facility. This could include animals of a given species, weight class, or housed for a specific purpose.

Livestock Statistics and Manure, Litter, and Process Wastewater Generation Rates					
Animal Type	Waste Storage Location	Maximum Number of Animals at Any Time	Number of Days/Year on Site	Annual manure, litter, and process wastewater production	
				Dry (tons/yr)	Liquid (gallons/yr)
1. <i>beef calves</i>	<i>Dry in Pens</i>	<i>400</i>	<i>180</i>	<i>1300</i>	
2.					
3.					
4.					
5.					
6.					
7.					
8.					
9.					
10.					
11.					

Methods for estimating animal manure, litter, and process wastewater production

Describe the methods used for estimating animal manure, litter, and process wastewater production: Include all formulas, factors, references to tables, and other resources used to calculate manure, litter, and wastewater production. Be sure to account for soiled bedding materials.

NERC.org 750 lb animal = 45 lbs manure per day X 180 days X 400 hd. =
3240000 lbs ÷ 2000 = 1620 Tons
We spread 1300 tons in 2023
we start with 500 lb calves in Oct end with 800 lb calves

Manure handling:

Identify manure, litter, and process wastewater handling at the CAFO. Mark all that apply:

- | | |
|--|--|
| <input checked="" type="checkbox"/> Stored in pens | <input type="checkbox"/> Direct pipe to liquid impoundment |
| <input type="checkbox"/> Stored on stacking pad | <input type="checkbox"/> Stored under floor pit |
| <input type="checkbox"/> Composting on site | <input type="checkbox"/> Separator |
| <input type="checkbox"/> Other _____ | |

Frequency of manure removal from confinement areas:

- | | |
|--|--------------------------------------|
| <input type="checkbox"/> Bi-annually | <input type="checkbox"/> As needed |
| <input checked="" type="checkbox"/> Annually | <input type="checkbox"/> Other _____ |

Is the manure, litter, or process wastewater temporarily stored in any location other than the production area?

- ☒ No.
☐ Yes. Explain how and where _____

Is dry manure and/or litter stored on an impervious surface?

- ☒ No.
☐ Yes. Describe the type and characteristics of this surface _____

Waste control structures:

Provide the 24-hr-25-yr storm event at your facility location. Refer to the map provided in the instructions.

3.2 in/hr

Provide the annual precipitation during critical winter storage period (180 days from mid-October to mid-April)

2.5 NWS Data in

Provide the area within clean water diversions. This is the area that is inside the BMPs used for clean water diversions and is used to calculate volume required to hold the 24-hr-25-yr storm event and the volume of your critical storage period.

5 acres

Check all the surface types within the clean water diversion area and provide the coverage in acres or ft². Be sure to circle the correct units.

- ☒ Dirt 5 acres or ft² (circle correct unit)
☐ Concrete _____ acres or ft² (circle correct unit)
☐ Paved _____ acres
☐ Under roof _____ acres or ft² (circle correct unit) – check if runoff is not part of clean water BMPs
☐ Gravel _____ acres or ft² (circle correct unit)
☐ Pasture _____ acres or ft² (circle correct unit)
☐ Other _____ acres or ft² (circle one)

Use the Table below to identify and describe all production area waste control structures for the production area of each animal type identified in the table "Livestock Statistics and Manure, Litter, and Process Wastewater Generation Rates" above (Section 6.1). Waste control structures may include but are not limited to: manure lagoons, manure ponds, evaporation ponds, wastewater retention ponds, contaminated runoff retention ponds, settling basins, underground storage tanks, underfloor pits, manure solids stacking pads, vegetative treatment strips, composting facilities, and dry stack facilities. Berms, dikes, concrete curbs, ditches, and waste transfer pipelines are also waste control structures and must be listed, though some of the requested measurements may not apply.

Production Area Waste Control Structures Description				
Production area Waste Control Structure (For Corresponding Animal Type Identified in Table Above)	Volume (gal if liquid) (ft ³ if dry)	Number of days of storage	Winter storage depth (ft)	The 24hr-25 yr storm event depth (ft)
1. <i>Vegetative Treatment Strips</i>	<i>652000 gal</i>	<i>N/A</i>	<i>N/A</i>	<i>.3</i>
2.				
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
11.				

6.2 Mortality Management

Check the box that describes how mortalities are disposed of at this CAFO.

- | | |
|--|---|
| <input checked="" type="checkbox"/> Burial | <input type="checkbox"/> Landfill |
| <input type="checkbox"/> Composted | <input type="checkbox"/> Contractor removal |
| <input type="checkbox"/> Incineration | <input type="checkbox"/> Other _____ |

Provide the location where mortalities are disposed of, if part of the production area: *Off Production Area*

6.3 Clean Water Diversion Practices

Check all that apply for how clean water is diverted from the production area.

- | | |
|---|--|
| <input checked="" type="checkbox"/> Ditches | <input checked="" type="checkbox"/> Site grading |
| <input checked="" type="checkbox"/> Earthen berms | <input type="checkbox"/> Gutters and spouts |
| <input checked="" type="checkbox"/> Culverts | <input type="checkbox"/> Other _____ |

6.4 Prohibiting Animals and Wastes from Direct Contact with State Waters

Check all that apply for how animals and wastes are prohibited from direct contact with state waters.

- | | |
|---|--|
| <input checked="" type="checkbox"/> Fencing | <input type="checkbox"/> Inside building |
| <input type="checkbox"/> Wall | <input type="checkbox"/> Other _____ |

6.5 Chemicals and Contaminants

List all major chemicals or other contaminants handled on site as part of your CAFO operation, including, but not limited to: pesticides, herbicides, animal dips, disinfectants, etc. Specify the method of disposal and location stored for each contaminant. Ensure a corresponding map has been attached, as required in Section 6, Facility Photos and Maps.

All are stored off site

6.6 Conservation Practices

Check all temporary, permanent, and structural BMPs which will be used to control runoff of pollutants from the facility's **production area**. Be sure to include them on the map described above in Section 6. If BMPs are not installed, include a schedule for implementation of each of the following measures. Provide details and specifications to supplement the BMP descriptions. Attach additional sheets if necessary.

- | | |
|--|--|
| <input checked="" type="checkbox"/> Ditches | <input checked="" type="checkbox"/> Site grading |
| <input checked="" type="checkbox"/> Earthen berms | <input type="checkbox"/> Gutters and spouts |
| <input checked="" type="checkbox"/> Culverts and pipes | <input type="checkbox"/> Covered Pens |
| <input type="checkbox"/> Buffers | <input type="checkbox"/> Other _____ |

6.7 Sampling and Analysis Procedures for Manure, Litter, Process Wastewater, and Soil

Representative samples of manure, litter, and process wastewater must be analyzed a minimum of once per year for total nitrogen and total phosphorus. Results should be reported in lbs/ton for solids and lbs/1000 gal for liquids. Results will be used to determine rates for manure, litter, and process wastewater. Indicate your method for sampling. Be sure to provide a description if you select "other."

- ☒ Sample collection will occur according to CAFO General Permit Section II.D.
- ☐ Other _____

Continue to Page 10

Section 7 – NMP Land Application

Identify whether manure will be land applied to land that is owned, rented, or leased by the owner or operator of the facility.

- ☐ No. Explain how animal waste will be managed by the operation, including protocol for transfers of manure, litter, and process wastewater. Skip to Section 10.

☒ Yes. Continue below.

7.1 Land Application Photos and Maps

Facilities that land apply must attach photos/maps clearly identify the following items. If an item is not applicable, check the box "None."

- Individual field boundaries for all planned land application areas
- A name, number, letter or other means of identifying each individual land application field
- The soil type(s) present and their locations within the individual land application field(s)
- The location of any downgradient surface waters
- The specific manure/waste handling or nutrient management restrictions associated with each land application field i.e. setbacks
- Buffers and setbacks around state surface waters, well heads, etc.
- Any downgradient open tile line intake structures
 - ☒ None. Not included on map
- Any downgradient sinkholes
 - ☒ None. Not included on map
- Any downgradient agricultural well heads
 - ☒ None. Not included on map
- All conduits to surface waters
- All temporary, permanent, and structural BMPs used to control runoff of pollutants from the land application area

☒ I have attached photos and maps of the site where manure is to be applied.

7.2 Protocols to Land Apply Manure, Litter, or Process Wastewater

Check all temporary, permanent, and structural BMPs which will be used to control runoff of pollutants from the CAFO's **land application area**. If not already in use, include a schedule for implementation of each of these measures. You may supplement this description by attaching details and specifications.

- | | |
|---|---|
| <input type="checkbox"/> Buffers | <input type="checkbox"/> Conservation tillage |
| <input type="checkbox"/> Constructed wetlands | <input type="checkbox"/> Grass Filter |
| <input type="checkbox"/> Infiltration field | <input type="checkbox"/> Residue Management |
| <input checked="" type="checkbox"/> Setbacks | <input type="checkbox"/> Terrance |
| <input type="checkbox"/> Other _____ | |

7.3 Soil Phosphorus Sampling and Analysis

Representative **soil** (composite) samples from the top 6 inches layer of soil for each field where manure will be applied must be analyzed for phosphorus content at least once every three years. Analyses will be conducted by a qualified laboratory, using the Olsen P test. Results will be reported in parts per million (ppm) and will be used in determining application rates for manure, litter, and process wastewater.

☒ Sample collection will occur according to Part II.D of the CAFO General Permit.

☐ Other (describe) _____

7.4 Soil Nitrogen Sampling and Analysis

Representative composite soil samples for total nitrogen and nitrate must be collected for each field where manure will be applied. Composite samples for total nitrogen must be collected from a soil depth of 0 to 6 inches and must be analyzed at least once every 3 years. Composite samples for nitrate must be collected from a soil depth of 6 to 24 inches and must be analyzed at least once every 3 years. All samples must be analyzed according to method code 4H2a1-3 in NRCS Soil Survey Laboratory Methods Manual, Soil Survey Investigation Report No. 42. Results must be reported as mg/kg total nitrogen and pounds per acre will be used in determining application rates for manure, litter, and process wastewater.

☒ Sample collection will occur according to Part II.D of the CAFO General Permit.

☐ Other _____

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Section 8. NMP Application Rates

The applicant has 2 ways in which to report how manure or process wastewater application rates can be reported to DEQ. Select one:

- ☒ **Linear Approach.** Expresses rates of application as pounds of nitrogen and phosphorus. Complete Section 8.1, then continue to Section 9. See page 8 of the NOI-NMP Instructions for guidance on the Linear Approach.
- ☐ **Narrative Rate Approach.** Expresses a narrative rate of application that results in the amount, in tons or gallons, of manure, litter, and process wastewater to be land applied. Complete Section 8.2, then continue to section 9. See page 9 of the NOI-NMP Instructions for guidance on the Narrative Rate Approach.

8.1 Linear Approach

Expresses rates of application as pounds of nitrogen and phosphorus. CAFOs selecting the linear approach to address rates of application must include in the NMP submitted to the Department the following information for each crop, field, and year covered by the NMP:

1. The maximum application rate (pounds/acre/year of nitrogen and phosphorus) from manure, litter, and process wastewater.
2. The outcome of the field-specific assessment of the potential for phosphorus transport from each field. The Department does not have an N transport risk assessment, therefore the NMP must document any basis for assuming that nitrogen will be fully used by crops. The CAFO must specify any conservation practices used in calculating the risk rating.
3. The crops to be planted or any other uses of a field such as pasture or fallow fields.
4. The realistic annual yield goal for each crop or use identified for each field.
5. The nitrogen and phosphorus recommendations from Department acceptable sources for each crop or use identified for each field.
6. Credits for all residual nitrogen in each field that will be plant available.
7. Consideration of multi-year phosphorus application. For any field where nutrients are applied at a rate based on the crop phosphorus requirement, the NMP must account for single-year nutrient applications that supply more than the crop's annual phosphorus requirement.
8. All other additions of plant available nitrogen and phosphorus (i.e., from sources other than manure, litter, or process wastewater or credits for residual nitrogen).
9. The form and source of manure, litter, and process wastewater to be land-applied.
10. The timing and method of land application. The NMP also must include storage capacities needed to ensure adequate storage that accommodates the timing indicated.
11. The methodology that will be used to account for the amount of nitrogen and phosphorus in the manure, litter, and wastewater to be applied.

12. The maximum application rate (pounds/acre/year of nitrogen and phosphorus) from manure, litter, and process wastewater.
13. The outcome of the field-specific assessment of the potential for phosphorus transport from each field. The Department does not have an N transport risk assessment, therefore the NMP must document any basis for assuming that nitrogen will be fully used by crops. The CAFO must specify any conservation practices used in calculating the risk rating.
14. The crops to be planted or any other uses of a field such as pasture or fallow fields.
15. The realistic annual yield goal for each crop or use identified for each field.
16. The nitrogen and phosphorus recommendations from Department acceptable sources for each crop or use identified for each field.
17. Credits for all residual nitrogen in each field that will be plant available.
18. Consideration of multi-year phosphorus application. For any field where nutrients are applied at a rate based on the crop phosphorus requirement, the NMP must account for single-year nutrient applications that supply more than the crop's annual phosphorus requirement.
19. All other additions of plant available nitrogen and phosphorus (i.e., from sources other than manure, litter, or process wastewater or credits for residual nitrogen).
20. The form and source of manure, litter, and process wastewater to be land-applied.
21. The timing and method of land application. The NMP also must include storage capacities needed to ensure adequate storage that accommodates the timing indicated.
22. The methodology that will be used to account for the amount of nitrogen and phosphorus in the manure, litter, and wastewater to be applied.
23. Any other factors necessary to determine the maximum application rate identified in accordance with this Linear Approach.

24. Complete the Nutrient Budget Worksheet, below, for the crop grown on each field for each year to which manure or process wastewater is, or may be, applied. A copy of each Nutrient Budget Worksheet will be maintained on site, and a copy will be submitted to the Department.

Example

Nutrient Budget Worksheet

Field identification: <i>T8955F16</i> Year: <i>2024</i> Crop: <i>Oat + Pea Forage</i>					
Expected Crop Yield: <i>6 tons dry Hay based on 140 bu Oats</i>					
Phosphorus index results or Phosphorus application from soil test: <i>10</i>					
Method of Land Application: <i>comercial spreader</i>					
When will application occur: <i>Sept 2023</i>					
Nutrient Budget			Nitrogen-based Application	Phosphorus-based Application	Source of information
1		Crop Nutrient Needs, lbs/acre	<i>168</i>	<i>84</i>	<i>EB161</i>
2	(-)	Credits from previous legume crops, or soil test lbs/acre	<i>0</i>	<i>0</i>	
3	(-)	Residuals from past manure production lbs/acre-only if no new soil test	<i>0</i>	<i>0</i>	
4	(-)	Nutrients supplied by commercial fertilizer and Biosolids, lbs/acre	<i>0</i>	<i>0</i>	
5	(-)	Nutrients supplied in irrigation water, lbs/acre	<i>0</i>	<i>0</i>	
6		= Additional Nutrients Needed, lbs/acre	<i>168</i>	<i>84</i>	
7		Total Nitrogen and Phosphorus in manure, lbs/ton or lbs/1000 gal (from manure test)	<i>13.6</i>	<i>6.83</i>	<i>Manure Sample</i>
8	(×)	Nutrient Availability factor, for Phosphorus based application use 1.0	<i>.25</i>	<i>1</i>	<i>Minnesota Extension</i>
9		= Available Nutrients in Manure, lbs/ton or lbs/1000 gal	<i>3.4</i>	<i>6.83</i>	
10		Additional Nutrients needed, lbs/acre (calculated above)	<i>168</i>	<i>84</i>	<i>EB161</i>
11	(÷)	Available Nutrients in Manure, lbs/ton or lbs/1000 gal (calculated above)	<i>3.4</i>	<i>6.83</i>	
12		= Manure Application Rate, tons/acre or 1000 gal/acre	<i>49.41</i>	<i>12.29</i>	

End of Linear Approach. Continue to Section 9

8.2 Narrative Approach

Expresses a narrative rate of application that results in the amount, in tons or gallons, of manure, litter, and process wastewater to be land applied. CAFOs selecting the narrative rate approach to address rates of application must include in the NMP submitted to the Department the following information for each crop, field, and year covered by the NMP:

1. The maximum amounts of nitrogen and phosphorus that will be derived from all sources of nutrients (pounds/acre for each crop and field).
2. The outcome of the field-specific assessment of the potential for nitrogen and phosphorus transport from each field. The Department does not have an N transport risk assessment, therefore the NMP must document any basis for assuming that nitrogen will be fully used by crops. The CAFO must specify any conservation practices used in calculating the risk rating.
3. The crops to be planted in each field or any other uses of a field such as pasture or fallow fields, including alternative crops if applicable. Any alternative crops included in the NMP must be listed by field, in addition to the crops identified in the planned crop rotation for that field.
4. The realistic annual yield goal for each crop or use identified for each field for each year, including any alternative crops identified.
5. The nitrogen and phosphorus recommendations from Department acceptable sources for each crop or use identified for each field, including any alternative crops identified.
6. The methodology (including formulas, sources of data, protocols for making determination, etc.) and actual data that will be used to account for: (1) the results of soil tests, (2) credits for all nitrogen in the field that will be plant-available, (3) the amount of nitrogen and phosphorus in the manure, litter, and process wastewater to be applied, (4) consideration of multi-year phosphorus application (for any field where nutrients are applied at a rate based on the crop phosphorus requirement, the methodology must account for single-year nutrient applications that supply more than the crop's annual phosphorus requirement), (5) all other additions of plant available nitrogen and phosphorus to the field (i.e., from sources other than manure, litter, or process wastewater or credits for residual nitrogen), (6) timing and method of land application, and (7) volatilization of nitrogen and mineralization of organic nitrogen.
7. Any other factors necessary to determine the amounts of nitrogen and phosphorus to be applied in accordance with the Narrative Rate Approach.
8. NMPs using the Narrative Rate Approach must also include the following projections, which will not be used by the permitting authority in establishing site-specific permit terms:
 - Planned crop rotations for each field for the period of permit coverage.
 - Projected amount of manure, litter, or process wastewater to be applied.
 - Projected credits for all nitrogen in the field that will be plant available.
 - Consideration of multi-year phosphorus application.
 - Accounting for other additions of plant available nitrogen and phosphorus to the field.
 - The predicted form, source, and method of application of manure, litter, and process wastewater for each crop.

Section 9 – NMP Phosphorus

Phosphorus Risk Assessment: The permittee shall assess the risk of phosphorus contamination of state waters. An assessment shall be conducted for each field, under the control of the operator, to which manure, litter or process wastewater will or may be applied. If a new field is added in the future, then the permittee must submit a revised (modified) NMP. The permittee has the option of using Method A or Method B (below) to complete the assessment, unless the receiving water is impaired for nutrients, then you must use method B below for phosphorus risk assessment. Copies of all tables and calculations used to complete the assessments, as well as the results of the assessments, shall be submitted to the Department and copies shall be maintained onsite at the facility and available for Departmental review. The results of the assessments shall be used to determine the appropriate basis for land application of wastes from the facility.

Indicate which method will be used to determine phosphorus application:

☒ **Method A** – Representative Soil Sample. Complete Section 9.1, then continue to Section 10.

☐ **Method B** – Phosphorus Index. Complete Section 9.2, then continue to Section 10.

9.1 Method A – Representative Soil Sample

Obtain one or more representative soil sample(s) from the field per [ARM 17.30.1334](#)

Have the sample analyzed for phosphorus by a qualified lab. The “Olsen P test” must be used for the analysis, and the result must be reported in parts per million (ppm). Using the results of the Olsen P test, determine application basis according to the Table below.

Olsen P Soil Test Results (ppm)	Application Basis
<25.0	Nitrogen Needs of Crop
25.1 - 100.0	Phosphorus Needs of Crop
100.0 – 150.0	Phosphorus Needs up to Crop Removal Rate
>150.0	No Application allowed

Olsen P Test Result: 21.0 ppm

End of Method A. Continue to Section 10

9.2 Method B – Phosphorus Index

Complete a phosphorus Index according to the crop grown on each field. Complete the Phosphorus Index Worksheet below to calculate phosphorus index. For information on filling out specific sections of this table, please refer to the method as described in NRCS Agronomy Technical Note MT-77.

Example

Appendix A: Phosphorus Index Worksheet (Complete for each field and crop)

Field Category Factor	None (0)	Low (1)	Medium (2)	High (4)	Very High (8)	Risk Value (0,1,2,4,8)	Weight Factor	Weight Risk
Soil Erosion	NA	<5 tons/as/yr	5-10 ton/ac/yr	10-15 tons/ac/yr	QA> 10 for erodible soils	1	X 1.5	1.5
Furrow Irrigation Erosion	N/A	Tail water recovery, QS>6 very erodible soils, or QS>10 other soils	QS> for erosion resistant soil	QS> for erodible soils	QA>6 for very erodible soils	0	X 1.5	0
Sprinkler Irrigation Erosion	All fields 0-3% slope, all sandy fields or field evaluation indicates little or no runoff large spray on silts 3-8%	Medium spray on silty soils 3-15% slopes, large spray on silty soils 8-15% slope, low spray on silt soils 3-8% large spray on clay soil 3-15% slope	Medium spray on clay soils 3-8% slopes, large spray on clay soils >15% slope, medium spray on silt soil >15% slope	Medium spray on clay soils >8% slope, low spray on clay soil 3-8% slope, low spray on silty soils >15% slopes	Low spray on clay soils >8% slopes	1	X 1.5	1.5
Runoff Class	Negligible	Very Low or Low	Medium	High	Very High	2	X 0.5	1
Olson Soil Test P	-----	<20 ppm	20-40 ppm	40-80 ppm	>80 ppm	2	X 0.5	1
Commercial P Fertilizer Application Method	None Applied	Placed with Planter or injection deeper than 2 inches	Incorporated <3 months prior to planting or surface applied during growing season	Incorporated >3 months before crop or surface applied <3 months before crop emerges	Surface applied to pasture or >3 months before crop emerges	1	X 1.0	1
Commercial P Fertilizer Application Rate	None Applied	<30 lbs/ac P205	31-90 lbs/ac P205	91-150 lbs/ac P205	>150 lbs/ac P205	1	X 1.0	1
Organic P Source Application Method	None Applied	Injected deeper than 2 inches	Incorporated <3 months prior to planting or surface applied during growing season	Incorporated >3 months before crop or surface applied <3 months before crop.	Surface applied to pasture or >3 months before crop emerges	2	X 1.0	2
Organic P Source Application Rate	None Applied	<30 lbs/ac P205	31-90 lbs/ac P205	91-150 lbs/ac P205	>150 lbs/ac P205	0	X 1.0	0
Distance to Concentrated Surface Water Flow	>1,000 feet	200-1,000 feet, or functioning grass waterways in concentrated surface water	100-200 feet	<100 feet	0 feet or application are directly into concentrated surface water flow areas.	1	X 1.0	1
Total Phosphorus Index Value:								10

Using the calculated Total Phosphorus Index Value, assign the overall site/field vulnerability to phosphorus loss according to the table below.

Total Phosphorus Index Value	Site Vulnerability to Phosphorus Loss
<11	Low
11-21	Medium
22-43	High
>43	Very High

Using the calculated Site Vulnerability to Phosphorus Loss, determine the appropriate application basis according to the table below.

Site Vulnerability to Phosphorus Loss	Application Basis
Low	Nitrogen Needs
Medium	Nitrogen Needs
High	Phosphorus Need Up to Crop Removal
Very High	Phosphorus Crop Removal or No Application

Phosphorus Index Value: 10 LOW

Section 10 – NMP Guidance

Land Application Equipment Calibration

Describe the type of equipment used to land apply wastes and the calibration procedures:

Commercial Broadcast Spreader will be calibrated according to Circular DEQ 9

Implementation, Operation, Maintenance and Recordkeeping

The permittee is required to develop protocols for implementation of the NMP, proper operation and maintenance of the livestock waste control facilities, and recordkeeping as described in Part 2 of the permit.

Have protocols been developed for the operation? ☒ Yes ☐ No

The documents below are maintained:

Implementation of the NMP: ☒ Yes ☐ No

Facility operation and maintenance: ☒ Yes ☐ No

Recordkeeping and reporting ☒ Yes ☐ No

Sample collection and analysis ☒ Yes ☐ No

Manure transfer ☒ Yes ☐ No

If your answer to any of the above question is no, provide explanation:

Provide date and location of most recent documentation:

Date: 12-2023

Location: 15299 County Road 321 Brockton Mt 59213

NOI-NMP Certification

The NOI Form certification must be completed by the applicant (owner/operator) responsible for the authorization as identified in Section C. Certification of this NOI is certification that the applicant will comply with the applicable terms of the CAFO General Permit.

Permittee Information: This form must be completed, signed, and certified as follows:

- For a corporation, by a principal officer of at least the level of vice president;
- For a partnership or sole proprietorship, by a general partner or the proprietor, respectively; or
- For a municipality, state, federal, or other public facility, by either a principal executive officer or ranking elected official.

All Permittees Must Complete the Following Certification:

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information; including the possibility of fine and imprisonment for knowing violations. [75-5-633, MCA].

Certification of this form indicates conformance with the CAFO General Permit.

Name (Type or Print)

Mark Casterline

Title (Type or Print)

President

Phone Number

404-480-1129

Signature

Mark Casterline

Date Signed

12-26-2023

DEQ will not process this form until all the requested information is supplied, and the appropriate fees are paid.

Return this NOI-NMP-CAFO Form and the applicable fee payment to:

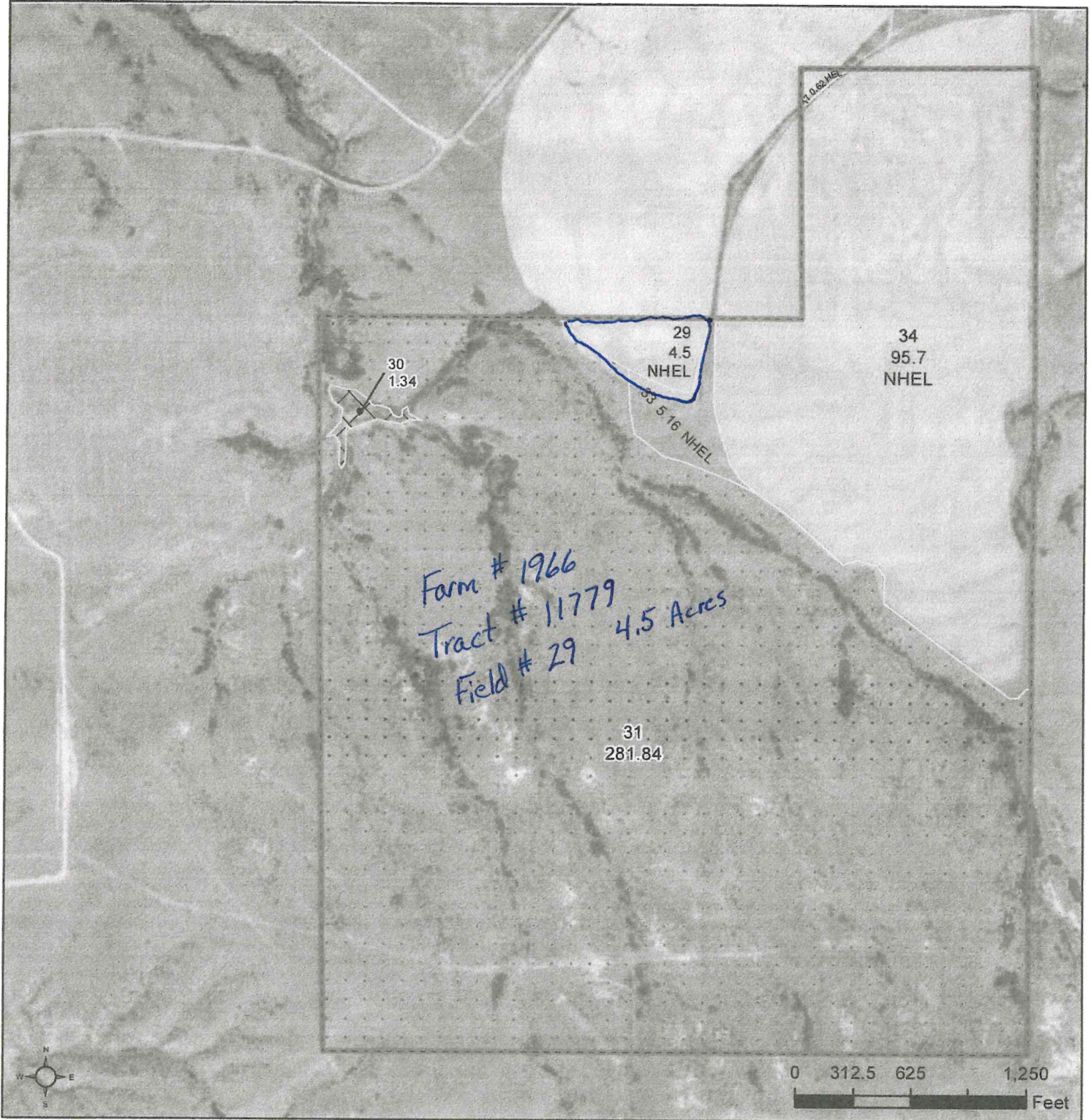
Department of Environmental Quality
Water Protection Bureau
PO Box 200901
Helena, MT 59620-0901
(406) 444-5546

RECEIVED
DEC 29 2023
DEQ WATER QUALITY DIVISION



United States
Department of
Agriculture

Richland County, Montana



Common Land Unit

- Cropland
- Rangeland
- ✕ Other Use
- Tract Boundary

Wetland Determination Identifiers

- Restricted Use
- ▽ Limited Restrictions
- Exempt from Conservation Compliance Provisions

Tract Cropland Total: 105.98 acres

2023 Program Year

Map Created August 11, 2022
2021 NAIP

Farm 1966

Tract 11779

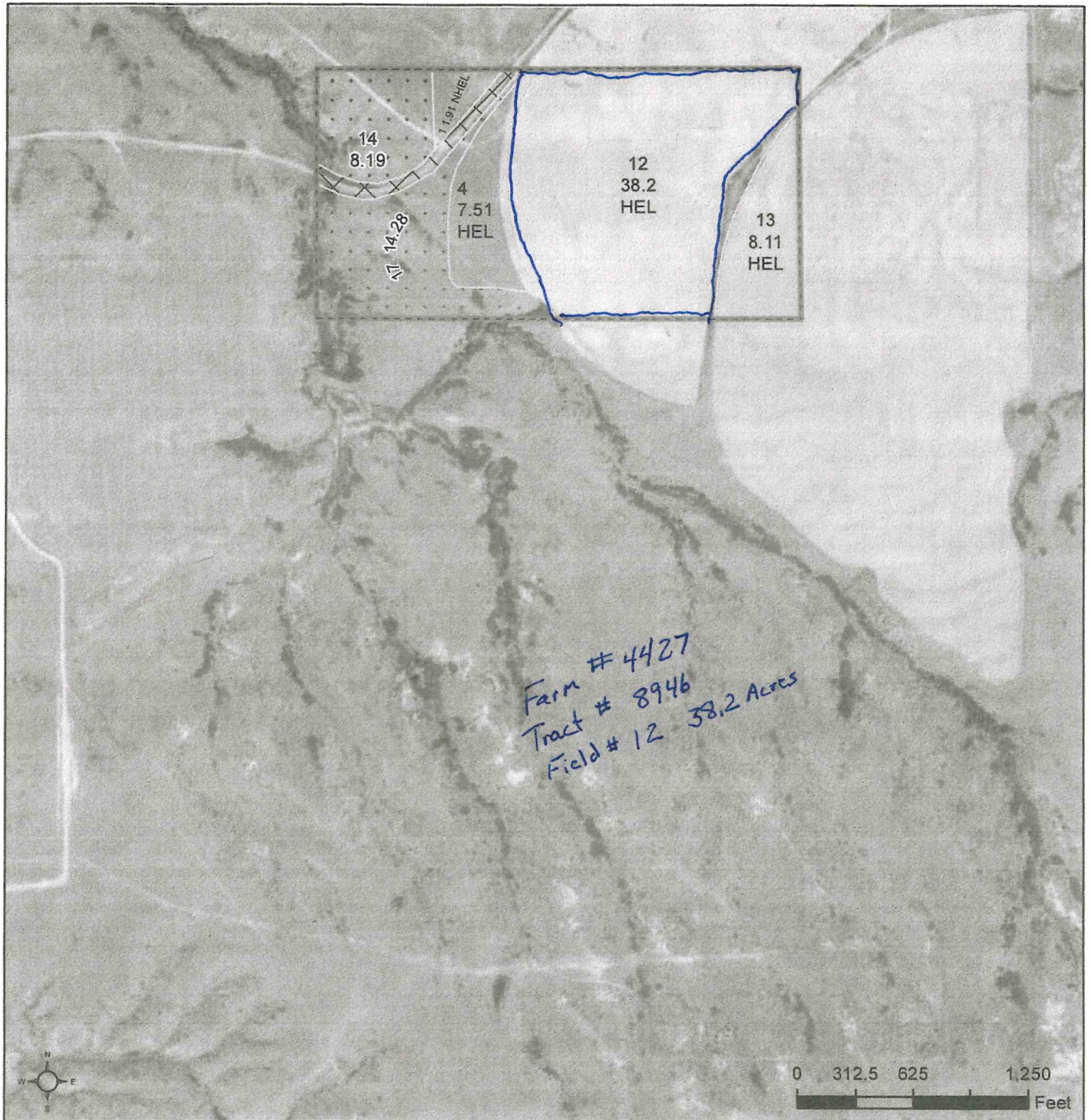
11-27N-53E

United States Department of Agriculture (USDA) Farm Service Agency (FSA) maps are for FSA Program administration only. This map does not represent a legal survey or reflect actual ownership; rather it depicts the information provided directly from the producer and/or National Agricultural Imagery Program (NAIP) imagery. The producer accepts the data 'as is' and assumes all risks associated with its use. USDA-FSA assumes no responsibility for actual or consequential damage incurred as a result of any user's reliance on this data outside FSA Programs. Wetland identifiers do not represent the size, shape, or specific determination of the area. Refer to your original determination (CPA-026 and attached maps) for exact boundaries and determinations or contact USDA Natural Resources Conservation Service (NRCS).



United States
Department of
Agriculture

Richland County, Montana



Common Land Unit ☒ Other Use
Cropland ☐ Tract Boundary
• • Rangeland

Wetland Determination Identifiers

- Restricted Use
- ▽ Limited Restrictions
- Exempt from Conservation
- Compliance Provisions

Tract Cropland Total: 55.73 acres

2023 Program Year

Map Created August 11, 2022
2021 NAIP

Farm 4427

Tract 8946

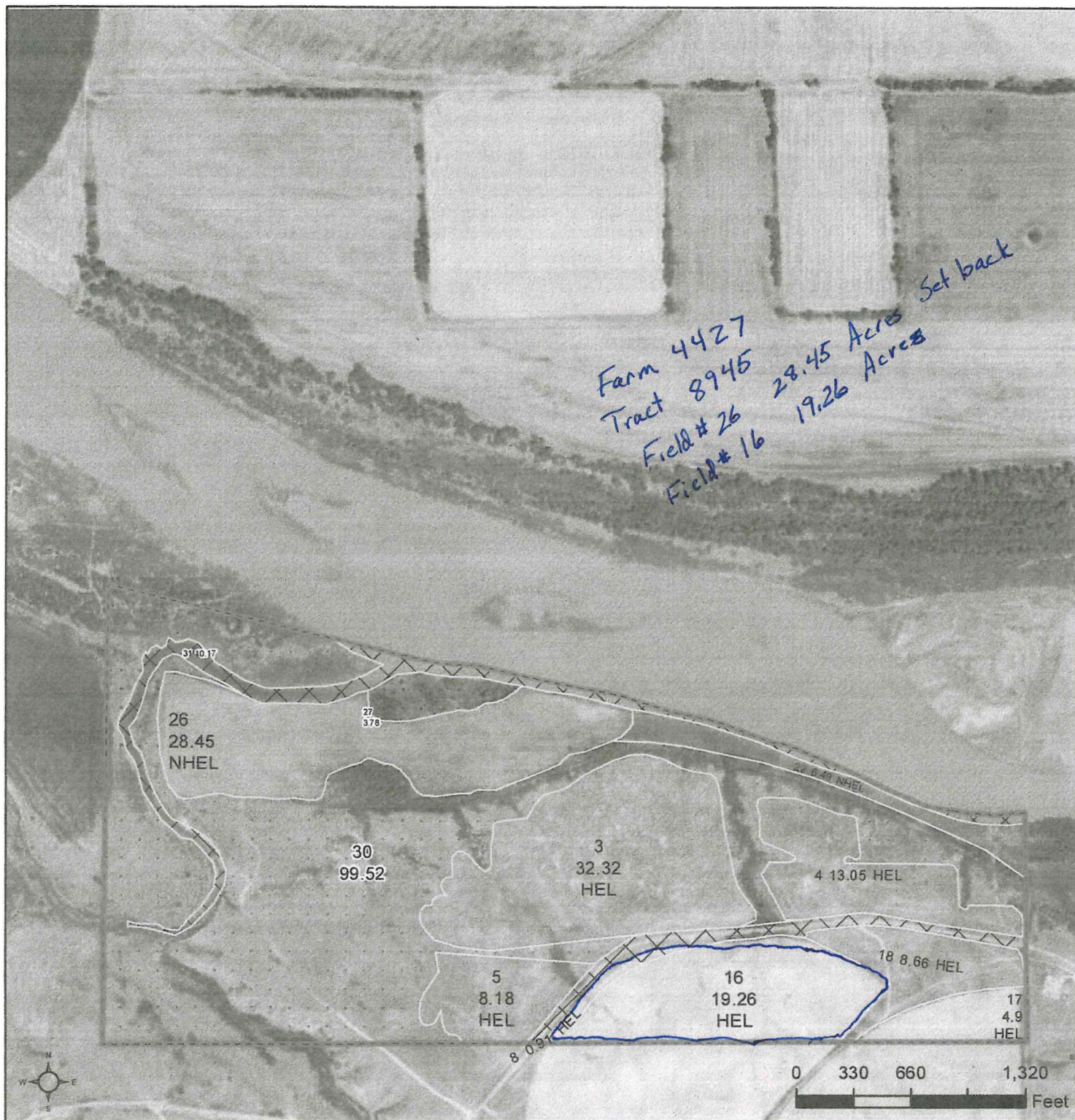
11-27N-53E

United States Department of Agriculture (USDA) Farm Service Agency (FSA) maps are for FSA Program administration only. This map does not represent a legal survey or reflect actual ownership; rather it depicts the information provided directly from the producer and/or National Agricultural Imagery Program (NAIP) imagery. The producer accepts the data 'as is' and assumes all risks associated with its use. USDA-FSA assumes no responsibility for actual or consequential damage incurred as a result of any user's reliance on this data outside FSA Programs. Wetland identifiers do not represent the size, shape, or specific determination of the area. Refer to your original determination (CPA-026 and attached maps) for exact boundaries and determinations or contact USDA Natural Resources Conservation Service (NRCS).



United States
Department of
Agriculture

Richland County, Montana



Common Land Unit X Other Use
Cropland
Rangeland

Wetland Determination Identifiers

- Restricted Use
- ▽ Limited Restrictions
- Exempt from Conservation Compliance Provisions

Tract Cropland Total: 122.22 acres

2023 Program Year

Map Created August 11, 2022

2021 NAIP

Farm 4427

Tract 8945

2-27N-53E

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United States
Department of
Agriculture

Richland County, Montana



Common Land Unit

- Cropland
- Rangeland
- Other Use
- Tract Boundary

Wetland Determination Identifiers

- Restricted Use
- Limited Restrictions
- Exempt from Conservation
- Compliance Provisions

Tract Cropland Total: 92.90 acres

2023 Program Year

Map Created February 22, 2023
2021 NAIP

Farm 6821
Tract 8955
1-27N-53E

United States Department of Agriculture (USDA) Farm Service Agency (FSA) maps are for FSA Program administration only. This map does not represent a legal survey or reflect actual ownership; rather it depicts the information provided directly from the producer and/or National Agricultural Imagery Program (NAIP) imagery. The producer accepts the data 'as is' and assumes all risks associated with its use. USDA-FSA assumes no responsibility for actual or consequential damage incurred as a result of any user's reliance on this data outside FSA Programs. Wetland identifiers do not represent the size, shape, or specific determination of the area. Refer to your original determination (CPA-026 and attached maps) for exact boundaries and determinations or contact USDA Natural Resources Conservation Service (NRCS).



Help

• ▼▲ Soil Survey Definitions

- [AWC](#)
- [Calcium carbonate](#)
- [Cation exchange capacity](#)
- [Clay](#)
- [Drainage class](#)
- [Electrical conductivity](#)
- [Gypsum](#)
- [Hydric rating](#)
- [Hydrologic group](#)
- [Kf factor](#)
- [Ksat](#)
- [Land capability class](#)
- [Linear extensibility](#)
- [Map unit type](#)
- [Organic matter](#)
- [pH](#)
- [Sand](#)
- [Sodium adsorption ratio](#)
- [Survey metadata](#)
- [Typical Profile Sketches](#)
- [T factor](#)
- [Wind erodibility](#)

• ▼▲ Map Unit Composition

• ▼▲ Map Unit Data

• ▼▲ Survey Metadata

• ▼▲ Soil Profiles

- Soil Sketch ?>
- Org. Matter ?>
- Clay ?>
- Sand ?>
- AWC ?>
- Ksat ?>
- pH ?>
- Kf Factor ?>
- EC ?>
- SAR ?>
- CaCO3 ?>
- Gypsum ?>
- CEC @ pH7 ?>
- Linear Ext. ?>

• ▼▲ Soil Taxonomy

• ▼▲ Land Classification

• ▼▲ Hydraulic and Erosion Ratings

• ▼▲ Forest Productivity

• ▼▲ Soil Suitability Ratings

• ▼▲ Details

SoilWeb Help

x

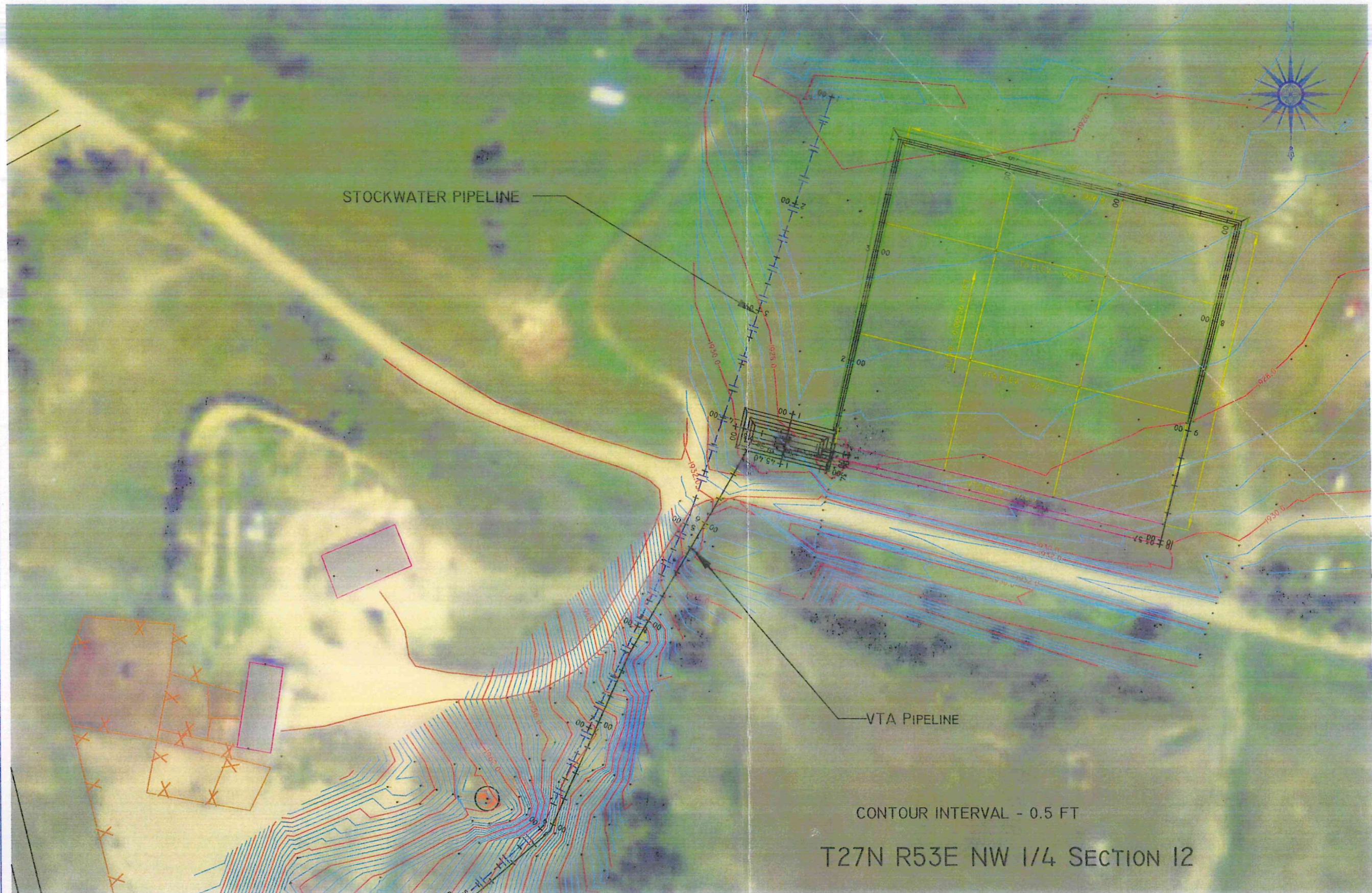


+

-

Lat: 48.1150
Lon: -104.8250

Leaflet | Powered by Esri | Esri Community Maps Contributors, Maxar, Montana State Library, © OpenStreetMap, Microsoft, HERE, Garmin, SafeGraph, GeoTechnologies, Inc, METI/NASA, ...




STOCKWATER PIPELINE

VTA PIPELINE

CONTOUR INTERVAL - 0.5 FT

T27N R53E NW 1/4 SECTION 12

40 0 40 80
Scale in Feet



Natural Resources Conservation Service
United States Department of Agriculture

File Name
11X17SHT.DWG

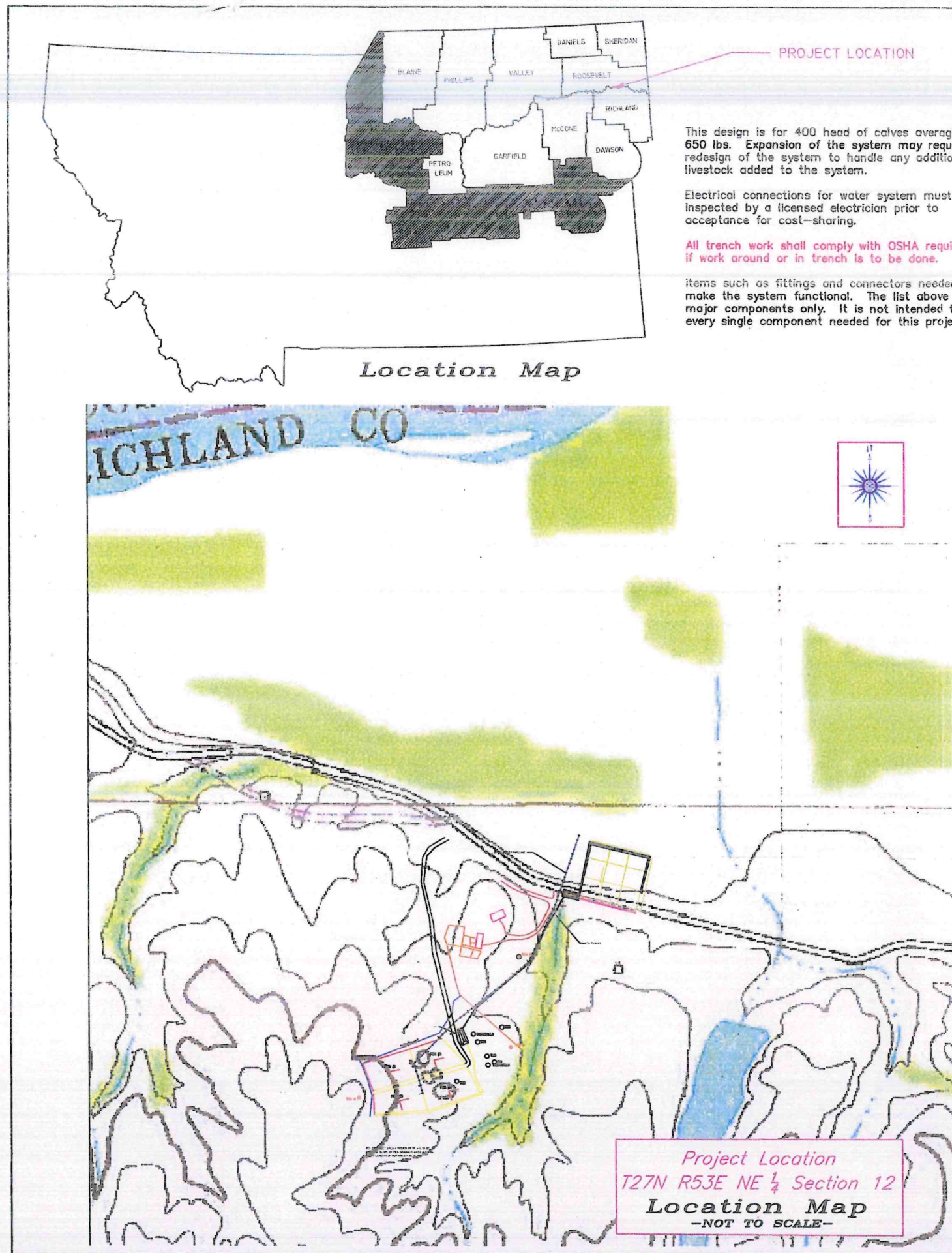
Drawing No.
MT-E-02-032

Sheet 2 of 8

PLAN VIEW
VTA WITH SETTLING BASIN & DIKE
MARK CASTERLINE CAFO PROJECT

RICHLAND COUNTY MONTANA

Designed	Tim Hendricks	Date	03/03/10
Drawn			
Checked			
Approved			



This design is for 400 head of calves averaging 650 lbs. Expansion of the system may require redesign of the system to handle any additional livestock added to the system.

Electrical connections for water system must be inspected by a licensed electrician prior to acceptance for cost-sharing.

All trench work shall comply with OSHA requirements if work around or in trench is to be done.

Items such as fittings and connectors needed to make the system functional. The list above is for major components only. It is not intended to list every single component needed for this project.

Estimated Material List			
Item List	Units	Planned Amount	As Built
15" SDR 51 80 PSI PIP PVC @ MINIMUM 30 COVER	LF	885	
0.9.44 LBS/FT = 8,354.4 LBS			
LEVEL LIP SPREADER	LF	300	
VEGETATED TREATMENT AREA 270' X 300' (LEVEL II)	AC	1.86	
SAND FOR ROAD CROSSING PIPE BEDDING	CY	3	
VTA DIKE	LF	792	
SETTLING BASIN 10' X 60' BOTTOM WIDTH (819 CF)	AC-FT	0.0188	
SEEDING AREA (VTA, DIKE, BASIN, & PIPE TRENCH)	AC	2.2	

Specifications

MT-100	General Requirement
MT-102	Pollution Control
MT-104	Excavation
MT-105	Earthfill
MT-111	Plastic Pipes - Pressure Conduits
MT-117	Drainfill and Filter
MT-362	Diversion
MT-382	Fencing
MT-7	Vegetating Structures

Drawing Index

1. Cover Sheet
2. VTA & Settling Basin Plan Map with Aerial Photo
3. VTA & Settling Basin Plan Map
4. Settling Basin Profile & Crosssection
5. Settling Basin Isometric View
6. VTA Dike Profile
7. VTA Dike Isometric View
8. VTA Pipeline Profile

Within the confines of this project area there may be buried utilities. Call 1-800-424-6665 to locate buried utilities.

I have reviewed the special provisions, drawings and specification and agree to construct this project in accordance with them.

I assume all responsibility for acquiring the necessary permits and/or easements and for compliance with all ordinances and law pertaining to this construction.

I acknowledge responsibility for notifying all utilities affected by this project.

I will notify the local NRCS field office two working days before beginning construction.

I will obtain NRCS approval for any changes to design prior to installation or may be subject to ineligibility for cost-share

Owner/Operator

Date

JOB CLASS IV

DATE: 09/23/2010
DESIGNED: TIM HENDRICKS
DRAWN: TIM HENDRICKS
CHECKED: TIM HENDRICKS
APPROVED: TIM HENDRICKS

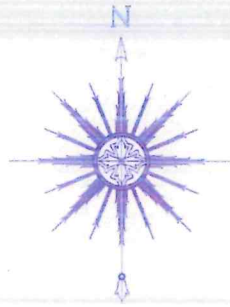
COVER SHEET - ADDENDUM
MARK CASTERLINE CAFO PROJECT
EQIP CONTRACT #740325-XXXX
COUNTY: RICHLAND MONTANA

NRCS
Natural Resources Conservation Service
United States Department of Agriculture

CAD FILE NAME
11x17.dwg

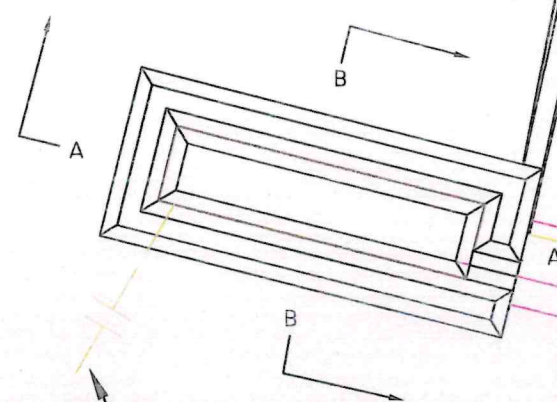
DRAWING NO.
MT-XXXXXX

00/00/00 00:00
SHEET 1 OF 8

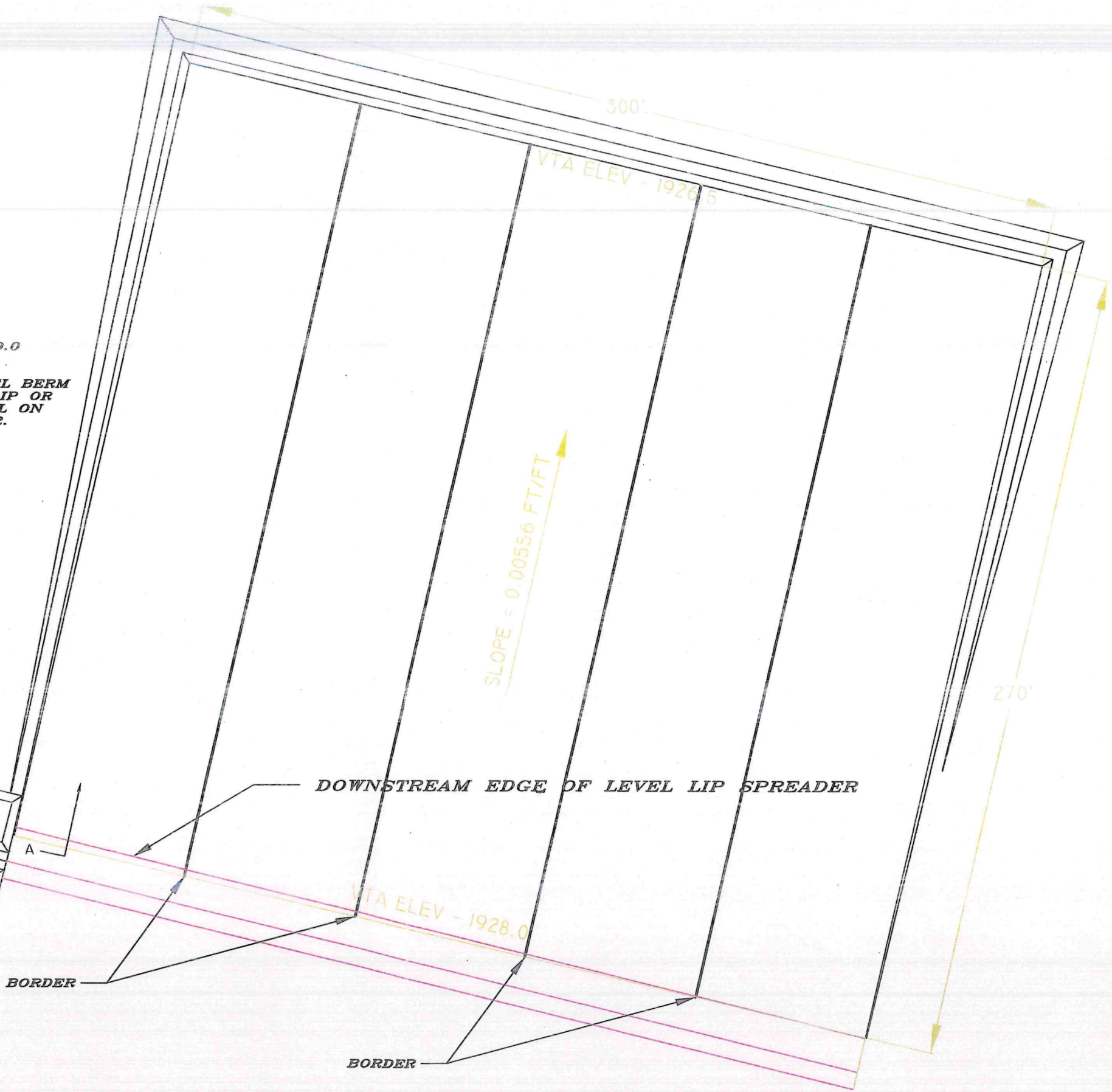
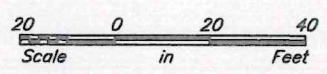



CONSTRUCTION NOTES

1. TOP OF DIKES MINIMUM WIDTH = 4'
2. DIKE SIDESLOPES = 3:1
3. VTA TOP OF DIKE ELEV = 1928.0
4. SETTLING BASIN TOP OF DIKE ELEV = 1929.0
5. BORDER WIDTHS TO BE NO MORE 70 FEET WIDE.
6. CONSTRUCT EITHER A 10 FOOT WIDTH LEVEL BERM ON ON THE DOWNSTREAM EDGE OF LEVEL LIP OR TRENCH IN POWER POLES AT GROUND LEVEL ON DOWNSTREAM EDGE OF LEVEL LIP SPREADER.



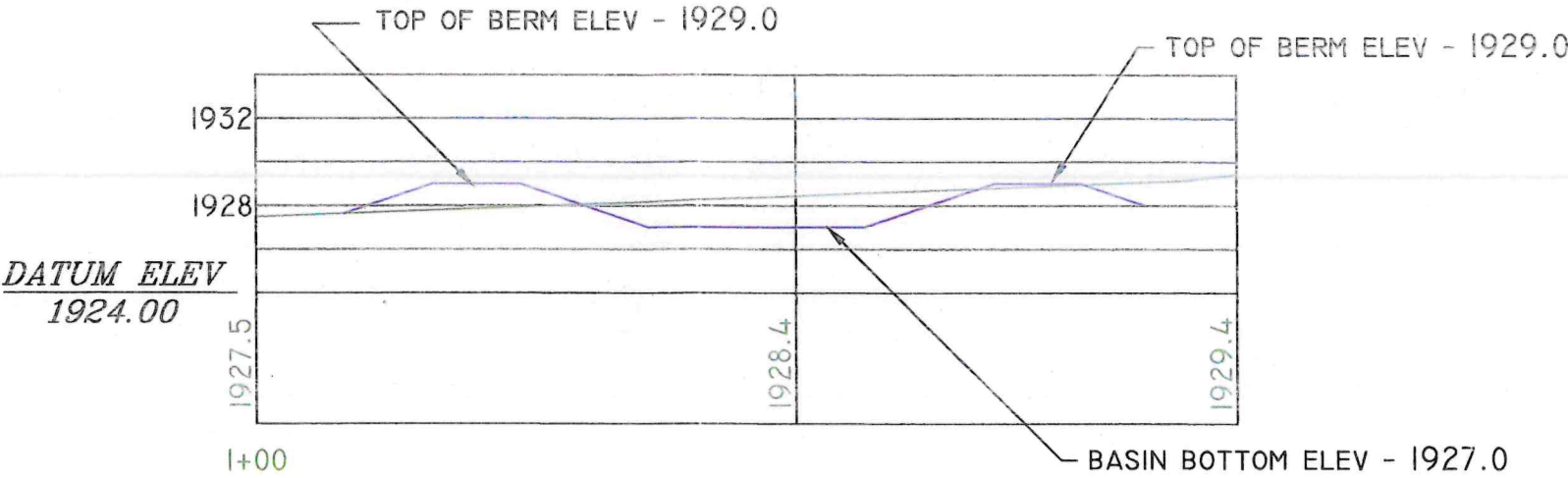
15" VTA PIPELINE



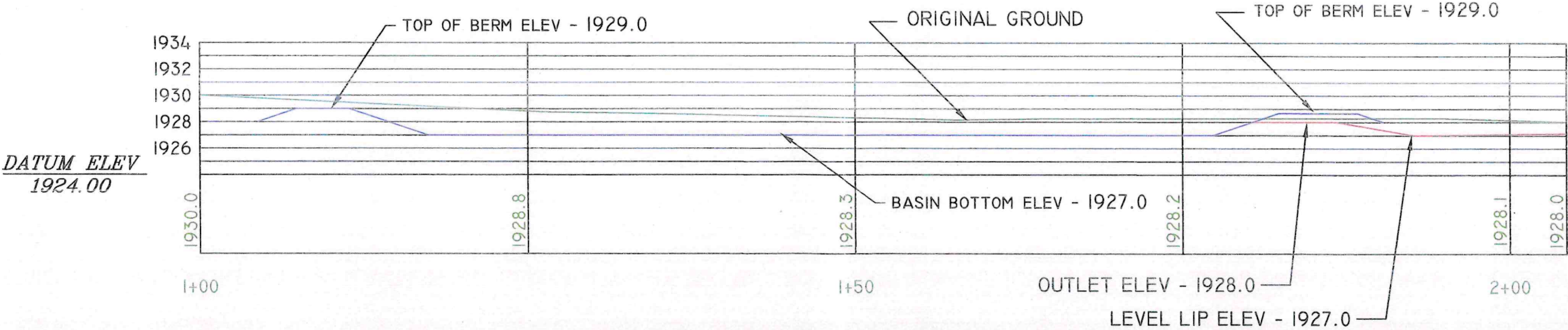
 Natural Resources Conservation Service United States Department of Agriculture	File Name 11X17SHT.DWG	
	Drawing No. MT-E-02-032	
	Sheet 3 of 8	
	Date 09/23/10	
PLAN VIEW VTA WITH SETTLING BASIN & DIKE MARK CASTERLINE CAFO PROJECT RICHLAND COUNTY MONTANA	Designed Tim Hendricks	Drawn [Blank]
	Checked [Blank]	Approved [Blank]
	[Blank]	
	[Blank]	

CONSTRUCTION NOTES

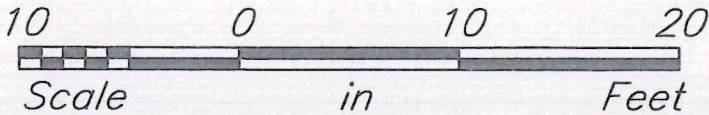
- 1. TOP OF BASIN DIKE ELEVATION - 1929.0
- 2. BASIN BOTTOM WIDTH - 10.0'
- 3. BASIN BOTTOM LENGTH - 60'
- 4. SIDESLOPES - 3:1
- 5. OUTLET ELEV - 1928.0 TRANSITIONS TO 1927.0 AT START OF LEVEL LIP
- 6. TOP OF BERM MINIMUM WIDTH - 4.0'



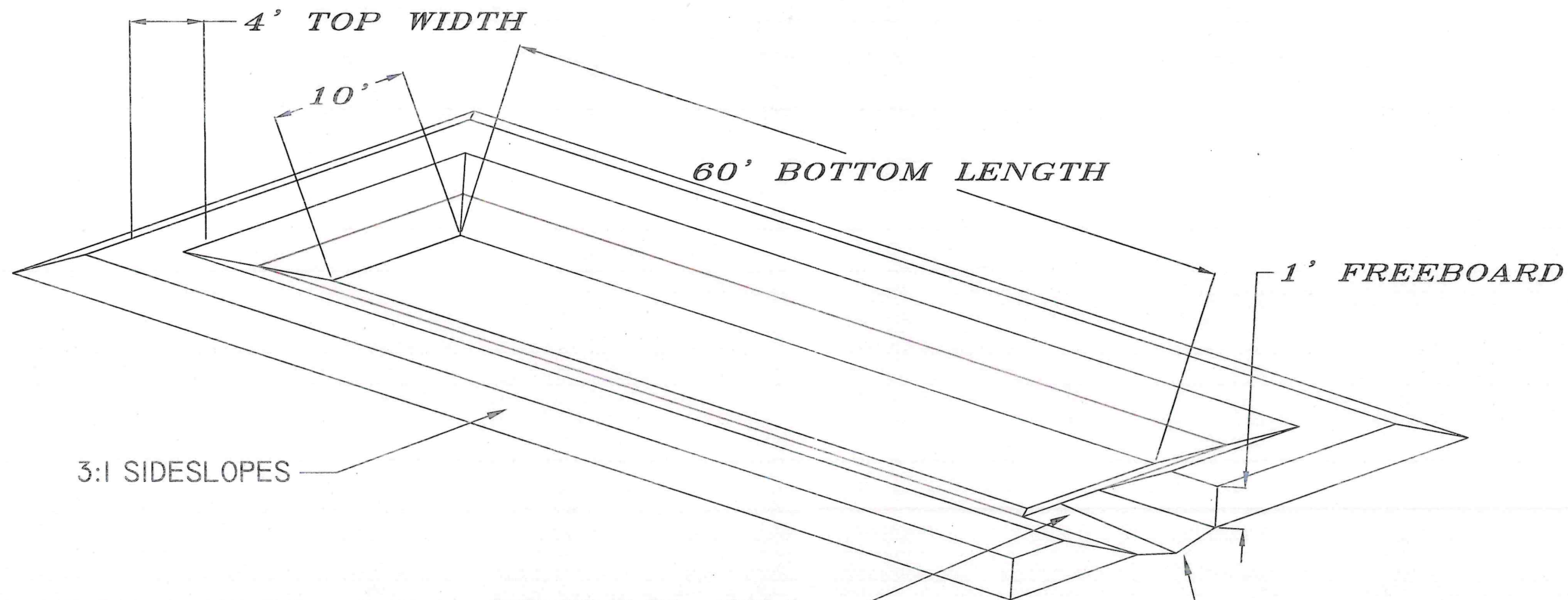
SETTLING BASIN CROSSECTION
B-B



SETTLING BASIN PROFILE
A-A



Date	09/16/10
Designed	Tim Hendricks
Drawn	
Checked	
Approved	
MONTANA	
RICHLAND COUNTY	
MARK CASTERLINE	
CAFO PROJECT	
SETTLING BASIN PROFILE & CROSSECTION	
NRCS	
Natural Resources Conservation Service	
United States Department of Agriculture	
File Name	11X17SHT.DWG
Drawing No.	MT-E-02-032
Sheet 4 of 8	



POND BOTTOM ELEVATION - 1927.0
 POND FULL ELEVATION - 1928.0
 TOP OF BERM ELEVATION - 1929.0
 BOTTOM DIMENSIONS - 10' X 60'
 3:1 SIDESLOPES
 TOP OF BERM MINIMUM WIDTH - 4.0'

Date 09/07/10
 Designed Tim Hendricks
 Drawn
 Checked
 Approved

ISOMETRIC VIEW
 10' X 60' BOTTOM SETTLING BASIN
 MARK CASTERLINE CAFO PROJECT

MONTANA

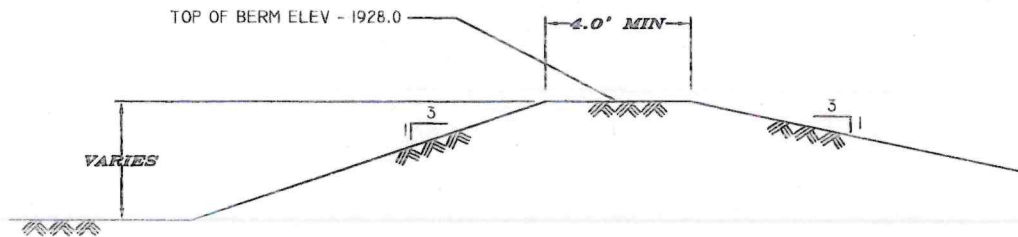
RICHLAND COUNTY

NRCS
 Natural Resources Conservation Service
 United States Department of Agriculture

File Name
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 Drawing No.
 MT-E-02-032
 Sheet 5 of 8

CONSTRUCTION NOTES

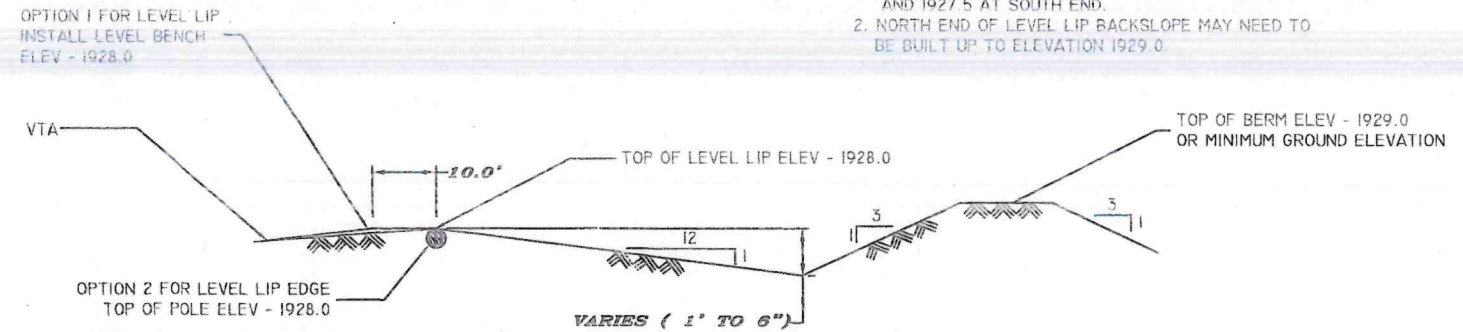
1. TOP OF VTA DIKE ELEVATION - 1928.0
2. DIKE TIES INTO TOP OF BERM FOR THE SETTLING BASIN NEAR STA 1+36
3. DIKE ENDS NEAR STA 8+92 TYING INTO ORIGINAL GROUND.



TYPICAL VTA DIKE CROSSECTION

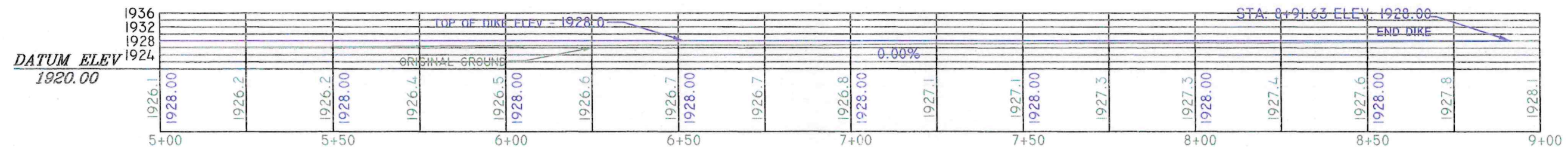
CONSTRUCTION NOTES

1. LEVEL LIP BOTTOM ELEVATION AT SETTLING BASIN - 1927.0 AND 1927.5 AT SOUTH END.
2. NORTH END OF LEVEL LIP BACKSLOPE MAY NEED TO BE BUILT UP TO ELEVATION 1929.0

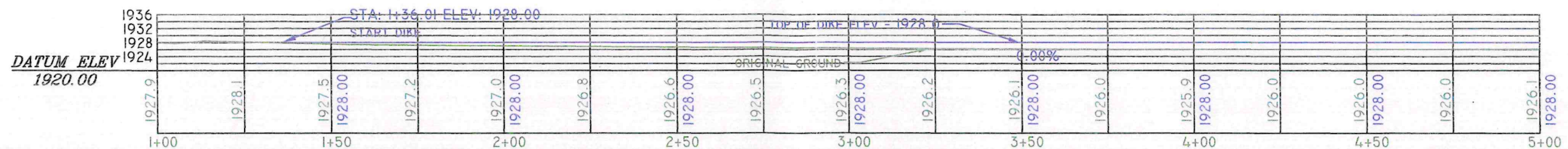


TYPICAL LEVEL LIP SPREADER CROSSECTION

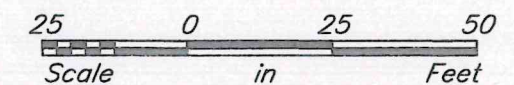
NOT TO SCALE



VTA DIKE PROFILE
STA 5+00 TO 8+91.63



VTA DIKE PROFILE
STA 1+36 TO 5+00



Date	09/16/10
Designed	Tim Hendricks
Drawn	
Checked	
Approved	

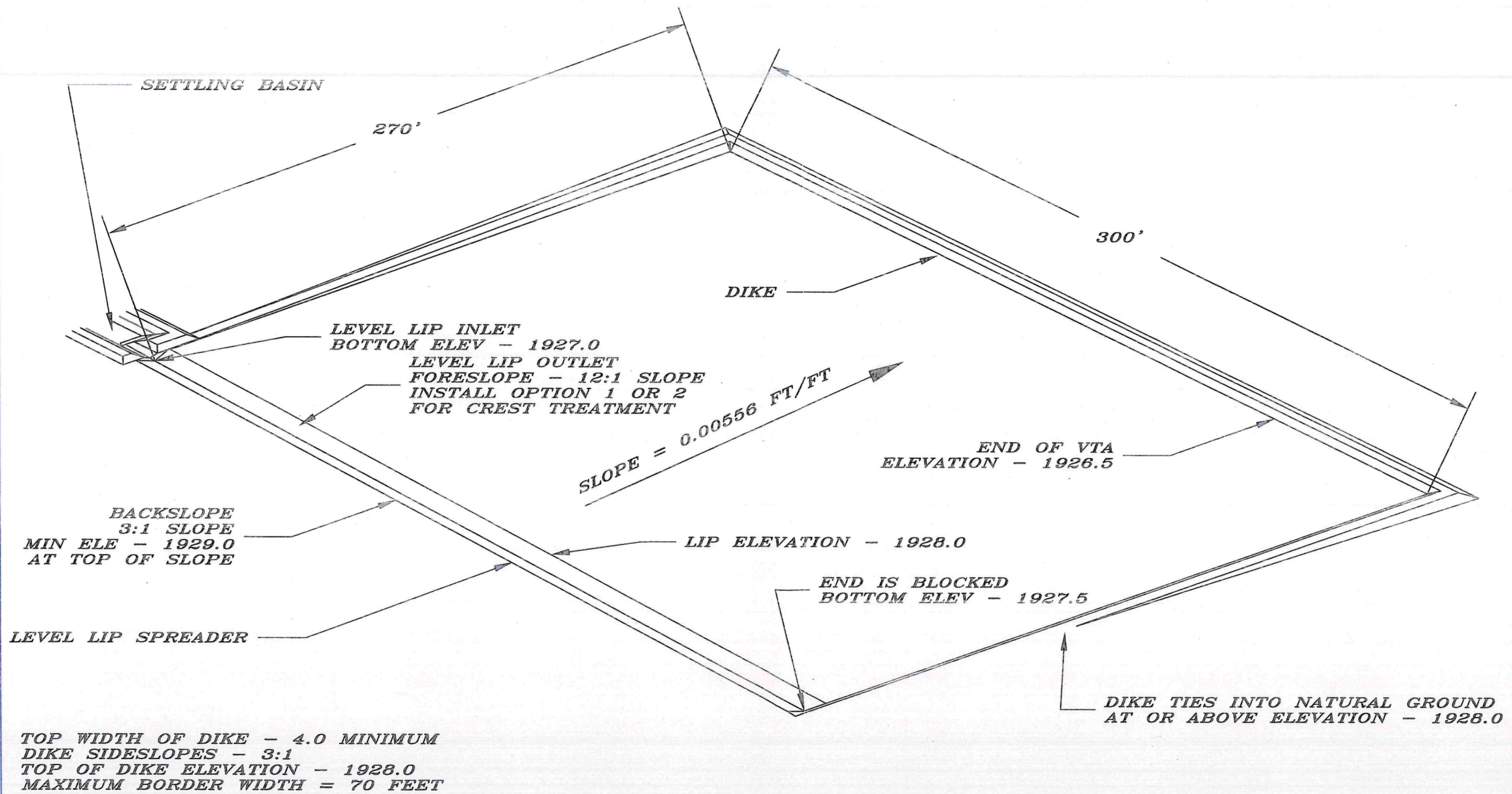
VTA DIKE PROFILE
CAFO PROJECT
MARK CASTERLINE

MONTANA

RICHLAND COUNTY



File Name	11X175HT.DWG
Drawing No.	MT-E-02-032
Sheet	6 of 8



Date 09/09/10

Designed Tim Hendricks

Drawn

Checked

Approved

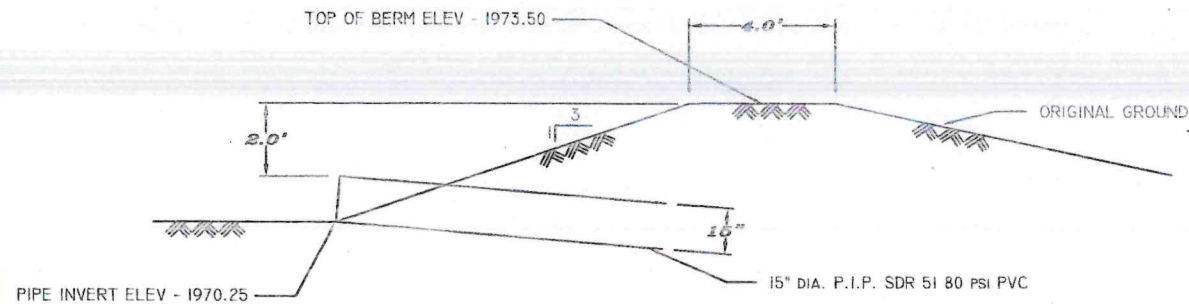
ISOMETRIC VIEW
270' X 300' VTA WITH DIKE
MARK CASTERLINE CAFO PROJECT
RICHLAND COUNTY
MONTANA

NRCS
Natural Resources Conservation Service
United States Department of Agriculture

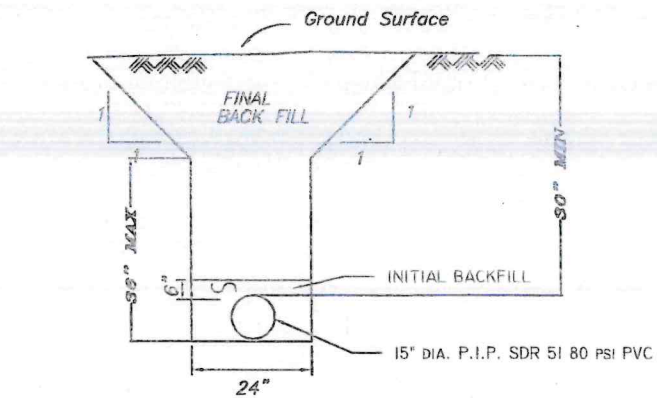
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Drawing No.
MT-E-02-032

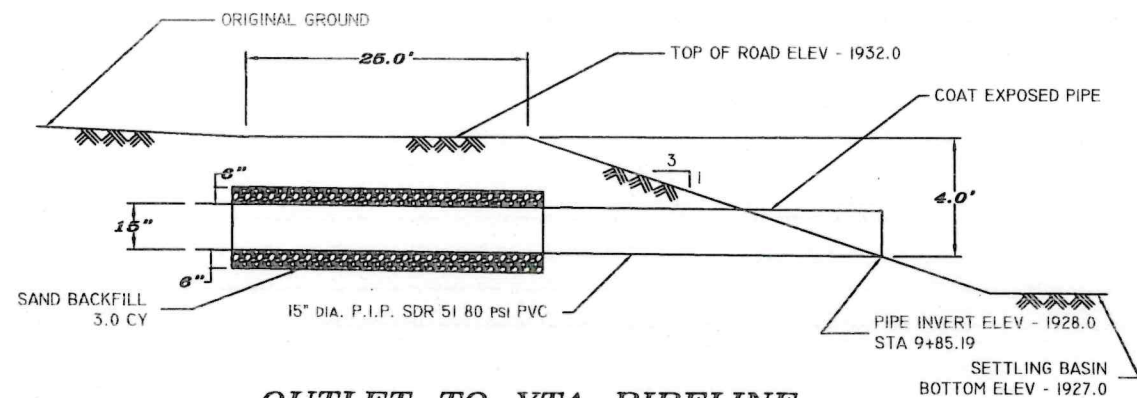
Sheet 7 of 8



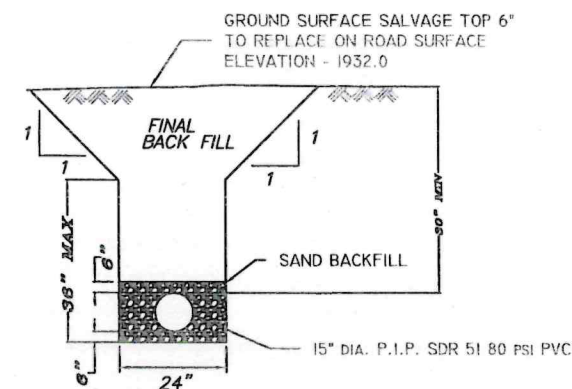
INLET TO VTA PIPELINE
STA 1+00



TYPICAL TRENCH DETAILS
STA 1+00 TO 9+25
STA 9+50 TO 9+89

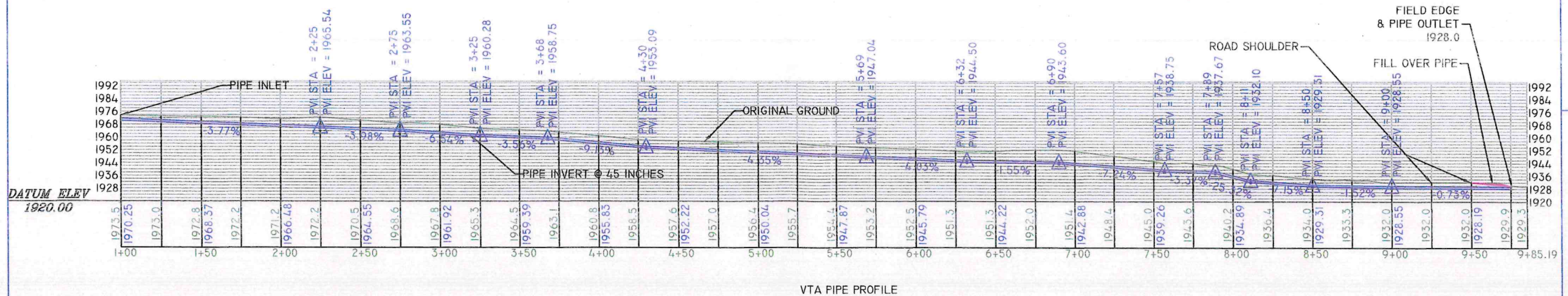


OUTLET TO VTA PIPELINE
STA 9+85



COUNTY ROAD TRENCH DETAILS
STA 9+25 TO 9+50

NOT TO SCALE



VTA PIPE PROFILE



Date
08/31/10
Designed
Tim Hendricks
Drawn
Checked
Approved

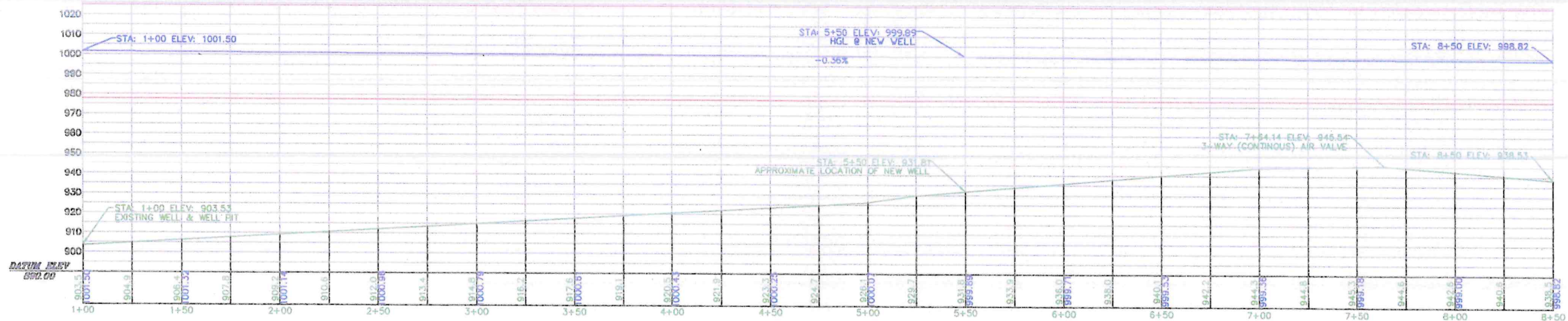
VTA SUPPLY PIPELINE PROFILE
CAFO PROJECT
MARK CASTERLINE

NRCS
Natural Resources Conservation Service
United States Department of Agriculture

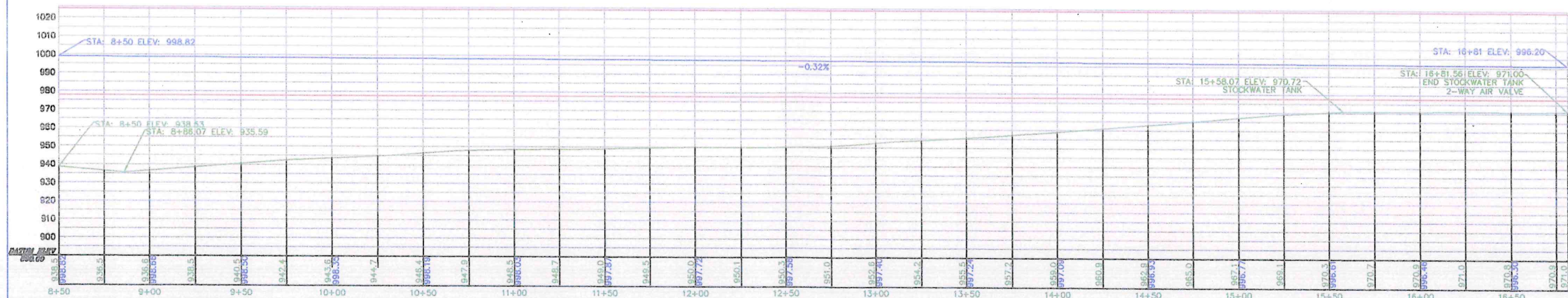
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Drawing No.
MT-E-02-032
Sheet 8 of 8

MONTANA

RICHLAND COUNTY



STOCKWATER PIPELINE #1 PROFILE
STA 1+00 TO 8+50



STOCKWATER PIPELINE #1 PROFILE
STA 8+50 TO 16+82



Date	04/14/09
Designed	Tim Hendricks
Drawn	Tim Hendricks
Checked	
Approved	

STOCKWATER PIPELINE PROFILE

MARK CASTERLINE CAFO PROJECT

RICHLAND COUNTY

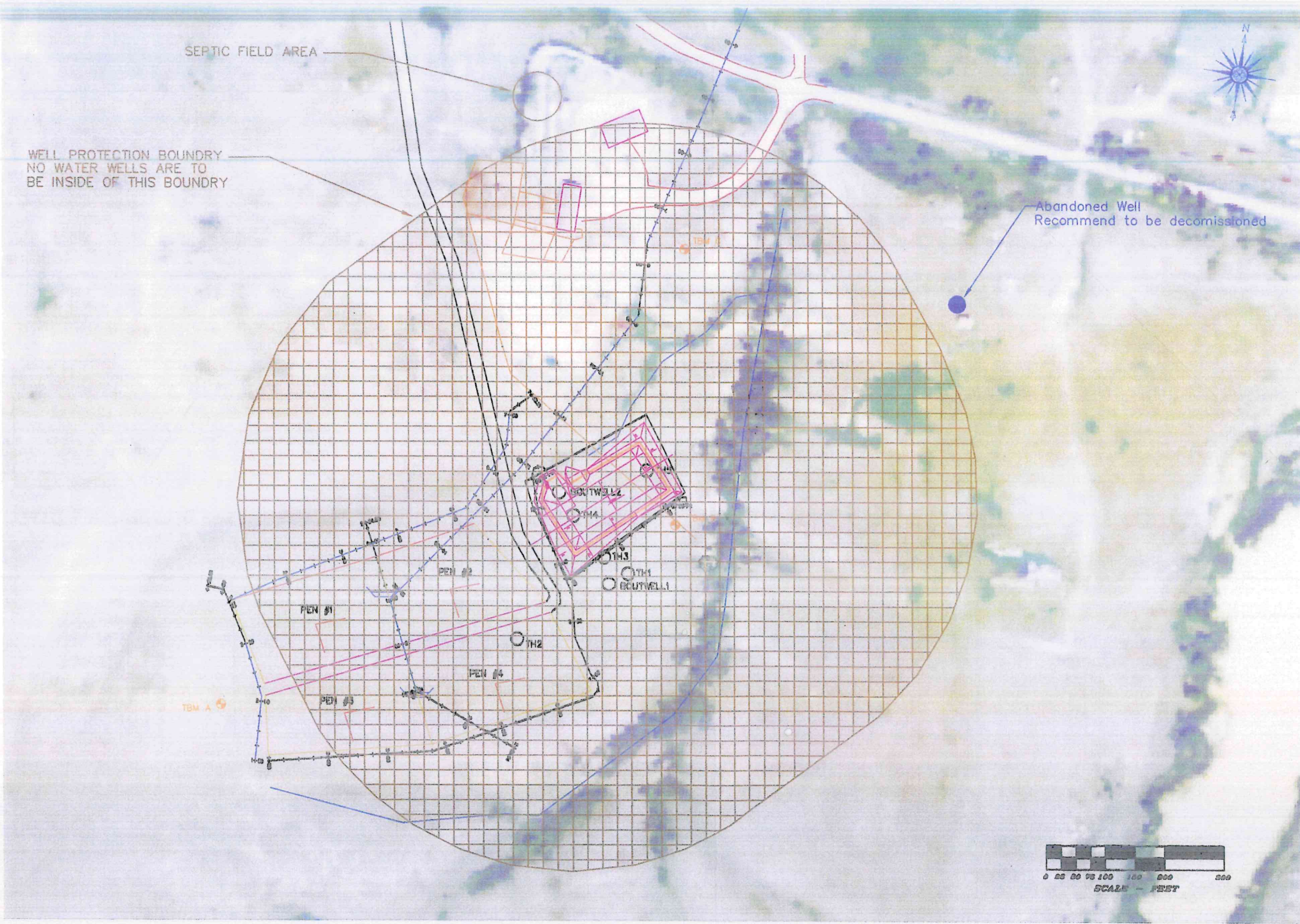
MONTANA

NRCS
Natural Resources Conservation Service
United States Department of Agriculture

File Name

Drawing No.

Sheet 5 of 24



DESIGNED	TIM HENDRICKS	DATE	02/03/2010
DRAWN	TIM HENDRICKS		
CHECKED			
APPROVED			

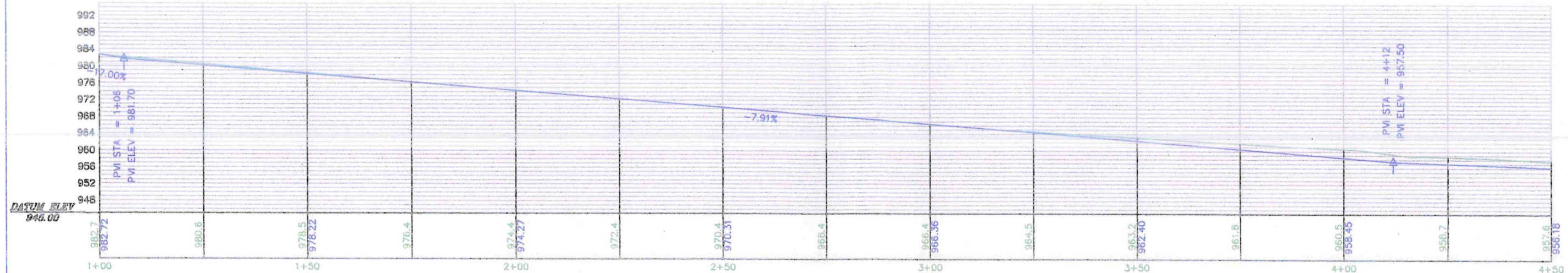
50' from Septic Tanks
100' " Drain Field

WELL BUFFER ZONE PLAN VIEW
MARK CASTERLINE CAFO PROJECT

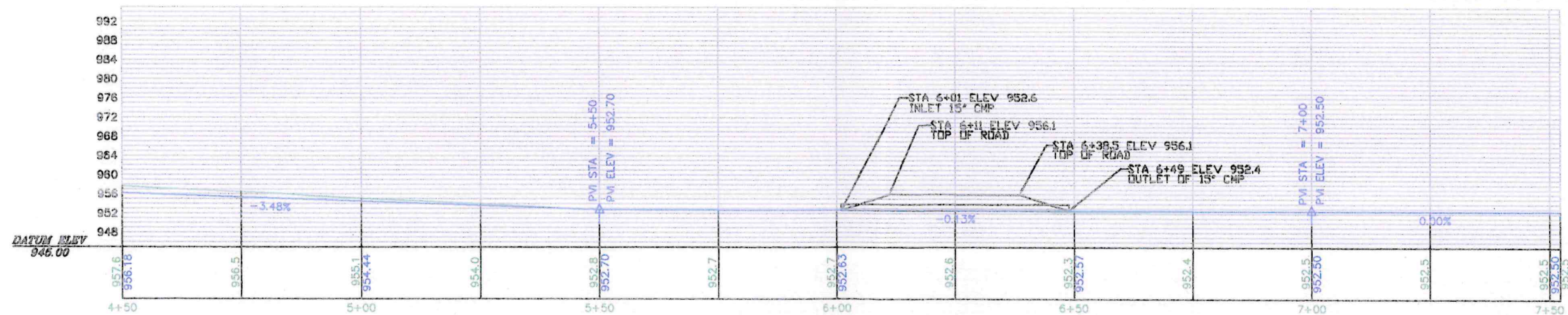
NRCS
Natural Resources Conservation Service
United States Department of Agriculture

CAD FILE NAME
DRAWING NO.
SHEET 7 OF 24

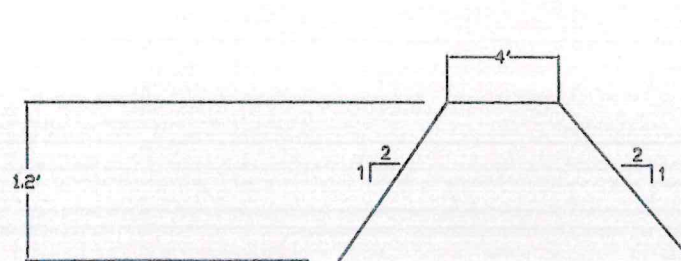
RICHLAND COUNTY MONTANA



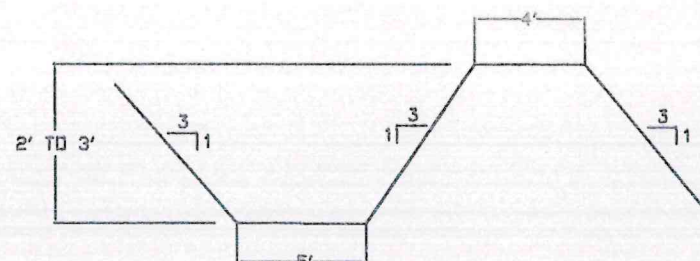
CLEAN WATER DIVERSION #2 PROFILE
STA 1+00 TO 4+50



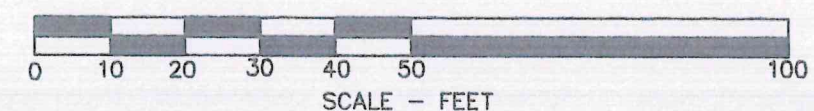
CLEAN WATER DIVERSION #2 PROFILE
STA 4+50 TO 7+52.21

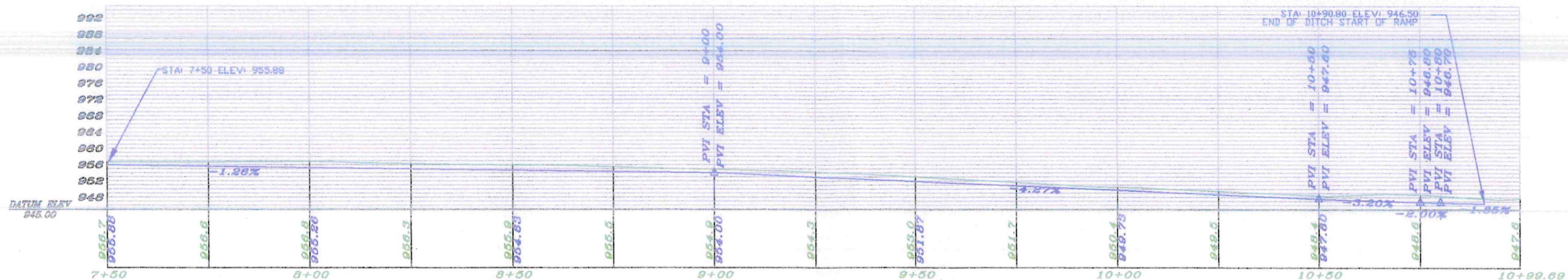


TYPICAL CROSSSECTION FOR CLEAN WATER DIKE #2
STA 1+00 TO 5+00
-NOT TO SCALE-

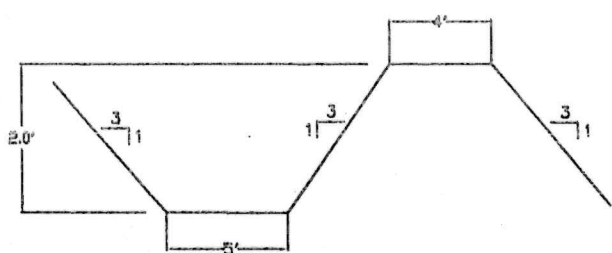


TYPICAL CROSSSECTION FOR CLEAN WATER DIVERSION #2
STA 5+00 TO 7+00
-NOT TO SCALE-

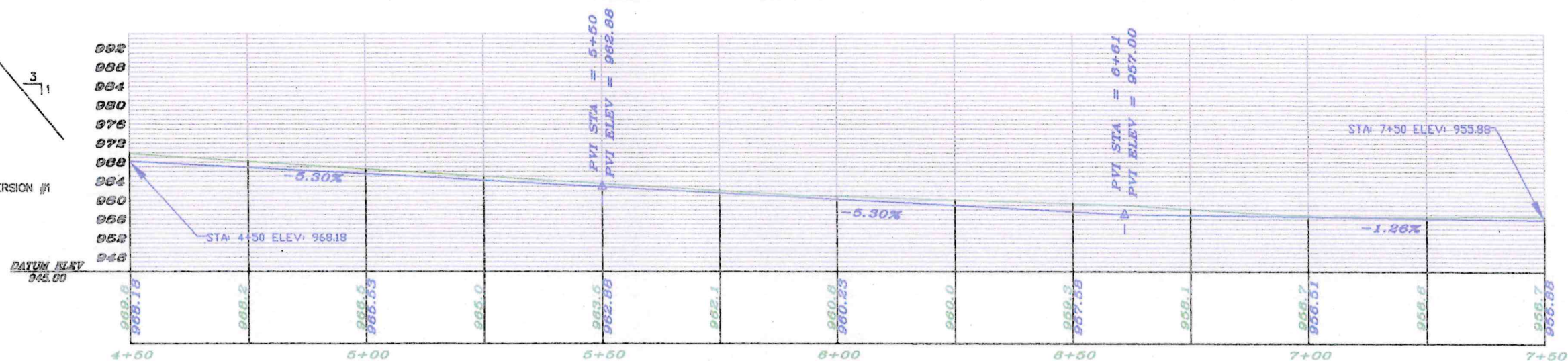




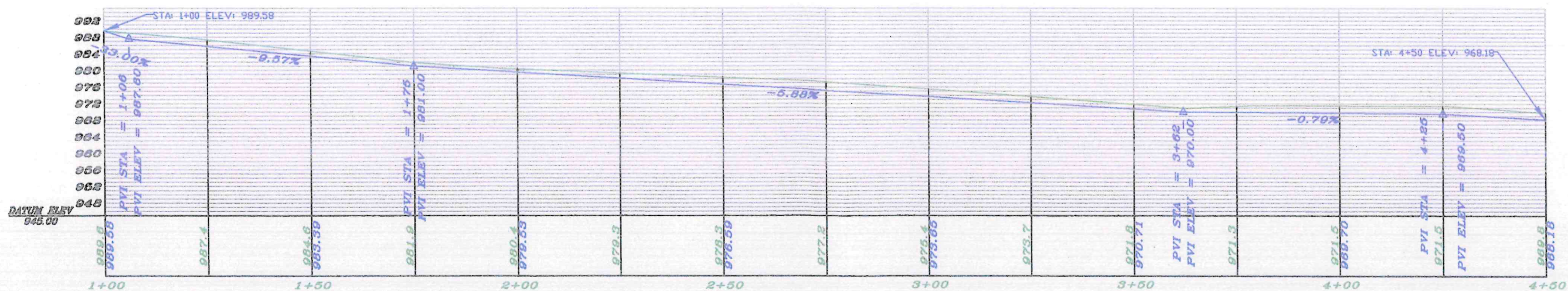
PEN WATER DIVERSION #1 PROFILE
STA 7+50 TO 10+99.69



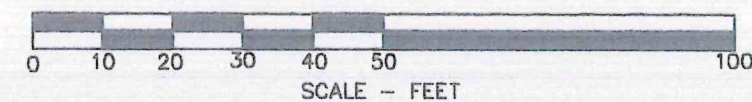
TYPICAL CROSSSECTION FOR CLEAN WATER DIVERSION #1
-NOT TO SCALE-



PEN WATER DIVERSION #1 PROFILE
STA 4+50 TO 7+50



PEN WATER DIVERSION #1 PROFILE
STA 1+00 TO 4+50

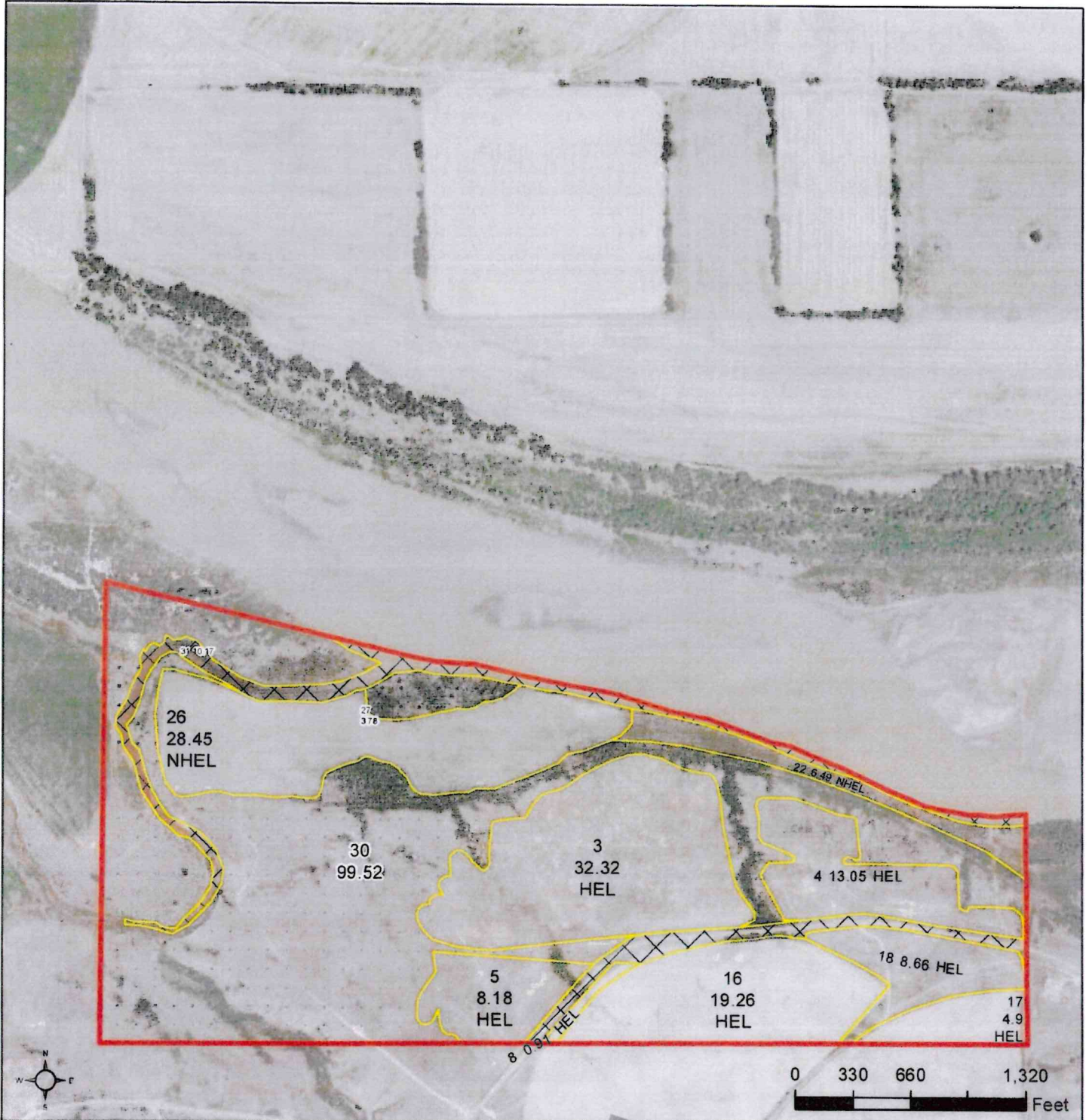


MTG010271



United States
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Agriculture

Richland County, Montana



Common Land Unit

- Cropland
- Rangeland
- Other Use
- Tract Boundary

Wetland Determination Identifiers

- Restricted Use
- ▼ Limited Restrictions
- Exempt from Conservation Compliance Provisions

Tract Cropland Total: 122.22 acres

2023 Program Year
Map Created August 11, 2022
2021 NAIP

Farm 4427
Tract 8945
2-27N-53E

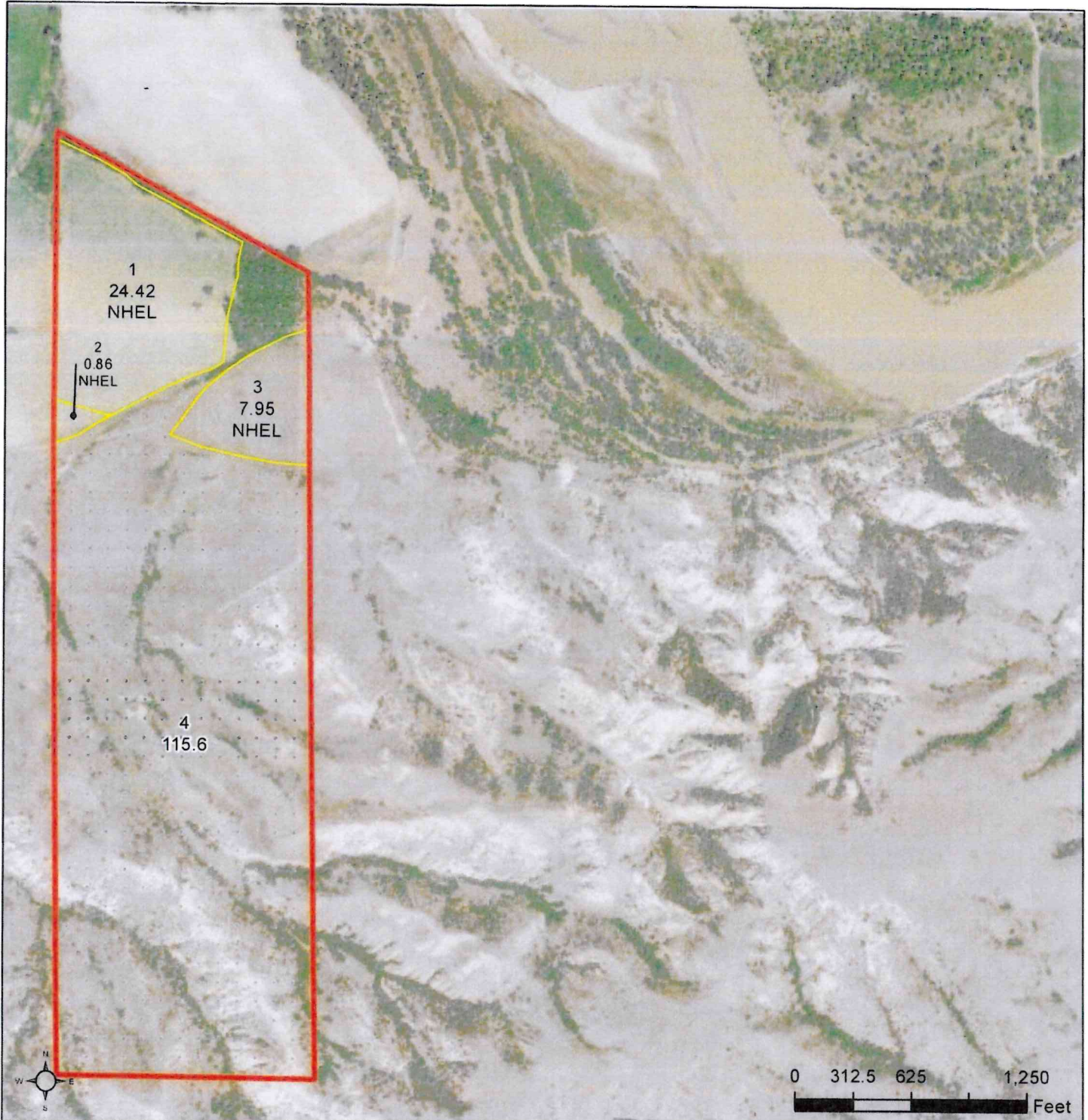
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United States
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Richland County, Montana



Common Land Unit Tract Boundary

- Cropland
- Rangeland

Wetland Determination Identifiers

- Restricted Use
- ▼ Limited Restrictions
- Exempt from Conservation Compliance Provisions

Tract Cropland Total: 33.23 acres

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DEQ WATER QUALITY DIVISION

2023 Program Year

Map Created February 22, 2023
2021 NAIP

Farm 6821

Tract 8942

9-27N-54E

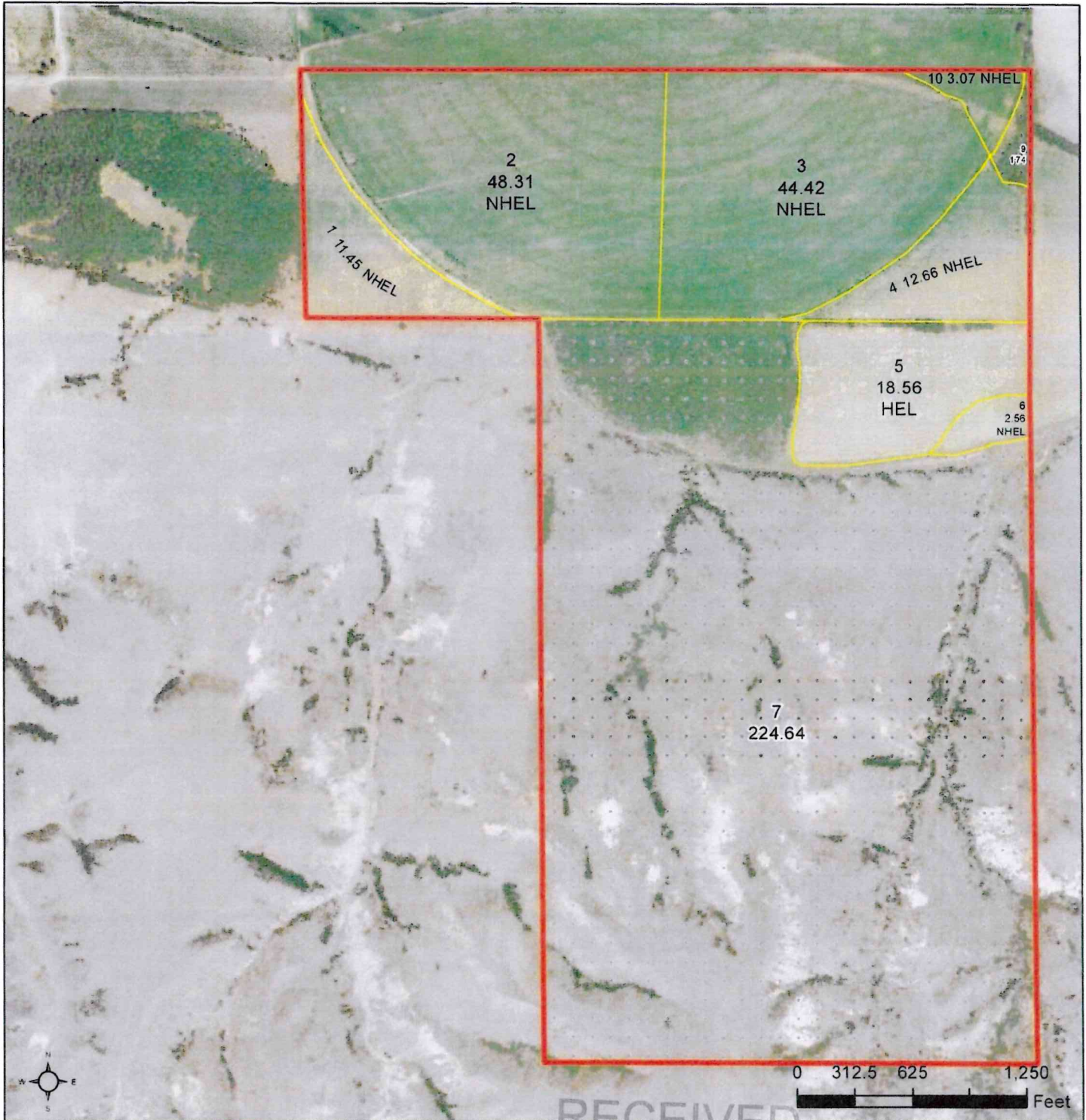
United States Department of Agriculture (USDA) Farm Service Agency (FSA) maps are for FSA Program administration only. This map does not represent a legal survey or reflect actual ownership; rather it depicts the information provided directly from the producer and/or National Agricultural Imagery Program (NAIP) imagery. The producer accepts the data 'as is' and assumes all risks associated with its use. USDA-FSA assumes no responsibility for actual or consequential damage incurred as a result of any user's reliance on this data outside FSA Programs. Wetland identifiers do not represent the size, shape, or specific determination of the area. Refer to your original determination (CPA-026 and attached maps) for exact boundaries and determinations or contact USDA Natural Resources Conservation Service (NRCS).

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United States
Department of
Agriculture

Richland County, Montana



Common Land Unit Tract Boundary

- Cropland
- Rangeland

Wetland Determination Identifiers

- Restricted Use
- ▼ Limited Restrictions
- Exempt from Conservation Compliance Provisions

Tract Cropland Total: 141.03 acres

2023 Program Year

Map Created February 22, 2023
2021 NAIP

Farm 6821

Tract 11354

8-27N-54E

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United States
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Richland County, Montana



Common Land Unit Tract Boundary

- Cropland
- Rangeland

Wetland Determination Identifiers

- Restricted Use
- Limited Restrictions
- Exempt from Conservation Compliance Provisions

Tract Cropland Total: 224.28 acres

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DEQ WATER QUALITY DIVISION

2023 Program Year

Map Created February 22, 2023
2021 NAIP

Farm 6821

Tract 11353

5-27N-54E

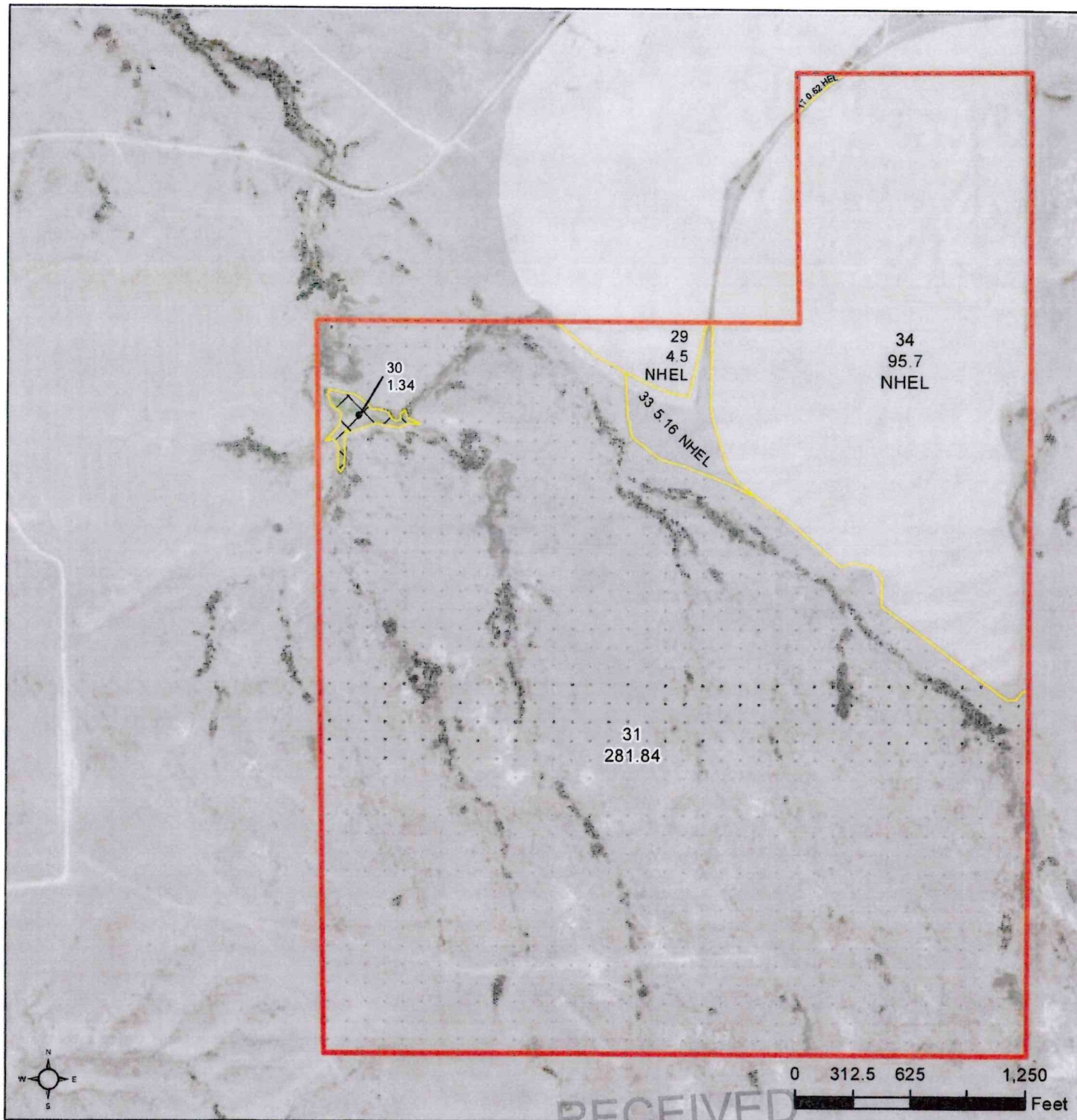
United States Department of Agriculture (USDA) Farm Service Agency (FSA) maps are for FSA Program administration only. This map does not represent a legal survey or reflect actual ownership; rather it depicts the information provided directly from the producer and/or National Agricultural Imagery Program (NAIP) imagery. The producer accepts the data 'as is' and assumes all risks associated with its use. USDA-FSA assumes no responsibility for actual or consequential damage incurred as a result of any user's reliance on this data outside FSA Programs. Wetland identifiers do not represent the size, shape, or specific determination of the area. Refer to your original determination (CPA-026 and attached maps) for exact boundaries and determinations or contact USDA Natural Resources Conservation Service (NRCS)

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United States
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Agriculture

Richland County, Montana



Common Land Unit

- Cropland
- Rangeland

- X Other Use
- Tract Boundary

Wetland Determination Identifiers

- Restricted Use
- ▼ Limited Restrictions
- Exempt from Conservation
- Compliance Provisions

Tract Cropland Total: 105.98 acres

2023 Program Year

Map Created August 11, 2022
2021 NAIP

Farm 1966

Tract 11779

11-27N-53E

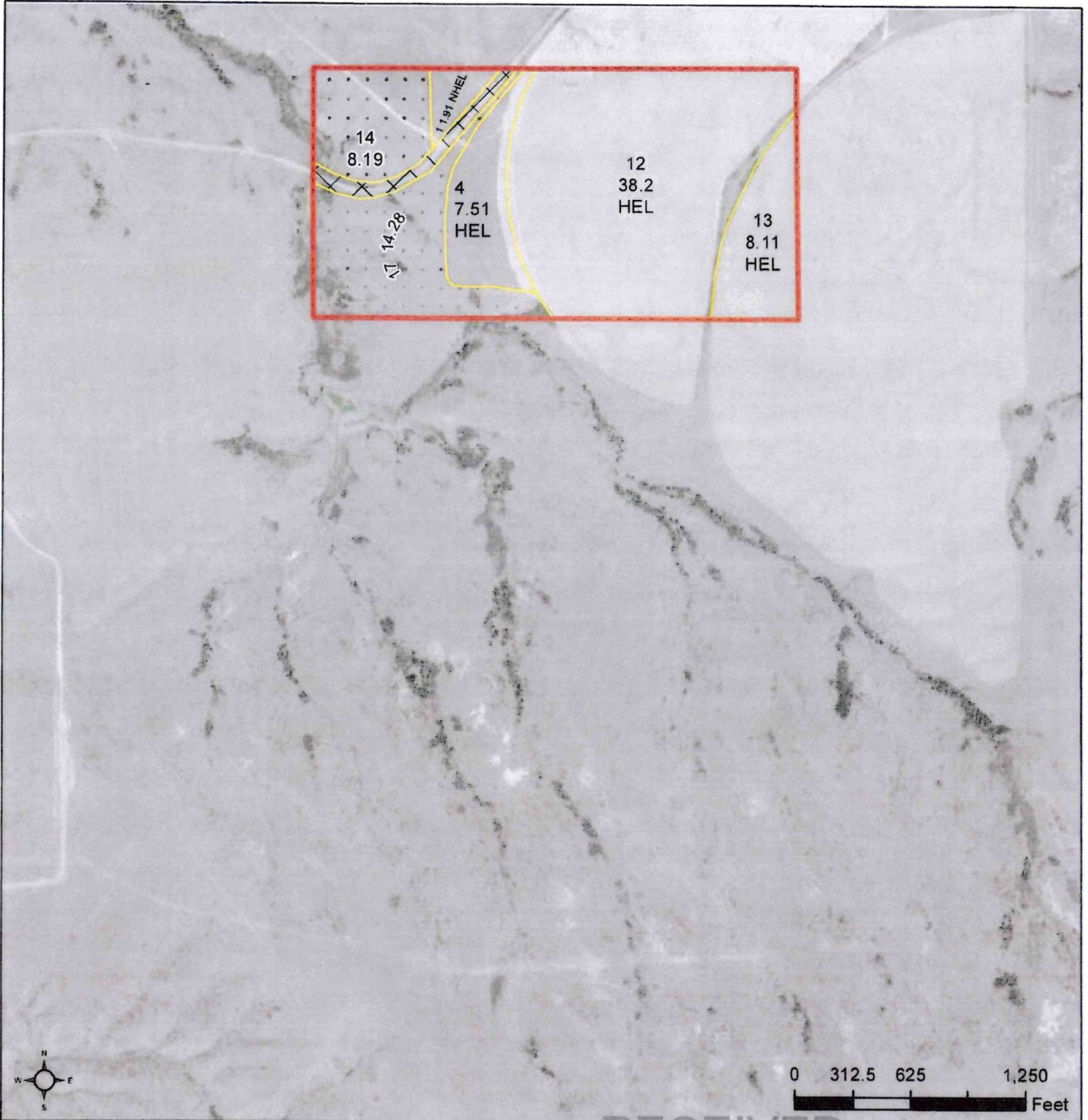
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Richland County, Montana



Common Land Unit

	Cropland		Other Use
	Rangeland		Tract Boundary

Wetland Determination Identifiers

- Restricted Use
- Limited Restrictions
- Exempt from Conservation Compliance Provisions

Tract Cropland Total: 55.73 acres

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2023 Program Year

Map Created August 11, 2022
2021 NAIP

Farm 4427

Tract 8946

11-27N-53E

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United States
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Richland County, Montana



Common Land Unit

- Cropland
- Rangeland
- Other Use
- Tract Boundary

Wetland Determination Identifiers

- Restricted Use
- Limited Restrictions
- Exempt from Conservation Compliance Provisions

Tract Cropland Total: 92.90 acres

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2023 Program Year

Map Created February 22, 2023
2021 NAIP

Farm 6821

Tract 8955

1-27N-53E



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