



WHERE THE FOREST MEETS THE PRAIRIE

Todd County

● MINNESOTA ● EST. 1855 ●

PLANNING & ZONING

215 1st Avenue South, Suite 103

Long Prairie, MN 56347

Phone: 320-732-4420 Fax: 320-732-4803

Email address: toddplan.zone@co.todd.mn.us

The following is the agenda for **Thursday, July 2, 2026 at 6:00pm**. The Todd County Planning Commission will hold a public hearing in the Commissioner's Boardroom, Historic Courthouse, 215 1st Ave South, Suite 301, Long Prairie.

NOTE: This meeting is being held in-person, and the public is encouraged to attend. Those who do attend in person can find parking atop the hill on the west side of the Historic Courthouse and enter through the North Doors, near the American Flag and monument.

If you have any concerns or questions in regard to the upcoming meeting and the applications on the agenda, feel free to contact the Planning & Zoning Office at either (320) 732-4420 or toddplan.zone@co.todd.mn.us. All correspondence must include name & mailing address and be received 48 hours before the date and time of the hearing.

Agenda

- Call to Order
- Pledge of Allegiance
- Introduction of Planning Commission Members and process review.
- Approval of agenda
- Approval of June 4, 2026 Planning Commission meeting minutes
- The applicant is introduced
 - Staff report
 - Applicant confirms if staff report accurately represents the request
 - Correspondence
 - Site Visit Review
 - Public comment
 - Board review with applicants, staff, and public

1. John U. Gingerich: Section 04, Iona Township

Site Address: 32404 185th Ave., Clarissa, MN 56440

PID: 13-0003502

1. Request to operate a Sawmill for the construction of pallet lumber in AF-1 Zoning District.

2. John U. Gingerich: Section 04, Iona Township

Site Address: 32404 185th Ave., Clarissa, MN 56440

PID: 13-0003502

1. Request for Temporary Family Housing in AF-1 Zoning District.

3. Jacob C. Miller: Section 29, Eagle Valley Township

Site Address: 17913 344th Street, Clarissa, MN 56440

PID: 07-0035800

1. Request for the Assembly and Export of delivered wood products in AF-1 Zoning District.

4. New Heights Dairy LLC: Section 10, Eagle Valley Township

Site Address: 37674 Co. Hwy 11, Clarissa, MN 56440

PID: 07-0008801

1. Request for an increase in animal units from 1997.4 to 2744 animal units in AF-1 Zoning District.

5. Andy and Ella Raber: Section 10, Iona Township

Site Address: 31570 County 11, Clarissa, MN 56440

PID: 13-0009800

1. Request for Manufacturing and Retail of Outdoor Poly Furniture and Accessories in AF-2 Zoning District.

6. Eli Bontrager: Section 13, Eagle Valley Township

Site Address: 36167 County 89, Browerville, MN 56438

PID: 07-0012600

1. Request to Remanufacture Lumber in AF-1 Zoning District.

7. “Plat of Halves” Jeffrey A. Halverson: Section 18, Villard Township

Site Address: 281st Ave., Staples, MN 56479

PID: 25-0018601

1. Request to Create a two-lot Plat in R-2 and Natural Environment Shoreland Zoning Districts.

8. Public Hearing on Comprehensive Plan.

9. Public Hearing to Establish a Moratorium on DATA Centers.

Adjournment –

Next meeting: August 6, 2026

Planning Commission Meeting Minutes

June 4, 2026

Completed by: Sue Bertrand, P&Z Staff

Site visit completed by Adam Ossefoort and Roger Hendrickson on 5/28/2026

Meeting attended by board members: Chairman Jim Pratt, Vice Chair Ken Hovet, Lloyd Graves, Roger Hendrickson, Andy Watland, and Commissioner Tim Denny.

Staff members: Adam Ossefoort and Sue Bertrand

Other members of the public: Sign-in Sheet is available for viewing upon request.

Jim called the meeting to order at 6:00 p.m. The Pledge of Allegiance was recited as a collective group.

Introduction of the staff and board members by Jim.

Ken motioned to have the agenda approved as amended to discuss Data Centers at the end of the meeting, Roger seconded, voice vote, no dissent heard. Motion carried.

Andy motioned to have May 7, 2026, meeting minutes approved. Lloyd seconded, voice vote, no dissent heard. Motion carried.

AGENDA ITEM 1: Prairie Country Estates, Randy Mechels: Section 16, Long Prairie Township, Site

Address: County 5, Long Prairie, MN 56347 **PID:** 18-0015300

1. Request to create a five-lot Plat in Residential-2 Zoning District.

Randy was present as the applicant.

Staff Findings: Adam read through the staff report. This report is available for viewing upon request in the Planning & Zoning Office.

Recommendation:

A motion to recommend approval to the County Board of Commissioners with the following conditions:

Proposed Conditions:

1. New accesses from the County road shall be approved by the road authority prior to installation.
2. Applicant must abide by all other applicable federal, state, and local standards.

Correspondence received: None

Public comment:

Wally Zastro, Long Prairie Township stated they are in support from about six weeks ago when it was presented to the township. He added the County said they can put driveways in along the road and it was all good. He stated the township does not want to put a road in but if the County wants to, they have no problems.

Board discussion:

On Site Visit Report by Roger when he was out there on May 28th, 2026, this report may be viewed in full upon request at the Planning and Zoning office.

Ken had concerns with five access driveways, as the road is busy.

Randy stated he had talked with Loren Fellbaum at public works and he didn't have a problem with it.

Adam added he had reached out to Loren, as well, and was told it's nice to have less driveways for different access points but they have also seen conflicts with shared driveways, and in either case having multiple driveways with the line of site clear along there, he is comfortable with it.

Jim, Roger and Ken all agreed the visibility was great along there.

Ken asked if Randy had any intentions of making this a part of City limits?

Randy, the city has not reached out to him or said anything about that. He likes the R-2 zoning district he grew up in.

Wally stated the township would not want this to be annexed into the city and will fight tooth and nail not to. They have lost too much already from the tax base and want to keep this in the township.

Adam, no comment from the city when he reached out to them, and they never mentioned annex plans. He knows they do not have services that go that far out and pointed out the one additional property between proposed plat and city limits.

Jim stated it looks like a good place for more houses, close to town and not much for farming.

Roger motioned to approve, Ken seconded with the conditions as presented.

Proposed Conditions:

1. New accesses from the township road shall be approved by the road authority prior to installation.
2. Applicant must abide by all other applicable federal, state, and local standards.

Roll call vote commenced as follows:

Board member	Vote (yes or no)
Ken Hovet	Yes
Roger Hendrickson	Yes
Lloyd Graves	Yes
Andy Watland	Yes
Jim Pratt	Yes

Motion carried. Jim noted the application will be presented to the County Board of Commissioners on June 16th, 2026.

AGENDA ITEM 2: Gaylen Sandgren -Section 32, Long Prairie Township, Site Address: 23570 210th St., Long Prairie, MN 56347 PID: 18-0040001

1. Request to Rezone from Commercial to Natural Environment Shoreland Zoning District.

Gaylen was present as the applicant.

Staff Findings: Adam read through the staff report. This report is available for viewing upon request in the Planning & Zoning Office.

Additional Notes:

Section 5.06 Zoning Amendments.

A. The County Board may adopt amendments to the zoning ordinance and zoning map in relation both to land uses within a particular district or to the location of the district lines. Such amendments shall not be issued indiscriminately but shall only be used as a means to reflect changes in the goals and policies of the County as reflected in the Comprehensive Plan or changes in conditions in the county.

Recommendation:

A motion to recommend approval to the County Board of Commissioners with the following conditions:

Proposed Conditions:

1. No conditions

Correspondence received: None

Public comment:

Wally from Long Prairie township stated they were in support of Gaylen's application.

Board discussion:

On Site Visit Report was reviewed by Roger: This report may be viewed in full, upon request, at the Planning and Zoning Office. Roger stated it was a very nice, neat, well-kept property.

Adam reminded the board we were only looking at the rezone part of this application for a decision tonight. When he goes to do the split, he will have to come back to the board for a public hearing at that time.

Andy confirmed the entire parcel will be rezoned to Natural Environment Shoreland.

Adam, correct. Everything is outlined in black.

Andy also asked if there were any setback considerations with the property to the North as far as next to shoreland?

Adam stated setback distances in commercial are greater anyway, it would be able to be closer but leaves little room for any type of addition.

Jim, just rezone, will have to come back with the split application.

Ken motioned to approve with no conditions, Lloyd seconded.

Roll call vote commenced as follows:

Board member	Vote (yes or no)
Ken Hovet	Yes
Roger Hendrickson	Yes
Lloyd Graves	Yes
Andy Watland	Yes
Jim Pratt	Yes

Motion carried. Ken noted the application will be presented to the County Board of Commissioners on June 16th, 2026.

AGENDA ITEM 3: Lakeside Bluffs Addition, Eric Valencia and Kurt & Barb Johnson -Section 21, Burnhamville Township, Site Address: Dunlin Road, Burtrum, MN 56318 PID: 06-0031100

1. Request to create a two-lot Plat in Recreational Development Shoreland Zoning District.

Eric Valencia & Barb Johnson were present as the applicants.

Staff Findings: Adam read through the staff report. This report is available for viewing upon request in the Planning & Zoning Office.

Recommendation:

A motion to recommend approval to the County Board of Commissioners with the following conditions:

Proposed Conditions:

1. New accesses from the township road shall be approved by the local township prior to installation.
2. Establishment of a 50' drainage easement to protect the flow area across lot 2. Drainage easement shall remain in deep rooted, native vegetation for protection of Long Lake.
3. Applicant must abide by all other applicable federal, state, and local standards.

Correspondence received: None

Public comment:

Yes, Percy Wunderlich, lives across the road and was concerned with the drainage. He has a history of living there and mowed the lawn since he was fourteen years old, now owns it. 1988 he had worked for the department of defense overseas for 37 years. While in Europe, he and the kids stayed there for eight weeks and had been around this property a long time. He grew up one and a half miles from here. His father lived and died there. He is concerned about the water table and the drainage that takes place there. A long time ago, there was a farm about halfway up the hill as you would go toward Burtrum. He blew out a swamp, which changed the water table. Not sure the board was aware, but Dunlin Road used to run on the edge of Galligan's yard then took a 90-degree turn, then another 90-degree turn then joined where Dunlin road is now. Previous owner wanted to create lots and offered to change the road. Township approved the road change as the

school busses had gone off the road on those “S” curves in the winter. Again, changes to the wetlands taking place. On the way to the meeting he stopped at the gully and stated he is not good with distances but the gully is 50’ deep and 150’ across. Where his driveway is it’s only three feet away from the bluff, but if more erosion takes place, he will lose his driveway and he will be back here asking to dig out the bluff. It is only three feet away from his ten-foot asphalt driveway. There is no leeway there for any more water to be dumped in through the culvert or more erosion. He was glad he had stopped as he was shocked at how much more erosion has been taking place since with more trees and roots in there. He had taken pictures that are available if the board was interested to see how much erosion had taken place. He just asked the board to do everything in their power to prevent any additional erosion occur. Once structures go up more water flow is going to change and it is not going to be able to soak in the ground. He mentioned 102 acres from three directions drain into that area of the culvert and not just his property but the neighbor to the North and what is it doing to the lake? Felt a lot of this information was not available as it is not recorded.

Board discussion:

On Site Visit Report was reviewed by Roger: This report may be viewed in full, upon request, at the Planning and Zoning Office. He stated the road seemed a little too close, other than that, looked like a good place. As far as erosion. By farming it there will be more erosion and silt going to the lake and putting grass in as two lots would help, however added structures would displace more water. Kind of a catch all, either way.

Ken asked if he’d been to the township and they were okay with putting driveways in?

Eric stated, yes he’d been to the township and they didn’t oppose.

Ken added he was okay with it.

Jim asked only two lots?

Adam, correct.

Andy asked about the drainage easement, if it meant a 50-foot wide, 25-feet on each side of it, easement along that drainage line that you see?

Adam explained you can see that blue line in the image (showed on overhead). The surveyor would locate the center line and twenty-five-feet on either side would remain permanent vegetation to slow that water down and hopefully take a little bit of it in.

Andy that means there cannot be any building on there or make it a lawn. It must be native vegetation.

Adam, we generally encourage to clip it once a year to encourage regrowth for the sole purpose of conveying water and slowing it down.

Andy stated when soils are left native like that for long periods of time, they actually become more pervious.

Jim asked if it was all on one lot?

Adam only impacts lot 2, and it leaves plenty of buildable area outside of the easement area.

Ken, that condition will stay with the property?

Adam, forever, and it will be on the final plat and would take a whole court process to be removed from the plat.

Percy asked if there is any way when during construction water be directed away from the drainage ditch.

Andy stated they could route water away, but it would eventually make it way back again as it is the natural flow.

Adam relayed you are looking more of retention rather than direction.

Andy and Jim, with that easement it will probably be a lot better than having it agricultural, with washouts and gullies, while this can prevent that.

Andy asked if it will need any special vegetation?

Adam, just deep rooted, native vegetation. One thing they have done in the past, especially on these larger lots, they have set standards to reduce impervious surface coverage. Instead of allowing up to 25% they could cap at 15%, or something like that, just specific to these two lots. Something to consider.

Andy, since it is such a large lot, 15% is still a substantial amount. Asked Eric if that would seem problematic in any way for any future plans?

Eric, didn't think so.

Ken your biggest headache is East of there, and there is nothing we can do about that.

Adam showed the area.

Andy, asked if the conditions come from Soil & Water?

Adam, we received nothing on this one from Soil & Water, however, it is a significant drainage area so just to protect that area, felt this was a straight forward way to secure the soil and slow some water down.

Roger, on that 50-foot drainage easement, can that grass be mowed?

Adam, not like lawn grass. We like to see people maintain it to some extent to keep weeds down and typically, we encourage no mow, other than a couple times a year to encourage regrowth for plants to take up extra nutrients.

Jim, what's growing in there now in the ravine?

Eric, pasture mix, oats and grass, with the intent to plant trees, red dogwood.

Jim stated he did not think they needed to reduce the impervious as they are not cramming a bunch of lots in there. When you have big lots and with the drainage easement, that is going to reduce the run-off quite a bit.

Andy thought it is sufficient the way we have it.

Roger motioned to approve, Andy seconded with the conditions as stated.

Proposed Conditions:

1. New accesses from the township road shall be approved by the local township prior to installation.
2. Establishment of a 50' drainage easement to protect the flow area across lot 2. Drainage easement shall remain in deep rooted, native vegetation for protection of Long Lake.
3. Applicant must abide by all other applicable federal, state, and local standards.

Roll call vote commenced as follows:

Board member	Vote (yes or no)
Ken Hovet	Yes
Roger Hendrickson	Yes
Lloyd Graves	Yes
Andy Watland	Yes
Jim Pratt	Yes

Motion carried. Ken noted the application will be presented to the County Board of Commissioners on June 16th, 2026.

6:46 Jim called for a short recess before the Data Center discussion and 6:48 reconvened.

Data centers discussion:

Ken if you listen to the news at all Data Centers are a big topic and felt we should have an ordinance in place to get ahead of the game. There are a lot of concerns from the public.

Jim agreed it would be easier to deal with it sooner rather than after and asked Adam if he knew of any neighboring counties that have passed an ordinance on it?

Adam, Jackie Bauer mentioned she knew of one that has passed an ordinance and other counties are working on it. What most are doing and what he thinks we should do is get this to an upcoming work session, get it back to this board and establish a moratorium for a year to establish an ordinance. We would not allow any during that time, so we can get something in place. He is sure commissioners would be on board, then notice it for public hearing and grab any legal help we need along the way. It makes the most sense is to establish the moratorium for a year, to give us some time to get something in place.

Jim and Andy agreed, give us time to organize.

Adam stated the work session would be on the 16th, that meeting is after “our” public notice needs to go out. We could always anticipate it moving forward and put it on the agenda right away and we could always remove it if not agreed upon.

Andy asked if there was any talk about an IUP?

Adam, we do not even have a definition of an IUP in our ordinance, so it would be a significant overhaul of our ordinance to add it. Agreed there are many uses that would make sense for them to be IUP’s instead of CUP’s.

Andy, mentioned putting a moratorium on our solar, being there are no current applications, to close any loopholes for solar farms, since we have learned more.

Adam, same process as with Data Centers

Adam will move it to commissioners for a work session.

Percy asks for the board to consider not to sign any non-disclosure statement, that is what is happening to others where the commissioners sign a non-disclosure statement and the people or public are not included to talk about it. It is all closed doors.

Adam invited Percy to attend or submit comments for the board to hear and consider during this process.

Tim agreed, he’d like that. Send it up the chain.

Jim agreed, give us a little time to gather information, hearing what’s true or...

Roger motioned to adjourn the June 4th Planning Commission Meeting, Ken seconded, voice vote, no dissention heard, motion carried and meeting adjourned at 6:56 PM.



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Phone: 320-732-4420 Fax: 320-732-4803

Email: ToddPlan.Zone@Co.Todd.MN.US

CONDITIONAL USE PERMIT APPLICATION

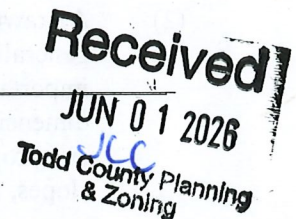
Applicant John A. Dingrich Mailing Address 32404 185th Ave Clrissa
 Site Address Same MN, 56440
 Phone Number NONE E-Mail Address NONE
 Property Owners Name & Address (if not applicant) _____

Parcel ID(s) 13-0003502 Township IONA Lake/River Name _____

Zoning District (circle one): AF-1; AF2; R-2; R-10; UG; RT; Comm; L-M; or Shoreland.

Full and Current Legal Description(s) _____
 (attach if necessary)

Current tax statement or other proof of ownership attached () yes () no



Measurement of land involved: Width _____ Length _____ Acres 2 Acres

Septic System: Date installed 10/12/2022 Date of latest Compliance Inspection _____

Is an upgrade needed: () yes (X) no

Site accessed by: (V) public road () easement

If easement, is the easement legally recorded? () yes () no

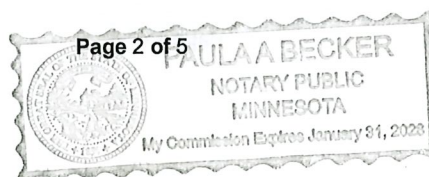
Detailed Explanation of Request:

Sawmill to Construct Pallet Lumber
Mon. thru Sat. 5 AM to 9 PM.
Average 3 Loads a day trucking
5 extra employees

Did you meet with the Township Board to present the Application for Conditional Use Permit?
 Yes X No _____ Date of the meeting: 4/13/2026

Tom Brown
 Optional Township Board Signature

Chairman
 Board Position



Paula A. Becker
4.13.26

Will the request create an excessive burden on the existing roads or other utilities? **Explain**

NO

Is the requested use compatible with the surrounding properties? **Explain**

yes

Could the use significantly depreciate near-by properties? **Explain**

NO

Will the structure and the use have an appearance that will not have an adverse effect on near-by properties? **Explain**

will not have an adverse effect

Will the requested use create an adverse affect on near-by properties because of noise, odor, glare, hours of operation, or general unsightliness? **Explain**

NO

**RETURN APPLICATION, SITE PLAN, SEWER INFORMATION AND ANY ADDITION
INFORMATION, AND FEE TO:**

Todd County Planning & Zoning Office
215 1st Ave South, Suite 103
Long Prairie, MN 56347

Fee: \$600.00 or After-the-Fact Fee: **\$1,200.00** payable to "Todd County"

Only complete applications may be placed on an agenda

****A PARCEL IN JOINT OWNERSHIP MUST PROVIDE WRITTEN SIGNATURE OF ALL OWNERS****

John D Dingerich
Applicant Name Printed

John D Dingerich
Signature

4-1-24
Date

Property Owner Name Printed

Signature (If different than applicant)

Date

A Conditional Use Permit expires and is considered invalid unless they are substantially completed within thirty-six months of the date the CUP is granted by the County Board (Section 5.05(N) of the County Zoning Ordinance).



Temp.
Dwelling

Sawmill

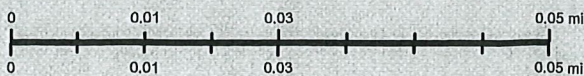
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13-0003600
Sources
CURTIS
FOLSON

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Todd County GIS
215 1st Ave S, Ste 102
Long Prairie, MN 56347
(Office) 320-732-4248

GIS Site Map



The Todd County GIS & Land Services Department has made every effort to provide the most accurate and up-to-date information available in this publication and cannot be held responsible for any unforeseen errors or omissions. If the recipient wishes to locate parcel corners and property lines, employ the services of a Registered Land Surveyor.

Printed on:
Monday, March 9, 2026

EXHIBIT "A"

That part of the Northwest Quarter (NW1/4) of Section Four (4), Township One Hundred Thirty (130) North, Range Thirty-four(34) West of the Fifth P.M., Todd County, Minnesota, described as follows: Beginning at the Southwest corner of said NW ¼; thence North 01 degree, 19 minutes, 36 seconds West, (assumed bearing) along the West line of said NW ¼ a distance of 1307.28 feet, said point being 1351.47 feet Southerly of the Northwest corner of said NW ¼; thence South 89 degrees 47 minutes, 56 seconds East, a distance of 1774.44 feet; thence South 01 degree, 15 minutes, 18 seconds East a distance of 1307.33 feet to the South line of said NW ¼; thence North 89 degrees, 47 minutes, 46 seconds West along said South line, a distance of 1772.80 feet to the point of beginning.

Subject to Township Road easements and rights of way on record.

13-0003502



Sources: Esri, TomTom, Garmin, FAO, NOAA, USGS, © OpenStreetMap contributors, and the GIS User Community, 2023

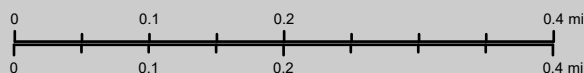
Todd County

MINNESOTA



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Printed on:
Tuesday, June 9, 2026

Receipt: 2026-0236



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CONDITIONAL USE PERMIT APPLICATION

Applicant John M. Dingert Mailing Address 32404 188th Ave Clarissa MN.
Site Address Same 56440
Phone Number Na E-Mail Address Na
Property Owners Name & Address (if not applicant) _____

Parcel ID(s) 13-0003502 Township TONA Lake/River Name _____

Zoning District (circle one): (AF-1) AF2; R-2; R-10; UG; RT; Comm; L-M; or Shoreland.

Full and Current Legal Description(s) _____
(attach if necessary)

Current tax statement or other proof of ownership attached () yes () no

Measurement of land involved: Width _____ Length _____ Acres 52.27

Septic System: Date installed 10-12-2022 Date of latest Compliance Inspection _____

Is an upgrade needed: () yes (X) no

Site accessed by: (X) public road () easement

If easement, is the easement legally recorded? () yes () no

Detailed Explanation of Request:

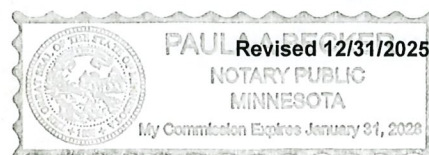
temp family housing
800 sq.ft, one story, one bedrooms

Did you meet with the Township Board to present the Application for Conditional Use Permit?

Yes X No _____ Date of the meeting: 4/13/2026

John M. Dingert
Optional Township Board Signature

Chairman
Board Position



Paula Becker
4.13.2026

Will the request create an excessive burden on the existing roads or other utilities? **Explain**

NO

Is the requested use compatible with the surrounding properties? **Explain**

Yes

Could the use significantly depreciate near-by properties? **Explain**

NO

Will the structure and the use have an appearance that will not have an adverse effect on near-by properties? **Explain**

NO

Will the requested use create an adverse affect on near-by properties because of noise, odor, glare, hours of operation, or general unsightliness? **Explain**

Will Not create an adverse affect

**RETURN APPLICATION, SITE PLAN, SEWER INFORMATION AND ANY ADDITION
INFORMATION, AND FEE TO:**

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Long Prairie, MN 56347

Fee: \$600.00 or After-the-Fact Fee: \$1,200.00 payable to "Todd County"

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John U. Geringich
Applicant Name Printed

John U. Geringich
Signature

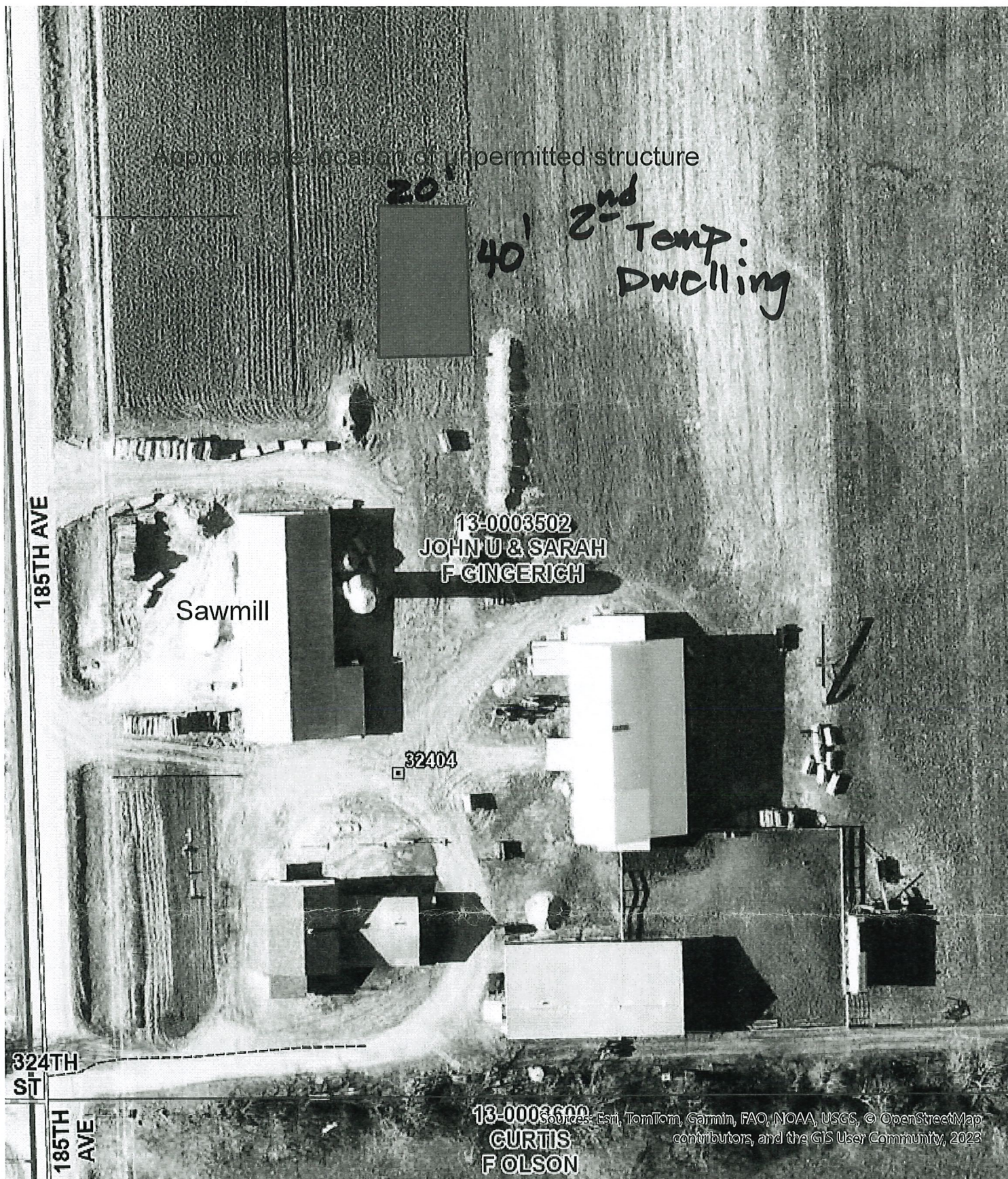
4-1-26
Date

Property Owner Name Printed

Signature (If different than applicant)

Date

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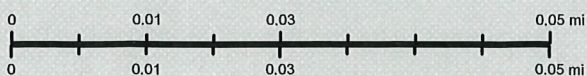


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Printed on:
Monday, March 9, 2026

Date 07-21-2025
Deed tax: \$1,303.50
Todd County Property Records &
Taxpayer Services
PID 13-0003502

KIMBERLY BOSL
TODD COUNTY RECORDER
Long Prairie, MN
Fee Amount: \$46.00

Return via PICK UP:
ALL STAR TITLE & ABSTRACT
103 2ND STREET S
LONG PRAIRIE, MN 56347

(Top 3 inches reserved for recording data)

WARRANTY DEED
Individual(s) to Individual(s)

Minnesota Uniform Conveyancing Blanks
Form 10.1.1 (2018)

eCRV number: 1784856

DEED TAX DUE: \$ 1303.50

DATE: July 18, 2025
(month/day/year)

FOR VALUABLE CONSIDERATION, Aden M. Miller and Katie E. Miller, husband and wife
(insert name and marital status of each Grantor)

_____ ("Grantor"),
hereby conveys and warrants to John U. Gingerich and Sarah F. Gingerich, husband and wife as joint tenants and Allen F. Miller
(insert name of each Grantee)
and Annie C. Miller, husband and wife as joint tenants ("Grantee"), as

(Check only one box.) ☐ tenants in common, (If more than one Grantee is named above and either no box is checked or both boxes are checked,
☒ joint tenants, this conveyance is made to the named Grantees as tenants in common.)

real property in Todd County, Minnesota, legally described as follows:

SEE ATTACHED EXHIBIT "A"

Check here if all or part of the described real property is Registered (Torrens) ☐

together with all hereditaments and appurtenances belonging thereto, subject to the following exceptions:

NONE

Check applicable box:

- ☐ The Seller certifies that the Seller does not know of any wells on the described real property.
- ☐ A well disclosure certificate accompanies this document or has been electronically filed. (If electronically filed, insert WDC number: _____.)
- ☒ I am familiar with the property described in this instrument and I certify that the status and number of wells on the described real property have not changed since the last previously filed well disclosure certificate.

Grantor

Aden M. Miller
 (signature) Aden M. Miller

Katie E. Miller
 (signature) Katie E. Miller

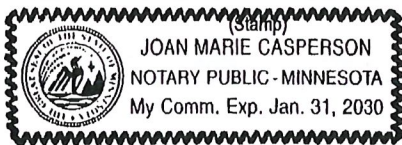
 (signature)

 (signature)

State of Minnesota, County of TODD

This instrument was acknowledged before me on July 18, 2025, by _____
 (month/day/year)

Aden M. Miller and Katie E. Miller, husband and wife
 (insert name and marital status of each Grantor)



Joan M Casperson
 (signature of notarial officer)

Title (and Rank): _____

My commission expires: _____
 (month/day/year)

THIS INSTRUMENT WAS DRAFTED BY:
 (insert name and address)

All Star Title and Abstract Co., LLC
 103 2nd Street South
 Long Prairie, MN 56347
 Phone: 320-732-3111
 File Number: 25-4225

TAX STATEMENTS FOR THE REAL PROPERTY DESCRIBED IN THIS INSTRUMENT SHOULD BE SENT TO:

(insert legal name and residential or business address of Grantee)

John U. Gingerich and Sarah F. Gingerich,
 Allen F. Miller and Annie C. Miller

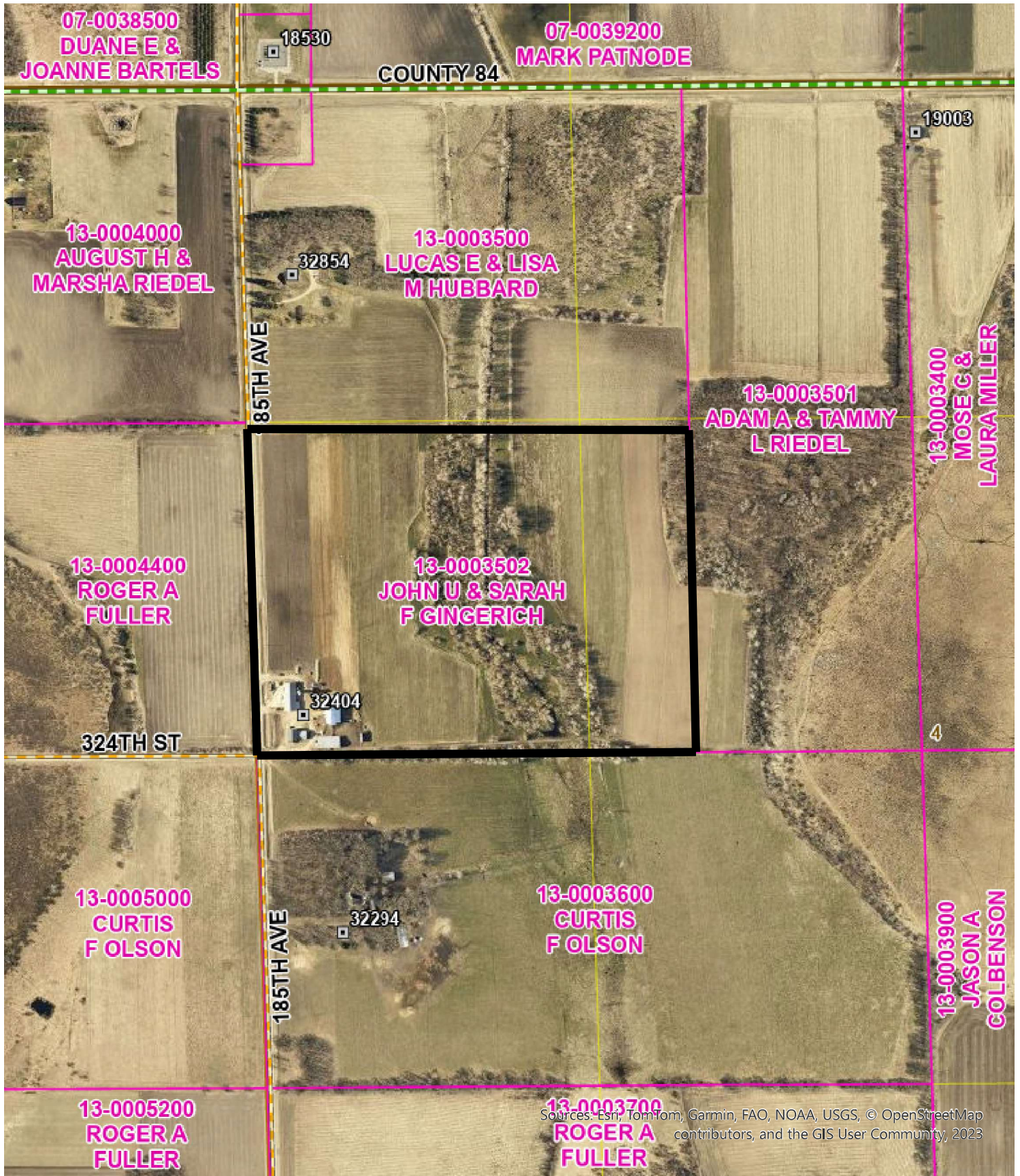
32404 185th Avenue
 Clarissa, MN 56440

EXHIBIT "A"

That part of the Northwest Quarter (NW1/4) of Section Four (4), Township One Hundred Thirty (130) North, Range Thirty-four(34) West of the Fifth P.M., Todd County, Minnesota, described as follows: Beginning at the Southwest corner of said NW ¼; thence North 01 degree, 19 minutes, 36 seconds West, (assumed bearing) along the West line of said NW ¼ a distance of 1307.28 feet, said point being 1351.47 feet Southerly of the Northwest corner of said NW ¼; thence South 89 degrees 47 minutes, 56 seconds East, a distance of 1774.44 feet; thence South 01 degree, 15 minutes, 18 seconds East a distance of 1307.33 feet to the South line of said NW ¼; thence North 89 degrees, 47 minutes, 46 seconds West along said South line, a distance of 1772.80 feet to the point of beginning.

Subject to Township Road easements and rights of way on record.

13-0003502



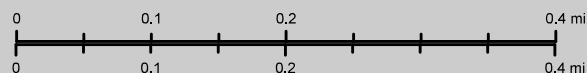
Sources: Esri, TomTom, Garmin, FAO, NOAA, USGS, © OpenStreetMap contributors, and the GIS User Community, 2023

Todd County
MINNESOTA



Todd County GIS
215 1st Ave S, Ste 102
Long Prairie, MN 56347
(Office) 320-732-4248

GIS Site Map



The Todd County GIS & Land Services Department has made every effort to provide the most accurate and up-to-date information available in this publication and cannot be held responsible for any unforeseen errors or omissions. If the recipient wishes to locate parcel corners and property lines, employ the services of a Registered Land Surveyor.

Printed on:
Tuesday, June 9, 2026



WHERE THE FOREST MEETS THE PRAIRIE

Todd County
• MINNESOTA • EST. 1855 •

PLANNING & ZONING

215 1st Avenue South, Suite 103

Long Prairie, MN 56347

Phone: 320-732-4420 Fax: 320-732-4803

Email: ToddPlan.Zone@Co.Todd.MN.US

CONDITIONAL USE PERMIT APPLICATION

Applicant Jacob Miller Mailing Address 17913 344th St.
Site Address Clarissa MN. 56440
Phone Number NONE E-Mail Address NONE
Property Owners Name & Address (if not applicant) same

Parcel ID(s) 07-0035800 Township Eagle Valley Lake/River Name _____

Zoning District (circle one): AF-1 AF2; R-2; R-10; UG; RT; Comm; L-M; or Shoreland.

Full and Current Legal Description(s) * see attached **Received**
(attach if necessary)

Current tax statement or other proof of ownership attached ☒ yes () no

JUN 01 2026

**Todd County Planning
& Zoning**

Measurement of land involved: Width _____ Length _____ Acres 1

Septic System: Date installed 2019 Date of latest Compliance Inspection 5-1-2026

Is an upgrade needed: () yes ☒ no

Site accessed by: ☒ public road () easement

If easement, is the easement legally recorded? () yes () no

Detailed Explanation of Request:

request a CUP to approve the assembly of
delivered wood products and export.

Did you meet with the Township Board to present the Application for Conditional Use Permit?

Yes X No _____ Date of the meeting: 5/5/26

X James Bon
Optional Township Board Signature

chair person
Board Position

May 5th

Receipt # 2026-0275

Will the request create an excessive burden on the existing roads or other utilities? **Explain**

No

Is the requested use compatible with the surrounding properties? **Explain**

yes

Could the use significantly depreciate near-by properties? **Explain**

No

Will the structure and the use have an appearance that will not have an adverse effect on near-by properties? **Explain**

yes

Will the requested use create an adverse affect on near-by properties because of noise, odor, glare, hours of operation, or general unsightliness? **Explain**

No

**RETURN APPLICATION, SITE PLAN, SEWER INFORMATION AND ANY ADDITION
INFORMATION, AND FEE TO:**

Todd County Planning & Zoning Office
215 1st Ave South, Suite 103
Long Prairie, MN 56347

Fee: \$600.00 or After-the-Fact Fee: \$1,200.00 payable to "Todd County"

Only complete applications may be placed on an agenda

****A PARCEL IN JOINT OWNERSHIP MUST PROVIDE WRITTEN SIGNATURE OF ALL OWNERS****

X Jacob Miller
Applicant Name Printed

Jacob Miller
Signature

5-20-26
Date

X Jacob Miller
Property Owner Name Printed

Signature (If different than applicant)

5-20-26
Date

A Conditional Use Permit expires and is considered invalid unless they are substantially completed within thirty-six months of the date the CUP is granted by the County Board (Section 5.05(N) of the County Zoning Ordinance).

Site Plan

Outline how the intended use will be situated on the property including buildings, parking areas, signage, material storage areas, etc.

* see attached

**OFFICE OF COUNTY AUDITOR/TREASURER
TODD COUNTY MINNESOTA**

☒ No delinquent taxes
☒ Transfer entered
Certificate of Real Estate Value (if filed) () not required.
Certificate of Real Estate Value No. 13950
Date 10-1-04
Karen Busch
County Auditor/Treasurer
John Miller
Deputy Auditor/Treasurer

**OFFICE OF COUNTY RECORDER
TODD COUNTY MINNESOTA**

I hereby certify that
this instrument # 429780
was filed/recorded in this office
for record on the 1st day of
Oct 2004 at 4 -am/pm
Cheryl Perish, County Recorder
by: Cheryl Perish Deputy
19.50 recording fee
well certificate
792- deed tax/mtg reg tax RE Taxes \$ 445.-
Home Town Title

Form No. 5-M - WARRANTY DEED

Individual(s) to Joint Tenants

DEED TAX DUE: \$792.00

Date: September 20, 2004

FOR VALUABLE CONSIDERATION, John Tomford and Katie Tomford, husband and wife Grantor, hereby conveys and warrants to Jacob C. Miller and Emma Miller, Grantees, as joint tenants, real property in Todd County, Minnesota, described as follows:

Southwest Quarter (SW¼) in Section Twenty-nine (29), Township One Hundred Thirty-one (131) North, Range Thirty-four (34) West of the Fifth P.M., according to the United States Government Survey thereof, Todd County, Minnesota.

7-35800 together with all hereditaments and appurtenances belonging thereto, subject to the following exceptions:

Subject to easements, reservations or restrictions of record, if any.

Check box if applicable:

☐ The Seller certifies that the seller does not know of any wells on the above described real property.

☐ A well disclosure certificate accompanies this document.

☒ I am familiar with the property described in this instrument and I certify that the status and number of wells on the described property have not changed since the last previously filed well disclosure certificate.

COUNTY OF TODD
DEED STAMP TAX \$ 792.00
DATE 10-1-04 NO. 1280

John Tomford
John Tomford

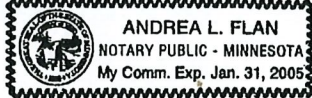
Katie Tomford
Katie Tomford

STATE OF MINNESOTA

COUNTY OF TODD } ss.

This instrument was acknowledged before me on 9/30/04 by John Tomford and Katie Tomford, husband and wife Grantor.

NOTARIAL STAMP OR SEAL (OR OTHER TITLE OR RANK)



Andrea L. Flan
SIGNATURE OF NOTARY PUBLIC OR OTHER OFFICIAL
Andrea L. Flan

Check here if part or all of the land is Registered (Torrens) ☐

Tax Statements for the real property described in this instrument should be sent to (include name and address of Grantee):

Jacob C. and Emma Miller
28795 Network Road
Cashton, WI 54619

THIS INSTRUMENT WAS DRAFTED BY (NAME AND ADDRESS):

Home Town Title, LLC
838 South Main Street
Sauk Centre, Minnesota 56378

Minutes of the town Board of Eagle Valley Township
held at the Clarissa City Hall on May 5th 2026. Meeting
called to order at 8:00 Chair James V. Rowe Clerk's
report given and approved. Treasurer's report given and
showed a balance of 114,648.47 Report approved subject
to audit. Joseph Bortnegar present to have parts of 175th
Chapel Garden and 183rd chlorided at their cost. Motion by

Josh seconded by Aaron to approve. Motion passed. Jacob Miller
was present to sign a application to approve the assembly of
delivered wood products and assembly and export at 17413 344th Street.
The Supervisors approved and signed the proposed C.U.P.

Motion by Josh second by Jamie to raise the elect'n Judge wage
to \$25 per hour road work to \$40 hour per meeting Salary to \$206 with the
change to \$256. Motion passed. Discussion on Road Maintenance
and upcoming culvert work. Motion by Aaron seconded by Josh to
approve Bills to be paid. passed. Meeting adjourned at 8:40 P.M.
Randi, Vice Clerk

07-0035700
ALLEN L & PATSY
HOLMQUIST

344TH ST

17913

07-0035800
JACOB C &
EMMA MILLER

Sources: Esri, TomTom, Garmin, FAO, NOAA, USGS, © OpenStreetMap contributors, and the GIS User Community, 2023

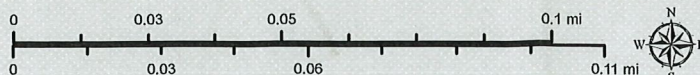
Todd County

MINNESOTA



Todd County GIS
215 1st Ave S, Ste 102
Long Prairie, MN 56347
(Office) 320-732-4248

GIS Site Map



The Todd County GIS & Land Services Department has made every effort to provide the most accurate and up-to-date information available in this publication and cannot be held responsible for any unforeseen errors or omissions. If the recipient wishes to locate parcel corners and property lines, employ the services of a Registered Land Surveyor.

Printed on:
Tuesday, April 21, 2026



Sources: Esri, TomTom, Garmin, FAO, NOAA, USGS, © OpenStreetMap contributors, and the GIS User Community, 2023

Todd County
MINNESOTA

Todd County GIS
215 1st Ave S, Ste 102
Long Prairie, MN 56347
(Office) 320-732-4248

GIS Site Map

The Todd County GIS & Land Services Department has made every effort to provide the most accurate and up-to-date information available in this publication and cannot be held responsible for any unforeseen errors or omissions. If the recipient wishes to locate parcel corners and property lines, employ the services of a Registered Land Surveyor.

Printed on:
Tuesday, June 9, 2026

Receipt #2026-0271



WHERE THE FOREST MEETS THE PRAIRIE

Todd County
• MINNESOTA • EST. 1855 •

PLANNING & ZONING
215 1st Avenue South, Suite 103
Long Prairie, MN 56347
Phone: 320-732-4420 Fax: 320-732-4803
Email: ToddPlan.Zone@Co.Todd.MN.US

CONDITIONAL USE PERMIT APPLICATION

Applicant New Heights Dairy LLC Mailing Address 3145 155th St NW, Rice, MN 56367

Site Address 37674 Co Hwy 11, Clarissa, MN 56440

Phone Number [REDACTED]

Property Owners Name & Address (if not applicant) New Heights Dairy LLC

3145 155th St NW Rice, MN 56367

Parcel ID(s) 07-0008801 Township Eagle Valley Lake/River Name

Zoning District (circle one): AF-1 AF2; R-2; R-10; UG; RT; Comm; L-M; or Shoreland.

Full and Current Legal Description(s) attached
(attach if necessary)

Current tax statement or other proof of ownership attached (x) yes () no

Measurement of land involved: Width Length Acres

Septic System: Date installed 2000 Date of latest Compliance Inspection 6/15/2025

Is an upgrade needed: () yes (x) no

Site accessed by: (x) public road () easement

If easement, is the easement legally recorded? () yes () no

Detailed Explanation of Request:

We are applying to add an addition (124' x 400') on an existing facility and expand animal units from 1997.4 to 2744. 502 head of dairy calves will be eliminated from the permit and 605 >1000 lbs dairy cows will be added. The final total will be 1960 head of dairy cows >1000 lbs. An existing LMSA earthen basin will be expanded as well.

Did you meet with the Township Board to present the Application for Conditional Use Permit? (Yes) Yes
No Date of the meeting: 6 / 2 / 26

[Signature]
Optional Township Board Signature

Chair
Board Position

Revised 6/15/26

Will the request create an excessive burden on the existing roads or other utilities? **Explain**

Will not. This is an existing/ active facility. No new utilites will be needed.

Is the requested use compatible with the surrounding properties? **Explain**

Yes. There are other livestock facilities in the area and county with similar design and management.

Could the use significantly depreciate near-by properties? **Explain**

Will not. This is an existing active facility. No depreciation of near-by properties is anticipated.

The Facility design and operation are consistent with other dairy facilities in the county and state.

Will the structure and the use have an appearance that will not have an adverse effect on near-by properties? **Explain**

No. The facility design is consistent with other dairies in the county

Will the requested use create an adverse affect on near-by properties because of noise, odor, glare, hours of operation, or general unsightliness? **Explain**

As this is an existing/active facility, there should not be any increase in odor, noise, glare or unsightliness. Hours of operation will remain the same as the current operation.

**RETURN APPLICATION, SITE PLAN, SEWER INFORMATION AND ANY ADDITION
INFORMATION, AND FEE TO:**

Todd County Planning & Zoning Office
215 1st Ave South, Suite 103
Long Prairie, MN 56347

Fee: \$600.00 or After-the-Fact Fee: \$1,200.00 payable to "Todd County"

Only complete applications may be placed on an agenda

****A PARCEL IN JOINT OWNERSHIP MUST PROVIDE WRITTEN SIGNATURE OF ALL OWNERS****

Brent J. Czech

Applicant Name Printed

Bh

Signature

6-5-26

Date

Property Owner Name Printed

Signature (If different than applicant)

Date

A Conditional Use Permit expires and is considered invalid unless they are substantially completed within thirty-six months of the date the CUP is granted by the County Board (*Section 5.05(N) of the County Zoning Ordinance*).

Amended/Transferred**Water Appropriation Permit**

Pursuant to Minnesota Statutes, Chapter 103G, and on the basis of statements and information contained in the permit application, letters, maps, and plans submitted by the applicant and other supporting data, all of which are made part hereof by reference, **PERMISSION IS HEREBY GRANTED** to the applicant to perform actions as authorized below. This permit supersedes the original permit and all previous amendments.

Project Name: N/A	County: Todd	Watershed: Long Prairie River	Resource: Groundwater
Purpose of Permit: Livestock Watering		Authorized Action: Withdrawal of up to 20.0 million gallons of water per year for livestock watering.	
Permittee: NEW HEIGHTS DAIRY LLC CONTACT: CZECH, BRENT, ([REDACTED]) 3145 155TH ST NW RICE, MN 56367 [REDACTED]		Authorized Agent: N/A	
To Appropriate From: Well 1: unknown inches diameter, 120.0 feet depth, 60 gpm, unique number 566753 Point(s) of Taking UTM zone 15N, 348867m east, 5115456m north Section 10, T131N, R34W Well 2: unknown inches diameter, 85.0 feet depth, 100 gpm, unique number 566754 Point(s) of Taking UTM zone 15N, 348919m east, 5115449m north Section 10, T131N, R34W			
Issued Date: 08/14/2025	Effective Date: 08/14/2025	Expiration Date: Long-Term Appropriation	
Authorized Issuer: Mark Anderson	Title: Area Hydrologist	Email Address: [REDACTED]	Phone Number: [REDACTED]

This permit is granted **subject to** the following **CONDITIONS**:

LIMITATIONS: (a) Any violation of the terms and provisions of this permit and any appropriation of the waters of the state in excess of that authorized hereon shall constitute a violation of Minnesota Statutes, Chapter 103G. (b) This permit shall not be construed as establishing any priority of appropriation of waters of the state. (c) This permit is permissive only. No liability shall be imposed upon or incurred by the State of Minnesota or any of its employees, on account of the granting hereof or on account of any damage to any person or property resulting from any act or omission of the Permittee relating to any matter hereunder. This permit shall not be construed as estopping or limiting any legal claims or right of action of any person other than the state against the Permittee, for any damage or injury resulting from any such act or omission, or as estopping or limiting any legal claim or right of action of the state against the Permittee, for violation of or failure to comply with the provisions of the permit or applicable provisions of law. (d) In all cases where the doing by the Permittee

CONDITIONS *(Continued from previous page)*

of anything authorized by this permit shall involve the taking, using, or damaging of any property, rights or interests of any other person or persons, or of any publicly owned lands or improvements thereon or interests therein, the Permittee, before proceeding therewith, shall obtain the written consent of all persons, agencies, or authorities concerned, and shall acquire all property, rights, and interests necessary therefore. (e) This permit shall not release the Permittee from any other permit requirements or liability or obligation imposed by Minnesota Statutes, Federal Law, or local ordinances relating thereto and shall remain in force subject to all conditions and limitations now or hereafter imposed by law. (f) Unless explicitly specified, this permit does not authorize any alterations of the beds or banks of any public (protected) waters or wetlands. A separate permit must be obtained from the Department of Natural Resources prior to any such alteration.

FLOW METER: The Permittee shall equip each installation for appropriating or using water with a flow meter, unless another method of measuring the quantity of water appropriated to within ten (10) percent of actual amount withdrawn is approved by the Department.

WATER USE REPORTING: Monthly records of the amount of water appropriated or used shall be recorded for each installation. Such readings and the total amount of water appropriated or used shall be reported annually to the Director of DNR Ecological and Water Resources, on or before February 15 of the following year, via the MNDNR Permitting and Reporting System (MPARS) at www.mndnr.gov/mpars/signin. Any processing fee required by law or rule shall be submitted with the records whether or not any water was appropriated during the year. Failure to report shall be sufficient cause for terminating the permit 30 days following written notice.

MODIFICATION: The Permittee must notify the Commissioner in writing of any proposed changes to the existing permit. This permit shall not be modified without first obtaining the written permission from the Commissioner.

TRANSFER OR ASSIGNMENT: Any transfer or assignment of rights, or sale of property involved hereunder shall be reported within 90 days thereafter to the Director of DNR Ecological and Water Resources. Such notice shall be made by the transferee (i.e., new owner) and shall state the intention to continue the appropriation as stated in the permit. This permit shall not be transferred or assigned except with the written consent of the Commissioner.

COMMISSIONER'S AUTHORITY: (a) The Commissioner may inspect any installation utilized for the appropriation or use of water. The Permittee shall grant access to the site at all reasonable times and shall supply such information concerning such installation as the Commissioner may require. (b) The Commissioner may, as he/she deems necessary, require the Permittee to install gages and/or observation wells to monitor the impact of the Permittee's appropriation on the water resource and require the Permittee to pay necessary costs of installation and maintenance. (c) The Commissioner may restrict, suspend, amend, or cancel this permit in accordance with applicable laws and rules for any cause for the protection of public interests, or for violation of the provisions of this permit.

PUBLIC RECORD: All data, facts, plans, maps, applications, annual water use reports, and any additional information submitted as part of this permit, and this permit itself are part of the public record and are available for public inspection at the offices of DNR Ecological and Water Resources. The information contained therein may be used by the Division as it deems necessary. The submission of false data, statements, reports, or any such additional information, at any time shall be deemed as just grounds for revocation of this permit.

MONITORING REQUIREMENTS: Minnesota Statutes 103G.282 authorizes the Department of Natural Resources to require permittees to install and maintain monitoring equipment to evaluate water resource impacts from permitted appropriations. You may be required to modify or install automated measuring devices and keep records for each installation. The frequency of measurements and other requirements will be based on quantity of water appropriated, source of water, potential connections to other water resources, nature of concern, and other relevant factors.

DROUGHT PLANNING: In accordance with M.S. 103G.293, all permits must be consistent with the drought response plan detailed in the Statewide Drought Plan at http://files.dnr.state.mn.us/natural_resources/climate/drought/drought_plan_matrix.pdf.

WELL SEALING: The permittee shall notify the Minnesota Department of Health prior to sealing, removing, covering, plugging or filling the well(s) from which the authorized appropriation was made. The well(s) must be sealed by a licensed well driller and in accordance with the procedures required under Minnesota Statutes 103I and Minnesota Rules 4725 as administered by the Minnesota Department of Health.

WATER USE CONFLICT: If notified by the DNR that a water use conflict is suspected and probable from your appropriation, based on confirmation of a formal well interference complaint or a preliminary hydrologic assessment, all

CONDITIONS *(Continued from previous page)*

appropriation authorized by this permit must cease immediately until the interference is resolved. The permittee may be required to obtain additional data to support the technical analysis, such as domestic well information within a radius of one and one-half miles of the production well. The permittee and impacted party may engage in a negotiated settlement process and there may be modifications made to this permit in support of conflict resolution.

WATER CONSERVATION: All practical and feasible water conservation methods and practices must be employed to promote sound water management and use the least amount of water necessary, such as reuse and recycling water, water-saving devices, and water storage.

DISCHARGE AUTHORIZATION: This permit is valid only in conjunction with all required discharge authorizations from local, state, or federal government units.

cc: Tim Crocker, EWR District Manager
Czech, Myron, Contact; New Heights Dairy LLC
Caleb Silgjord, Conservation Officers, Long Prairie
Kasen Christiansen, SWCD, Todd SWCD
Deja Anton, SWCD, Todd SWCD
Adam Ossefoort, County, Todd

CONSTRUCTION PLAN:
New Heights Dairy—Clarissa Farm

Proposed HDPE LMSA, Concrete Lining Of LMSA and Feed Pad
(MPCA 7020)

37674 Cty Rd 11
Clarissa MN 56440
Brent Czech: [REDACTED]

GOPHER STATE
ONE CALL
<http://www.gopherstateonecall.org>
Call 3 Work Days
Before You Dig!
Toll Free
1-800-252-1166



LOCATION MAP

I hereby certify that
this plan was prepared
by me and that I am
a duly licensed
Professional Engineer
under the laws of the
State of Minnesota.



To the best of my
professional knowledge
judgement, and belief
this design and these
construction plans
meet NRCS standards
and MPCA 7020.

NOTICE TO LANDOWNERS AND CONTRACTORS REGARDING UTILITES:

No representation is made as to the existence or nonexistence of underground hazards. Prior to the start of construction the owners of utilities must be notified of the pending construction. You will be liable for damages resulting from construction activities. (Call Gopher State One Call.)

CONSTRUCTION DRAWINGS AND SPECIFICATIONS ACCEPTANCE

I/We have reviewed and do accept the attached plans. I/We agree to have this project constructed in accordance with these construction plans, operation and maintenance and specifications and to notify all affected utility companies.

Signed: _____ Date: _____

WILLIAMS ENGINEERING SERVICES, LLC
E14910 BEARS GRASS RD
AUGUSTA WI 54722
Ronnie Williams, PE MN #42226
Cell # [REDACTED]

Project Narrative

New Heights Dairy – Clarissa, currently has liquid manure storage for approximately 105 days with the existing animal numbers. NHD-Clarissa plans to expand their manure storage capacity to a minimum of 9-months (1-year designed) as required by MPCA for feedlots over 1,000 Animal Units by constructing a new HDPE lined Liquid Manure Storage Area (LMSA) and lining part of an existing clay lined LMSA with concrete. The combination of the existing GCL and proposed Liquid Manure Storage Areas (LMSA) will provide a minimum of 365 days of manure storage for 1,960 cows (2744 Animal Units) and will also accommodate all parlor wash water and the proposed feed slab runoff. The facility proposes an engineered HDPE lined liquid tight manure storage pond (LMSA). NHD-Clarissa also proposes to line a portion of an existing earthen basin with concrete. The project is expected to be completed by the fall of 2026 construction season if weather conditions are favorable.

Existing Site Conditions

The existing site consists of several individual cow barns, milking parlor complex, paved feed storage area, miscellaneous storage sheds and lots and other smaller storage buildings.

Existing Soil Investigations

Soil and geologic investigations have been completed in accordance with the USDA MN NRCS Guide to Subsurface Investigation (Feb 2017). Test pit excavations have been conducted at the proposed LMSA site. The Minnesota Pollution Control Agency (MPCA) – 7020 Rule, as well as the NRCS 313 LMSA standard (NRCS 313), requires that subsurface investigations test pits be conducted to determine soil properties and design limitations. The soil investigations were conducted on a total of six excavated test pits located within 100 feet of the proposed and existing storage basins and/or within the footprint of the proposed LMSA floor. The total number of test pits required by the MPCA 7020 rule, and as described in Section 3.2.2. – Table 2. of the “Liquid Manure Storage Areas Handbook” dated March 2015, is five borings/excavations. Additional soil investigations are planned during construction to verify acceptable soil conditions prior to construction. Based on the field analysis of these test pits, WES anticipates no weathered bedrock will be encountered or removed at the site. WES did find lenses of perched water and a subsurface draitile with a surface discharge is proposed to alleviate perched layers of subsurface saturation if encountered at the site. Bedrock was not encountered during the subsurface investigation and is expected to be in excess of 10 feet below the floor of the LMSA and on-site materials are available to construct a cohesive soil subliner for the HDPE lined pond.

The LMSA will be constructed above any apparent groundwater saturation zone and bedrock as required by NRCS 313. In the event bedrock or groundwater is encountered, design changes may need to be implemented. If encountered, bedrock shall be excavated and daylighted at a 1% slope. No bedrock is expected to be removed based on soil test pit logs compiled for the

Project Narrative

site. If weathered bedrock is encountered within fifteen feet of the floor elevation of the LMSA, the weathered bedrock will be removed and an approved fill material placed in order to obtain the required separation distance (10 feet separation to bedrock required by MPCA). Bedrock separation shall be verified in the field by the engineer. Should apparent groundwater be found, the elevation of the pond floor may be adjusted to meet the overall separation distance. Any and all changes to the approved construction plan shall be approved by Todd County (if required) and the MPCA prior to construction. The cohesive soil to be utilized for the secondary cohesive sub-liner of the LMSA must undergo a battery of tests during the design/construction phase of the LMSA to provide adequate assurance that the material is satisfactory for use in the secondary liner. The required frequency and suitability test results will consider: Atterberg limits, Plasticity Index (P.I.); Sieve analysis results (including the percent passing the #200 sieve and percent retained on the #4 sieve); and Optimum liner soil moisture content and maximum density (for compaction). The table below lists the minimum testing requirements prior to construction.

Test Performed	Frequency (Minimum) and Method	Acceptable Range
Particle Size (Sieve Analysis)	1/soil type to be used ASTM D422	Greater than 20% passing #200 Less than 20% retained on #4 sieve
Atterberg Limits (PI)	1/soil type to be used ASTM D4318	PI between 11 and 30
Standard Proctor (Optimum Moisture and Density)	1/soil type to be used ASTM D698	

Proposed Waste Storage

The proposed LMSA is to be constructed in an existing crop field to the north of the existing LMSA. The proposed LMSA will be HDPE lined with a cohesive subliner per MPCA requirements.

Waste Transfer System

The proposed project will require the installation of manure transfer pipes between the proposed barn manure collection tank and the proposed concrete lining of the LMSA.

Waster Transfer System Operation

Project Narrative

Typical waste transfer operations will involve manure being scraped into proposed and existing manure collection tanks via skid loader. The manure will then be pumped to the manure processing facility, and then eventually to the existing and proposed manure storage facilities.

Operation and Maintenance Plan

Engineer

Ronnie Williams, P.E.

Williams Engineering Services, LLC

Augusta WI, 54722 – [REDACTED]

This plan states the procedures for operations and maintenance of this system as assumed in the design process. The components are each designed to meet the minimum requirements of the respective Natural Resources Conservation Service (NRCS) and MPCA design standards.

The facility is owned/operated by New Heights Dairy - Clarissa. The manure will be utilized on land owned or operated by New Heights Dairy or transferred. The manure will be utilized according to a Nutrient Management Plan developed according to the NRCS 590 standard.

1. Inspect the concrete components including flatwork and manure drops monthly for signs of cracking. All cracks larger than 1/8 inch shall be cleaned and sealed by high pressure washing to remove any material in the cracks, then acid etch the cracks using muriatic acid followed by an additional power washing, and then the cracks shall be thoroughly dried and then sealed with hydrophilic sealant and/or expanding grout. Defects larger than 1/4 inch shall be brought to the attention of the design engineer and reported to the MPCA and repaired in accordance with an emergency repair plan prepared by the design engineer and approved by required agencies.
2. Annual examination of the concrete liner of the Waste Storage Facility basin following removal of manure to look for defects/excessive cracking is required. Any issues discovered shall be reported to the MPCA Permit Contact.
3. Under no circumstances should anyone enter the manure transfer tanks or other confined spaces containing manure. Deadly gases exist in these facilities. Only personnel with appropriate breathing apparatus and trained in the safe entry of confined spaces should be allowed entry. Signs indicating the hazards of manure storage shall be displayed at entrances to these structures.
4. Maintain necessary safety features including proper safety fencing, grates, access gates, warning signs, stop blocks, guardrails, covers and similar items.
5. Land application of the waste shall comply with local rules, regulations, etc. and in accordance with an approved Nutrient Management Plan (590).

Operation and Maintenance Plan

6. The volume of all waste storage shall not exceed the Maximum Operating Level (MOL), and the freeboard must always be maintained in each structure.
7. Access into the liquid manure storage area is only allowed at designated access points such as agitation pads.
8. All surface water flow must be diverted away from the liquid manure storage area, and prevention of pooling near manure storage areas must be maintained. Minimize stormwater contact with sources of pollution.
9. Transfer Pipe
The existing site has a number of existing manure transfer pipelines. Several additional transfer lines are proposed to allow manure transfer from the proposed barn and manure collection tanks to the existing and proposed LMSA's
10. Frozen Manure
Avoid handling (scrapping, pumping, etc.) dry or frozen manure into or out of the storage structures unless sufficient warm water is available to liquefy the manure. Dry or frozen manure in the tanks will not allow for proper pump operation and will create build-up.
11. Manure Transfer
Manure shall be scraped from the barn scrape alleys into the manure collection tanks. The manure will then be pumped to the manure processing facility and/or the LMSA's.
12. Waste Storage Facility
There is one existing, and one proposed LMSA. Each of these structures can operate independently, or combined, depending on the liquid level in each LMSA.

Waste Storage Failure & Emergency Response Plan

Contingency Plan in The Event of A Spill:

This contingency plan pertains to the spill of solid and liquid waste as well as contaminated runoff. Enact this plan if a spill occurs.

1. Waste spill on farmstead:
 - Stop the source of the leak or spill. Turn off all pumps/valves and clamp hoses or park tractor on hoses to stop flow.
 - Contain the spill by means of grading a shallow ridge to prevent entry to the downstream waterway. A tractor mounted back blade or skid steer is available for this purpose.
 - Use pumps to recover and directly land apply on approved sites.
2. Waste spill on public road and/or right-of-way:
 - Stop the source of the leak or spill. Turn off all pumps/valves and clamp hoses.
 - **Inform MPCA MN Hazardous Spill (Duty Officer) Hot Line at [REDACTED]. Spill reporting is mandatory by state law.**
 - Inform the local sheriff's, police, and/or Department of Transportation for traffic control.
 - Contain the spill in the road ditch before it can enter a stream or body of water by blocking downslope culverts and building dikes/ditches to divert or contain with a skid loader or a tractor mounted back blade.
 - Remove waste from the roadway and roadside with a skid loader or a tractor mounted back blade.
 - Use pumps to recover liquids and/or directly land apply on approved sites.
 - Document your actions.
3. When the maximum operating level is reached on any waste storage structure, waste shall be field applied or transferred to another storage location.
4. Be prepared to provide the following information to emergency personnel and/or MPCA:
 - Your name and contact information.
 - Farm address, location, and/or other pertinent identification information.
 - Nature of emergency (employee injury, fire, discharge of waste or hazardous materials, etc.)
 - Potential for waste or hazardous materials to reach surface waters or major field drains.
 - Current status of containment efforts.
 - Location(s) of hazardous/flammable materials and fire suppression equipment.

Contingency Plan if Waste Reaches Maximum Operating Level:

If liquid level reaches the maximum operating level the landowner/operator will remove material from the LMSA structure to maintain an operating level below the permitted maximum.

Emergency Response Plan:

Clean up waste spills promptly and spread waste according to the Nutrient Management Plan (590). If the waste storage facility or runoff storage tank begins to overflow, clean up the overflow and implement the above contingency plan immediately. If the spill is larger than 50 gallons, contact the MPCA Duty Officer.

Construction Notes

1. All underground hazards and utilities both public and private must be investigated prior to the start of construction. Notification of affected utility companies is the responsibility of the landowner. A ticket number from Gopher State One Call shall be provided to the engineer prior to the start of the excavation. Gopher State One Call is a free service. 1-866-640-3637
2. All gravity manure flume transfer pipe shall be either PVC D3034 SDR, SCH 40 D1785 or ADS N-12 WT Dual Wall HDPE Pipe with Water-Tight Gaskets. Split Coupler Type Couplers Shall Not Be Used. Mar Mac Type Adhesive Seals Shall Not Be Used. Pipe elbows shall be compatible with transfer pipe and be of equal pressure rating or greater than that of the pipe. Pressure Pipe materials shall be approved by the Engineer, Prior to use. Pipe may also be that already in use (to connect into existing lines if required). The transfer pipe materials shall be verified by Ronnie Williams, PE of Williams Engineering Services prior to use.
3. Strip topsoil from the construction area and re-spread on disturbed areas after construction. All contaminated soil and organic matter shall be removed from the site prior to construction.
4. Concrete mixtures, placement, and cold weather concrete placement protocols shall follow WES Construction Specification #4 – Concrete and/or MN-NRCS Concrete Construction Specs.
5. Any trench work over a depth of 5' must be excavated at 1 to 1 side slopes to ensure safe working conditions. The contractor is responsible for safe working conditions.
6. The transfer pipes are to be firmly and uniformly bedded throughout the entire length. Bells are to be located upstream if possible and material excavated around bell joints to prevent pipe being supported by the bells. It is recommended to use sand backfill (see pipe installation sheet) around the pipes to facilitate good compaction and pipe support.
7. Leakmaster LV-Z, Hydrotite rope, or equal hydrophilic sealants shall be used to seal joints between pipe and concrete surfaces and some concrete/concrete joints. See drawings for details.
8. Minimum safety fencing/railings and covers shall be installed around any manure drop structures, manholes, or reception pit structures. Fencing is required around the manure storage basins.
9. Vegetation should be established on disturbed areas as soon as possible after construction is completed. This project will disturb approximately 3 acres and MPCA erosion permits are required. This project is located in a crop field. Care should be exercised to maintain silt fences and/or other erosion control practices to reduce runoff potential.
10. HDPE liner shall be inspected by the engineer, and an installation and testing report shall be provided by the HDPE liner installer.

Concrete Testing QA/QC Plan

Concrete Inspection shall include the following testing schedule. The test results shall be recorded in the field log and be submitted with the As-Built record drawing as part of the construction certification report.

Concrete testing will be performed by certified technicians of Williams Engineering Services, LLC. The concrete contractor shall notify WES of all scheduled concrete placements so that they may be inspected and materials tested. Adequate notice period of 24 hours or as discussed with the engineer is expected prior to each concrete placement.

The tests listed below shall be performed at a minimum frequency of one sample or test for each 150 cubic yards (CY) of concrete, or portion thereof, as recommended by the American Society for Testing and Materials (ASTM) Method C-94 "Specification for Ready-Mixed Concrete."

Sampling and testing should also include the following:

1. The making and curing of concrete test specimens in the field shall be performed in accordance with ASTM C-31.
2. Sampling according to ASTM C-172, "Method of Sampling Freshly Mixed Concrete".
3. Slump Test according to ASTM C-143, "Test for Slump of Hydraulic Cement Concrete".
4. Compressive Strength according to ASTM C-39, "Test for Compressive Strength of Cylindrical Concrete Specimens." One test set will consist of the average test strength of two (2) sample cylinders at 28 days and the test strength of one sample cylinder at 7 days. The 7 day sample is expected to break at 50% of the design strength, and the 28 day samples are expected to break at 100% of the design strength.
5. Concrete temperature shall be tested according to ASTM C-1064, "Standard Test Method for Temperature of Freshly Mixed Portland Cement Concrete".
6. Air Entrainment shall be tested as described below, and the type and dosage rate of air-entraining admixture or air-entraining cement must be indicated on the batch tickets.

Concrete that will be exposed to freezing and thawing or chemical attack shall have the air content of the concrete mix tested according to one of the following: ASTM C-231, "Test for Air Content of Freshly Mixed Concrete by the Pressure Method", ASTM C-173, "Test for Air Content of Freshly Mixed Concrete by the Volumetric Method", or ASTM C-138 "Standard Test Method for Density (Unit Weight), Yield, and Air Content (Gravimetric) of Concrete".

Construction Quality Assurance & Inspection Plan

Landowner: New Heights Dairy - Clarissa

Project Location: Clarissa MN

Inspector: Williams Engineering Services, LLC.

A. Inspection:

The primary field inspection for this project will be provided by Ronnie Williams, PE of Williams Engineering Services, LLC. This project will require certification by Ronnie Williams for compliance with NRCS practice standards and MPCA requirements. All deviations from the design plan **MUST BE APPROVED** by Ronnie Williams **PRIOR** to being changed. Any and all significant plan changes must also be approved by Todd County/MPCA in writing. Upon completion of the project, As-Built plans with any red-lines will be provided to Todd County/MPCA.

B. General:

This construction plan together with the attached set of construction specifications sets forth the requirements for the installation of the LMSA for this farm facility. Construction specifications can be referenced at the back of this Construction Plan.

This project is designed according to the following NRCS practice standards: 313 - Waste Storage Facility, 382 - Fence, 342 - Critical Area Seeding, 484 - Mulching, MPCA requirements, and ACI 318 & 360.

The presence or absence of any below ground utilities must be documented in written form by the landowner prior to construction.

C. Preconstruction Conference:

A preconstruction conference will be held. During the conference the construction plans, construction specifications, layout, required materials, required inspection & materials testing, installation requirements, safety precautions, utilities, and any information needing clarification by Williams Engineering Services, LLC will be discussed. Attendees should include representatives from Todd County/MPCA, Contractors involved, Ronnie Williams, PE (Engineer), and Brent Czech (Owner).

D. Material Requirements:

All materials intended to be used on this site shall be inspected to ensure that they conform to the requirements of the plan. Items include, but are not limited to steel reinforcement bar, waterstop, hydrophilic sealants, concrete, and earth-fill materials.

E. General Inspection:

1. Excavation

- a) Remove all existing tree roots and other organic matter from construction site. Silt fence shall be installed as needed to filter water prior to moving off of the site.
- b) Check lines and grades as they are constructed and document that the over excavation is proceeding as planned.

Construction Quality Assurance & Inspection Plan

2. Earthfill:

- a) Make certain that all organic matter is removed from areas receiving fill prior to placement of fill in accordance with NRCS Construction Specifications.
- b) Inspect and document the adequacy of earth fill materials and compaction. Document compaction method, lift thickness, equipment type, number of passes, and type of soil.
- c) Make sure that the thickness of the loose lift is within limits as described in the earth fill construction specifications. Measure soils type, thickness, equipment type, and number of passes.
- d) Determine the need for wetting, drying, or mixing of fill material to satisfy moisture requirements.
- e) Check lines and grades as they are constructed and document that the system is installed as planned.

3. Re-Vegetation/Mulching:

- a) Check that the placement of topsoil is adequate for a viable seedbed.
- b) Verify that the proper species and quantities of seed are applied.
- c.) Check to ensure that approx. 3 acres of disturbed soil is seeded and mulched according to the seeding sheet in the plan.
- d) Verify that fertilizer and lime are applied at rates as indicated on the seeding sheet. Check that adequate types and quantities of mulch are applied, and that mulch is properly secured on the pond back slopes and waterway.

4. Fence/Gates:

- a) Make sure that a proper safety fence is installed as shown in the construction plan. Safety fence, and or gates are required around the tank. Fencing specifications must follow NRCS 382.

5 Concrete Placement:

All concrete subgrade, steel placement, tie break back, and concrete curing shall be inspected.

6. Concrete Testing:

Concrete testing shall be performed by Williams Engineering Services.

7. Manure Transfer/Pumping Systems:

All manure transfer systems and/or plumbing shall be installed to meet NRCS 634 Construction Specification.

8. Grassed Waterway and Diversion:

- a.) Inspect waterway and diversion slope, width, and depth to ensure accordance with plan.
- b.) Verify proper slope transitions.

Construction Quality Assurance & Inspection Plan

F. Construction Approval & Certification of Completion:

Construction approval and certification of completion will be provided by Ronnie Williams, PE of Williams Engineering Services LLC upon verification that all requirements have been met.

PRE-CONSTRUCTION

- _____ Verify that the landowner or contractor notified all utilities prior to construction. Document Gopher One State Call Ticket Number _____.
- _____ Obtain copies of Permits, or documentation that permits are not needed.
- _____ Inspect Erosion Control Practices (silt fence, etc.) if they are called for in the plan. Document proper installation with photographs job book notations.

Contact Information

Landowner(s)	Brent Czech			
Contractor(s)				
Engineer/Inspector	Ronnie Williams, PE	E14910 Bears Grass Road Augusta, WI 54722		

MATERIALS

- _____ Concrete Materials. Verify that the proposed mix design and all ingredients meet the requirements in WES Construction Specification #4 Concrete. Attach material documentation.
- _____ Reinforcing Steel Materials. Verify that the steel is free of loose rust, oil, grease, paint, or other deleterious matter. Document markings or attach tags. Steel grade and size shall comply with construction plan.
- _____ Curing Compound. White Pigmented, Meets ASTM C309 Type 2. Attach a photo of the material.
- _____ Concrete Chairs. Verify concrete bricks have minimum 3500 psi strength.

CONSTRUCTION- INSTALLATION

- _____ Stake the Location of the practice. Set Grades if necessary.
- _____ Obtain photographs or record observations with text in engineering field book.
- _____ Document proper grating and/or fencing around structure.
- _____ Document proper rebar spacing and liquid-tight joints.

CONSTRUCTION-CONCRETE AND REBAR

Construction Quality Assurance & Inspection Plan

- _____ Observe the Reinforcing Steel Placement. Verify correct overlap and spacing per plans. Verify forms will provide correct concrete thickness. Obtain photographs or record observations in the field book. Make sure reinforcing steel is >1.5 inches from any transfer pipe.
- _____ Collect batch tickets from loads, verify that material is the same as that which is certified.
- _____ Check concrete slump. Shall be between 2" and 5". Water may only be added once and only at the beginning of pour. Verify that the maximum gallons of water are not exceeded. Collect cylinders for lab analysis.
- _____ The concrete shall be discharged as closely as possible to its final position in the forms. Concrete shall not be dropped more than 5 feet.
- _____ Document method of concrete consolidation. Also, document spacing of waterstop vibration.
- _____ Document that walls greater than 2' in height are vibrated.
- _____ Document sealant type used for liquid-tight joint between existing and new concrete (if applicable). Also, document dowel spacing and dowel length into existing concrete. Document sealant is placed around rebar on flatwork.
- _____ Curing compound shall be applied uniformly. Exposed concrete shall be kept continuously wet until curing compound is applied.

Concreting In Cold Weather as discussed on pages WCS 4-15 of WES Construction

Specification #4 Concrete shall be documented by Williams Engineering Services in the following manner. Temperature data loggers shall be installed and maintained by WES during the duration of the project.

- _____ One temperature data logger shall be installed at the job site which measures and records the on-site air temperatures at 1-minute intervals during the entire curing duration as defined in WES Construction Specification #4 - Concrete.
- _____ Three temperature data loggers shall be installed at the job site which measure and record the concrete temperature of each day's concrete placement at 1-minute intervals during the curing duration. Each day's concrete placement shall have three additional data loggers installed for the curing duration.
- _____ One temperature data logger shall be installed at the job site which measures and records the inside temperature of the job site cooler which houses the concrete test cylinder samples.
- _____ Insulation blankets and/or other insulating material and/or heating system as discussed in MN Construction Specification #31 shall be installed as soon as practicable after concrete placement in order to retain, maintain, and stabilize the curing conditions of the placed concrete.
- _____ A representative of Williams Engineering Services shall indicate to the contractor when the curing duration has been completed and when the insulation/heating system may be removed.

FINAL INSPECTION

- _____ Complete as-built report.

Recommended Expanding Sealant Material For Use In Concrete

Expanding sealant materials can be used in projects where new concrete is being placed against existing concrete or for sealing pipe penetrations through concrete walls or slabs. The following materials have been tested and expansion verified in the presence of manure. **All materials are to be applied in conformance with the manufacturer's requirements.**

LEAKMASTER LV-Z is recommended.

LEAKMASTER LV-Z by C. I. Kasei

The sealant is supplied in commonly available size caulking tubes. The applied material is sticky and stays in place on a clean surface. The material is to be applied to obtain a sealant cross section of 1/2 inches wide by 1/4 inch high. Allow 24 hours to cure prior to concrete placement.

HYDROTITE by Greenstreak

The sealant is supplied in a preformed strip. The minimum rectangular strip to use is 3/4 inches wide by 3/8 inches high. Non-horizontal applications require the use of an adhesive primer or concrete nails to hold the sealant strip in place. CJ-1020-2k is recommended for pipe applications.

SIKA SWELL by Sika

The sealant is supplied in a preformed strip or in a moisture-proof "sausage" which requires a special gun to apply. The "sausage" applied material is sticky and stays in place on a clean surface. The minimum applied bead cross section is to be triangular 5/8 inches by 5/8 inches by 5/8 inches.

ULTRA SEAL MC-2005T by Adeka

The sealant is supplied in a preformed strip with adhesive back. The minimum rectangular strip to use is 3/4 inches wide by 1/4 inch high.

SWELLSEAL by de neef CONCHEM, distributed by Vinylex Corp.

The sealant is supplied in a preformed strip or in a moisture-proof "sausage". The minimum rectangular strip to use is 3/4 inches wide by 1/8 inch high. Non-horizontal applications require the use of an adhesive primer or concrete nails to hold the sealant strip in place.

The "sausage" applied material is sticky and stays in place on a clean surface. The minimum applied bead cross section is to be triangular 5/8 inches by 5/8 inches.

In conditions where air temperatures cannot be maintained or are expected to be at or below 45 degrees, Hydrotite Rope shall be used in lieu of Leakmaster LV-Z due to curing requirements of Leakmaster LV-Z.

Vibrating Concrete

Source: Concrete Construction, May 2005

Proper Internal Vibration

- Increases compressive strength and bond between concrete and rebar and decreases concrete permeability
- Decreases cold joints, honeycombing, excessive entrapped air, and segregation
- Causes concrete within a circular field of action to act like a liquid

How to Vibrate

- Insert vibrator vertically, allowing it to penetrate rapidly to the bottom of the lift and at least 6 inches into the previous lift
- Hold it at the bottom of lift for 5 to 15 seconds
- Pull vibrator up at a rate of 15 seconds for a 4-foot lift, or about 3 inches per second

Spacing Tips

- Space out the Insertion of the vibrator so the fields of action overlap
- Watch the concrete to determine the vibrator's field of action
- High-powered vibrators and high slump concrete have larger fields of action
- Rule of thumb: the radius of the field of action is four times the vibrator's head diameter. Therefore, for a 1-inch pencil vibrator, the diameter of the field of action is about 8 inches. Accordingly, in ICF typically you should vibrate every cell between webs.

Stop Vibrating when:

- The concrete surface takes on a sheen
- Large air bubbles no longer escape
- You hear the vibrator change pitch or tone
- You feel a change in vibrator action

Vibrating Don'ts

- Don't let a vibrator run very long outside of the concrete – it will overheat and fail
- Don't force or push a vibrator into concrete; it won't remain vertical and may get caught in the reinforcing steel
- Don't start a job without a spare vibrator

Revibrating Concrete

Revibrating concrete momentarily liquifies the concrete again. The primary chemical process that occurs in the first 2 hours after concrete is placed is the formation of calcium hydroxide, which typically makes up 15 to 25 percent of ordinary portland cement concrete. The other major product of hydration is calcium silicate hydrate, which usually makes up about 50 percent of ordinary portland cement concrete and gives the concrete its hardness and durability. Formation of calcium silicate hydrate begins in earnest only after several hours have elapsed.

Somewhere in that process, the concrete reaches initial set, defined as a compressive strength of 500 psi. After initial set, formation of the more brittle, weaker calcium hydroxide continues but falls behind the calcium silicate hydrate formation, which accelerates dramatically between initial set and final set, defined as 4000 psi. (See "time of setting" in ASTM C125, which covers concrete terminology.)

When revibration occurs after the initial set, it breaks down some of the calcium hydroxide that has already been formed. That allows freshly placed concrete adjacent to the revibrated concrete to join with it, rather than introducing a construction joint, and it again becomes a monolithic concrete structure.

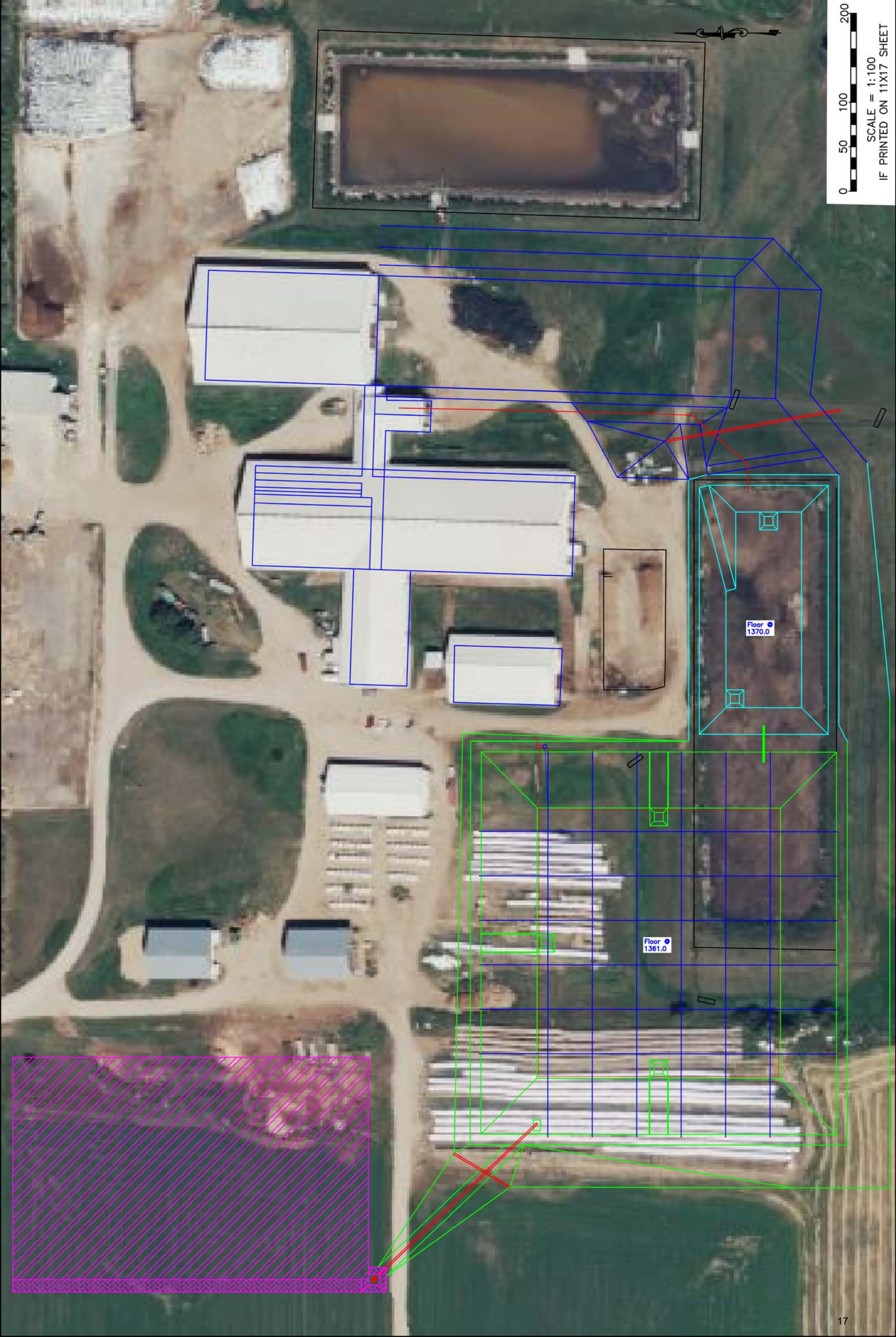
Revibration of concrete has been an accepted construction method for more than 50 years. An article from CONCRETE CONSTRUCTION in February 1959 provided an overview of the practice and concluded by saying: "Concrete will benefit from revibration at any time provided the concrete is sufficiently plastic to permit the running vibrator to sink of its own weight." Although we've learned more since then about what is going on in concrete as it hardens, the benefits of revibration have not changed. Source: Concrete Construction, March 2004

Preconstruction Meeting

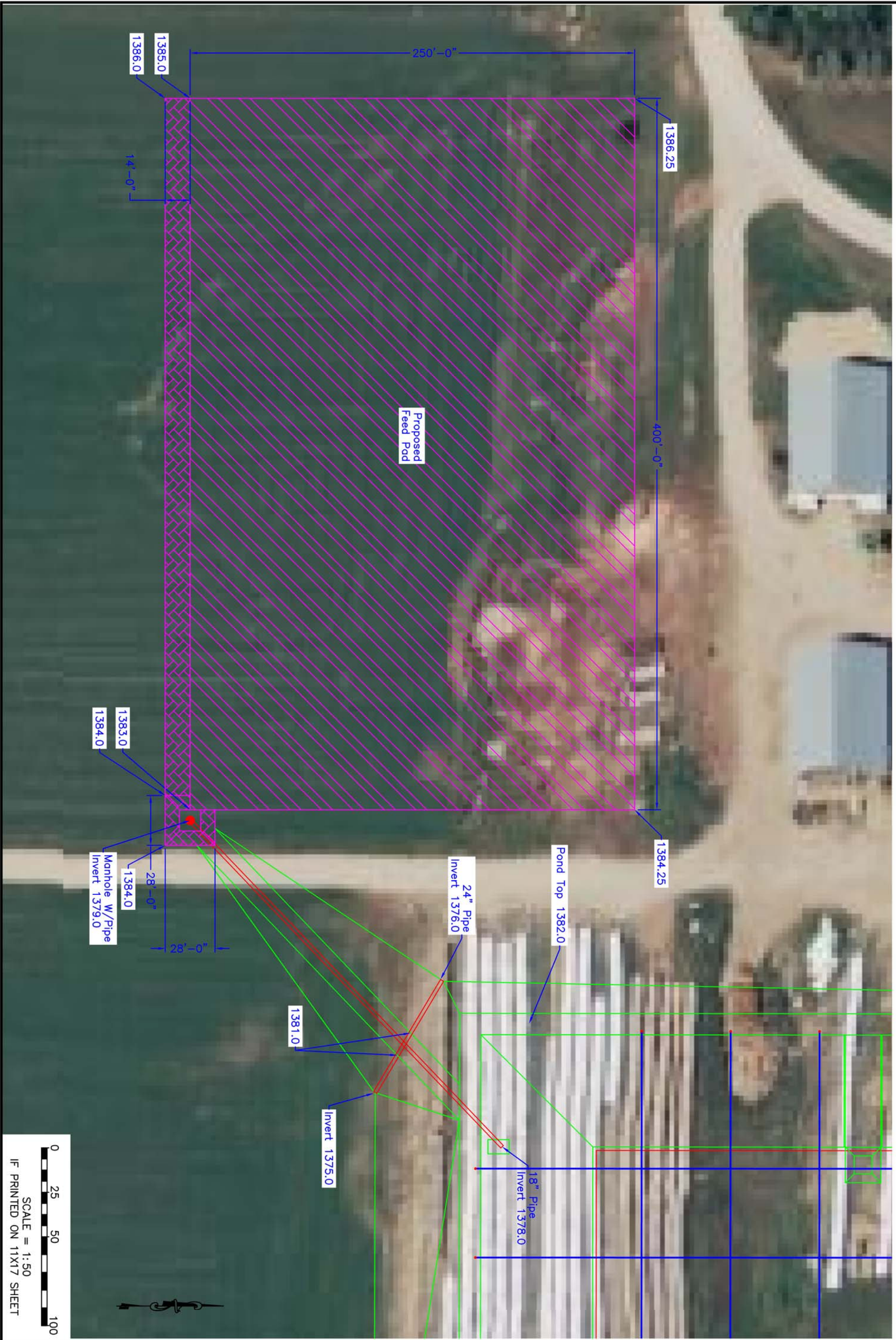
Liquid Manure Storage Area

NAME	TITLE	ORGANIZATION	PHONE NUMBER

Revision	Date







SCALE = 1:50
IF PRINTED ON 11X17 SHEET

C02	5/28/2026	Date	Revision	Proposed Feed Pad	WILLIAMS ENGINEERING SERVICES, LLC E14910 BEARS GRASS ROAD AUGUSTA, WI 54722		19	
				NEW HEIGHTS DAIRY – CLARISSA				

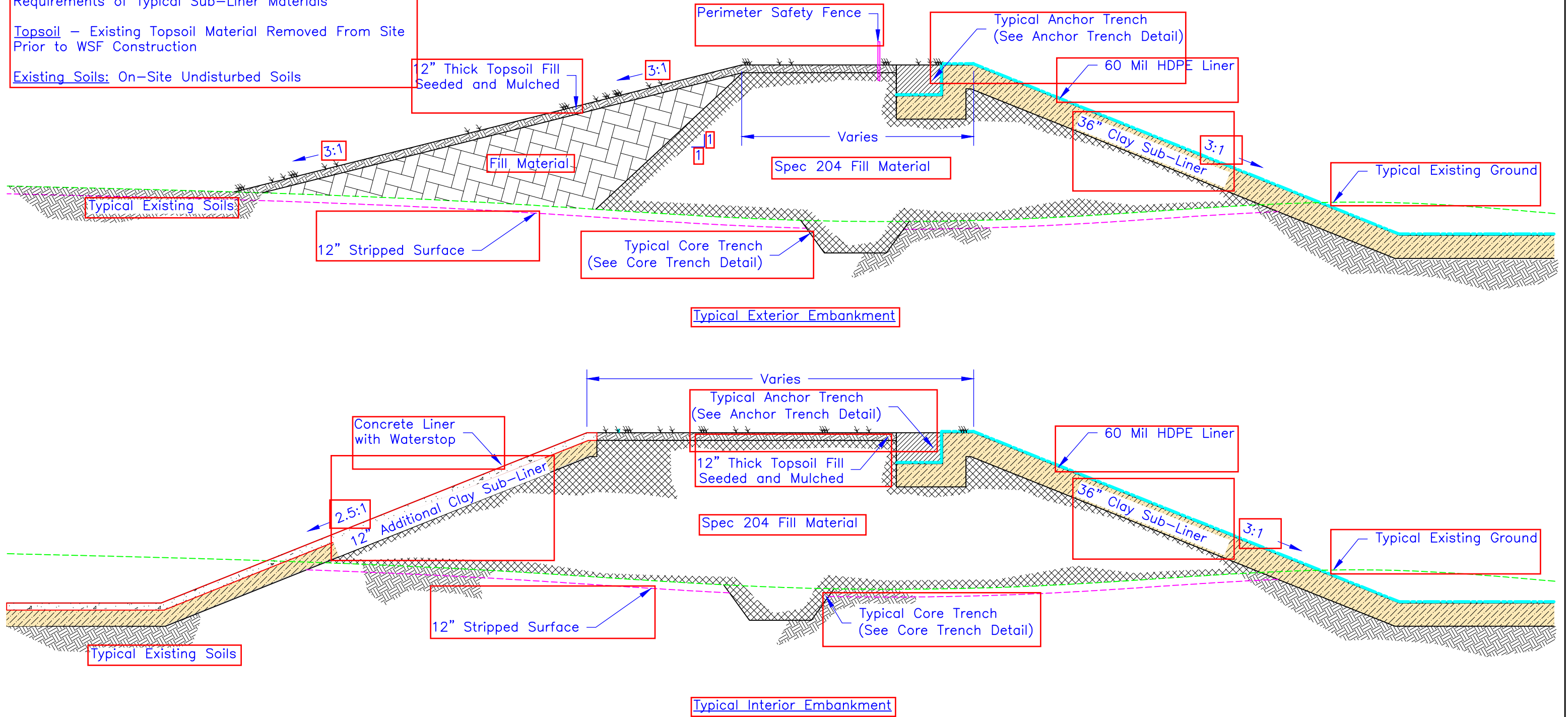
Minimum Required Sub-Liner – (Placed Directly Below HDPE Pond Liner) – $\geq 40\%$ Fines, $PI \geq 7$, ≥ 2 ft of Thickness (In Accordance with WI Spec 204 and WI Spec 202 or 205) *An Additional 12" of Clay Sub-liner Shall Be Added to HDPE And Concrete Ponds

Fill Material – On-Site Soils That Do Not Meet The Requirements of Typical Sub-Liner Materials

Topsoil – Existing Topsoil Material Removed From Site Prior to WSF Construction

Existing Soils: On-Site Undisturbed Soils

Soils to be Tested and Approved For Use by Williams Engineering Services, LLC



WES
PROFESSIONAL
ENGINEERING

WILLIAMS ENGINEERING SERVICES, LLC
E14910 BEARS GRASS RD
AUGUSTA, WI

Typical Embankment Sections

New Heights Dairy – Clarissa

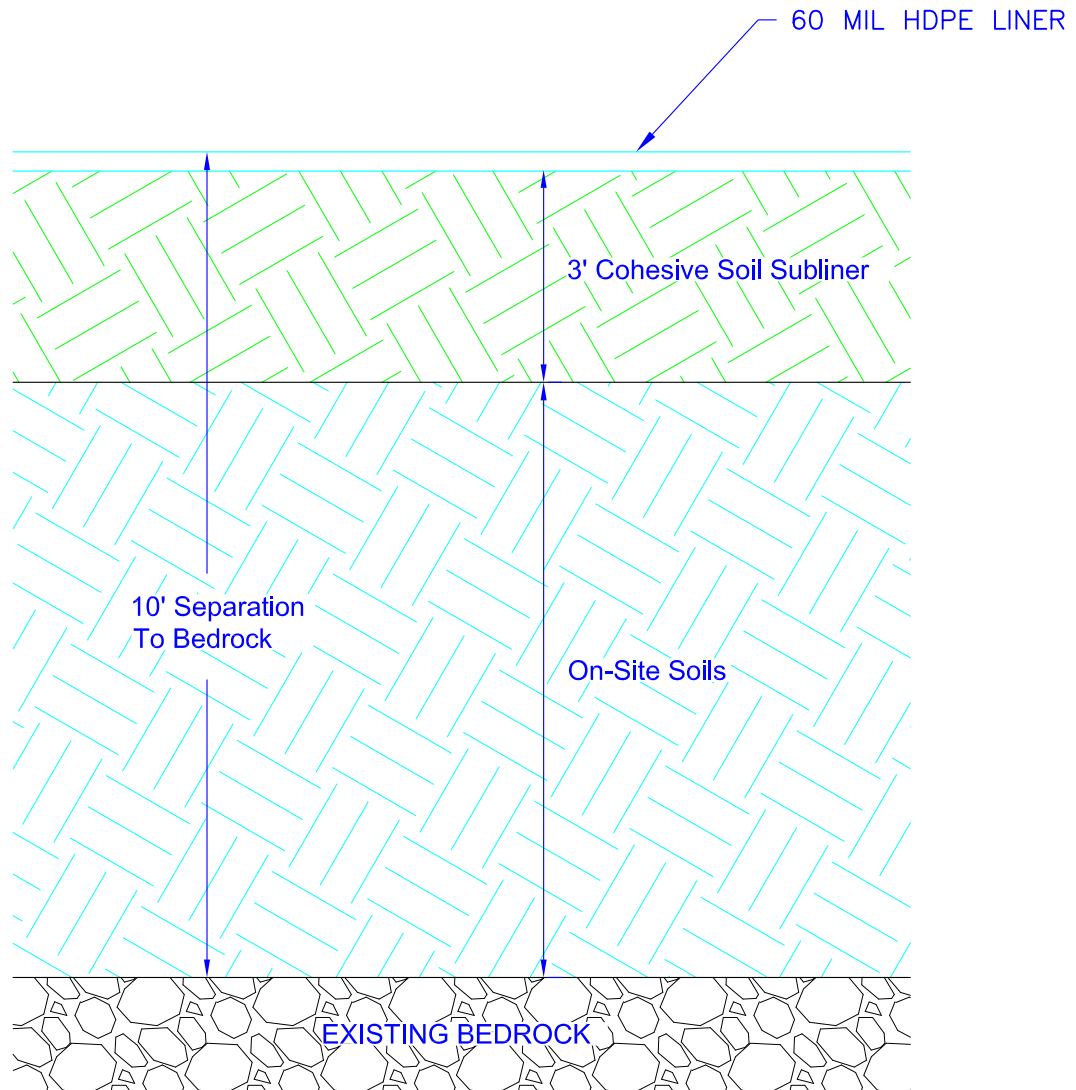
5/28/2026

20

NOTE: Pond Floor and Ramp Shall Be 6" Thick
All Other Areas Shall Be 5" Thick

WES will Provide Soil Testing of Subliner Material to Verify Compliance with WI NRCS Spec. 313

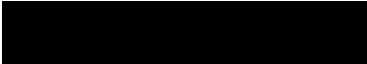
WILLIAMS ENGINEERING SERVICES, LLC E14910 BEARS GRASS RD AUGUSTA WI	Waterstop Joint At Toe of Slope	Dwg: C3
		5/28/2026



Note: Not Expected To Encounter Bedrock

NOTE: 10' Separation to Bedrock Per MN 7020 Rule Shall be Verified During Construction

Excavated Bedrock Shall Grade @ 1% Min to Daylight of Rock Surface

	WILLIAMS ENGINEERING SERVICES, LLC E14910 BEARS GRASS RD AUGUSTA WI 	HDPE Liner Details New Heights Dairy – Clarissa	Dwg: G14
			5/28/2026
			22

Do Not Install Stakes
Through HDPE Liner

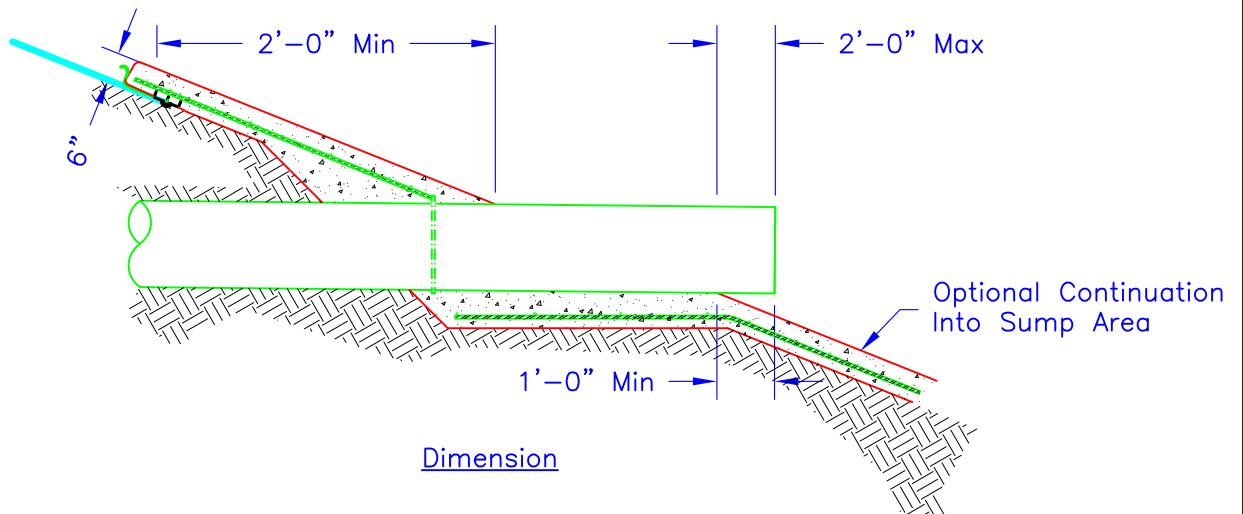
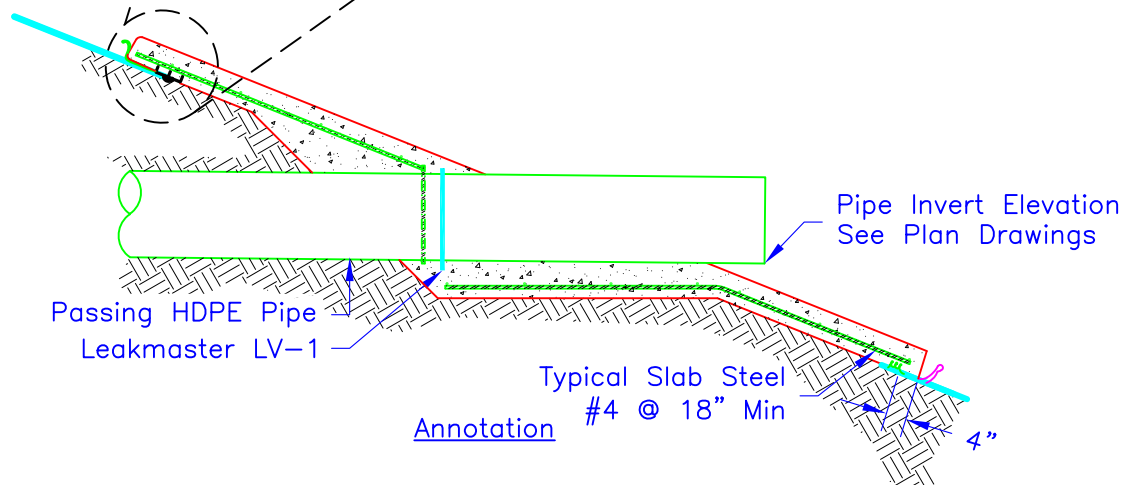
HDPE Rub Sheet
2' Wide

60 Mil HDPE
Primary Liner

12 OZ Non-Woven Geotextile
Fabric (Double Layer) Pulled
Up to Round Bottom of Slab
(3' Wide)

GSE Poly-Lok or Equal
Embedment Strip Continuous
on All Edges of Conc
Embedment Strip Shall Be Mitered
and Welded at Corners
Poly-Lok Shall Be 4" Min
From Edge of Concrete Slab

HDPE Filet Welds To Primary Liner



Dimension

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E14910 BEARS GRASS RD
AUGUSTA WI

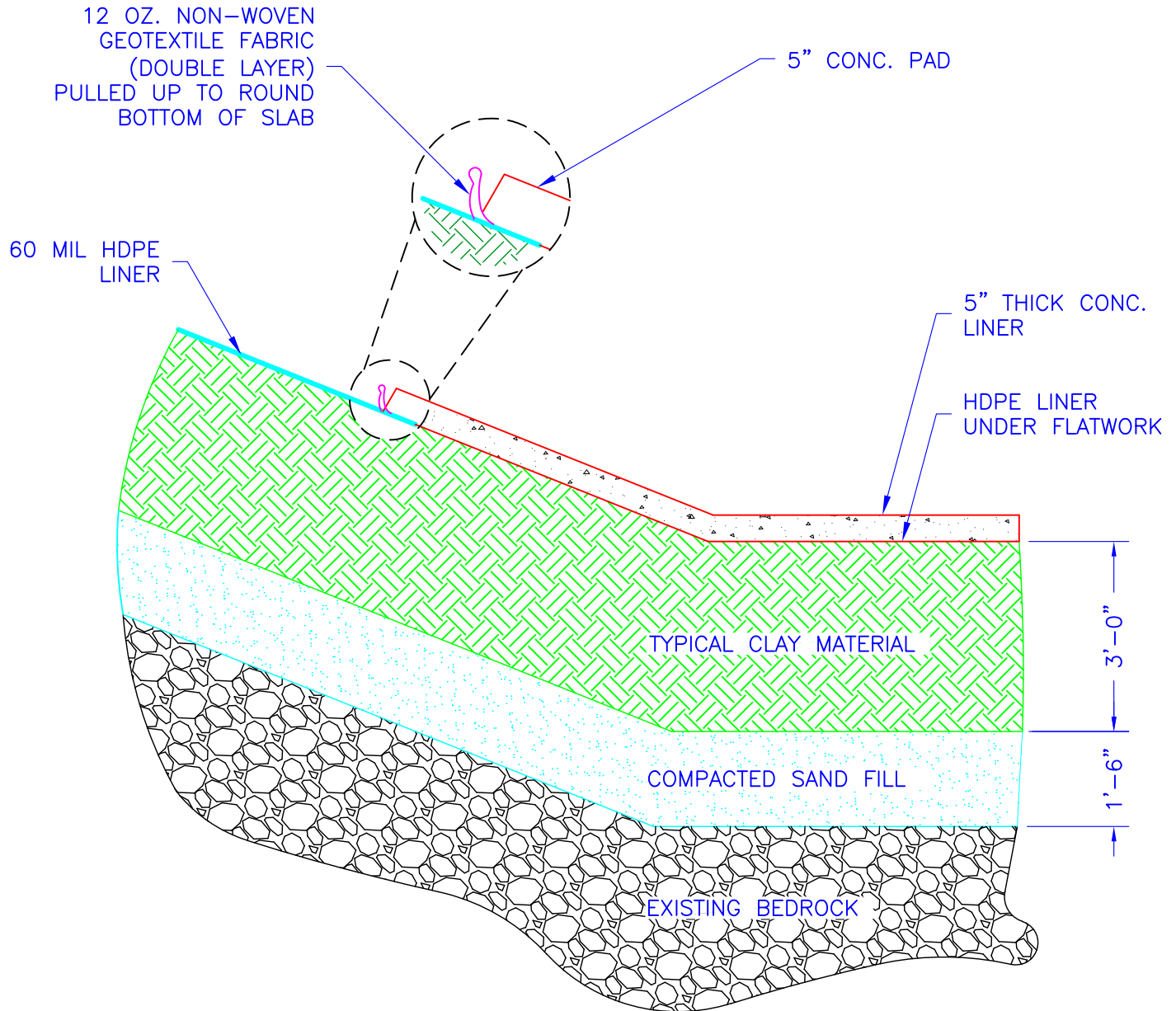
Pipe Penetration Into HDPE
Lined Waste Storage Facility

New Heights Dairy – Clarissa

5/28/2026

23

HDPE Shall Be Continuous Under
Concrete



NOTE: THE 5" THICK CONCRETE FLATWORK SHALL
BE REINFORCED WITH #4 BARS @18" ON CENTER
EACH WAY (OR AS DIRECTED BY STEEL SCHEDULE.)
STEEL SHALL BE PLACED IN THE CENTER OF THE
SLAB THICKNESS.

WES
PROFESSIONAL
ENGINEERING

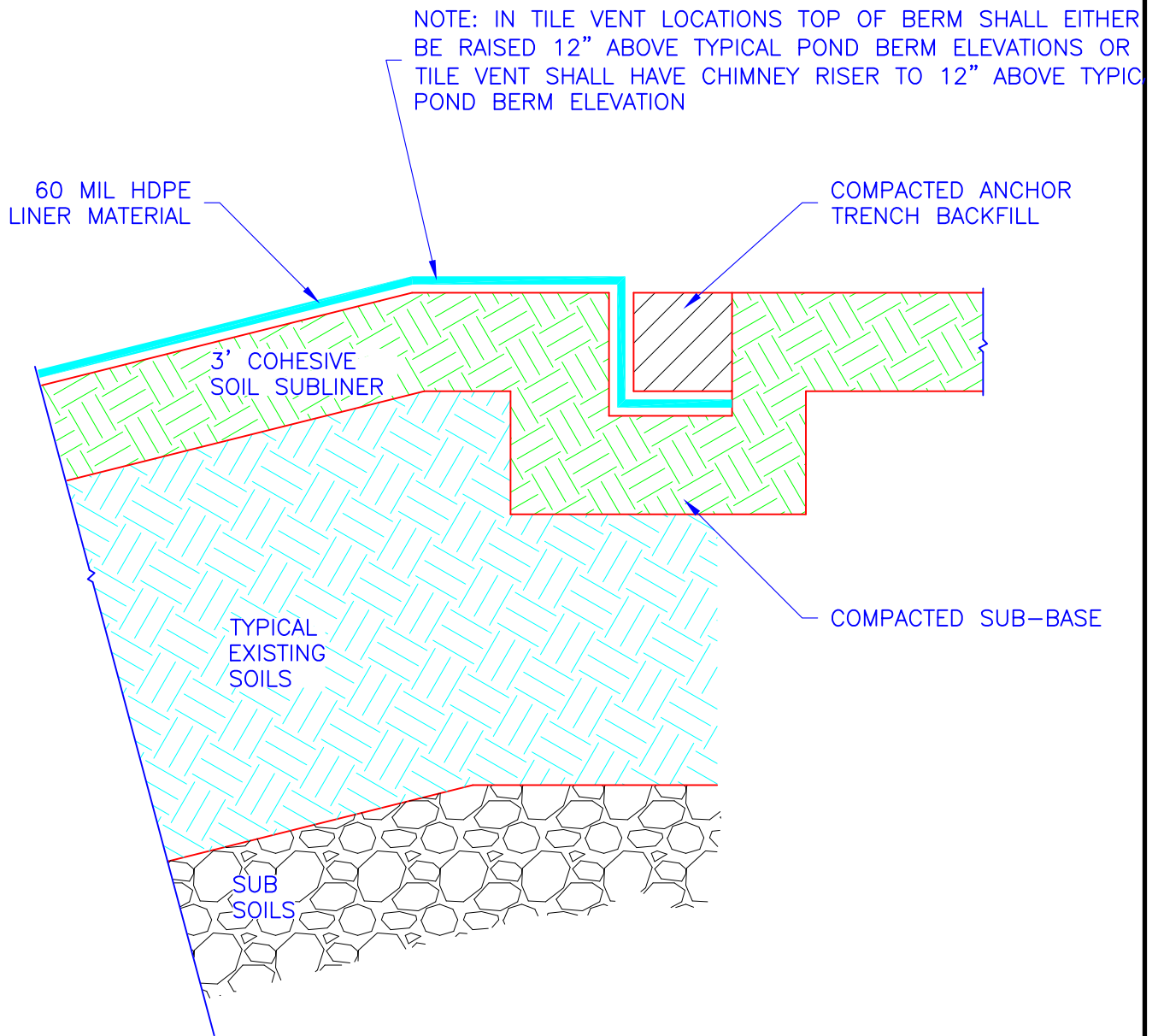
WILLIAMS ENGINEERING SERVICES, LLC
E14910 BEARS GRASS RD
AUGUSTA WI

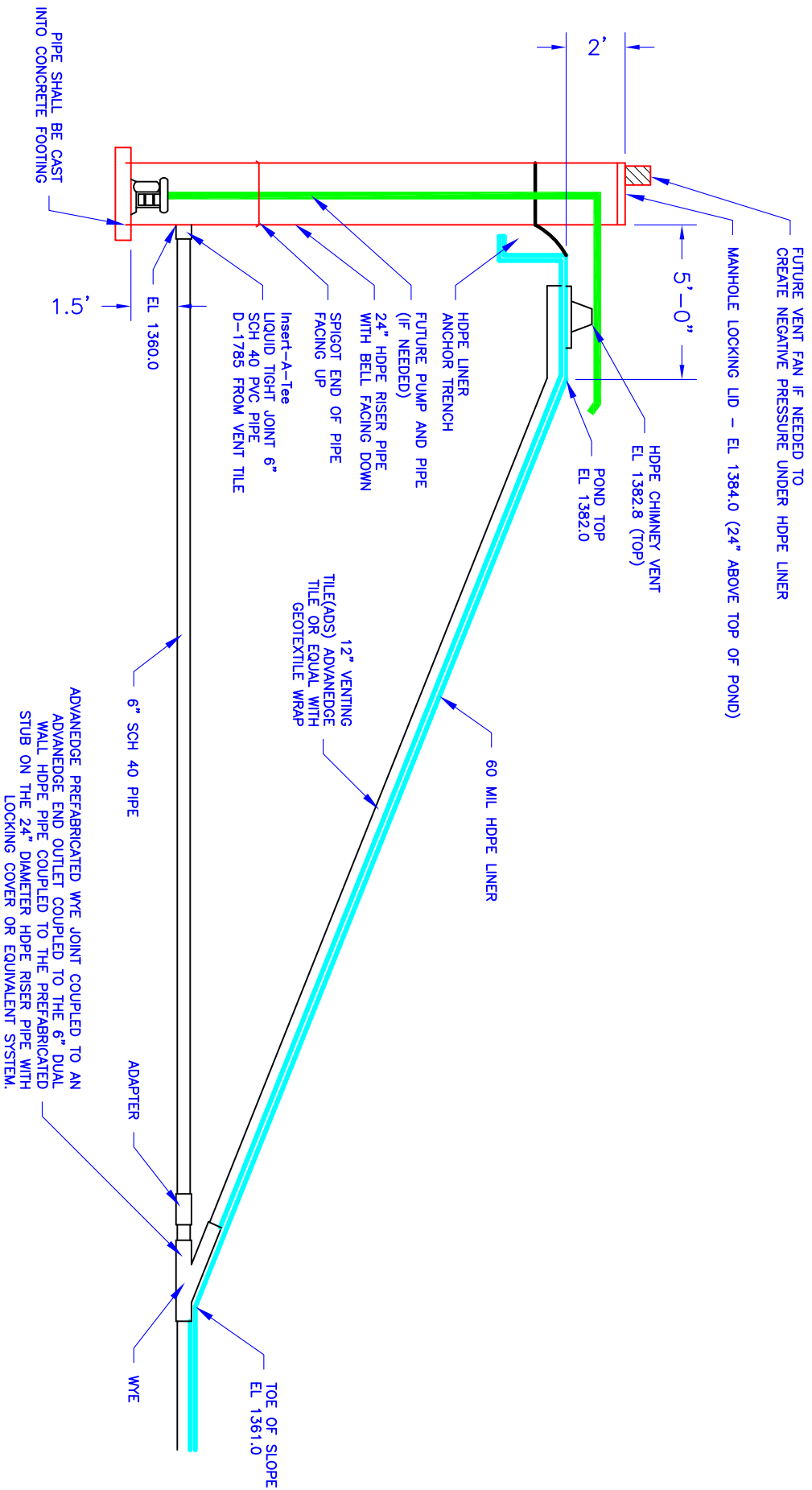
HDPE INTERSECTION

New Heights Dairy — Clarissa

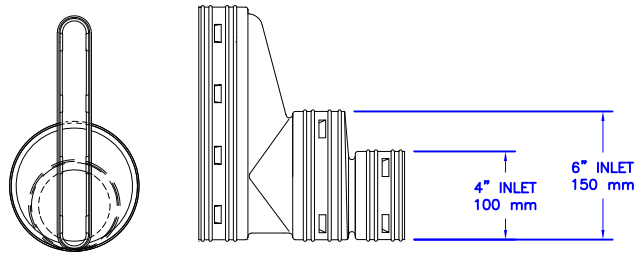
5/28/2026

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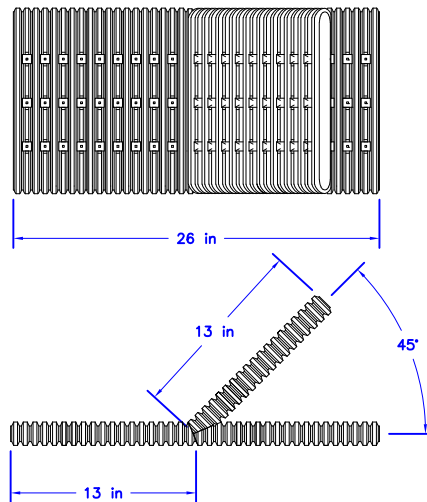




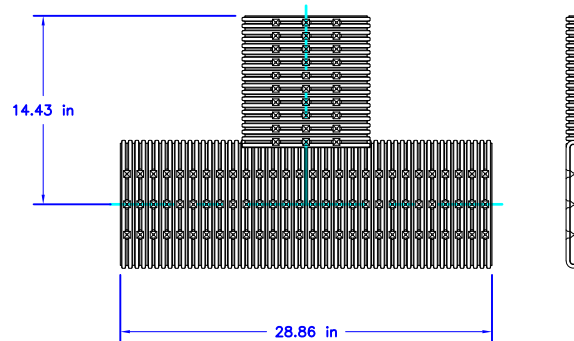
VENTING TILE JOINTS



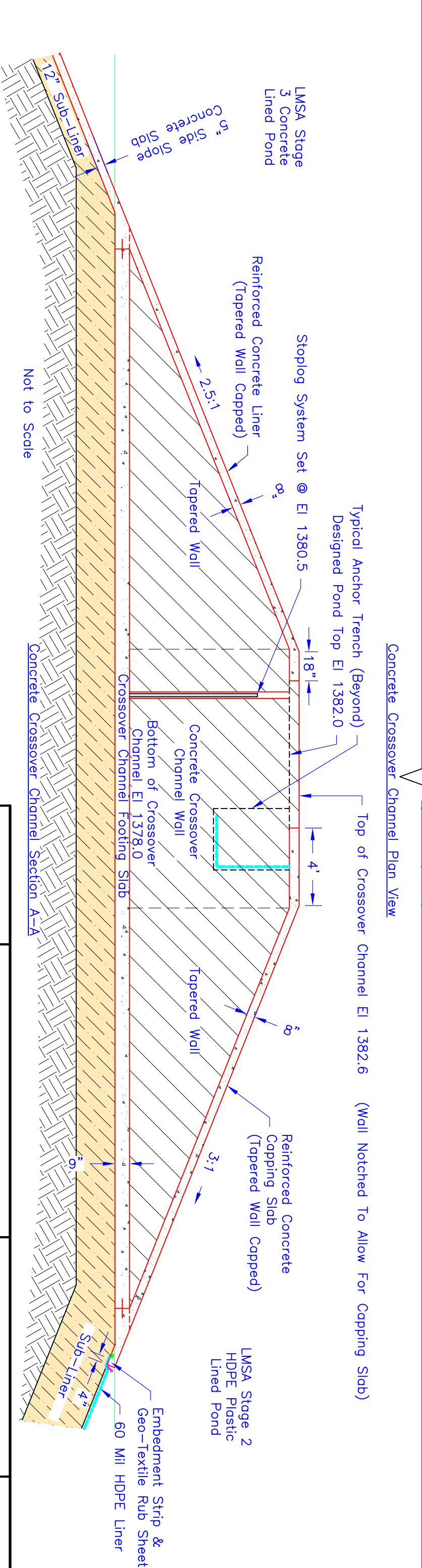
AdvanEDGE END OUTLET
OR EQUIVALENT

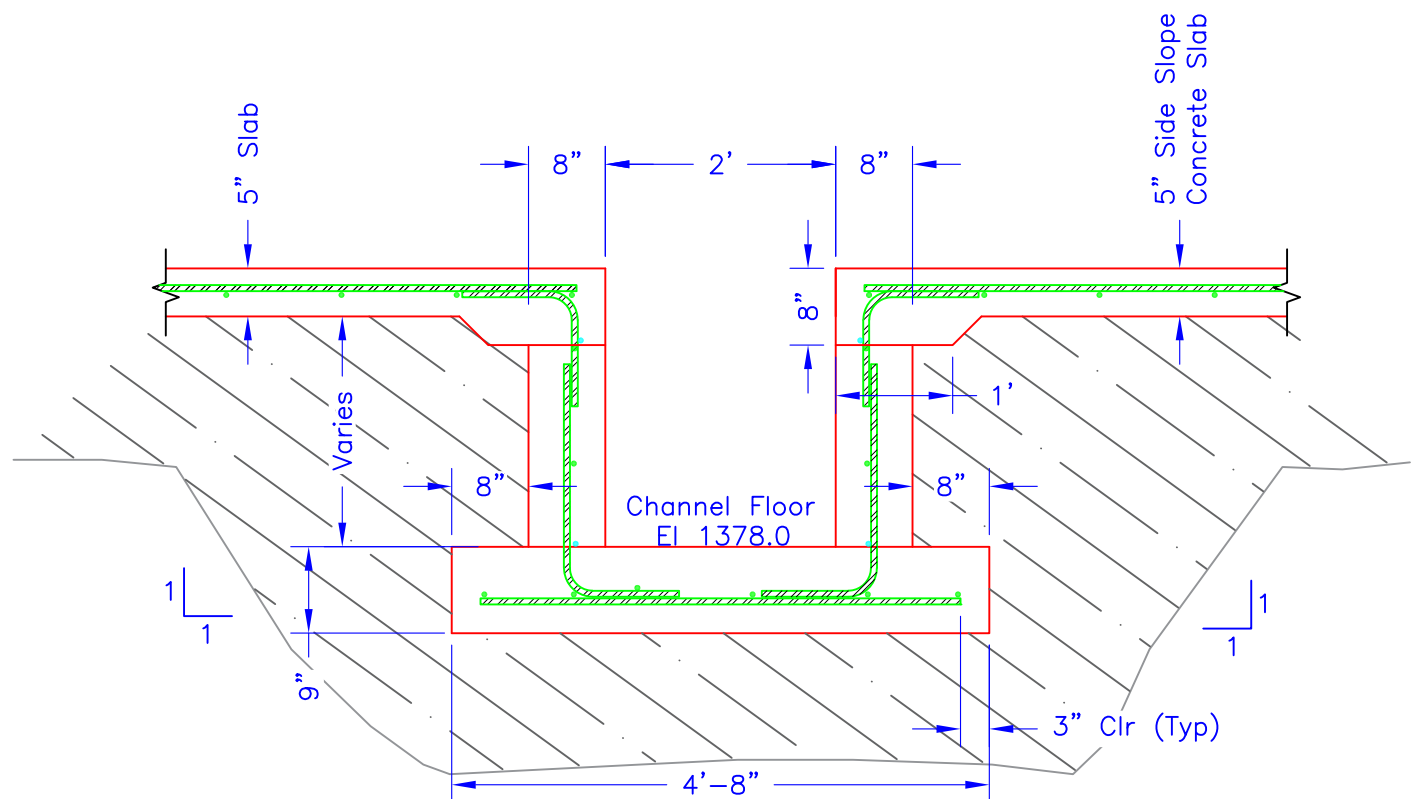
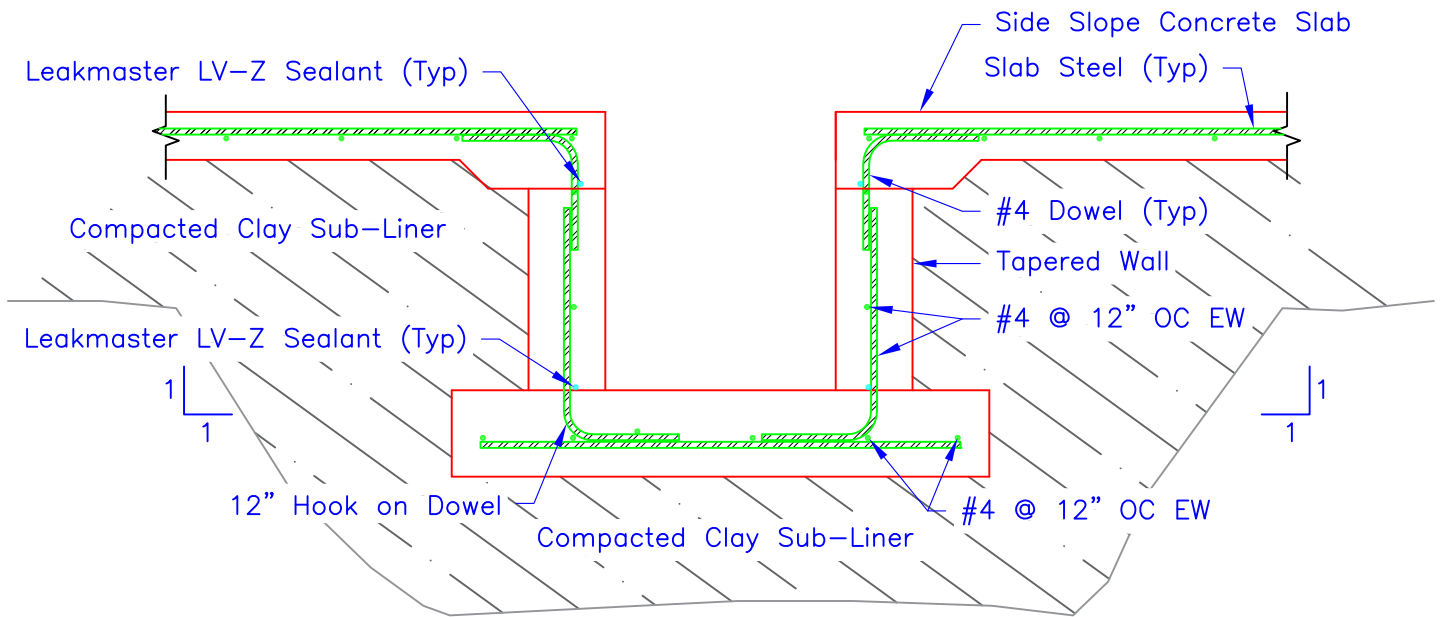


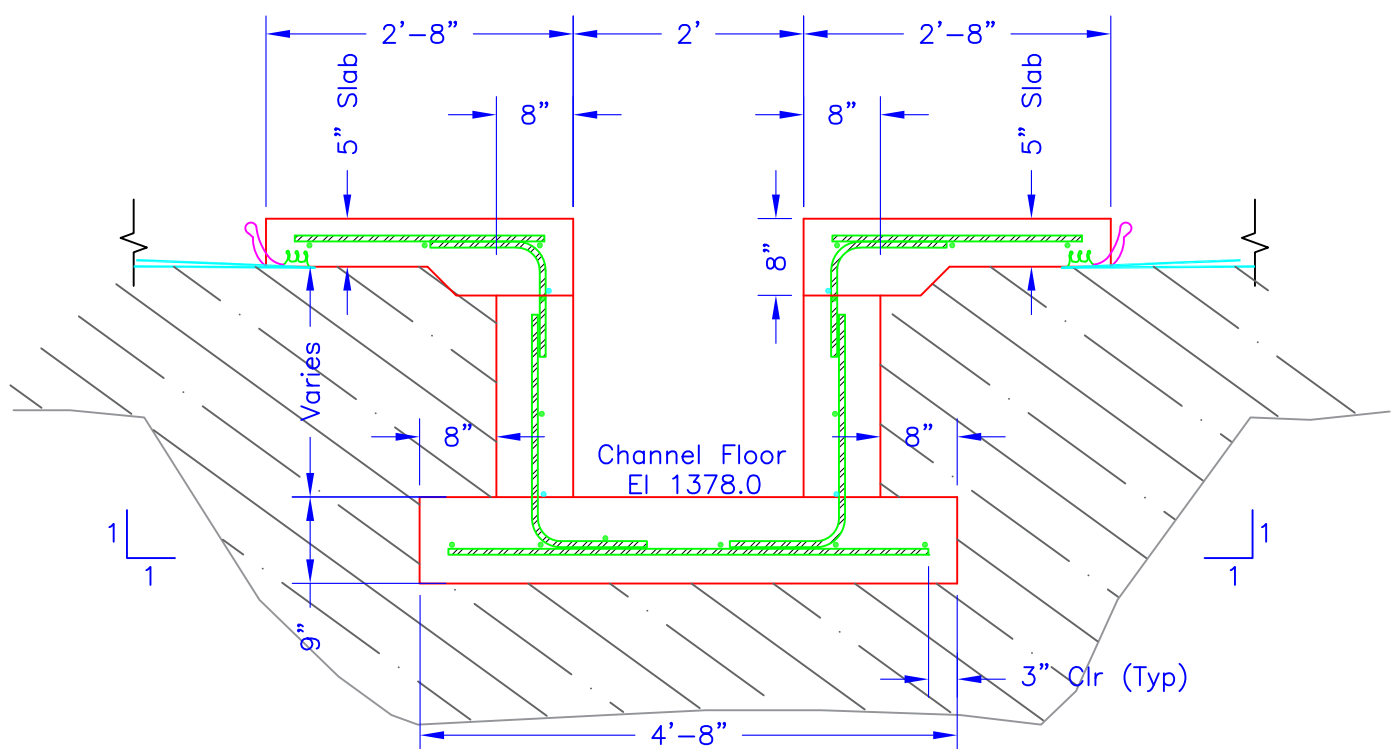
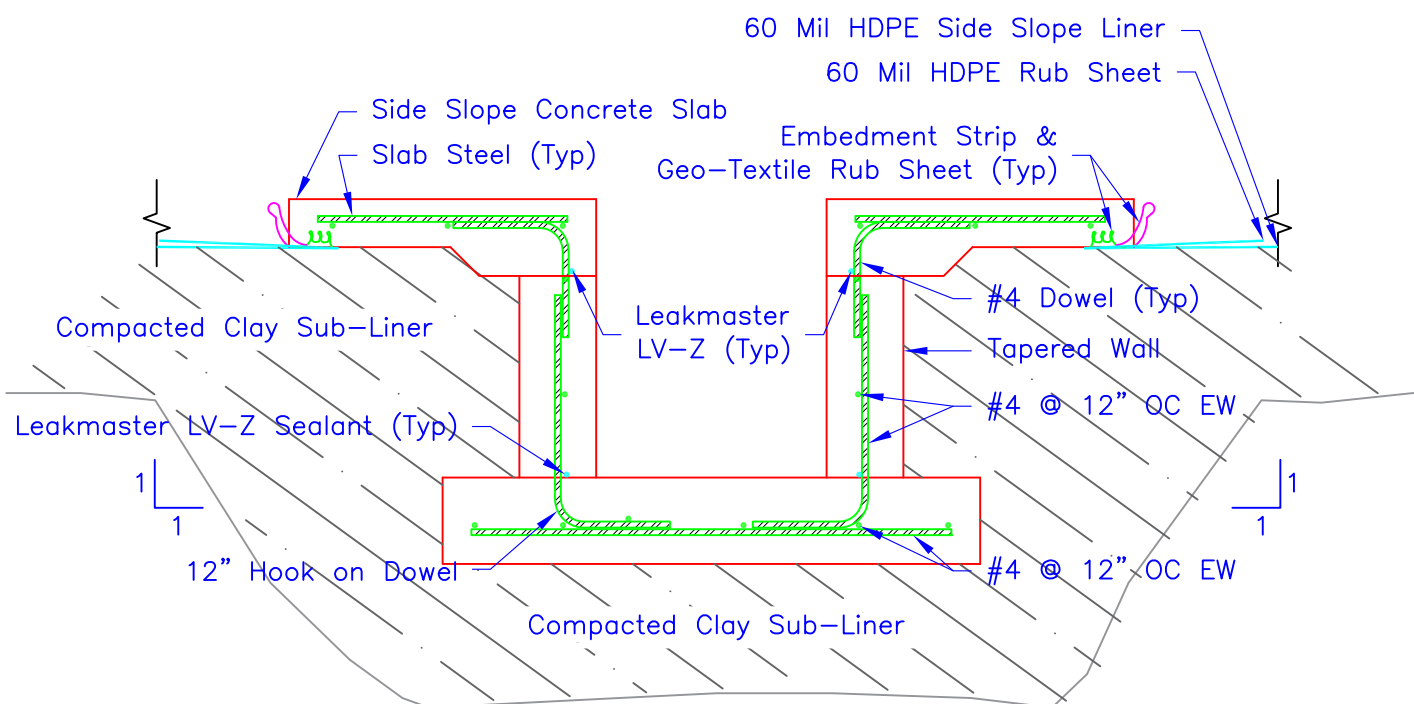
AdvanEDGE FABRICATED WYE
JOINTS OR EQUIVALENT



AdvanEDGE FABRICATED
TEES OR EQUIVALENT







WES
 PROFESSIONAL
 ENGINEERING

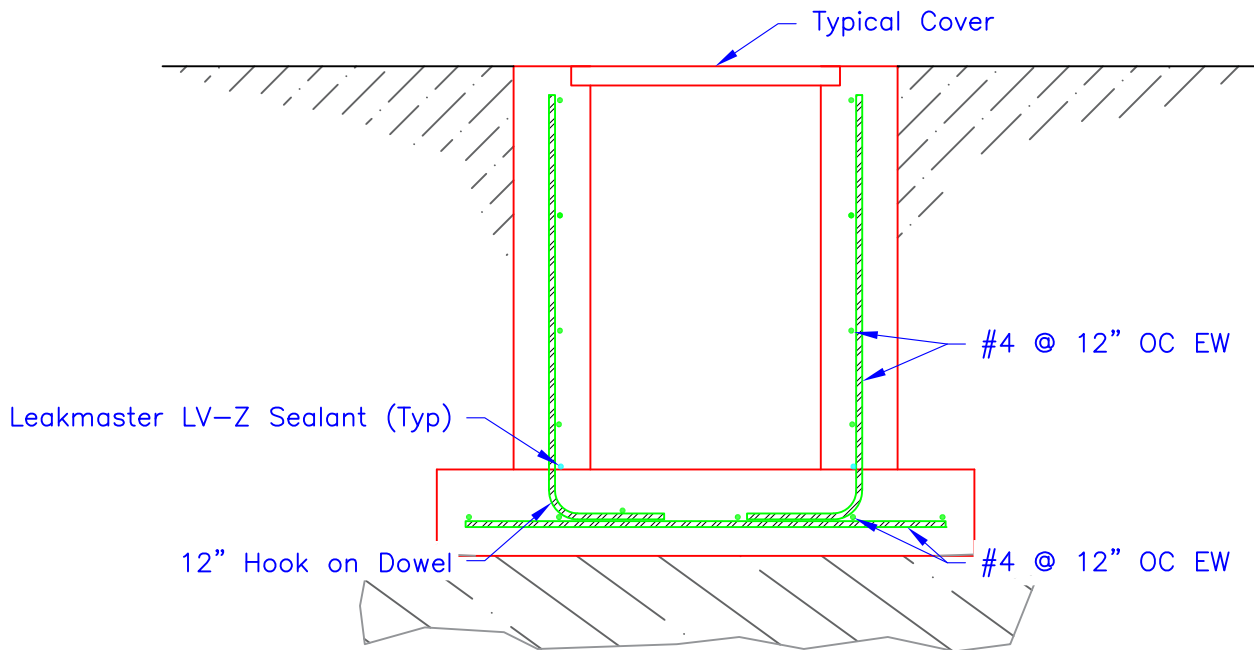
WILLIAMS ENGINEERING SERVICES, LLC
 E14910 BEARS GRASS RD
 AUGUSTA WI

Concrete Crossover Channel
 Section C-C
 At HDPE Pond

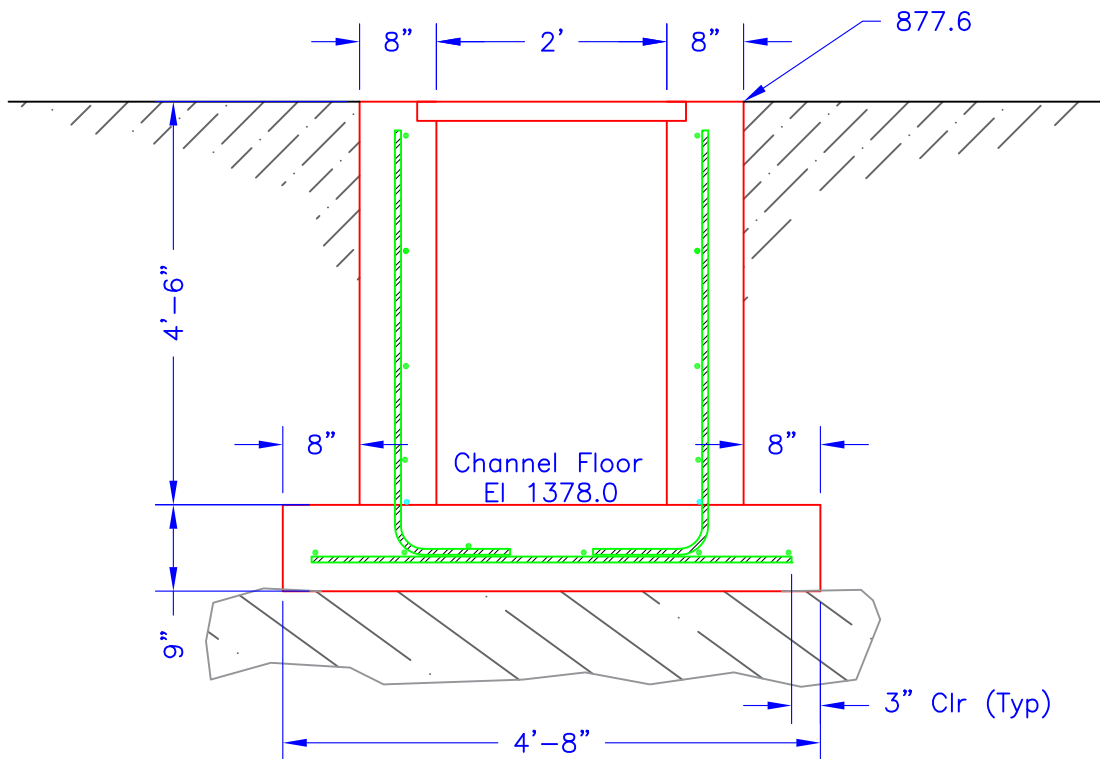
New Heights Dairy - Clarissa

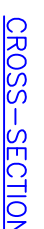
5/28/2026

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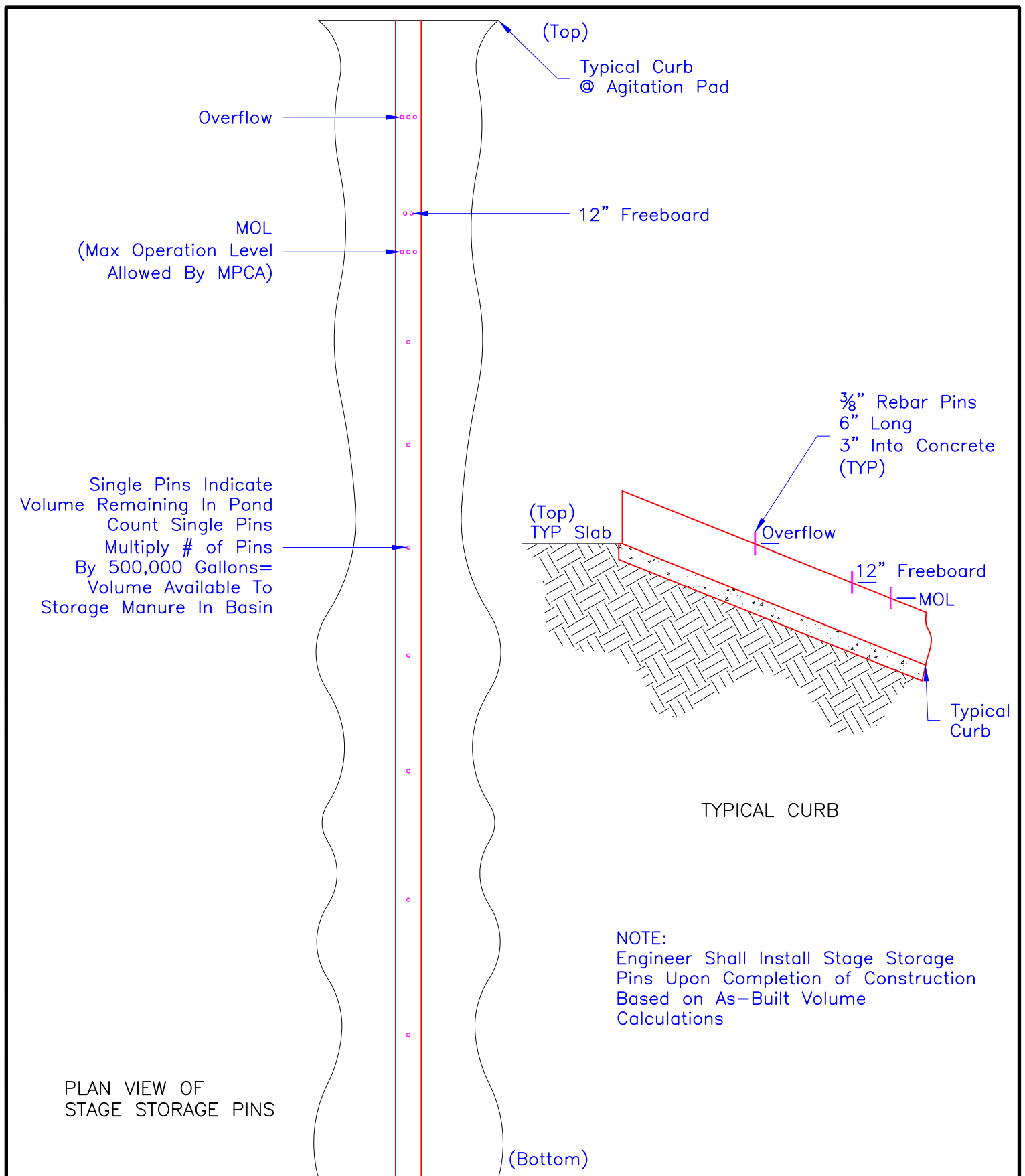
Cross Section D-D Shows The Crossover Channel Between Pond 2 & Pond 3. The Top of The Footing Shall Be Level At El 873.1. The Wall Height Shall Vary At Pond 2 and Pond 3 and Shall Taper As Appropriate At The Pond So That The 5" Concrete Pond Side Slope Concrete Flatwork Can Be Placed On Top of The Walls. The HDPE Liner Shall Be Attached To The Concrete Top Slab With Embedment Strips. Vertical Wall Seal and Longitudinal Footing Steel Shall Extend Into Pond Concrete Flatwork. The Joints Between The Footing And The Walls Shall Be Sealed with Leakmaster LV-Z Hydrophilic Sealant.

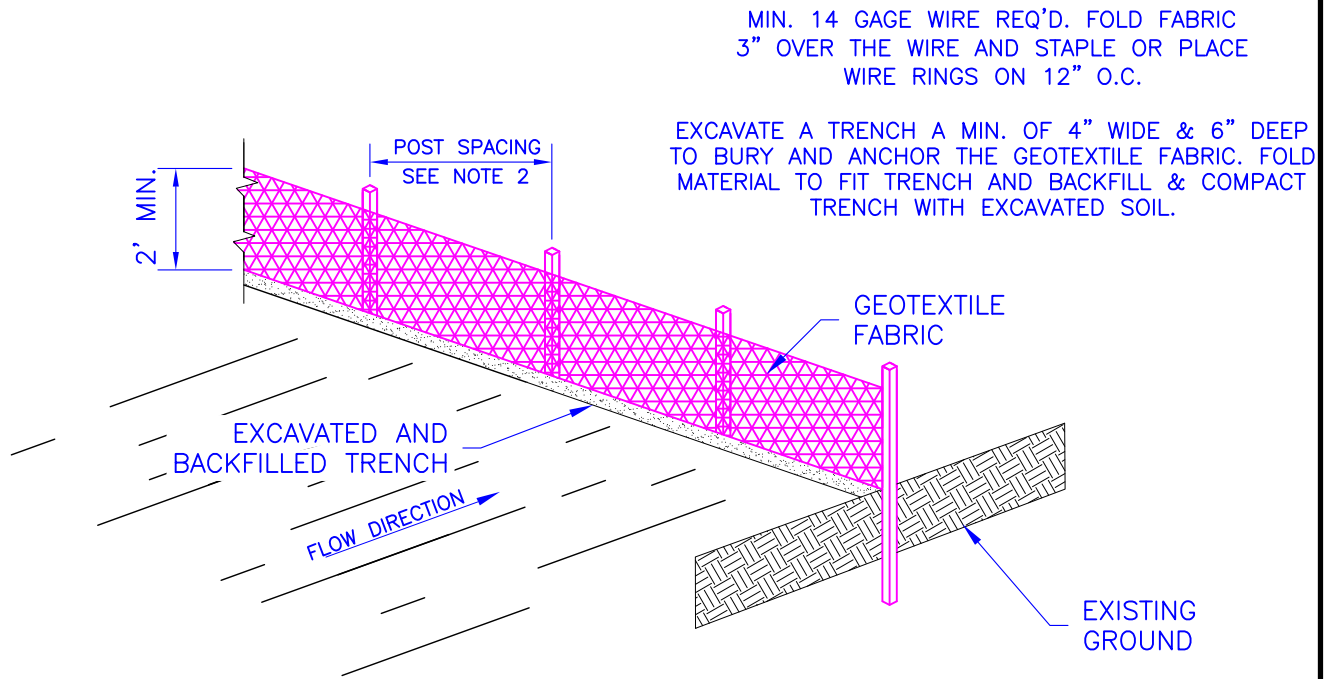




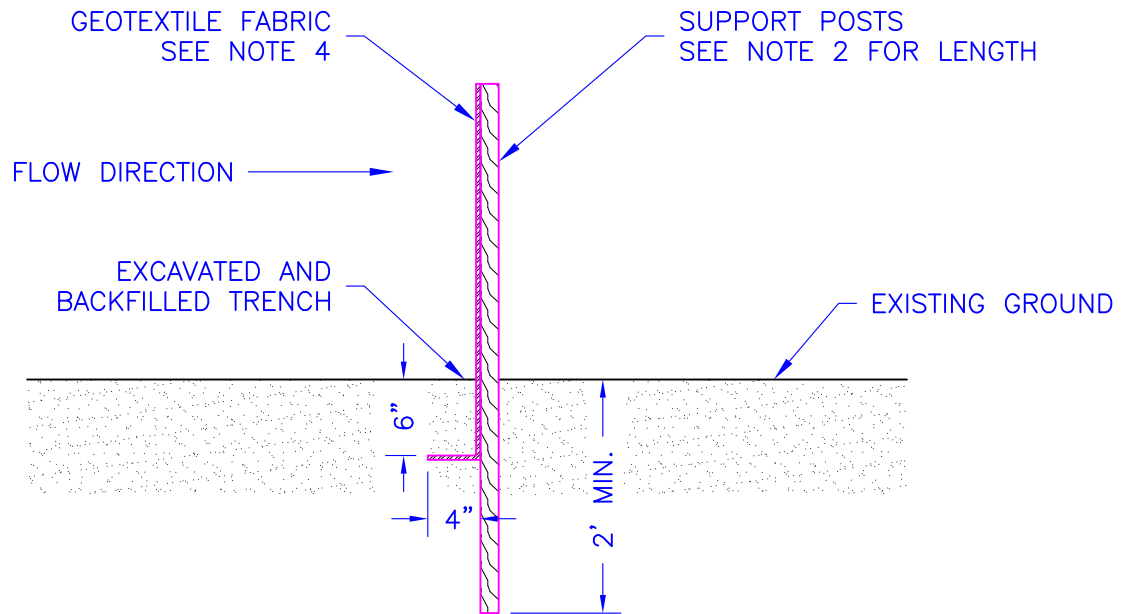
NOTE: SUBGRADE AND HDPE LINER SHALL BE 6" LOWER THAN FINISHED TOP OF CONCRETE AT AGITATION PAD AREA

<i>WES</i> PROFESSIONAL ENGINEERING	WILLIAMS ENGINEERING SERVICES, LLC E14910 BEARS GRASS RD AUGUSTA, MI [REDACTED]	TYPICAL AGITATION PAD (HDPE POND)	Dwg: F16
			5/28/2026
		New Heights Dairy – Clarissa	





ISOMETRIC VIEW



TYPICAL SECTION

SEEDING DATES

TIME PERIOD	DATES			TYPE OF SEEDING
Spring	April 15	through	June 1	Permanent
Summer	June 2	through	July 31	Temporary *
Late Summer	August 1	through	August 21	Permanent
Fall	August 22	through	September 1	Temporary *
Late Fall	September 2	through	Freeze up	Dormant
Winter	No Snow Cover	through	April 14	Frost Seed

MATERIALS

No Application Of Lime Required On This Site. (2 Tons of 80–89 Lime if Required)

Apply 150 pounds per acre of 20–10–10 fertilizer.

Mulch with 1–1/2 tons per acre of straw or hay reasonably free from grain and weed seed. If other mulch materials are used, the rate of application shall meet the manufacturer's recommendations.

* Seed a temporary cover crop of Annual Ryegrass at a rate of 20 pounds/acre.

A permanent seeding shall be completed during the next acceptable time period following a temporary seeding.

MINIMUM PURE LIVE SEED (PLS)¹ RATE PER ACRE AND TOTAL POUNDS OF SEED NEEDED

SEEDING MIX		LOCATION –All Areas Per 1 ACRE		SEEDING MIX _____	LOCATION _____ ACRES	
SPECIES	RATE (Per Acre)	POUNDS Required		SPECIES	RATE (Per Acre)	POUNDS Required
Smooth Bromegrass	10#	31#				
Tall Fescue	2#	10#				
Kentucky Bluegrass	1#	50#				
Timothy	2#	56#				
Perennial Ryegrass	5#	26#				

1. PLS = (% Germination X % Purity)

SEEDBED PREPARATION

Prepare a fine, firm seedbed to a minimum depth of 3 inches. During the recommended seeding periods, seedbed preparation shall immediately follow construction activities.

SEEDING

Seed grasses and legumes no more than 1/4" deep. Seed may be broadcast or drilled. Seeding shall be done prior to mulching, except for dormant seedings. Inoculate legumes with the specific inoculum for the species in accordance with the manufacturer's recommendations. When using a hydroseeder, five times the recommended rate of inoculant shall be added to the hydroseeder. Inoculant shall not be mixed with liquid fertilizer.

MULCHING

Spread mulch uniformly. Straw and hay shall be applied at 1–1/2 to 2 tons (60–90 bales) per acre (6–7 strands thick). Straw mulch shall be anchored into the soil approx. 2–3" using a serrated disk. Mulch may also be anchored using liquid tackifiers or netting installed per manufacturer's recommendations. Bedding pack animal manure may also be used as mulch.

Dormant Seeding – Mulching shall be done prior to seeding and immediately after seedbed preparation.

Note:

Seed tags and fertilizer information shall be provided to Engineer

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WILLIAMS ENGINEERING SERVICES, LLC
E14910 BEARS GRASS RD
AUGUSTA WI

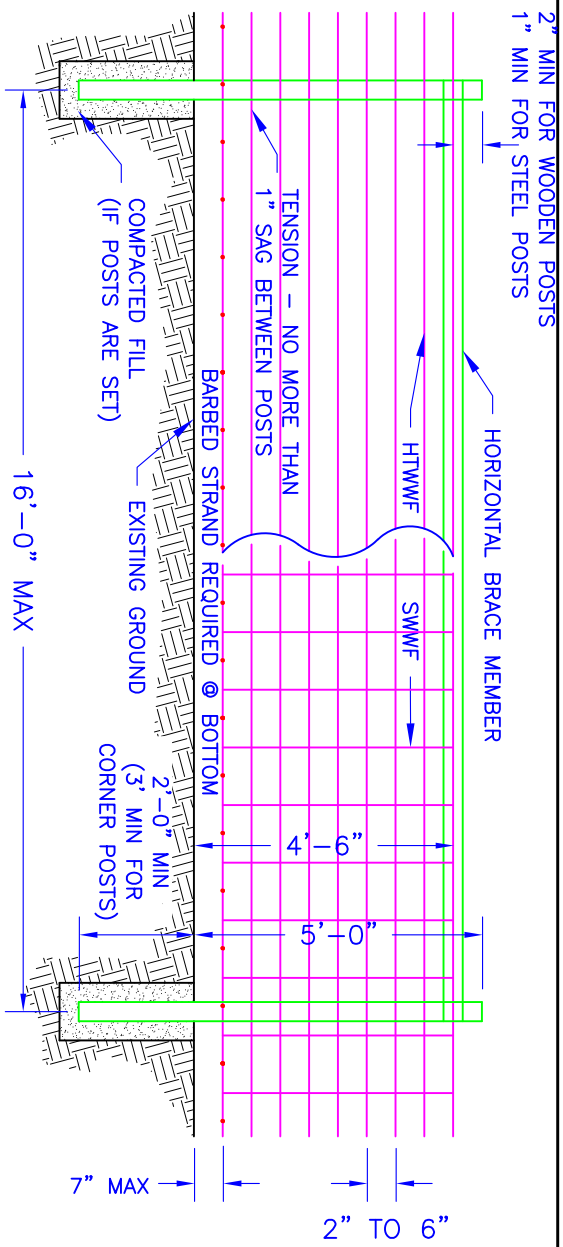
Seeding – Central region

New Heights Dairy – Clarissa

Dwg: F2

5/28/2026

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POSTS:
WOOD – ALL WOODEN POSTS AND BRACE MEMBERS SHALL BE TREATED PER TABLE 3 OF WI NRCS CONST SPEC 10 AND QUALITY OF TREATED WOOD SHALL PROVIDE SUFFICIENT STRENGTH AND LAST FOR THE EXPECTED LIFE OF THE FENCE

CORNER, END, AND GATE ASSEMBLY POSTS FOR SWVF AND HTWVF SHALL BE WOODEN WITH A MIN TOP DIAMETER OF 5".

WOODEN BRACE ASSEMBLY AND WOODEN LINE POSTS SHALL BE A MIN 7' LONG WITH A TOP DIAMETER OF 4"

ALL BRACE MEMBERS SHALL BE WOOD AND THE HORIZONTAL MEMBER CENTERLINE SHALL BE 4-9" BELOW TOP OF POST. OTHER BRACE MATERIALS OF EQUAL STRENGTH ARE ALLOWED AS APPROVED BY THE ENGINEER

STEEL POSTS SHOULD HAVE THE STANDARD "I" SECTION AND NOMINAL DIMENSIONS OF 1 3/8" BY 1 3/8" BY 1/8" WITH ANCHOR PLATE. THE POSTS SHALL BE ROLLED FROM HIGH CARBON STEEL, WEIGH AT LEAST 1.25 POUNDS PER FOOT OF LENGTH, AND SHALL BE PAINTED WITH A WEATHER RESISTANT PAINT FOR STEEL, ENAMELED AND BAKED, OR HOT DIP GALVANIZED. THE POST SHALL BE STUDDED TO AID IN WIRE ATTACHMENT. STEEL LINE POSTS SHALL BE A MIN LENGTH OF 5' AND SHALL CONFORM TO ASTM A 702

INSTALLATION:

LINE POST SPACING SHALL NOT EXCEED 16' FOR SWVF AND 25' FOR HTWVF, WOODEN LINE POSTS SHALL BE SET OR DRIVEN A MIN OF 24" BELOW THE GROUND LINE (36" MIN FOR CORNER POSTS)

STEEL LINE POSTS SHALL BE SET OR DRIVEN A MIN OF 18" BELOW GROUND LINE

IF POSTS ARE NOT DRIVEN, THE BACKFILL AROUND THE POST SHALL BE WELL COMPACTED

BRACING:

ALL BRACE MEMBERS SHALL BE WOOD, THE HORIZONTAL MEMBER CENTERLINE SHALL BE 4-9" BELOW THE TOP OF THE POST. THE HORIZONTAL BRACE MEMBER SHALL BE A MIN 4" IN DIA AND MIN 7' IN LENGTH
A TENSION WIRE COMPOSED OF 2 COMPLETE LOOPS OF 9-GAUGE WIRE OR A SINGLE LOOP OF 12.5-GAUGE HIGH TENSILE WIRE SHALL BE USED. ONE END OF THE TENSION WIRE SHALL BE AT THE HEIGHT OF THE HORIZ CROSS BRACE MEMBER AND THE OTHER 4" ABOVE GROUND
STEEL LINE POSTS SHALL BE SET

OR DRIVEN A MIN OF 18" BELOW GROUND LINE
IF POSTS ARE NOT DRIVEN, THE BACKFILL AROUND THE POST SHALL BE WELL COMPACTED

NOTES:

STANDARD WOVEN WIRE FENCE (SWVF) AND HIGH TENSILE WOVEN WIRE FENCE (HTWVF) SHALL CONSIST OF WOVEN WIRE WITH SINGLE OR MULTIPLE STRANDS OF EITHER BARBED WIRE OR HIGH TENSILE SMOOTH WIRE WITH A MIN SPACING OF 2" TO 6" STARTING AT THE TOP OF THE WOVEN WIRE

WIRE:

SWVF SHALL BE MADE FROM LOW-CARBON STEEL WIRE WITH CLASS 3 GALVANIZING MEETING ASTM A 641. THE WOVEN WIRE SHALL HAVE THE TOP AND BOTTOM STRANDS 10-GAUGE OR HEAVIER. INTERMEDIATE AND STAY WIRES SHALL BE 14.5-GAUGE OR HEAVIER. THE STAY WIRES SHALL BE SPACED A MAX 6" APART FOR SAFETY FENCES

HIGH TENSILE WIRE SHALL BE MADE FROM HIGH TENSILE STEEL WIRE WITH CLASS 3 GALVANIZING MEETING ASTM A 641. THE TOP AND BOTTOM STRANDS SHALL BE 12.5-GAUGE OR HEAVIER AND THE STAY WIRES SHALL BE 14.5-GAUGE OR HEAVIER SPACED AT A MAX OF 6" FOR SAFETY FENCES

TENSILE STRENGTH – 140,000 PSI (MIN)
BREAKING STRENGTH – 900 LBS (MIN)

FASTENERS:

STAPLES SHALL BE 9-GAUGE, CLASS 3 GALVANIZED STEEL OR HEAVIER WITH A MIN LENGTH OF 1.75" FOR SOFTWOODS AND A MIN 1" FOR CLOSE-GRAINED HARDWOODS

MANUFACTURER'S CLIPS OR 14-GAUGE, CLASS 3 GALVANIZED WIRE MAY BE USED TO FASTEN WIRES TO STEEL POSTS

NOTE:

FENCES USING ENTIRELY WOOD POSTS SHALL BE GROUNDED FOR LIGHTENING PROTECTION AT LEAST EVERY QUARTER MILE WITH GROUND RODS DRIVEN NOT LESS THAN 4' INTO THE GROUND PER WI SPEC #10

SEE WI CONST SPEC 10 FOR FURTHER DETAILS AND WI NRCS STANDARD 382

 PROFESSIONAL ENGINEERING	WILLIAMS ENGINEERING SERVICES, LLC E14910 BEARS GRASS RD AUGUSTA, MI	Safety Fence	Dwg: E2
			5/28/2026
		New Heights Dairy – Clarissa	

NOTES:

1. The Geotextile Fabric Shall Be Placed in The Excavated Trench, Backfilled, and Compacted To The Existing Ground Surface.
2. Wooden Support Posts Shall Be A Minimum Dimension of 1-1/8" x 1-1/8" Air or Kiln Dried Of Hickory or Oak and 4 Feet Long. Steel Posts Shall Be Studded "Tee" or "U" Type With A Minimum Weight of 1.3 Pounds Per Lineal Foot and 5 Feet Long. Post Spacing Shall Be a Maximum of 8 Feet For Woven Fabric and 3 Feet For Non-Woven Fabric.
3. The Geotextile Fabric Shall Be Attached Directly to The Upslope Side of Wooden Posts With 0.5 Inch Staples in At Least 3 Places, or With Wooden Lath and Nails. Attachment to Steel Posts Will Be By Wire Fasteners or 50 Pound Plastic Tie Straps on The Upslope Side.
4. The Geotextile Fabric Shall Consist of Either Woven or Non-Woven Polyester, Polypropylene, Stabilized Nylon, Polyethylene, or Polyvinylidene Chloride. Non-Woven Fabric May Be Needle Punched, Heat bonded, Resin Bonded, or Combinations Thereof. All Fabric Shall Meet The Following Requirements:

TEST REQUIREMENT	METHOD	VALUE *
Minimum Grab Tensile Strength In The Machine Direction	ASTM D 4632	120 LBS.
Minimum Grab Tensile Strength In The Cross Machine Direction	ASTM D 4632	100 LBS.
Maximum Apparent Opening Size Equivalent Standard Sieve	ASTM D 4751	NO. 30
Minimum Permittivity	ASTM D 4491	0.05 SEC ⁻¹
Maximum Permittivity	ASTM D 4491	0.135 SEC ⁻¹ OR 10 gpm/sq ft at 50 mm constant head.
Minimum Ultraviolet Stability Percentage of Strength Retained After 500 Hours of Exposure	ASTM D 4355	70%

* All Numerical Values Represent Minimum/Maximum Average Roll Values. (For Example, The Average of Minimum Test Results on Any Roll IN A Lot Should Meet or Exceed The Minimum Specified Values.)

BILL OF MATERIALS

ITEM	QUANTITY
SUPPORT POSTS	_____
GEOTEXTILE	_____FT.
FASTENERS	AS REQUIRED

WES
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ENGINEERING

WILLIAMS ENGINEERING SERVICES, LLC
E14910 BEARS GRASS RD
AUGUSTA WI

Silt Fence Details

New Heights Dairy – Clarissa

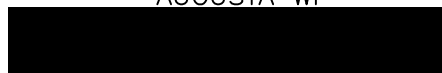
Dwg: E4

5/28/2026

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THESE ARE ONLY EXAMPLES OF THE TYPES OF SIGNS THAT MUST BE POSTED AROUND THE FACILITY. OTHER COMMERCIALY AVAILABLE SIGNS MAY BE USED.



General Information Sheet

		OPTION	Pond C
Client:	Brent Czech	State:	MN
Address:	37674 Cty Rd 11 Clarissa MN 56440	Phone:	[REDACTED]
Date:	5/26/2026		
Farm:	New Heights Dairy - Clarissa		
County:	MN, Todd County		

EXISTING INFORMATION						
EXISTING ANIMALS	QTY	WEIGHT	MANURE /DAY	MN AU		
Milking & Dry Cows	1000	1400	2.7	1400		
Heifers (800-1200 lbs)	0	1000	1.6	0		
Heifers (400-800 lbs)	0	600	1.0	0		
Calves (under 400 lbs)	0	200	0.3	0		
	1000			1400		

PROPOSED INFORMATION						
PROPOSED ANIMALS	QTY	WEIGHT	MANURE /DAY	MN AU		
Milking Cows	1960	1400	2.7	2744		
Heifers (800-1200 lbs)	0	1000	1.6	0		
Heifers (400-800 lbs)	0	600	1.0	0		
Calves (under 400 lbs)	0	200	0.3	0		
Dry Cows	0	1400	2.7	0		
	1960			2744		

Proposed Pond					
	Length	400	PRECIP	Collection Start	January
	Width	430		Collection End	December
	Depth	21	Manure		
				Total Days	365



PROJECT SUMMARY

Date: 5/26/2026
Contact: Brent Czech
Farm: New Heights Dairy - Clarissa
Address: 37674 Cty Rd 11 Clarissa MN 56440
County: MN, Todd County
Phone: [REDACTED]

Pond C

EXISTING STORAGE TOTALS

Animals:	1000	Proposed Animals:	1960
Existing Days of Storage:	111	Existing Storage:	5,800,467 Gallons

Existing LMSA - Concrete

Existing Days of Waste Storage:	53	Months Precipitation Collected:	<i>January - December</i>
Dimensions	280 x 145 x 12 FT	Area	40600 SF
Volume at MOL			<u>2,321,310 Gallons</u>
Volume to Top			2,665,832 Gallons
Volume at Freeboard			2,444,050 Gallons
Daily Manure & Parlor Water with proposed animals + Runoff Collected			60,635 Gallons
Typical Duration Rainfall Collected in Pond		0	
Typical Duration Pond Surface Evaporation			-894,614 Gallons
Typical duration Net Precipitation Collected			-894,614 Gallons

Existing LMSA - GEO

Days of Waste Storage:	57	Months Precipitation Collected:	<i>January - December</i>
Dimensions	400 x 160 x 12 FT	Area	64000 SF
Volume at MOL			<u>3,479,157 Gallons</u>
Volume to Top			4,103,249 Gallons
Volume at Freeboard			3,672,640 Gallons
Daily Manure & Parlor Water with proposed animals + Runoff Collected			60,635 Gallons
Typical Duration Rainfall Collected in Pond			1,403,846
Typical Duration Pond Surface Evaporation			-1,410,229
Typical duration Net Precipitation Collected			-6,383



SUMMARY (IN GALLONS) 365 Days		
Animals:		1960
Total combined storage:	12.0 Months	365 Days
Duration of Precipitation:	12.0 Months	30
Daily Manure & Parlor Water & Runoff Collected		60,635 Gallons
Design Storage Volume		2,370,656 CF
Usable Pond Volume (At MOL)		17,732,509 Gallons
Existing Pond Volume(s) (At MOL)		5,800,467 Gallons
Total Volume to Top of all WSF:		26,261,807 Gallons
Total Volume at Freeboard		24,360,949 Gallons
Total Volume of all WSF (MOL)		23,532,976 Gallons
Proposed Pond		
Days of Manure Storage for WSF		254
Months Precipitation Collected:		January - December
WSF Pond Dimensions		400 x 430 x 21
Pond Volume to Top		19,492,726 Gallons
Total Volume at Freeboard		18,244,259 Gallons
Volume of 25 yr - 24 hr Event		511,750 Gallons
Volume at MOL		17,732,509 Gallons
Volume of Precipitation		3,201,338 Gallons
Volume of Precipitation Evaporation		-3,729,971 Gallons
Net Precipitation		-528,632 Gallons
Usable Pond Volume		17,732,509 Gallons
Total Manure & Bedding (Gal)		17,123,814 Gallons
Feedpad Runoff Collected:		2,155,686 Gallons
Extra Un-Used Volume Remaining (All Storages):		286,058 Gallons

Client: Brent Czech
 Address: 37674 Cty Rd 11 Clarissa MN 56440
 Date: 5/26/2026
 Project: New Heights Dairy - Clarissa
 Days of Precipitation Contribution: 365
 Days of Manure & Waste Water Storage: 365 Days

Location: MN, Todd County
 25 yr. rain: 4.85
 Precip: 30.3 inches Precip during collection period

-5,002,659 Extra Un-Used Volume Remaining:
 0 Percent of Extra Un-Used Volume Remaining

Existing TOTAL Water Runoff Areas Collected

Total Farmstead Runoff Area Collected (Includes Feed and Cannery Pads)= 0 SF
 Added watershed area = 0 SF
 Runoff Area C = 0 SF
 Total CLEAN Runoff Area Collected= 0 SF
 Existing CLEAN Water Runoff Areas Collected (Ave Precip.)= 0 Gallons
 Existing CLEAN Water Runoff Areas Collected (25 Yr Event)= 0 Gallons

new large farm catchment area MINUS feed pad and other catchment from origin:

Existing Feed Pad

Collects All Runoff= NO Yes/No
 Existing Feed Pad Area = 0 SF
 Pounds Dry Matter Fed Per Day Per Milk Cow = 50 Lb
 Feed % Moisture= 40
 Tons Of Stored Feed Required (Annually)= 447 (Based On Percentage By Weight Of Milk Cow)
 Tons Of Feed Stored (Annually)= 0 Tons
 Cubic Feet Of Leachate Per Ton Feed= 6 CF yearly
 Gallons of Leachate= 0 Gallons / storage time 0
 Existing Feed Pad Runoff Collected (Ave Precip.)= 0 Gallons
 Existing Feed Pad Runoff Collected (25 Yr Event)= 0 Gallons

Proposed Feed Pad

Collects All Runoff= yes Yes/No
 Future Feed Pad Area= 100,000 SF
 Pounds Dry Matter Fed Per Day Per Milk Cow = 50 Lb
 Feed % Moisture= 0
 Tons Of Feed Stored (Annually)= Enter Tons To Be Stored On Future Pad Area
 Cubic Feet Of Leachate Per Ton Feed= 6 CF
 Gallons of Leachate= 0 Gallons
 Gallons Of Proposed/Future Feed Pad Runoff Collected= 2,155,686 Gallons
 Proposed Feed Pad Runoff Collected (Ave Precip.)= 1,853,369 Gallons
 Proposed Feed Pad Runoff Collected (25 Yr Event)= 302,317 Gallons

Total runoff collected to Pond 2,155,686

Proposed/Future Cannery Pad

NOTE: Numbers below have been changed manually to coincide with WI AU Calculation Worksheet Form 3400-025A (R 3/2012)
 Far Right Column Numbers are Non-Mixed Animal Units for WI (for MN AUs, see GEN_INFO tab)

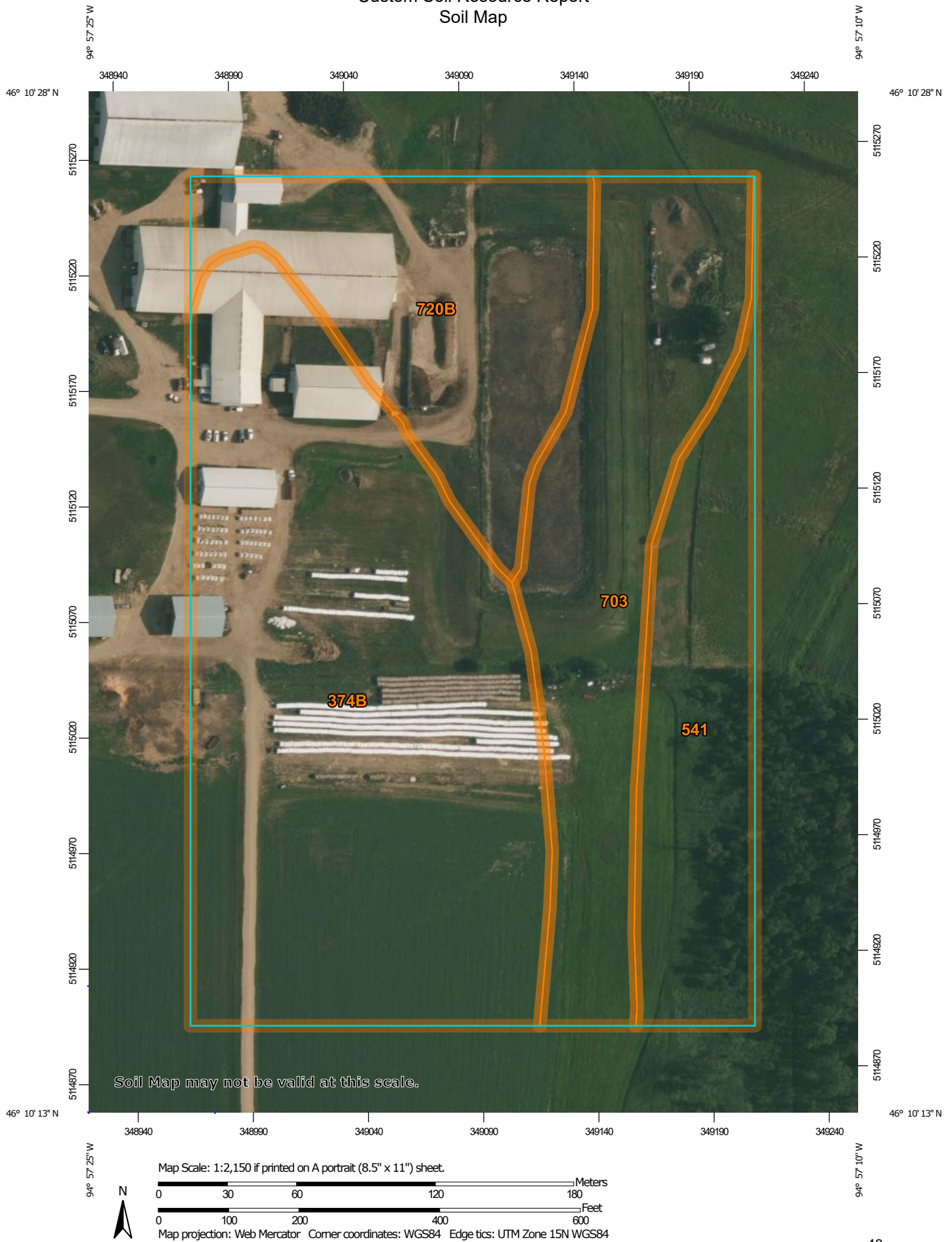
	Proposed Number of Animals	Weight	Manure CF factor per animal per day	Bedding CF factor per animal per day	Total CF/Day	Days	Total Manure & Bedding (CF)	Total Manure & Bedding (Gal)	Animal Units
Milkhouse Washwater									
13720	Milking Cows	1960	1400	2.70	6272	365	2,289,280	17,123,814	2,744
	Heifers (800-1200 lbs)	0	1000	1.60	0	365	0	0	0
	Heifers (400-800 lbs)	0	600	0.96	0	365	0	0	0
	Calves (under 400 lbs)	0	200	0.32	0	365	0	0	0
	Dry Cows	0	1400	2.70	0	365	0	0	0
	0	0	400	1.00	0	365	0	0	0
13720		1960		Bedding (Gallons)=	357,700	6272	2,289,280	17,123,814	2744.0

Milkhouse Wash Water Per Milking Cow= 7 Gallons

Annual Precip=	30.34
25 Yr-24 Hr Event=	4.85
Annual Pond Evap=	35.35
Annual Precip-Evap=	-5.01
Storage Duration =	365
Paved Areas Average Annual Runoff Percentage (Based On 98 Curve Number)=	0.98
Farmstead Areas Average Annual Runoff Percentage (Based On 84 Curve Number)=	0.98
Trap Efficiency Of Sand Lane=	0

Total Clean Water Runoff Area Collected=	0 Gallons
Total Milkhouse Wash Water=	5,007,800 Gallons
Feed Pad Leachate=	0 Gallons
Cannery Pad Leachate=	0 Gallons
Existing Feed Pad Runoff Collected=	0 Gallons
Proposed/Future Feed Pad Runoff Collected=	2,155,686 Gallons
Existing Cannery Pad Runoff Collected=	0 Gallons
Proposed Cannery Pad Runoff Collected=	0 Gallons
25 Yr-24 Hr Event Feed Pad & Grass (To WSF1)	0 Gallons
Total Wastewater=	7,163,486 Gallons
(Milkhouse, Leachate, Pad Runoff & First Flush)	
Total Liquid Waste Collected (Manure & Wastewater)=	24,287,301 Gallons
	60,635 Gallons

Custom Soil Resource Report Soil Map



Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
374B	Rockwood soils, 2 to 6 percent slopes	10.3	46.2%
541	Rifle-Rifle, ponded, complex, 0 to 1 percent slopes	3.2	14.3%
703	Paddock-Becida, stony, complex, 0 to 3 percent slopes	4.8	21.6%
720B	Blowers soils, 1 to 6 percent slopes	4.0	17.9%
Totals for Area of Interest		22.3	100.0%

Map Unit Descriptions

The map units delineated on the detailed soil maps in a soil survey represent the soils or miscellaneous areas in the survey area. The map unit descriptions, along with the maps, can be used to determine the composition and properties of a unit.

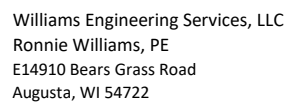
A map unit delineation on a soil map represents an area dominated by one or more major kinds of soil or miscellaneous areas. A map unit is identified and named according to the taxonomic classification of the dominant soils. Within a taxonomic class there are precisely defined limits for the properties of the soils. On the landscape, however, the soils are natural phenomena, and they have the characteristic variability of all natural phenomena. Thus, the range of some observed properties may extend beyond the limits defined for a taxonomic class. Areas of soils of a single taxonomic class rarely, if ever, can be mapped without including areas of other taxonomic classes. Consequently, every map unit is made up of the soils or miscellaneous areas for which it is named and some minor components that belong to taxonomic classes other than those of the major soils.

Most minor soils have properties similar to those of the dominant soil or soils in the map unit, and thus they do not affect use and management. These are called noncontrasting, or similar, components. They may or may not be mentioned in a particular map unit description. Other minor components, however, have properties and behavioral characteristics divergent enough to affect use or to require different management. These are called contrasting, or dissimilar, components. They generally are in small areas and could not be mapped separately because of the scale used. Some small areas of strongly contrasting soils or miscellaneous areas are identified by a special symbol on the maps. If included in the database for a given area, the contrasting minor components are identified in the map unit descriptions along with some characteristics of each. A few areas of minor components may not have been observed, and consequently they are not mentioned in the descriptions, especially where the pattern was so complex that it was impractical to make enough observations to identify all the soils and miscellaneous areas on the landscape.

(For Waste Storage Facilities)

Soil Name:	Blowers soil	
Position in Landscape:	N of Existing LMSA	
Observed Water Depth:	6.0	
Est. HGW Depth:	1367.2	Type: Perched
Depth to Bedrock:	N/A	Type: N/A

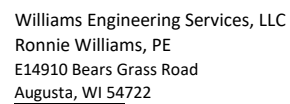
General Comments: Soils are generally a heavy sandy clay loam that is mostly dry with seeps from fine sand lenses at various elevations. Water volume is very small and stopped draining while excavating the test pit. Frost in upper several feet of soil profile.



(For Waste Storage Facilities)

Soil Name:	Pddock-Becida		
Position in Landscape:	Lowland		
Observed Water Depth:	N/A		
Est. HGW Depth:	N/A	Type:	N/A
Depth to Bedrock:	N/A	Type:	N/A

General Comments: Frost in top several feet of soil profile.



(For Waste Storage Facilities)

Landowner:	New Heights Dairy-Clarissa	Date:	3/6/2026	Soil Name:	Pddock-Becida	
Legal Description:	T131N R34W SWNW Sec 10	Hole Number:	3	Position in Landscape:	Lowland	
County:	Todd	Elevation:	1367.6	Observed Water Depth:	6.0	
Logged by:	Ronnie Williams, PE	Total Depth:	19.2	Est. HGW Depth:	1361.6	Type: Perched
Practice:	Proposed LMSA C	Sample Depths:		Depth to Bedrock:	N/A	Type: N/A

[illegible]

General Comments: Very Wet Perched Conditions. Very Hard Hardpan Beginning At 9 Feet.



Williams Engineering Services, LLC
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E14910 Bears Grass Road
Augusta, WI 54722



SOIL INVESTIGATION LOG

(For Waste Storage Facilities)

Landowner:	New Heights Dairy-Clarissa	Date:	3/6/2026
Legal Description:	T131N R34W SWNW Sec 10	Hole Number:	4
County:	Todd	Elevation:	1367.1
Logged by:	Ronnie Williams, PE	Total Depth:	11.5
Practice:	Proposed LMSA C	Sample Depths:	

Soil Name:	Pddock-Becida	
Position in Landscape:	Lowland	
Observed Water Depth:	Unknown	
Est. HGW Depth:	Unknown	Type: Standing Water At Test Pit
Depth to Bedrock:	N/A	Type: N/A

[illegible]

General Comments: Test pit very near standing water. Peat. Stopped
Excavation Due To Unbuildable Soil Profile.



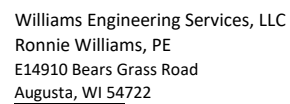
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(For Waste Storage Facilities)

Soil Name:	Rockwood soils		
Position in Landscape:	Waterway		
Observed Water Depth:	9.0		
Est. HGW Depth:	1364.0	Type:	Perched
Depth to Bedrock:	N/A	Type:	N/A

General Comments: Soils are generally a heavy sandy clay loam that is mostly dry with seeps from fine sand lenses at various elevations. Water volume is very small and stopped draining while excavating the test pit.



SOIL INVESTIGATION LOG
(For Waste Storage Facilities)

Landowner:	<u>New Heights Dairy-Clarissa</u>	Date:	<u>3/6/2026</u>	Soil Name:	<u>Rockwood soils</u>		
Legal Description:	<u>T131N R34W SWNW Sec 10</u>	Hole Number:	<u>6</u>	Position in Landscape:	<u>Waterway</u>		
County:	<u>Todd</u>	Elevation:	<u>1375.7</u>	Observed Water Depth:	<u>N/A</u>	Type:	<u>N/A</u>
Logged by:	<u>Ronnie Williams, PE</u>	Total Depth:	<u>25.3</u>	Est. HGW Depth:	<u>N/A</u>	Type:	<u>N/A</u>
Practice:	<u>Proposed LMSA C</u>	Sample Depths:		Depth to Bedrock:	<u>N/A</u>		

Depth	USCS	Moisture	Munsell Color	Mottle	Structure	Consistency	Boundary		Sample Number	Comments
(feet)		dry	Matrix	abundance	grade		distinctiveness	topography		
(elevation)		moist	Mottle	size	type					
		wet		contrast	size					
0.0 - 1.8	Topsoil	moist	10YR 4/2			friable	gradual	wavy		Deeper Topsoil Layer
1375.7 - 1374.0										
1.8 - 3.2	SC	moist	7.5YR 6/6	few, fine (< 5 mm), distinct	weak, subangular, medium (10-20 mm)	friable	diffuse	wavy		Few Stones & Mottles
1374.0 - 1372.5			7.5YR 5/6							
3.2 - 8.0	SC	moist	5YR 6/6	few, fine (< 5 mm), distinct	weak, subangular, medium (10-20 mm)	firm	diffuse	wavy		Mottles
1372.5 - 1367.7			7.5YR 5/6							
8.0 - 9.0	SW	dry	5YR 5/6	few, fine (< 5 mm), distinct	moderate, prismatic, medium (10-20 mm)	v. firm	diffuse	wavy		Dry Sand Lense
1367.7 - 1366.7			7.5YR 5/6							
9.0 - 11.5	SC	moist	5YR 3/4	(none)	moderate, prismatic, medium (20-50 mm)	v. firm	diffuse	wavy		Darker Sand
1366.7 - 1364.2										
11.5 - 25.3	SM	dry								Hardpan
1364.2 - 1350.4										

General Comments: Soils are generally a heavy sandy clay loam that is mostly dry with seeps from fine sand lenses at various elevations. Water volume is very small and stopped draining while excavating the test pit.



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CONSTRUCTION SPECIFICATION

3. EARTHFILL

1. SCOPE

The work shall consist of placing the earthfill required by the drawings.

2. MATERIALS

All fill materials shall be obtained from required excavations and designated borrow areas. The selection, blending, routing, and disposition of materials in the various fills shall be subject to approval by Technician.

Fill materials shall contain no sod, brush, roots, frozen soil, or other perishable materials. Stones larger than two-thirds of the uncompacted layer thickness shall be removed from the materials prior to compaction of the fill.

3. FOUNDATION PREPARATION

The foundation area shall be cleared of trees, stumps, roots, brush, rubbish, and stones having a maximum dimension greater than six (6) inches. Foundations shall be stripped to remove vegetation and other unsuitable materials or to the depth shown on the drawings, whichever is greater. Topsoil shall be stripped from the foundation area and stockpiled for use as a top dressing for vegetation establishment unless otherwise shown on the drawings.

Earth foundations shall be graded to remove surface irregularities and slopes steeper than 1:1.

The foundation surfaces shall be scarified parallel to the centerline of the fill to a minimum depth of 2 inches. The moisture content of the scarified materials shall be maintained as specified for the earthfill. The surface materials of the foundation shall be compacted and bonded with the first layer of earthfill as specified for subsequent layers of earthfill.

4. PLACEMENT

Fill shall not be placed until the required excavation and preparation of the underlying foundation is completed and inspected and approved by the Technician. No fill shall be placed upon a frozen surface nor shall snow, ice, or frozen material be incorporated in the fill.

Fill shall be placed in approximately horizontal layers beginning at the lowest elevation of the foundation. The thickness of each layer of fill prior to compaction shall be as specified in Table 1. Materials placed by dumping in piles or windrows shall be spread uniformly to not more than the specified layer thickness prior to compaction.

Adjacent to structures, earthfill shall be placed in 4-inch lifts (prior to compaction) in a manner adequate to prevent damage to the structure and to allow the structure to gradually and uniformly assume the backfill loads.

The height of the fill shall be increased at approximately the same rate on all sides of the structure.

Placement of fill adjacent to concrete structures may begin after the concrete has cured for the minimum time specified.

Earthfill in dams, levees, and other structures designed to impound water shall be placed to meet the following additional requirements:

- a. The distribution of materials throughout each zone shall be essentially uniform, and the fill shall be free from lenses, pockets, streaks, or layers of material differing substantially in texture, moisture content, or gradation from the surrounding material.
- b. The embankment top shall be maintained approximately level during construction except for sectional construction as described in Section 7.
- c. Dam embankments shall be constructed in continuous layers from abutment to abutment, except where openings to facilitate construction or to allow passage of stream flow during construction are specified.
- d. If the surface of any layer becomes too hard and smooth to achieve a suitable bond with the succeeding layer, it shall be scarified parallel to the axis of the fill to a depth of not less than 2 inches before the next layer is placed.

5. CONTROL OF MOISTURE CONTENT

Fill materials shall have a moisture content sufficient to insure the required compaction. When kneaded in the hand, the soil will form a ball which does not readily separate and will not extrude out of the hand when squeezed tightly. The adequacy of the moisture content will be determined by the Technician.

Fill material or the top surface of the preceding layer of compacted fill that becomes too dry to permit suitable bond shall either be removed or scarified and wetted by sprinkling to an acceptable moisture content prior to placement of the next layer of fill.

Fill material that is too wet when deposited or the top surface of the preceding layer of compacted fill that becomes too wet shall be either removed or allowed to dry to an acceptable moisture content before compaction or placing additional layers of fill.

6. COMPACTION

The Contractor shall furnish and operate the types and kinds of equipment necessary to compact the fill materials.

Unless otherwise specified on the plans or approved by the Technician, compaction requirements for each layer of fill material are as shown in Table 1.

Each pass shall consist of at least one complete coverage by the wheel, track, or roller over the entire surface of the fill layer in a direction parallel to the main axis of the fill.

Adjacent to structures or in confined areas, compaction of the fill shall be accomplished by means of manually directed power tampers or plate vibrators or hand tamping, unless otherwise specified. The Technician shall determine if adequate compaction is being achieved. Heavy equipment shall not be operated within 2 feet of any structure. Compaction by means of drop weights operating from a crane or hoist of any type will not be permitted.

7. SPECIAL REQUIREMENTS FOR SECTIONAL CONSTRUCTION OF EMBANKMENTS

When sectional (or phase) construction of embankments is authorized, the work shall be accomplished in the following manner:

Each section of the embankment that is constructed in the first phase shall be so placed that a slope not steeper than 3 feet horizontal to 1 foot vertical is maintained at the end of the embankment section adjacent to the gap in construction or closure section.

Prior to placement of the closure sections, the surfaces of completed fills and excavations that will be in contact with the closure shall be stripped of all loose material, scarified, moistened, and recompact as necessary.

Table 1 - Equipment Compaction Requirements

Equipment Type	Applicable Soils ¹	Maximum Fill Height ² (feet)	Layer Thickness ³ (inches)	Minimum Passes ⁴
Sheepsfoot roller 10,000 lb. min. operating weight	ML, MH, CL, CH or SM, SC, GM, GC with >20% fines	None	9	1
Vibratory tamping roller 9,000 lb. min. operating weight	SM, SC, GM, GC	None	9	2
Rubber-tired scraper fully loaded	GM, GC, SM, SC, ML, MH, CL, CH	20	9	1
Track-type crawler standard tracks	GM, GC, SM, SC, ML, CL	10**	6	2
	SP, SW, GP, GW	6**	12	4
	CL, ML, SC, SM	15 ^{##}	3	2
less than 30,000 lb.	GM, GC, GP, GW, SM, SC, SP, SW, ML, CL	6**	6	2
Farm tractor 2,400 lb. min.	GM, GC, SM, SC, ML, MH, CL, CH	15	6	2
Steel drum vibratory roller 10,000 lb. min.	SP, SW, GP, GW	None**	12	2

¹ Unified Soil Classification System.

² Measured from the top of the fill to the lowest point along the centerline of the fill.

³ Prior to compaction.

⁴ The Technician shall determine if adequate compaction is being achieved. Additional passes may be required.

**The fill shall not have a permanent body of water stored against it.

^{##}This method may only be used for embankments that will not have the potential for a permanent body of water stored against it that is greater than ¼ acre in surface area or more than 6 feet deep.

CONSTRUCTION SPECIFICATION

2. EXCAVATION

1. SCOPE

The work shall consist of the excavation of all materials necessary for the construction of the work.

2. USE OF EXCAVATED MATERIALS

To the extent that they are needed, all suitable materials removed from the specified excavations shall be used in the construction of the required earthfill. The suitability of materials for specific purposes will be determined by the Engineer. The Contractor shall not waste or otherwise dispose of suitable excavated materials.

3. DISPOSAL OF WASTE MATERIALS

All surplus or unsuitable excavated materials will be designated as waste and shall be disposed of at the locations shown on the drawings or as approved by the Engineer. Waste materials shall not be placed in wetlands.

Material placed in designated waste disposal areas shall be left in a neat and sightly condition and sloped to provide positive drainage. Compaction of the waste materials will not be required unless specified by the construction plans.

Waste material excavated from channels may be deposited in leveled spoilbanks or areas adjacent to the channel work (if permissible). The shape and slopes of the spoilbanks shall be indicated on the drawings or as approved by the Engineer. Spoil piles shall be located a minimum of 12 feet from the top of the channel side slope.

Spoil piles or disposal areas shall be protected to minimize site erosion and the production of sediment. Protective measures may include but are not limited to diversions, seeding, mulching, sediment basins, and silt fences.

4. SPECIAL REQUIREMENTS FOR STRUCTURE AND TRENCH EXCAVATION

The required dimensions and side slopes of all structure and trench excavations shall be as shown on the drawings.

Excavation for the installation of pipes shall follow the practices contained in the Occupational Safety and Health Administration (OSHA) Subpart P, Excavation, of 29 CFR 1926.650, .651 and .652.

Side slopes shall be excavated or braced to safeguard the work and workers. When bracing or supporting is required, the width of the excavation shall be adjusted to allow for the space occupied by the sheeting, bracing, or other supporting installations. The Contractor shall furnish, place, and subsequently remove such supporting installations.

5. REMOVAL OF WATER

The Contractor shall construct and maintain all necessary cofferdams, channels, flumes, pumping equipment, and/or other temporary diversion and protective work for dewatering the various parts of the work. Foundations, cutoff trenches, and other parts of the work shall be maintained free from water as required for constructing each part of the work. After having served their purpose, all cofferdams and other temporary protective works shall be removed, or leveled to give a sightly appearance and so as not to interfere in any way with the operation, usefulness, or stability of the permanent structure.

6. BORROW EXCAVATION

When the quantities of suitable materials obtained from specified excavations are insufficient to construct the specified fill portions of the permanent works, additional materials shall be obtained from the designated borrow areas.

When shown on the drawings, sediment basins, terraces, diversions, or other measures shall be constructed to protect the borrow areas from erosion and retain sediment within the borrow area.

The upper six (6) inches shall be stripped from all borrow areas. This stripping shall be performed immediately prior to use of the borrow material to reduce the time the area is exposed to erosion. For large borrow areas, only a portion of the area should be stripped at a time. This material shall be redistributed over the area from which it came after borrow excavation is completed.

The extent of excavation and the selection of materials from the borrow area shall be as directed by the Engineer. On completion of excavation, all borrow pits shall be left in a neat and sightly condition. All borrow areas shall be graded and dressed so that water will readily drain.

7. OVEREXCAVATION OF STRUCTURE SUBGRADE

Excavation beyond the limits of the specified lines and grades shall be corrected by filling the resulting voids with approved compacted materials.

CONSTRUCTION SPECIFICATION

204. EARTHFILL FOR WASTE STORAGE FACILITIES

1. SCOPE

The work shall consist of all operations necessary to place the earthfill required by the drawings or directed by the Engineer.

2 MATERIALS

All fill materials shall be obtained from required excavations and designated borrow areas. The selection, blending, routing, and disposition of materials in the various fills shall be subject to approval by the Engineer.

Fill materials shall contain no sod, brush, roots, frozen soil, or other perishable materials. Stones larger than two-thirds of the uncompacted layer thickness shall be removed from the materials prior to compaction of the fill.

3. GENERAL

Construction operations shall be carried out in such a manner and sequence that erosion and air and water pollution will be minimized. The completed job shall present a professional appearance and shall conform to the lines, grades, and elevations as shown on the drawings or as staked in the field. All operations shall be carried out in a safe and skillful manner. Safety and health regulations shall be observed and appropriate safety measures used.

4. FOUNDATION PREPARATION

The foundation area shall be cleared of trees, stumps, roots, brush, rubbish, frozen soil, and stones having a maximum dimension greater than 6 inches. Foundations shall be stripped to remove vegetation and other unsuitable materials to a minimum depth of 6 inches or to the depth shown on the drawings, whichever is greater. Topsoil shall be stripped from the foundation area and stockpiled for use as a top dressing for vegetation establishment unless otherwise shown on the drawings.

The moisture content of the scarified foundation materials shall be maintained as specified for the earthfill. The surface materials of the foundation shall be compacted and bonded with the first layer of earthfill as specified for subsequent layers of earthfill.

5. EXCAVATION

The required excavations shall conform to the lines, grades, and elevations as shown on the drawings. Excavation beyond specified limits shall be corrected by filling with approved compacted materials.

The required dimensions and side slopes of all structure and trench excavations shall be as shown on the drawings. Trenches deeper than 4 feet shall have side slopes above the 4 foot level of 0.5:1 or flatter depending on materials being excavated or braced to safeguard the work and workers. When backfilling pipe trenches in the waste storage facility

embankment, the trench slopes shall be cut back to 1:1 from 12 inches above the top of the pipe. The backfill material and compaction shall be equivalent to the surrounding embankment.

To the extent that they are needed, all suitable materials removed from the specified excavations shall be used in the construction of the required earthfill. The suitability of materials for specific purposes will be determined by the Engineer.

All surplus or unsuitable excavated materials shall be disposed of at the locations shown on the drawings or as approved by the Engineer. Surplus materials shall not be placed in wetlands.

6. BORROW AREAS

When the quantities of suitable materials obtained from specified excavations are insufficient to construct the specified fill portions of the permanent works, additional materials shall be obtained from the designated borrow areas. The upper 6 inches shall be stripped from all borrow areas. This stripping shall be performed immediately prior to use of the borrow material to reduce the time the area is exposed to erosion. For large borrow areas, only a portion of the area should be stripped at a time.

7. FILL MOISTURE CONTENT

Fill materials shall have a moisture content sufficient to insure the required compaction. When kneaded in the hand, the soil will form a ball which does not readily separate and will not extrude out of the hand when squeezed tightly. The adequacy of the moisture content will be determined by the Engineer.

If the top surface of compacted fill is too dry to permit suitable bond, it shall either be removed or scarified and wetted by sprinkling to an acceptable moisture content prior to placement of the next layer of fill.

Fill material that is too wet shall be allowed to dry to an acceptable moisture content before placement. If the top surface of compacted fill is too wet, it shall be either removed or allowed to dry to an acceptable moisture content before compaction or placing additional layers of fill.

8. FILL PLACEMENT

Fill shall not be placed until the required excavation and preparation of the underlying foundation is completed and approved by the Engineer. Fill shall be placed beginning at the lowest elevation of the foundation. No fill shall be placed on a frozen surface.

If the surface of any layer becomes too hard and smooth for proper bond with the succeeding layer, it shall be scarified parallel to the axis of the fill to a depth of not less than 2 inches before the next layer is placed.

Available topsoil shall be placed on the top and the exposed outside slopes of the waste storage facility embankment, the borrow areas, and any other area where the topsoil was removed during construction and where vegetation will be established.

The pre-compacted thickness of each layer of fill and compaction requirements shall be as stated below unless otherwise specified in the construction plans. Materials placed by dumping in piles or windrows shall be spread uniformly to not more than the specified layer thickness prior to compaction. The Engineer shall determine if adequate compaction is being achieved and may require more than the minimum specified passes of the compaction equipment.

- (a) Embankments. The fill shall be placed in horizontal layers extending the entire length and width of the embankment. Unless otherwise specified in the construction plans, compaction requirements shall be as shown in Table 1. Each layer shall be compacted by a minimum of one pass over the entire surface of the fill by the compaction equipment.
- (b) Adjacent to Structures and Pipes. Adjacent to structures or pipes, earthfill shall be placed in 4-inch lifts (prior to compaction) in a manner adequate to prevent damage to the structure and to allow the structure or pipe to gradually and uniformly assume the backfill loads. Compaction shall be accomplished by means of manually directed power tampers or plate vibrators or hand tamping unless otherwise specified. Heavy equipment shall not be operated within 2 feet of any structure or pipe. Compaction by means of drop weights operating from a crane or hoist of any type will not be permitted.

All intrusions into or penetrations of a clay or other soil liner will be backfilled with equivalent material and compacted to maintain its integrity. Pipe trenches into a storage facility will be backfilled with the same soils and compaction required for the storage facility for a minimum of 15 feet from the inside surface of the storage facility.

- (c) Clay Liners. A clay liner shall be installed as designated on the drawings. This work shall consist of constructing an impermeable earthliner for the inside slopes and the bottom of the earthen basin to the thickness shown on the drawings. It also includes the liner material placed in conjunction with other liner materials to form a composite liner as shown on the drawings. Only soils approved by the Engineer will be used.

The liner fill shall be placed in layers with a maximum thickness of 6 inches prior to compaction. The liner material shall be disked or worked in such a manner as to obtain a maximum clod size of 4 inches prior to compaction. Each layer shall be compacted by a minimum of one pass over the entire surface of the fill by a fully-loaded rubber-tired front end loader or scraper or a sheepsfoot or tamping roller. Smooth drum rollers are not suitable for compaction of clay liners. Operation of the compaction equipment will be continuous over the entire area during fill operations. Any liner area disturbed by subsequent construction operations will be scarified and recompacted as specified.

- (d) Small Areas of Unsuitable Materials. Lenses or pockets of soil not meeting the criteria requirements in NRCS Standard 313 shall be removed and replaced with specified materials. The extent of removal and the quality of replacement materials will be as shown on the drawings or approved by the Engineer. Excavated slopes shall be 1:1 or flatter. Replacement soil material placement, layer thickness, and compaction will be as stated for clay liners. Manually directed power tampers may be used for compaction. In this case the soil shall be placed in 4-inch lifts prior to compaction.

Table 1 - Embankment Compaction Requirements

Equipment Type	Applicable Soils ¹	Maximum Fill Height ² (feet)	Layer Thickness ³ (inches)
Sheepsfoot or tamping roller 10,000 lb. min. operating weight	ML, MH, CL, CH SM, SC, GM, GC	None	9
Vibratory tamping roller 9,000 lb. min. operating weight	SM, SC, GM, GC	None	6
Smooth drum vibratory roller 10,000 lb. min.	SP, SW, GP, GW	20	6
Rubber-tired scraper (fully loaded)	ML, MH, CL, CH SM, SC, GM, GC	None	9
Rubber-tired front end loader (fully loaded)	ML, MH, CL, CH SM, SC, GM, GC	20	6
Track-type crawler standard tracks 30,000 lb. min.	SM, SC, GM, GC, ML, CL SP, SW, GP, GW	10	6
Farm tractor 2,400 lb. min.	ML, MH, CL, CH, SM, SC, GM, GC	15	6

¹ Unified Soil Classification System.

² Measured from the top of the fill to the lowest point along the centerline of the fill.

³ Prior to compaction.

CONSTRUCTION SPECIFICATION

4. CONCRETE

PART I - FURNISHING CONCRETE

1. SCOPE

The work shall consist of furnishing Portland cement concrete as required on the construction drawings. All materials, test procedures, and admixtures shall meet the requirements of the latest edition of the applicable ASTM designation.

The mix proportion in this specification is required to yield a 28-day compressive strength of 3500 psi or more. If the required compressive strength shown on the drawings is greater than 3500 psi, the contractor shall provide a concrete mix design and laboratory testing that verifies the concrete supplied will produce compressive strengths which equal or exceed the strength required.

Failure to meet any requirements contained in this specification shall be cause for rejection of the concrete.

2. MATERIALS

The contractor shall provide the Engineer with test data, independent laboratory reports, or other evidence from the concrete supplier showing that all materials meet the requirements of this specification.

The use of any admixtures in the concrete mix shall be in strict compliance with the manufacturer's recommendations.

- A. Portland cement shall conform to ASTM C 150 and shall be Type I, IA, III, or IIIA.
- B. Fine aggregate shall conform to ASTM C 33 and be composed of clean, uncoated grains of material.
- C. Coarse aggregates shall be gravel or crushed stone conforming to ASTM C 33 and be clean, hard, durable, and free from clay or coating of any character. The maximum size coarse aggregate shall be 1-1/2 inches.
- D. Water shall be clean and free from injurious amounts of oil, salt, acid, alkali, organic matter, or other deleterious substances.
- E. Air entraining agent shall conform to ASTM C 260.
- F. Pozzolan (fly ash) shall be in strict compliance with ASTM C 618, Class F or C. The loss of ignition shall not exceed 6 percent.
- G. Ground Granulated Blast Furnace (GGBF) Slag shall conform to ASTM C 989.

H. Water-reducing admixtures shall conform to ASTM C 494 and may be the following types:

1. Type A - Water-reducing admixture.
2. Type D - Water-reducing and retarding admixture.
3. Type F - Water-reducing, high range admixture (superplasticizer).
4. Type G - Water-reducing, high range, and retarding admixture (superplasticizer).

Type D or G admixture may be used at the option of the contractor/supplier when the air temperature is over 80 degrees F at the time of mixing and/or placement.

I. Calcium chloride is NOT allowed. Other non-chloride antifreeze compounds or accelerators must be approved by the Engineer prior to use.

DESIGN OF THE CONCRETE MIX

The air content (by volume) shall be 4 to 8 percent of the volume of the concrete at the time of placement. This requirement shall be met by using Type IA or IIIA Portland cement or the manufacturer's recommended quantity of an air-entraining agent.

The slump shall be 2 to 5 inches except when superplasticizer is used in the concrete mix. When superplasticizer is used, the slump shall be 3 inches or less prior to the addition of the admixture and shall not exceed 8 inches following addition and mixing. Additional superplasticizer shall not be added to the concrete mix after discharge of the concrete at the job site has commenced.

The fine aggregate oven dry weight shall be 30-45 percent of the total oven dry weight of the combined aggregates.

The following mix proportions per cubic yard may be used by the contractor/supplier to produce concrete with a minimum compressive strength of 3500 psi. Other mix proportions proposed by the contractor/supplier may be submitted to the Engineer for approval prior to use.

Mix Number	Minimum Cement Bags/Pounds	Fly Ash Pounds	GGBF** Slag Pounds	Maximum*** Water Gallons
1*	6.0/564	0	0	36
2*	5.0/470	45-90	0	33
3*	4.25/400	0	165	32

* Superplasticizer may be added to the mix. **

Ground Granulated Blast Furnace.

***Total of aggregate moisture, mixing water added at the plant, and mixing water added at the job site.

4. MIXTURES AND MIXING

Ready-mixed concrete shall be batched, mixed and transported in accordance with ASTM C 94.

Concrete shall be uniform and thoroughly mixed when delivered to the forms.

No mixing water in excess of the amount shown for the design mix or in an amount that would cause the maximum slump to be exceeded shall be added to the concrete during mixing, hauling or after arrival at the delivery point.

The concrete shall be batched and mixed such that the temperature of the concrete at time of placing shall not be less than 50 degrees F nor more than 90 degrees F.

5. BATCH TICKET INFORMATION

The contractor shall obtain from the supplier a delivery ticket for each load of concrete before unloading at the site. The following minimum information shall be included on the load ticket:

- A. Name of concrete supplier and batch plant.
- B. Name of purchaser and job location.
- C. Date of delivery.
- D. Truck number.
- E. Amount of concrete delivered.
- F. Time loaded or time of first mixing of cement and aggregates.
- G. Mixing water in the load added as free water.
- H. Type and amount of cement.
- I. Type and amount of admixtures.
- J. Weights of fine and coarse aggregate.
- K. Percent moisture content or weight of free water contained in the aggregates.

The contractor or inspector shall also include the following additional information on the load ticket:

- A. Water added by the receiver of the concrete.
- B. Time the concrete arrived at the site.
- C. Time the concrete was completely unloaded.

Upon completion of the concrete placement, copies of all load tickets shall be provided to the Engineer.

Materials information that will remain constant throughout the job may be provided by the supplier and approved by the Engineer prior to placing concrete. This materials information may be omitted from the load ticket.

PART II - CONCRETE INSTALLATION

1. SCOPE

The work shall consist of forming, placing, finishing, and curing Portland cement concrete and the furnishing and placing of steel reinforcement as required on the construction drawings.

Failure to meet any requirements contained in this specification shall be cause for rejection of the concrete installed.

2. MATERIALS

Preformed expansion joint filler shall be commercially available products made of sponge rubber, closed cell foam, or boards containing bituminous materials with a minimum thickness of 1/2 inch.

Reinforcing steel shall be free from loose rust, oil, grease, paint, or other deleterious matter. Steel bars for concrete reinforcement shall meet the requirements of ASTM A 615. The steel shall be deformed Grade 40 or Grade 60 billet-steel bars as noted on the plans.

Waterstops shall be made of rubber (natural or synthetic) or vinyl chloride polymer or copolymer having a minimum width of 6 inches or the width shown on a WES approved Drawing and a minimum web thickness of 3/16 inches. Waterstops shall be the type intended for placement entirely within the concrete cross section, have ribbed or bulb-type anchor flanges and a hollow tubular center bulb.

Curing compound shall be a liquid membrane-forming compound suitable for spraying on the concrete surface. The curing compound shall meet the requirements of ASTM C 309 Type 2 (white pigmented) or Type 1-D (clear with fugitive dye).

3. DEFINITIONS The following definitions are provided for the purpose of this specification.

Firm refers to subgrade not significantly displaced or deformed by foot traffic during construction and is able to properly support reinforcement chairs.

Flatwork refers to concrete poured on slopes flatter than 5:1 (Horizontal:Vertical). *Sloped*

slabs refers to concrete poured on slopes of 5:1 (Horizontal:Vertical) or steeper.

4. PREPARATION OF FORMS AND SUBGRADE

Prior to placement of concrete, the forms and subgrade shall be free of chips, sawdust, debris, water, ice, snow, extraneous oil, mortar, or other harmful substances or coatings. Any oil on the reinforcing steel or other surfaces required to be bonded to the concrete shall be removed. Rock surfaces shall be cleaned by air-water cutting, wet sandblasting, or wire brush scrubbing as necessary.

The site shall be graded to the dimensions and elevations as specified in the construction plans.

All surfaces shall be firm and damp prior to placing concrete. Concrete shall not be placed on mud, dried earth, uncompacted fill, frozen subgrade or in standing water. The use of plastic sheeting to isolate the concrete from unsuitable foundations shall not be permitted.

The forms and associated false-work shall be substantial and unyielding and shall be constructed so that the finished concrete will conform to the specified dimensions and contours. Forms shall be mortar tight. Forms with torn surfaces, worn edges, dents or other defects shall not be used. Forms shall be coated with a form release agent before being set into place. Excess form coating material shall not come in contact with the steel reinforcement or with hardened concrete against which fresh concrete is to be placed.

Reinforcement shall be accurately placed as shown on the drawings and secured in position in a manner that will prevent its displacement during the placement of concrete. Metal chairs, metal hangers, metal spacers, plastic chairs, or concrete chairs shall be used to support the reinforcement. Precast concrete chairs shall be manufactured from concrete equal in quality to the concrete being placed. Precast concrete chairs shall be moist at the time concrete is placed.

Reinforcement for *sloped slabs* or *flatwork* shall be supported by a minimum of 1 support chair every third bar or every 4 feet in each direction, whichever spacing is smaller. Support chairs shall have a minimum basal area of 4 square inches in contact with the subgrade.

Steel tying to protruding steel or form construction in contact with new concrete shall not be started until the concrete has cured a minimum of 12 hours.

Concrete joints shall be of the type and at locations shown on the construction drawings.

Waterstops shall be located as shown on the drawings and secured in position so that displacement does not occur during concrete placement. Waterstops may be secured to reinforcement using wire or "hog ring" type fasteners.

Factory fabricated waterstop corners and transitions shall be provided, leaving only straight butt joint splices for field fabrication. Splices in waterstops shall be welded as recommended by the manufacturer.

Subgrade and form preparation for *sloped slabs* shall meet the following additional requirements:

- a. If the existing subgrade is not firm, it shall be made firm according to one of the following methods:
 1. Compacted according to Williams Engineering Services Construction Specification 204 – Earthfill for Waste Storage Facilities or Williams Engineering Services Construction Specification 3 – Earthfill (for other applications).
 2. The addition of materials such as crushed rock, limestone screenings, fines, or other amendments approved by the Engineer. The surface must then be compacted sufficiently to achieve a firm surface.

- b. Subgrade with Unified Soil Classification of SP, SW, GP, or GW shall not be steeper than 2.5:1 (H:V).
- c. Steel shall be tied at every other rebar intersection or as approved by the Engineer.
- d. Steel shall be anchored to prevent any movement down the slope.
- e. Joints with waterstop shall not be placed horizontally across *sloped slabs* except for small incidental areas.

5. PLACING AND FINISHING CONCRETE

Concrete shall not be placed until the subgrade, forms, and steel reinforcement have been inspected and approved by the Engineer. Any deficiencies are to be corrected before the concrete is delivered for placement.

The contractor shall furnish the Engineer a delivery ticket as specified in Part I for each load of concrete delivered to the site.

Concrete shall be delivered to the site and discharged into the forms within 1-1/2 hours after the introduction of the cement to the aggregates or when a superplasticizer is used, the manufacturer's recommended time limit for discharge after addition shall apply. In hot weather or under conditions contributing to quick stiffening of the concrete, discharge of the concrete shall not exceed 45 minutes unless a set-retarding admixture is used or the mix is remaining workable.

Upon arrival at the job site, addition of water will be allowed to adjust the slump, provided such addition does not exceed the specified limits of the slump or maximum water content contained in the design mix. A small amount of concrete may be discharged prior to the addition of water. Final placement of the batch shall begin immediately after mixing of the added water is completed. No additional water shall be added to the mix after placement has begun.

Concrete shall be deposited as closely as possible to its final position in the forms and shall be worked into the corners and angles of the forms and around all reinforcement and embedded items in a manner to prevent segregation of aggregates. Placement of concrete for *sloped slabs* may also be achieved by gravity flow. All placement shall be done in a manner that prevents incorporation of subgrade material into the concrete.

The Engineer shall obtain adequate documentation of the constructed slab thickness to ensure concrete placement as shown in the construction plan.

If the concrete sets during placement to the degree that it will not flow and merge with the succeeding pour when tamped or vibrated, the contractor shall discontinue placing concrete and install a formed construction joint. The contractor shall be prepared to install unplanned construction joints in the event that there is an interruption of the pour, equipment breakdown, or other problem which makes it necessary to stop placement of concrete other than those previously planned. Prior to commencement of concreting operations at the construction joint, the joint surface shall be cleaned to remove all laitance, exposed sand, and surface mortar by one of the following methods:

1. The joint surface shall be cleaned to expose coarse aggregate by sandblasting or air-water cutting after the concrete has gained sufficient strength to prevent displacement of the coarse aggregate or cement fines. The surface of the concrete shall not be cut so deep as to undercut the coarse aggregate. The joint surface shall be washed to remove all loose material after cutting.
2. According to methods specified by the construction plan approver.

The surfaces of all construction joints shall be wetted and standing water removed immediately prior to placement of the new concrete. The new concrete shall be placed directly on the cleaned and washed surface. New concrete shall not be placed until the hardened concrete has cured at least 12 hours. The newly placed concrete shall be consolidated to achieve a good bond with the previously hardened concrete.

Concrete mixes not containing superplasticizer shall not be dropped more than 5 feet vertically unless suitable equipment is used to prevent segregation. Concrete mixes containing superplasticizer shall not be dropped more than 12 feet vertically and shall be placed in lifts not exceeding 5 feet in depth.

Immediately after the concrete is placed in the forms, it shall be consolidated by vibration or hand tamping as necessary to insure dense concrete. Walls four (4) feet and higher shall be vibrated. Concrete supplied with superplasticizer shall be placed with a minimum amount of vibrating and finishing effort. Vibration shall not be applied directly to the reinforcement steel or the forms nor to concrete that has hardened to the degree that it does not become plastic when vibrated. Each pour shall be consolidated to insure a monolithic bond with the preceding pour. The use of vibrators to transport concrete in the forms, slabs or conveying equipment will not be permitted.

Vibration is required at all joints that contain waterstop.

All *flatwork* shall be screeded to grade and then bull-floated. Vibratory screeding may be used in lieu of bull-floating. An additional finish may be specified. All flatwork surfaces shall be true and even, and shall be free from open or rough spaces, depressions, or projections.

Sloped slabs shall be worked to a uniform grade, maintaining the specified thickness, and finished in a manner to insure dense concrete. All sloped slab surfaces shall be smooth, and shall be free from open or rough spaces, depressions, or projections.

6. FORM REMOVAL

Forms shall be removed in such a way as to prevent damage to the concrete. Supports shall be removed in a manner that will permit the concrete to take the stresses due to its own weight uniformly and gradually. Wall forms and forms for joints with waterstop shall not be removed for 24 hours after the concrete is placed except in the case of tank covers which require the forms to remain in place for 7 days. Other forms may be removed when the concrete is sufficiently cured so that the concrete will not be damaged.

Immediately after removal of the forms, concrete which is honey-combed, damaged or otherwise defective shall be repaired or replaced as directed by the Engineer. Repairs are to be made in accordance with American Concrete Institute (ACI) 301, Specifications for

Structural Concrete. The procedure is contained in the section for repair of surface defects other than tie holes. All repaired areas shall be cured as specified in Section 7.

For structures which are not required to be liquid-tight, form ties shall be removed flush with or below the concrete surface.

For structures which are to be liquid-tight, form ties shall be removed to a minimum depth of 1/2 inch. All cavities or depressions resulting from form tie removal shall be patched with commercially available patching products including:

- Portland cement mortar modified with a latex bonding agent conforming to ASTM C 1059, Type II.
- Epoxy mortars and epoxy compounds that are moisture-insensitive during application and after curing and that embody an epoxy binder conforming to ASTM C 881, Type I II.
- Nonshrink Portland cement grout conforming to ASTM C 1107.
- Packaged dry concrete repair materials conforming to ASTM C 928.

The age of stripped concrete or slabs shall be at least 7 days before any load (including backfill) is applied other than the weight of the wall, forms, scaffolds for succeeding lifts or light equipment.

7. CURING

Concrete shall be cured for a period of at least 7 days after it is placed except as stated in Section 9. Exposed concrete surfaces shall be kept continually wet during the entire curing period or until curing compound is applied.

Curing compound shall be applied at the rate recommended by the manufacturer, as a minimum. It shall form a uniform, continuous, adherent film that shall not check, crack, or peel and shall be free from pinholes or other imperfections.

Curing compound shall not be used at construction joints or other areas that are to be bonded to additional concrete. These areas shall be wet cured. Surfaces subjected to heavy rainfall or running water within 3 hours after the application of curing compound, or surfaces damaged by subsequent construction operations during the curing period, shall be recoated in the same manner as the original application.

8. CONCRETING IN HOT WEATHER

For the purpose of this specification, hot weather is defined as any combination of high temperature, (generally above 80 degrees F), low relative humidity, and wind velocity tending to impair the quality of fresh or hardened concrete or otherwise resulting in abnormal properties.

Special provisions shall be made to immediately protect and cure the concrete due to rapid drying conditions. Concrete surfaces shall not be allowed to dry after placement and during the curing period.

In extreme conditions, it may be necessary to (1) restrict placement to late afternoon or evening, (2) restrict the depth of layers to assure coverage of the previous layer while it will still respond readily to vibration, (3) suspend placement until conditions improve.

9. CONCRETING IN COLD WEATHER

When the minimum daily atmospheric temperature is less than 40 degrees F, concrete shall be insulated or housed and heated immediately after placement. The temperature of the concrete and air adjacent to the concrete shall be maintained at not less than 50 degrees F nor more than 90 degrees F for the duration of the curing period.

The curing period may be reduced to 3 days when Type III cement is used. An additional 100 pounds of Type I cement and a maximum of 6 gallons of added water per cubic yard may be used in lieu of Type III cement.

Combustion heaters shall have exhaust flue gases vented out of the concrete protection enclosure and shall not be permitted to dry the concrete.

The contractor shall furnish the Engineer a record of daily maximum and minimum outside air and concrete surface air temperatures during the curing period. The record shall include temperatures at several points along the concrete.

CONSTRUCTION SPECIFICATION

202. HIGH DENSITY POLYETHYLENE (HDPE) GEOMEMBRANE LINING

1. SCOPE

The work shall consist of furnishing, transporting, and placing a high density polyethylene (HDPE) or a very flexible polyethylene (VFPE) geomembrane liner to the elevations, grades and cross sections as shown on the drawings or as staked in the field.

2. MATERIALS

The geomembrane liner shall have a nominal thickness as specified on the drawings and be specifically manufactured to be suitable for use in exposed and buried conditions. The liner shall conform to the material properties in Table 1 through Table 4 as applicable.

3. SHIPPING AND STORAGE

The geomembrane liner shall be shipped to the job site in a manner not to damage the rolls. The liner rolls shall be stored so they are protected from puncture, dirt, grease, water, moisture, mechanical abrasion, excessive heat, or other damage. The rolls shall be stored on a smooth surface (not wooden pallets) and not stacked more than two rolls high.

All geomembrane shall be free of damage or defect. Each package delivered to the job site shall bear the name of the material, the manufacturer's name or symbol, the quantity therein, and the thickness or weight of the material.

4. SUBGRADE PREPARATION

The area to be lined shall be drained and allowed to dry until the surface is firm. It must support people and equipment that must travel over it during installation of the geomembrane liner. All cut and fill slopes shall be constructed in accordance with the drawings. Required subgrade fill shall be placed in layers with a maximum thickness of 6 inches prior to compaction. The fill soils shall be disked or worked in such a manner as to obtain a maximum clod size of 4 inches prior to compaction. Each layer shall be compacted by a minimum of one pass over the entire surface of the fill by a fully loaded rubber-tired scraper or a tamping roller. Operation of the compaction equipment will be continuous over the entire area during fill operations. Fill materials shall have a moisture content sufficient to insure the required compaction is achieved. The Technician shall approve the adequacy of fill moisture content and compaction.

The foundation area shall be smooth and free of projections that can damage the geomembrane. Stumps and roots shall be removed. Rocks (larger than 3/8" and all fractured rocks), hard clods, and other such material shall be removed, rolled with a smooth wheeled vibratory roller, or covered with a compacted cushion of fine soil. No equipment tracks or footprints shall be present in the subgrade. In soils where rocks are prevalent, a non-woven geotextile cushion may be used when intimate contact between the underlying soil and geomembrane is not required. An anchor trench for the liner shall be excavated in accordance with the drawings.

5. PLACEMENT

The placement of the geomembrane liner shall be performed by the manufacturer or under the supervision of an authorized representative of the manufacturer.

The geomembrane liner rolls shall be deployed using a spreader bar assembly attached to a loader bucket or by other methods approved by the liner manufacturer. The method chosen to unroll the panels shall not cause scratches or crimps in the geomembrane and shall not damage the supporting soil or any underlying geotextile.

The liner shall not be deployed in the presence of excessive winds, or in temperatures colder than those recommended by the manufacturer.

The liner shall be loosely spread over the foundation with sufficient slack (approximately two percent) to accommodate thermal expansion and contraction expected during construction. Sufficient slack shall be provided near all points of solid anchorage (welds to embedment strips fixed in concrete and pipe penetrations, etc.) to accommodate thermal expansion and contraction expected prior to final acceptance of the work. Any damage due to inadequate slack in the liner shall be the responsibility of the geomembrane installer and shall be repaired. The amount of slack shall be prorated based on sheet surface temperatures, i.e. 100 degree sheet temps shall require twice as much slack as 50 degree sheet temps.

Each panel shall be laid out and positioned to keep the number and length of the geomembrane field joints to a minimum and consistent with proper methods of geomembrane installation. The method used to place the panels shall minimize wrinkles (especially differential wrinkles between adjacent panels).

Seams shall be oriented down, not across the slope. No horizontal seams are allowed on the slopes or within 5 feet of the toe or crest of a slope. Sharp corners shall be avoided. Up slope panel overlaps shall shingle down slope. Horizontal and T-shaped seams shall not be placed on slopes. All T-seams or seams where three or more panels come together shall include a minimum 24-inch diameter extrusion welded patch centered over the seam intersection and installed in accordance with this specification. No base T-shaped seam shall be closer than 5 feet to the toe of the slope. Seams shall be aligned with the least possible number of wrinkles or "fishmouths." All fishmouths shall be cut out and the area repaired by patching.

Adequate loading (e.g., sand bags or similar items that will not damage the liner) shall be placed to prevent relocation of the compensating wrinkles or uplift of the liner by wind.

The top edge of the liner shall be placed in the anchor trench and anchored with compacted backfill. Compact the backfill by wheel rolling with light rubber-tired equipment or a manually directed power tamper.

Motorized equipment contact and/or traffic shall not be allowed on the liner. Portable generators may be positioned on the lined area provided that the liner is protected by an adequate cushion of geotextile or an additional layer of liner material. The installer shall not refuel generators or other equipment that uses petroleum products while the equipment is located on the liner. Equipment shall be maintained such that no petroleum products come into contact with the liner.

No equipment or tools shall damage the liner by handling, traffic, or by other means. Personnel working on the liner shall not smoke, wear damaging shoes, or engage in other activities that could damage the liner. Use of metal tools shall be kept to a minimum.

6. SEAMING

SEAMING SHALL NOT BE ALLOWED DURING PRECIPITATION EVENTS.

PARALLEL WELDS MUST BE SEPARATED BY A DISTANCE OF AT LEAST 12".

a. Double-Wedge Fusion Seams

Field seams shall be made by overlapping adjacent liner panels a minimum of 4 inches and fusion welding the overlapped sheets using double-wedge fusion welders. Seams between panels shall be field welded using the Installer's seaming apparatus and technique.

Prior to fusion seaming, all areas that are to become seam interfaces will be cleansed of dust and dirt. Seam joining shall not take place unless the sheet is dry. Seam joining should not be attempted when the ambient sheet temperature is below 45~ F or above 90~ F. Seam joining may take place if it can be demonstrated that competent welds can be achieved down to 32~ F or up to 125~ F sheet temperature.

b. Fillet Extrusion Seams

Extrusion welding shall be used only at areas which cannot be welded by using the double-wedge fusion welder (i.e., repairs, T-seams, etc.) For extrusion welds the liner shall be abraded, preheated and pressed together to align for welding. Minimum overlap of liner panels shall be 3 inches.

7. SEAM TESTING

a. Seam Testing

Seam tests shall be conducted under field conditions by the Installer at the beginning of each seaming period, once in the morning and once in the afternoon. Three specimens shall be tested by a tensiometer in shear and peel modes. The installer shall supply calibration certification for the field tensiometer. Test seams shall meet the material properties in Table 1 through Table 4 as applicable. Each specimen shall be 1 inch wide with the grip separation rate of 2 inches per minute. All peel tests shall result in Film Tear Bond (FTB) failure. Both the inside and outside track of double fusion welds shall be tested.

b. Non-Destructive Seam Testing

The Installer shall non-destructively test all field seams over their full lengths and furnish all test equipment.

(1) Air Pressure Tests shall be performed on all double-wedge fusion seams. The air pressure test equipment and procedures shall conform to this specification and the liner manufacturer specification. Seal both ends of the seam to be tested. Insert the pressure needle into the seam's air channel. Pressurize the air channel through the needle to 25-30 psi. Monitor any pressure loss for 5 minutes. A loss of pressure in excess of 4 psi or a continuous loss of pressure is an indication of a leak. Terminate the test by relieving the pressure from the opposing end of the seam. The pressure

shall immediately drop to zero upon opening the opposing end of the seam. If not, the seam channel shall be checked for obstructions and re-tested. All defects shall be marked for repair. All areas with failing air pressure tests shall be repaired by capping . All failing seams shall be bounded by passing tests.

- (2) Vacuum Box Tests shall be performed on all extrusion welds. The vacuum box equipment and procedures shall conform to this specification and the liner manufacturer specification. Apply soapy water solution to the seam area to be tested. The vacuum box, equipped with a transparent viewing window, shall be centered over the seam area and a vacuum of 3-5 psi shall be drawn. The seam area shall be visually monitored for any soap bubbles for 15 seconds. Seam testing shall continue by overlapping a minimum of 3 inches between each test interval. All defects shall be marked for repair.

c. Destructive Seam Testing

Seam samples for destructive testing shall be cut at one sample per 500 feet of weld. Label each sample and document the location of that sample. Samples for destructive testing shall be obtained for every 500 feet of seam per welder and operator combination. Both the inside and outside track of double fusion welds shall be tested in peel. A minimum of three coupons for shear and three for peel shall be tested. Destructive samples shall be divided into two portions with one being tested in the field and one sent to an independent testing laboratory for verification. Test seams shall meet the material properties in Table 1 through Table 4 as applicable. Each specimen shall be 1 inch wide with the grip separation rate of 2 inches per minute. All peel tests shall result in Film Tear Bond (FTB). Repair holes in liner resulting from destructive seam sampling immediately and vacuum test in accordance with procedures described in this specification.

8. APPURTENANCES

- a. Gas Vents or Vent Pipes shall be installed in accordance with the drawings to provide adequate venting for the liner system.
- b. Pipe Boots for all pipes shall be fabricated in the field from the same liner as shown on the drawings. Pipe boots shall be clamped to the pipe as shown on the drawings to provide a leak-free attachment.
- c. Egress Strips shall be installed at the locations shown on the drawings.

9. REPAIRS

All defective liner and seams shall be repaired and non-destructively tested prior to completion of the installation.

a. Tears, Punctures, Material Defects

All tears, punctures, material defects in the liner shall be repaired by installation of a patch over the defective area. Surfaces of the liner to be patched shall be abraded and cleaned no more than 15 minutes prior to the repair. No more than 10% of the thickness of the liner may be removed by abrading. All patches shall be round or oval, made of the same liner material and extend a minimum of 6 inches beyond the edges of the defect area. Patches shall have their top edges beveled with an angle grinder prior to extrusion welding

to the liner. Small holes less than 1/4 inch shall be repaired by extrusion cap welding.

b. Seam Repair

All failed seams shall be repaired by installing a cap strip over the entire length of the failed seam. The cap strip shall be of the same liner material and shall extend beyond the failed seam a minimum of 6 inches in all directions.

10. PLACEMENT OF CONCRETE

CONCRETE PADS, RAMPS AND APPURTENANCES SHALL BE CONSTRUCTED AS SHOWN IN THE CONSTRUCTION PLAN DETAILS. A GEOTEXTILE CUSHION SHALL BE USED BETWEEN THE HDPE LINER AND ANY CONCRETE SURFACES.

Some concrete ramps, pads, and appurtenances shall have approved premanufactured geomembrane embedment strips cast into the concrete per manufacturer's specifications. The concrete contractor shall obtain the embedment strips from the liner installer along with the manufacturer's installation instructions.

The embedment strips shall be stored at locations where excessive heat or sunlight will not cause deformation of the strip. The embedment strips shall be fully embedded into the concrete with no gaps between the strips. Stainless steel batten strips shall be installed in high stress areas as shown on the drawings.

Placement of concrete pads and ramps shall be in accordance with the drawings and shall conform to WES Construction Specification 4. All reinforcement shall be deformed steel bars and shall be placed on flat-footed plastic rebar chairs. Welded wire mesh will not be allowed. All reinforcement steel splices shall be fully tied to avoid loose ends. On slopes, concrete shall have a low slump to prevent sloughing down slope during placement.

11. FINAL TESTS AND INSPECTION

Upon completion of the work, the installation shall be subjected to a final inspection. All work in the system therein being tested shall be complete, cleaned and ready for use. The work shall meet the requirements as to the line, grade, cleanliness and workmanship. Any discrepancies shall be repaired.

12. BASIS OF ACCEPTANCE

The acceptability of the geomembrane liner shall be determined by inspections to check compliance with all the provisions of this specification, with respect to the drawings, markings, the appurtenances, and the minimum installation requirements.

The installing Contractor shall certify that the installation complies with the requirements of this specification. A written guarantee shall be furnished that protects the owner against defective workmanship and materials for not less than one year and that identifies the manufacturer and markings of the geomembrane.

TABLE 1**Requirements for Smooth HDPE Geomembrane Liner**Nominal Thickness: 40 mil, 60 mil, 80 mil, and 100 mil

Property	Test Method	Minimum Average Roll Values ¹			
		40 mil	60 mil	80 mil	100 mil
Thickness, mil	ASTM D 5199	36	54	72	90
Sheet Density, g/cc	ASTM D 1505	0.940	0.940	0.940	0.940
Tensile Properties	ASTM D 638 (Type IV at 2 in/min)				
yield stress, lb/in		80	120	160	210
break stress, lb/in		150	220	300	380
yield elongation, %		12	12	12	12
break elongation, %		700	700	700	700
Tear Resistance, lb.	ASTM D 1004	28	42	56	70
Puncture Resistance, lb.	ASTM D 4833	70	90	140	180
Carbon Black Content, %	ASTM D1603	2-3	2-3	2-3	2-3
Carbon Black Dispersion, %	ASTM D 5596	8 in Category 1 and 2 10 in Category 1, 2, and 3			
Seam Properties	ASTM D 4437 (1 inch wide at 2 in/min)				
fusion shear strength, lb/in		80	120	160	200
fusion peel strength, lb/in		55, FTB ²	80, FTB ²	110, FTB ²	140, FTB ²
extrusion shear strength, lb/in		80	120	160	200
extrusion peel strength, lb/in		50	75	95	120

¹ Minimum Average Roll Values (MARV): Calculated as the mean minus two standard deviations, yielding a 95% confidence level that the table value will be equaled or exceeded.

² Film Tear Bond (FTB): A failure of one of the bonded sheets by tearing prior to complete separation in the bonded area.

TABLE 2**Requirements for Textured HDPE Geomembrane Liner**Nominal Thickness: 40 mil, 60 mil, 80 mil, and 100 mil

Property	Test Method	Minimum Average Roll Values ¹			
		40 mil	60 mil	80 mil	100 mil
Thickness, mil	ASTM D 5199	34	51	68	85
Sheet Density, g/cc	ASTM D 1505	0.940	0.940	0.940	0.940
Tensile Properties	ASTM D 638 (Type IV at 2 in/min)				
yield stress, lb/in		80	120	160	210
break stress, lb/in		80	120	160	210
yield elongation, %		12	12	12	12
break elongation, %		200	200	200	200
Tear Resistance, lb.	ASTM D 1004	25	40	55	70
Puncture Resistance, lb.	ASTM D 4833	70	90	120	150
Carbon Black Content, %	ASTM D1603	2-3	2-3	2-3	2-3
Carbon Black Dispersion, %	ASTM D 5596	8 in Category 1 and 2 10 in Category 1, 2, and 3			
Seam Properties	ASTM D 4437 (1 inch wide at 2 in/min)				
fusion shear strength, lb/in		80	120	160	200
fusion peel strength, lb/in		55, FTB ²	80, FTB ²	110, FTB ²	140, FTB ²
extrusion shear strength, lb/in		80	120	160	200
extrusion peel strength, lb/in		50	75	100	125

¹ Minimum Average Roll Values (MARV): Calculated as the mean minus two standard deviations, yielding a 95% confidence level that the table value will be equaled or exceeded.

² Film Tear Bond (FTB): A failure of one of the bonded sheets by tearing prior to complete separation in the bonded area.

TABLE 3
Requirements for Smooth VFPE Geomembrane Liner

Nominal Thickness: 40 mil, 60 mil, and 80 mil

Property	Test Method	Minimum Average Roll Values ¹		
		40 mil	60 mil	80 mil
Thickness, mil	ASTM D 5199	36	54	72
Density, g/cc	ASTM D 1505	0.915	0.915	.0915
Tensile Properties	ASTM D 638 (Type IV at 2 in/min)			
yield stress, lb/in		NA	NA	NA
break stress, lb/in		150	225	300
yield elongation, %		13	13	13
break elongation, %		800	800	800
Tear Resistance, lb.	ASTM D 1004	20	32	44
Puncture Resistance, lb.	ASTM D 4833	50	75	100
Carbon Black Content, %	ASTM D1603	2-3	2-3	2-3
Carbon Black Dispersion, %	ASTM D 5596	8 in Category 1 and 2 10 in Category 1, 2, and 3		
Seam Properties	ASTM D 4437 (1 inch wide at 2 in/min)			
fusion shear strength, lb/in		55	84	120
fusion peel strength, lb/in		45, FTB ²	65, FTB ²	90, FTB ²
extrusion shear strength, lb/in		55	84	120
extrusion peel strength, lb/in		45	65	90

¹ Minimum Average Roll Values (MARV): Calculated as the mean minus two standard deviations, yielding a 95% confidence level that the table value will be equaled or exceeded.

² Film Tear Bond (FTB): A failure of one of the bonded sheets by tearing prior to complete separation in the bonded area.

TABLE 4
Requirements for Textured VFPE Geomembrane Liner

Nominal Thickness: 40 mil, 60 mil, and 80 mil

Property	Test Method	Minimum Average Roll Values ¹		
		40 mil	60 mil	80 mil
Thickness, mil	ASTM D 5199	36	54	72
Sheet Density, g/cc	ASTM D 1505	0.915	0.915	0.915
Tensile Properties	ASTM D 638 (Type IV at 2 in/min)			
yield stress, lb/in		NA	NA	NA
break stress, lb/in		80	105	160
yield elongation, %		13	13	13
break elongation, %		350	350	350
Tear Resistance, lb.	ASTM D 1004	20	32	45
Puncture Resistance, lb.	ASTM D 4833	50	75	100
Carbon Black Content, %	ASTM D1603	2-3	2-3	2-3
Carbon Black Dispersion, %	ASTM D 5596	8 in Category 1 and 2 10 in Category 1, 2, and 3		
Seam Properties	ASTM D 4437 (1 inch wide at 2 in/min)			
fusion shear strength, lb/in		50	75	100
fusion peel strength, lb/in		40, FTB ²	60, FTB ²	85, FTB ²
extrusion shear strength, lb/in		50	75	100
extrusion peel strength, lb/in		40	60	85

¹ Minimum Average Roll Values (MARV): Calculated as the mean minus two standard deviations, yielding a 95% confidence level that the table value will be equaled or exceeded.

² Film Tear Bond (FTB): A failure of one of the bonded sheets by tearing prior to complete separation in the bonded area.

**AUTHORIZATION TO CONSTRUCT AND OPERATE
A CONCENTRATED ANIMAL FEEDING OPERATION
UNDER THE NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) PROGRAM
MNG442214**

Permittee: New Heights Dairy LLC
Facility name: New Heights Dairy - Clarissa
Address: 37674 County Hwy 11
Clarissa, MN 56440
Registration number: 153-81164
Maximum AU capacity: 1,997
Issuance date: April 30, 2026
Expiration date: January 31, 2031

The state of Minnesota, on behalf of its citizens through the Minnesota Pollution Control Agency (MPCA), authorizes the Permittee named above seeking coverage under this general permit to construct and operate a concentrated animal feeding operation in accordance with the requirements of this permit.

The goal of this permit is to reduce pollutant levels in point source discharges and protect water quality in accordance with the U.S. Clean Water Act, Minnesota statutes and rules, and federal laws and regulations.

This coverage is effective on the issuance date identified above. This permit expires at midnight on the expiration date identified above.

Signature: *David Malakowsky*

This document has been electronically signed.

David Malakowsky
Supervisor
West Feedlot Unit
Watershed Division

for the Minnesota Pollution Control Agency

Permit application & annual reports:

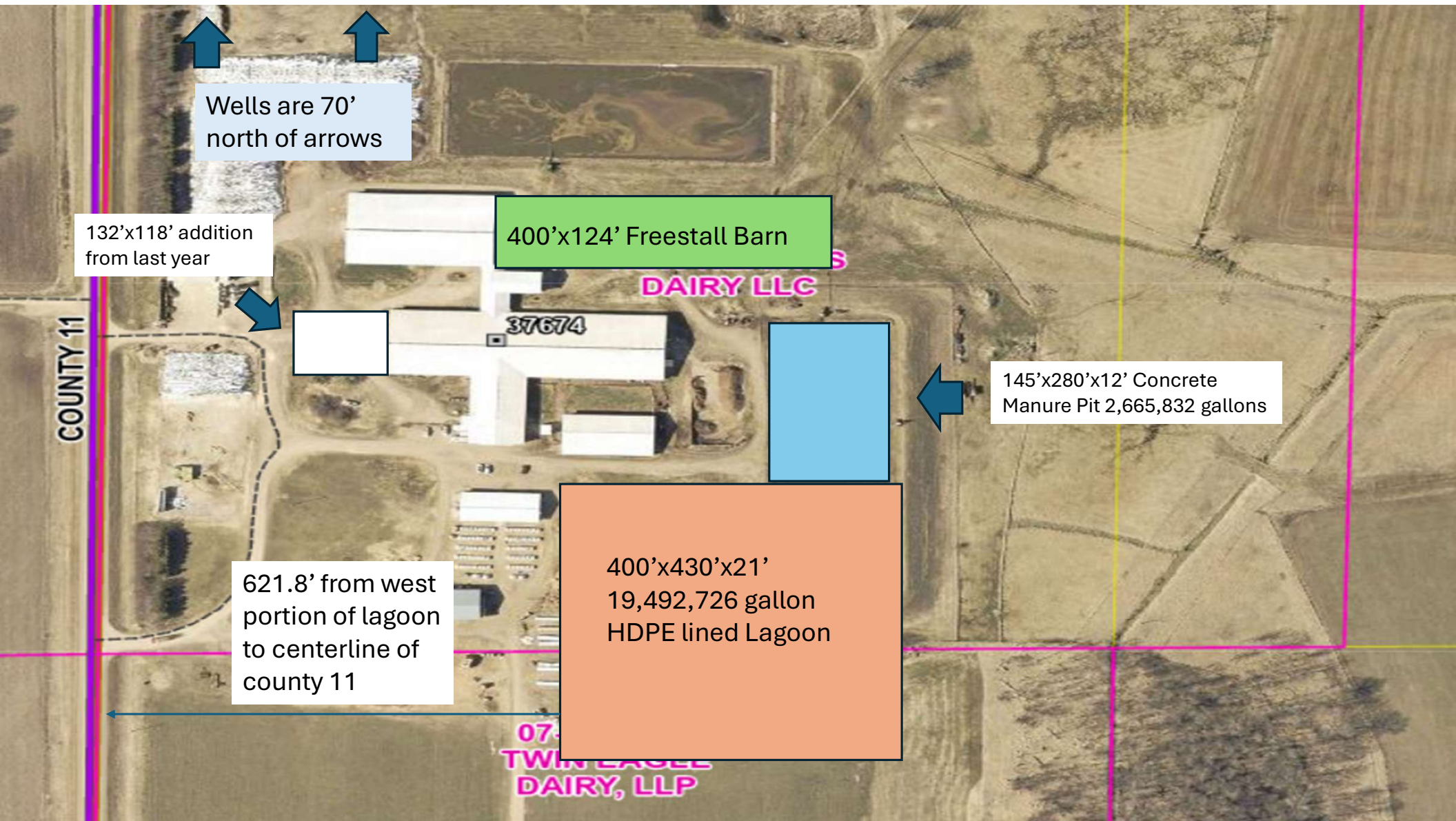
Refer to the submittal process outlined on the
Animal Feedlot NPDES General Permit webpage at:

Questions on this permit?

If you have any questions, please contact the MPCA feedlot
program staff person assigned to Todd County.
Current MPCA staff contacts are identified on our website at:

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Wells are 70'
north of arrows

132'x118' addition
from last year

400'x124' Freestall Barn

DAIRY LLC

37674

145'x280'x12' Concrete
Manure Pit 2,665,832 gallons

621.8' from west
portion of lagoon
to centerline of
county 11

400'x430'x21'
19,492,726 gallon
HDPE lined Lagoon

COUNTY 11

07.
TWIN EAGLE
DAIRY, LLP

1. Authorized facility components

Site description	Component description	Status	Type	Length (ft)	Width (ft)	Depth (ft)	Capacity	Units	Animal type and head
New Heights Dairy - Clarissa	10	Active / Existing	Feed Storage Area	485	260				
New Heights Dairy - Clarissa	9	Active / Existing	Feed Storage Area	340	135				
New Heights Dairy - Clarissa	11a	Active / Existing	Infiltration Basin-VTA				152460	square feet	
New Heights Dairy - Clarissa	11	Active / Existing	LMSA - Earthen	140	80	2	39455	gallons	
New Heights Dairy - Clarissa	12	Active / Existing	LMSA - Geosynthetic Clay (GCL)	425	180	14	4505593	gallons	
New Heights Dairy - Clarissa	8	Active / Existing	LMSA - Geosynthetic Clay (GCL)	548	192	12	5699760	gallons	
New Heights Dairy - Clarissa	Parlor	Active / Existing	Milk Parlor-Holding Area	170	76				
New Heights Dairy - Clarissa	7	Active / Existing	Stockpile-Permanent	128	70				
New Heights Dairy - Clarissa	1	Active / Existing	Total Confinement Barn	340	112				Dairy Cattle >1000 lbs 400
New Heights Dairy - Clarissa	13	Active / Existing	Total Confinement Barn	60	75				Dairy Cattle - Calf 150
New Heights Dairy - Clarissa	15	Active / Existing	Total Confinement Barn	48	30				Dairy Cattle - Calf 94
New Heights Dairy - Clarissa	16	Active / Existing	Total Confinement Barn	60	30				Dairy Cattle - Calf 106
New Heights Dairy - Clarissa	1A	Active / Existing	Total Confinement Barn	132	112				Dairy Cattle >1000 lbs 155
New Heights Dairy - Clarissa	2	Active / Existing	Total Confinement Barn	120	60				Dairy Cattle >1000 lbs 70
New Heights Dairy - Clarissa	3	Active / Existing	Total Confinement Barn	120	52				Dairy Cattle - Calf 150
New Heights Dairy - Clarissa	4	Active / Existing	Total Confinement Barn	192	124				Dairy Cattle >1000 lbs 250

Permit issued: April 30, 2026
Permit expires: January 31, 2031

Site description	Component description	Status	Type	Length (ft)	Width (ft)	Depth (ft)	Capacity	Units	Animal type and head
New Heights Dairy - Clarissa	5	Active / Existing	Total Confinement Barn	370	124				Dairy Cattle >1000 lbs 480

Feedlot Permitting

[MPCA Online Services](#) > [Feedlot Permitting](#) > NPDES General Major Modification

New Heights Dairy - Clarissa Permit ID: MNG442214

Review data before submitting. To make changes, click the tab to return to that section of the service.

Feedlot Name: New Heights Dairy - Clarissa

Permit Number: MNG442214

Permit Application Selection:

Do you need to [modify](#) your current permit? Yes

Select Modification Type: Major Modification

Is your permit about to expire and you need to reapply for permit coverage? No

Application Readiness:

Are you constructing new or expanding an existing feedlot or manure storage area (MSA)? Yes

Is the ultimate capacity of the feedlot 500 or more animal units, or will the MSA hold manure produced by 500 or more animal units? Yes

How many acres of land are you disturbing? 2 acres

Is the facility Minnesota Agricultural Water Quality certified? No

Is the feedlot located in a non-delegated county? No

Acknowledgements

- I have notified all government authorities and local zoning authorities about the proposed construction or expansion, in accordance with Minn. R. 7020.2000 subp. 5.
- I acknowledge that this application is for a NPDES permit where construction activities will disturb one or more acres of land, and it will also serve as an application for the general Construction Stormwater (CSW) NPDES permit, as referenced in the feedlot NPDES permit, unless a separate application for CSW NPDES permit coverage has been made. I agree to comply with the requirements of the CSW NPDES permit.
- I understand that if the MPCA determines the facility does not meet the criteria for coverage under the general permit, this application will be denied and a new application must be submitted.

Physical Address:

37674 County Highway 11
Clarissa MN 56440
United States of America

Mailing Address:

3145 155th St NW
Rice MN 56367-8705
United States of America

Location:

Coordinate System: Lat Long - decimal degrees
Latitude:46.17383093
Longitude:-94.95630656
Collection Method: Digitized - MPCA internal map
Reference Point: General Location
County: Todd
Is the site located in Indian country? No

Parcel(s):

County	Parcel ID
Todd	07-0008801

PLS Description(s):

Township: 131
Range: 34W
Section: 10
Quarter160: NW
Quarter40: SW
Quarter10:
Quarter2.5:

Contacts:

Feedlot Contact	Brent Czech		3145 155th St NW Rice, MN 56367-8705
Owner - Organization			New Heights Dairy LLC 3145 155th St NW Rice, MN 56367-8705
Billing Contact	Brent Czech		3145 155th St NW Rice, MN 56367-8705

Prevention Opportunities:

Have you implemented any prevention activities in the past year? Yes
How did you do it?
Equipment Modifications
Would you like to be contacted to discuss prevention opportunities? No

Animal Holding and Numbers:

Does the facility have pasture access? No

Is there a well within 1,000 feet of an animal holding area? Yes

What is the shortest distance to a well? 490 feet

Total Confinement Barn

Status: Inactive

Structure Name: 16

Length: 60 feet

Width: 30 feet

Coordinate System: Lat Long - decimal degrees

Latitude: 46.16894

Longitude: -94.95564

Collection Method: Digitized - MPCA online map

Reference Point: General Location

Animal Type	Capacity	Animal Units
Dairy Cattle - Calf	0	0.0

Total Confinement Barn

Status: Active

Structure Name: NW Barn

Length: 192 feet

Width: 124 feet

Coordinate System: Lat Long - decimal degrees

Latitude: 46.1744

Longitude: -94.95683

Collection Method: Digitized - MPCA online map

Reference Point: General Location

Animal Type	Capacity	Animal Units
Dairy Cattle >1000 lbs	370	518.0

Total Confinement Barn

Status: Active

Structure Name: NE Barn

Length: 370 feet

Width: 124 feet

Coordinate System: Lat Long - decimal degrees

Latitude: 46.17438

Longitude: -94.95615

Collection Method: Digitized - MPCA online map

Reference Point: General Location

Animal Type	Capacity	Animal Units
Dairy Cattle >1000 lbs	670	938.0

Total Confinement Barn

Status: Inactive

Structure Name: 15

Length: 48 feet

Width: 30 feet

Coordinate System: Lat Long - decimal degrees

Latitude: 46.16901

Longitude: -94.95627

Collection Method: Digitized - MPCA online map

Reference Point: General Location

Animal Type

Capacity Animal Units

Dairy Cattle - Calf

0

0.0

Total Confinement Barn

Status: Active

Structure Name: South Barn

Length: 472 feet

Width: 112 feet

Coordinate System: Lat Long - decimal degrees

Latitude: 46.1738

Longitude: -94.95631

Collection Method: Digitized - MPCA internal map

Reference Point: General Location

Animal Type

Capacity Animal Units

Dairy Cattle >1000 lbs

800

1,120.0

Total Confinement Barn

Status: Inactive

Structure Name: 1A

Length: 132 feet

Width: 112 feet

Coordinate System: Lat Long - decimal degrees

Latitude: 46.17384

Longitude: -94.95711

Collection Method: Digitized - MPCA online map

Reference Point: General Location

Animal Type

Capacity Animal Units

Dairy Cattle >1000 lbs

0

0.0

Total Confinement Barn

Status: Inactive

Structure Name: 3

Length: 120 feet

Width: 52 feet

Coordinate System: Lat Long - decimal degrees

Latitude: 46.17295

Longitude: -94.9564

Collection Method: Digitized - MPCA online map

Reference Point: General Location

Animal Type

Capacity Animal Units

Dairy Cattle - Calf

0

0.0

Total Confinement Barn

Status: To Be Eliminated

Structure Name: 6

Length: 120 feet

Width: 52 feet

Coordinate System: Lat Long - decimal degrees

Latitude: 46.17331

Longitude: -94.95545

Collection Method: Digitized - MPCA online map

Reference Point: General Location

Animal Type

Capacity Animal Units

Dairy Cattle - Calf

0

0.0

Total Confinement Barn

Status: Inactive

Structure Name: 13

Length: 60 feet

Width: 75 feet

Coordinate System: Lat Long - decimal degrees

Latitude: 46.17246

Longitude: -94.95663

Collection Method: Digitized - MPCA online map

Reference Point: General Location

Animal Type

Capacity Animal Units

Dairy Cattle - Calf

0

0.0

Total Confinement Barn

Status: Active

Structure Name: SE 3 row Barn

Length: 120 feet

Width: 60 feet

Coordinate System: Lat Long - decimal degrees

Latitude: 46.17335

Longitude: -94.9558

Collection Method: Digitized - MPCA online map

Reference Point: General Location

Animal Type

Capacity Animal Units

Dairy Cattle >1000 lbs

120

168.0

Individual Animal Housing Areas

Status: To Be Eliminated

Structure Name: 14

Quantity: 1

Length: 8 feet

Width: 5 feet

Coordinate System: Lat Long - decimal degrees

Latitude: 46.1728

Longitude: -94.9564

Collection Method: Digitized - MPCA online map

Reference Point: General Location

Animal Type

Capacity Animal Units

Dairy Cattle - Calf

0

0.0

Total Animal Numbers

Animal Type	Capacity	Animal Units
Dairy Cattle - Calf	0	0.0
Dairy Cattle >1000 lbs	1,960	2,744.0
	1,960	2,744.0

Manure Storage:

Are there manure storage or treatment areas at this feedlot? Yes

Is there a well within 1,000 feet of an animal holding area? Yes

What is the shortest distance to a well? 100 feet

Stockpile-Permanent

Status: Active

Structure Name: Stockpile

Shape: Rectangle

Length: 128 feet

Width: 70 feet

Coordinate System: Lat Long - decimal degrees

Latitude: 46.17352

Longitude: -94.95524

Collection Method: Digitized - MPCA online map

Reference Point: General Location

LMSA - Earthen

Status: To Be Eliminated

Structure Name: 11

Shape: Rectangle

Length: 140 feet

Width: 80 feet

Depth: 2 feet

Volume: 39,455 gallons

Coordinate System: Lat Long - decimal degrees

Latitude: 46.17556

Longitude: -94.95592

Collection Method: Digitized - MPCA internal map

Reference Point: General Location

LMSA - Geosynthetic Clay (GCL)

Status: Active

Structure Name: North Lagoon

Shape: Rectangle

Length: 425 feet

Width: 180 feet

Depth: 14 feet

Volume: 4,505,593 gallons

Coordinate System: Lat Long - decimal degrees

Latitude: 46.17499

Longitude: -94.95584

Collection Method: Digitized - MPCA online map

Reference Point: General Location

LMSA - Geosynthetic Clay (GCL)

Status: Active

Structure Name: Concrete Lagoon

Shape: Rectangle

Length: 145 feet

Width: 280 feet

Depth: 12 feet

Volume: 2,665,832 gallons

Coordinate System: Lat Long - decimal degrees

Latitude: 46.17358

Longitude: -94.95472

Collection Method: Digitized - MPCA internal map

Reference Point: General Location

Stockpile-Permanent

Status: Proposed

Structure Name: Sand Separation - Storage

Shape: Irregular

Surface Area: 15,000 square feet

Coordinate System: Lat Long - decimal degrees

Latitude: 46.1741

Longitude: -94.9562

Collection Method: Digitized - MPCA online map

Reference Point: General Location

Infiltration Basin-VTA

Status: Active

Structure Name: VTA

Shape: Irregular

Surface Area: 152,460 square feet

Coordinate System: Lat Long - decimal degrees

Latitude: 46.17563

Longitude: -94.95535

Collection Method: Digitized - MPCA online map

Reference Point: General Location

LMSA - Synthetic (HPDE, EPDM, etc.)

Status: New

Structure Name: HDPE Lagoon

Shape: Rectangle

Length: 400 feet

Width: 430 feet

Depth: 12 feet

Volume: 19,492,726 gallons

Coordinate System: Lat Long - decimal degrees

Latitude: 46.17383093

Longitude: -94.95630656

Collection Method: Digitized - MPCA internal map

Reference Point: General Location

Feed Storage:

Is feed at the facility stored in an outdoor pile or bunker? Yes

Feed Storage Area

Status: Active

Structure Name: North Feed Storage

Shape: Rectangle

Length: 485 feet

Width: 260 feet

Coordinate System: Lat Long - decimal degrees

Latitude: 46.17514

Longitude: -94.95763

Collection Method: Digitized - MPCA online map

Reference Point: General Location

Feed Storage Area

Status: Active

Structure Name: South Feed storage

Shape: Rectangle

Length: 340 feet

Width: 135 feet

Coordinate System: Lat Long - decimal degrees

Latitude: 46.17356

Longitude: -94.95791

Collection Method: Digitized - MPCA online map

Reference Point: General Location

Feed Storage Area

Status: New

Structure Name: New Feed Pad

Shape: Rectangle

Length: 400 feet

Width: 250 feet

Coordinate System: Lat Long - decimal degrees

Latitude: 46.17159

Longitude: -94.95729

Collection Method: Digitized - MPCA internal map

Reference Point: General Location

Mortality Management:

Are animal mortalities composted in a manner that utilizes manure or litter as a part of the compost material? No

Air Emissions Plan:

I will employ the following Air Emissions Plan. (This satisfies the requirements of Minn. Rule 7020.0505 supb4.B (1)). Affirmed

List of facility components likely to generate significant odors and methods used to mitigate odors*

Animal holding areas:

- Disperse/mix air with tree plantings
- Regular removal of manure
- Promptly clean up any spilled feed
- Use spray oil to reduce dust
- Treatment of escaping air with control technologies
- Higher oil and fat content in feed to reduce dust
- Eliminate manure buildup under gates, feeders, etc.
- Maintain exhaust fans and avoid manure and dust accumulation
- Maintain clean, dry floors to eliminate manure buildup
- I will consult the MPCA to identify changes that can be made to reduce odors

Manure storage areas:

- Maintain crust on basin by using organic bedding
- Cover liquid manure storage area with straw
- Cover liquid manure storage area with synthetic cover
- Anaerobic digestion
- Separate solids with settling basin or liquid/solid separator
- Utilize a pit additive to break down solids
- Cover the solid manure stockpile
- Notify neighbors of manure application periods and avoid holidays
- Disperse/mix air with tree plantings
- Add straw or other bedding material to reduce odor/ emissions
- Treatment of escaping air with control technologies
- Reduce length of time stockpile is maintained
- Solid manure composting
- I will consult the MPCA to identify changes that can be made to reduce odors

*In the event that continued odor complaints are validated, at least one of the practices identified above will be implemented pursuant to MPCA request/approval.

Response to documented exceedances

If ambient air quality monitoring indicates an exceedance of the Hydrogen Sulfide Standard, the applicant will submit a report, at the MPCA's request, that provides documentation that one of the following will control the emissions.

Liquid manure storage areas

- Chemical additions
- Natural crusting
- Straw cover
- Synthetic cover (i.e., HDPE)
- Treatment of escaping air

Solid manure storage areas

- Synthetic cover
- Frequent manure removal
- Frequent land application
- Incineration
- Composting

The report must provide evidence that the technology will control the emissions, indicate when the technology will be installed and fully operational, and indicate what temporary measures will be taken to minimize emissions prior to installation. Alternatives may be approved at the discretion of the MPCA. The measures with the report will be immediately implemented upon MPCA approval.

Sensitive Areas:

Is any part of the facility located within 1,000 feet of surface waters or tile intakes? Yes

Type: Ditch,Stream,Wetland

Is any part of the facility located within a delineated flood plain (100 year flood)? No

Is any part of the facility located within designated shoreland? No

Are there four or more sinkholes within 1,000 feet of the facility? No

Is any part of the facility located within 300 feet of a known sinkhole? No

Is any part of the facility located within 1,000 feet of any of the following types of wells? No

- a community water supply well

- a well serving a public school as defined under Minn. Stat. 120A. 05

- a well serving a private school excluding home school sites

- a well serving a licensed child care center where the well is vulnerable (Minn. R. 4720.5550, subp.2)

Environmental Review

Are you only applying for reissuance of an existing permit? (no construction projects, physical alteration, or operational changes to the facility or process) - No

Has this project been petitioned for an environmental review? - No

Are you required to prepare, are you preparing, or have you completed any of the following items for any responsible governmental unit (RGU) other than the MPCA (e.g. City, Township, County, State or Federal Agency) as part of this project? - No

- Environmental Assessment Worksheet (EAW)
- Environmental Impact Statement (EIS)
- Alternative Urban Areawide Review (AUAR)
- Federal Environmental Assessment (EA)

Subp. 2 - Construction or expansion of a nuclear fuel or nuclear waste processing facility? - No

Subp. 3 - Construction of an electric power generating plant and associated facilities designed for or capable of operating at a capacity of 25 megawatts or more but less than 50 megawatts and for which an air permit from MPCA is required? - No

Subp. 4 - Construction of a new or expansion of an existing petroleum refinery? - No

Subp. 5A - Construction of a facility for the conversion of coal, peat, or other biomass sources to a gaseous, liquid, or solid fuel (this includes anaerobic digesters)? - No

Subp. 5B - Construction of a facility for the production of alcohol fuels? - No

Subp. 8A - Construction or expansion of a coal transfer facility? - No

Subp. 8B - Construction or expansion of a hazardous materials transfer facility? - No

Subp. 10A - Construction or expansion of a storage facility for coal? - No

Subp. 10B - Construction of a facility for the storage of hazardous materials? - No

Subp. 10C & Subp. 10D - Expansion of a facility for the storage of hazardous materials? - No

Subp. 10H - Construction or expansion of a facility that will store silica sand? - No

Subp. 13 - Construction or expansion of a paper or pulp processing facility? - No

Subp. 15 - Construction or modification of a stationary source of air emissions resulting in an increase in air emissions or greenhouse gases? - No

Subp. 16 - Construction or expansion of a hazardous waste disposal facility? - No

Subp. 17 - Construction or expansion of a mixed municipal solid waste disposal, transfer, energy recovery, or compost facility? - No

Subp. 18A & Subp. 18B - Expansion, modification or replacement of a municipal sewage collection system? - No

Subp. 18C - Expansion or reconstruction of an existing municipal or domestic wastewater treatment facility? - No

Subp. 18D - Construction of a new municipal or domestic wastewater treatment facility? - No

Subp. 18E - Expansion or modification of an existing industrial process wastewater treatment facility? - No

Subp. 18F - Construction of a new industrial process wastewater treatment facility? - No

Subp. 25 - Incineration of wastes containing Polychlorinated Biphenyls (PCBs)? - No

Subp. 29 - Construction or expansion of an animal feedlot facility? - Yes

Subp. 29.1 - Are you constructing an animal feedlot facility with a capacity of 1,000 animal units or more? - No

Subp. 29.2 - Are you expanding an animal feedlot by 1,000 animal units or more? - No

Subp. 29.3 - Are you constructing or expanding an animal feedlot facility by more than 500 animal units? - Yes

Subp. 29.4 - Is the existing or proposed facility located wholly or partially in any of the following sensitive locations:

Shoreland or delineated floodplain - No
A state or federally designated wild and scenic river district - No
The Minnesota River Project Riverbend Area - No
The Mississippi Headwaters Area - No
A drinking water supply management area - No
Within 1000 feet of a sinkhole, cave, resurgent spring, disappearing spring, Karst window, blind valley or dry valley - No
A - Has a previous phase of this project been conducted in the last 3 years? - Yes
B - Are you planning an expansion or another phase of this project within the next 3 years? - No
C - Do you have other existing facilities or proposed projects that may affect the same geographic area as this project? - No

Facility Monitoring:

Is your facility required to perform groundwater, surface water or surface discharge monitoring? No

Nutrient Management Plan

A copy of the NutrientManagementPlanfor2026-2027.pdf generated on 4/6/2026 10:52:15 AM is included in the submittal. 

Attachments

Construction Plans and Specifications Clarissa Construction Plan 2026.pdf 06/08/2026

Verification of Good Neighbor Notice Feedlot.pdf 04/06/2026

Emergency Response Plan Emergency Response Plan.pdf 04/06/2026

2. Permit requirements

1.1	Permit Coverage. [Minn. R. 7020]
1.2	This Permit includes all state requirements for CAFOs and animal feedlots and/or manure storage areas capable of holding 1,000 animal units or more and thus satisfies the requirement to obtain coverage under a State Disposal System permit. [Minn. R. 7020.0405]
1.3	An owner of a new or expanding facility requesting coverage under this Permit must submit a permit application at least 180 days before the planned date of commencement of construction or expansion. [Minn. R. 7020.0505]
1.4	Upon the date of receiving notification of coverage under this Permit from the MPCA, the Permittee is authorized to construct and operate the facility according to the submitted and MPCA-approved permit application materials (application materials) and in compliance with the requirements of this Permit, all requirements of Minn. R. ch. 7020, and any other applicable state and federal rules and regulations. No condition of this Permit shall release the Permittee from any responsibility or requirements under other federal, state, tribal, or local statutes, rules, or regulations. The application materials are an enforceable part of this Permit. [Minn. R. 7001.0150]
1.5	If at any point the MPCA determines that the application materials are deficient, the Permittee shall submit an amendment within 45 days of being notified by the MPCA. Upon receipt of MPCA approval, the amended application materials shall become an enforceable part of this Permit. The Permittee shall comply with the most recently MPCA-approved application materials. [Minn. R. 7001.0150]
1.6	After notice and opportunity for a hearing, this Permit may be modified or revoked in accordance with Minn. R. 7001.0170 through Minn. R. 7001.0190. The Permittee shall comply with the terms and conditions of this Permit until such action is finalized. [Minn. R. 7001]
1.7	In order to maintain continuous permit coverage, the Permittee shall submit an application for permit reissuance: Due by 180 days prior to permit expiration. If the Permittee has provided a timely application for issuance of coverage under the new general animal feedlot NPDES permit, the Permittee may continue to conduct the activities authorized by this Permit, in compliance with the requirements of this Permit, until the MPCA takes final action on the application, unless the MPCA determines that any of the following are true: a) the Permittee is not in substantial compliance with the requirements of this Permit, nor with a stipulation agreement or compliance schedule designed to bring the Permittee into compliance with this Permit; b) the MPCA, as a result of an action or failure to act by the Permittee, has been unable to take final action on the application on or before the permit expiration date; or c) the Permittee has submitted an application with major deficiencies or has failed to properly supplement the application in a timely manner after being informed of deficiencies. [Minn. R. 7001.0160, Minn. R. 7020.0505]
1.8	In order to terminate coverage under this Permit, the Permittee shall submit a termination request to the MPCA at least 30 days in advance of the desired permit coverage termination date. If the MPCA determines that NPDES permit coverage is not required, coverage under this Permit will terminate upon receiving written approval from the MPCA. The Permittee shall comply with the terms and conditions of this Permit until the termination action is finalized. [Minn. R. 7001.0040]
1.9	For purposes of this Permit, the terms specified in Part 31 of this Permit have the meanings ascribed to them. [Minn. R. 7001.0150]
2.1	Facility Modifications. [Minn. R. 7020]
2.2	The Permittee shall submit a permit application prior to all modifications. (Guidance pertaining to modifications can be found in the MPCA factsheet " <i>Modification of NPDES and SDS Feedlot Permits (wq-f3-49)</i> "). [Minn. R. 7020.0405]
2.3	The permit application should be submitted at least 180 days before the planned starting date of the modification. [Minn. R. 7020.0505]
2.4	The modification for which the permit application was submitted shall not begin until approval is received from the MPCA. [Minn. R. 7020.0405]

2.5	Prior to a change in ownership or control of the facility, a permit application must be submitted to assign coverage under this Permit to the new owner/operator. If ownership or control changes without an assignment of coverage under this Permit, the original Permittee may still be held liable for violations and the new owner/operator may be held liable for operating without a permit. If other modifications to the facility or changes to the application materials will also occur, the request for change in ownership or control can be included with the permit application for the other modifications. [Minn. R. 7020.0405]
2.6	Prior to changes in facility name, the Permittee shall submit a permit application to update the facility name. [Minn. R. 7020.0405]
3.1	Submittals and Notifications to the MPCA. [Minn. R. 7020]
3.2	The Permittee shall submit all notifications, reports, applications, modification requests, correspondence, and other permit related materials to the MPCA on a specified form and/or in a specified format, including instances when the MPCA requires electronic submission. Except where specifically noted, all submittals shall be to the MPCA address, telephone number, or electronic mail address indicated with the notice of coverage under this Permit. [Minn. R. 7001.0150]
3.3	All reports required by this Permit and other information requested by the MPCA shall be signed and certified by the Permittee or by a duly authorized representative. A person is a duly authorized representative only if: a) the authorization is made in writing by the Permittee or owner(s) and submitted to the MPCA; and b) the authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility. [Minn. R. 7001.0150]
3.4	The Permittee shall not knowingly make a false or misleading statement, representation, or certification in a record, report, plan, or other document required to be submitted to the MPCA by this Permit. The Permittee shall immediately upon discovery report to the MPCA an error or omission in these records, reports, plans, or other documents. [Minn. R. 7001.0150]
4.1	Requirements for All Construction. [Minn. R. 7020]
4.2	The Permittee shall construct all facility components according to the application materials, Minn. R. 7020, this Permit, and any plans and specifications approved by the MPCA. If any approved plans conflict with Minn. R. ch. 7020, 40 CFR pts. 122 and 412, or terms of this Permit, the more stringent condition shall apply. [Minn. R. 7001.0150]
4.3	The Permittee shall not operate/stock a facility component prior to completion of construction of the associated manure storage area, and its handling/transfer system, necessary to comply with the effluent limitations of this Permit or minimum storage requirements of Minn. R. 7020.2100. [Minn. R. 7001.0150]
4.4	The Permittee shall complete installation of any required monitoring equipment prior to the commencement of operation of a newly constructed source of potential emissions for which the monitoring is required unless the approved monitoring plan includes a schedule for installation of the monitoring equipment. [Minn. R. 7001.0150]
4.5	The MPCA Construction Stormwater (CSW) NPDES general permit in effect at the time of issuance, or modification, of coverage under this Permit is incorporated by reference into this Permit and is an enforceable part of this Permit. The CSW NPDES general permit is available at: http://www.pca.state.mn.us/. [Minn. R. 7090.2020]
4.6	When construction activity disturbs one or more acres of land, the Permittee must comply with the CSW NPDES general permit listed above, including development of a Stormwater Pollution Prevention Plan (SWPPP). [Minn. R. 7090.2020]
5.1	Additional Requirements for Liquid Manure Storage Area (LMSA) Construction. [Minn. R. 7020]
5.2	The Permittee shall complete construction of any LMSA required to comply with the storage volume requirements of Minn. R. 7020.2100, subp. 3(A) (nine months of storage) prior to increasing the manure or process wastewater generation of the facility. [Minn. R. 7001.0150]
5.3	The Permittee shall ensure that the construction inspections required by Minn. R. 7020.2100, subp. 6. are performed. [Minn. R. 7020.2100]
5.4	The Permittee may commence operation of a LMSA prior to submittal of the required construction report. However, the MPCA may require removal of any material within the LMSA if the construction report indicates the LMSA does not conform to the approved plans and specifications. [Minn. R. 7020.2100]
6.1	Additional Requirements for Permanent Manure Stockpile Construction. [Minn. R. 7020]

6.2	The Permittee shall construct the liner (base) of a permanent manure stockpile so that it complies with the following base characteristics: a) two feet of soil categorized by NRCS practice standard 313 as group III or IV (20 to 100 percent passing the #200 sieve and a plasticity index of 11 or greater). Soils outside this range require approval from the MPCA prior to use as liner material; b) asphalt of a thickness necessary to support the vehicle traffic on the stockpile pad but no less than two inches; c) concrete of a thickness necessary to support the vehicle traffic on the stockpile pad but no less than three and one half inches; or d) other materials that meet the permeability requirements of Minn. R. 7020.2125 and have been approved by the MPCA. [Minn. R. 7020.2125]
7.1	Additional Requirements for Feed Storage Area Pad and Runoff Control Construction. [Minn. R. 7020]
7.2	The Permittee shall construct a feed storage area pad that complies with the following pad characteristics: a) one foot of soil categorized by NRCS practice standard 313 as group III or IV (20 to 100 percent passing the #200 sieve and a plasticity index of 11 or greater). Soils outside this range require approval from the MPCA prior to use as feed pad material. A minimum of two feet of separation shall be maintained between the top surface of the soil pad and the seasonal high water table; b) asphalt of a thickness necessary to support the vehicle traffic on the feed storage area pad but no less than two inches; c) concrete of a thickness necessary to support the vehicle traffic on the feed storage area pad but no less than three and one half inches; or d) other materials that meet the permeability requirements of Minn. R. 7020.2125 and have been approved by the MPCA. [Minn. R. 7001.0150]
7.3	When construction of a runoff collection basin is proposed for feed storage area runoff controls, the Permittee shall follow the requirements for LMSA construction. [Minn. R. 7001.0150]
7.4	When construction of a vegetative infiltration basin (VIB) is proposed for feed storage area runoff controls, the Permittee shall comply with the NRCS practice standard 635 LEVEL 2-Vegetated Infiltration Area design and operational requirements unless deviations from this standard have been approved by the MPCA. [Minn. R. 7001.0150]
7.5	The Permittee shall construct and make the feed storage area runoff control system operational before operating a new feed storage area or increasing the footprint of an existing feed storage area. [Minn. R. 7001.0150]
8.1	Manure Nutrient Testing. [Minn. R. 7020]
8.2	The Permittee shall sample and analyze manure for nutrient content annually. The Permittee shall also sample manure following any changes to conditions that may significantly affect the nutrient content. [40 CFR 412.4, Minn. R. 7020.2225]
8.3	The Permittee's manure sampling protocol shall be consistent with the most recent published MES recommendations. Manure samples must be taken from enough sources so that nutrient content is known for each storage area with differing types of animals, feed, watering systems, manure handling, or other variables that may affect manure nutrient content. [Minn. R. 7020.2225]
9.1	Manure Ownership. [Minn. R. 7020]
9.2	The Permittee is responsible for management of manure from the facility unless it is transferred to another entity for land application on fields the Permittee does not own or control crop and nutrient planning decisions. At the time the other entity (manure recipient) assumes physical control of the manure, the manure ownership is considered to be transferred. The Permittee is responsible for manure hauled by, or for, the Permittee until it is physically relinquished to the manure recipient. [Minn. R. 7001.0150]

9.3	Except for emergency manure application, the Permittee is prohibited from transferring ownership of manure to a manure recipient that will: a) perform application of the transferred liquid manure during winter conditions within the months of December, January, February, or March; b) perform application of the transferred solid manure during winter conditions within the month of March; or c) perform application of transferred solid or liquid manure to vulnerable groundwater areas during winter conditions within the months of December, January, February, or March. [Minn. R. 7001.0150]
9.4	The Permittee shall provide to the manure recipient, at the time of transfer of ownership, a "<i>Manure Transfer Tracking</i>" form as generated by the Nutrient Management Tool. This form includes a summary of requirements that manure recipients must follow, including protective measures identified in the Permittee's approved manure management plan to minimize risk of surface and groundwater contamination from manure applications. [Minn. R. 7001.0150]
10.1	Manure Management Plan (MMP). [Minn. R. 7020]
10.2	The Permittee shall use Minnesota's Nutrient Management Tool to develop and maintain the MMP (referred to as nutrient management plan in the nutrient management tool). The MMP shall contain the requirements of Parts 11-15 of this Permit as the minimum protective measures required to minimize risk of surface and groundwater contamination as a result of land application of manure generated at the facility. The Permittee, and all manure recipients, must comply with these requirements of the MMP. The Permittee must also follow all requirements of this Permit. The Nutrient Management Tool includes the necessary information to satisfy applicable manure management planning rules and Permit requirements, including the protective measures identified above. [Minn. R. 7001.0150, Minn. R. 7020.2225]
10.3	The MMP developed by the Permittee and approved by the MPCA, is an enforceable part of this Permit. If the MMP conflicts with Minn. R. ch. 7020, 40 CFR pts. 122 and 412, or terms of this Permit, the more stringent condition shall apply. The Permittee, and manure recipients, shall comply with the approved MMP. [Minn. R. 7001.0150]
10.4	If land application practices under the MPCA-approved MMP are found to cause pollution of waters, the MPCA may require revisions to the MMP to address any causative factors that led to the pollution. The Permittee shall submit a revised MMP that addresses the required revisions and shall follow the revised MMP once approved by the MPCA. [Minn. R. 7001.0170]
10.5	The Permittee shall annually review and update the approved MMP to ensure that it meets all applicable requirements. The annual review and update shall include information for each field where manure will be applied during the following growing season, except where manure ownership is transferred. Annual updates to the MMP do not require a modification of coverage under this Permit provided the updates are consistent with the methodology of the approved MMP. [Minn. R. 7001.0190, Minn. R. 7020.2225]
10.6	Any of the following changes to the MMP will require the Permittee to submit an application for a modification to the facility's coverage under this Permit: a) changes to the methodology portion of the MMP that will result in an increase to the maximum field-specific annual rates for nitrogen and phosphorus derived from all sources for each crop; b) the addition of any crop, and its corresponding rates of application for nitrogen and phosphorus, not included in the methodology portion of the MMP; c) the addition of application methods or application timing not accounted for in the methodology portion of the MMP; d) changes in procedures for handling, storage, or treatment of manure that affects rates of application; e) the addition of new fields to the MMP, including when the Permittee obtains control over land application acres that were previously controlled by a manure recipient; or f) conservation practice changes that could increase the likelihood of nitrogen and phosphorus transport from the field. The modifications identified above require a 14-day public notice period, except for the addition of new fields to the MMP where the acreage is listed on an approved MMP for any other NPDES permit holder. [40 CFR 122.42, Minn. R. 7020.0405]
10.7	Updates to the MMP related to manure ownership transfer do not require a modification of this Permit so long as they are consistent with the requirements of Minn. R. 7020.2225. [Minn. R. 7001.0190]

11.1	Land Application of Manure - In General. [Minn. R. 7020]
11.2	All manure generated at the facility shall be hauled in such a way as to prevent manure from leaking, spilling, or otherwise being deposited on a road surface or in the right-of-way. Any manure deposited on a roadway or in the right-of-way shall be promptly removed and properly disposed of by the hauler of the manure. [Minn. R. 7001.0150]
11.3	Equipment used for land application shall be calibrated according to MES or NRCS procedures so that actual application rates are known. Land application equipment shall be operated properly and periodically inspected for leaks to ensure that discharges do not occur. [40 CFR 412.4, Minn. R. 7001.0150]
11.4	Manure or process wastewater shall be land applied in a manner that will not: a) result in a discharge to waters of the state during the application process; or b) exceed the hydraulic loading capacity of the land application site based on soil conditions. [Minn. R. 7020.2225]
11.5	Fields receiving manure shall be sampled and tested in the upper six inches for soil phosphorus at least once every four years. Soil sampling techniques must meet the most recently published sampling standards developed by either the MES or NRCS. [Minn. R. 7020.2225]
11.6	Soil erosion conservation practices identified in the MPCA-approved MMP shall be employed when manure will be applied to fields during winter conditions and all areas of fields within 300 feet of all special protection areas, surface tile intakes, sinkholes without constructed diversions, and uncultivated wetlands. [Minn. R. 7020.2225]
12.1	Land Application of Manure - Nitrogen and Phosphorus Management. [Minn. R. 7020]
12.2	Part 9.2 of this Permit identifies who (Permittee or manure recipient) must comply with the requirements of this part. [Minn. R. 7020]
12.3	Manure application rates shall be controlled so the estimated nitrogen available to crops from all nitrogen sources (including commercial fertilizer) does not exceed expected annual crop nitrogen needs for non-legumes and expected nitrogen removal for legumes based on the most recent recommendations of the MES and the MPCA fact sheets " <i>Manure Nitrogen Rates For Corn Production (wq-f8-18)</i> " and " <i>Manure Management For Corn On Irrigated Sandy Soils (wq-f8-52)</i> ". Recommendations from another land grant college in a contiguous state may be utilized provided the field and climate conditions at the land application site are similar to those within the contiguous state. [Minn. R. 7020.2225]
12.4	Where field average soil test levels exceed 21 parts per million (ppm) using the Bray P1 test (Bray) or 16 ppm using the Olsen test (Olsen) within 300 feet of a lake, stream, intermittent stream, drainage ditch without protective berms, or a public waters wetland, one of the following shall be implemented: a) apply manure at a rate and frequency so that manure phosphorus applied during any six year period does not exceed crop phosphorus removal during that same period; or b) establish a vegetated buffer that does not receive manure application along the water provided that the buffer width is at least 100 feet along lakes and perennial streams and is at least 50 feet wide along other waters. [Minn. R. 7020.2225]
12.5	Where field average phosphorus soil test levels exceed 75 ppm Bray P1 or 60 ppm Olsen within 300 feet of an open tile intake, lake, stream, intermittent stream, drainage ditch without protective berms, or a public waters wetland, or exceed 150 ppm Bray P1 or 120 ppm Olsen on any other land, all of the following shall be implemented: a) when manure is surface applied without incorporation within 24 hours, annual phosphorus application rates must not exceed crop phosphorus removal in the subsequent crop; b) when manure is injected or incorporated (within 24 hours), re-application of manure cannot occur until phosphorus from the previous manure application is calculated to have been removed by subsequent crops; and c) the approved MMP includes runoff and soil erosion prevention practices that either achieve a "very low" or "low" rating with the Minnesota Phosphorus Index (https://extension.umn.edu/phosphorus-and-potassium/minnesota-phosphorus-index-assessing-risk-phosphorus-loss-cropland) or NRCS Technical Standard 590. [Minn. R. 7020.2225]
12.6	Crop phosphorus removal values can be found in the MPCA fact sheet: " <i>Land Application of Manure: Minimum State Requirements</i> ". [Minn. R. 7020]
13.1	Land Application of Manure - Timing. [Minn. R. 7020]

13.2	Part 9.2 of this Permit identifies who (Permittee or manure recipient) must comply with the requirements of this part. For reference, this part utilizes the following defined terms: "Vulnerable Groundwater Area" means any area identified as a Vulnerable Groundwater Area by the Nutrient Management Planning Map available at: www.pca.state.mn.us/feedlots. The map is also incorporated into the Nutrient Management Tool. If a land application field is located partially within a vulnerable groundwater area, only the portion of the field within the vulnerable groundwater area is subject to the regulations of this Permit pertaining to vulnerable groundwater areas. "Soil Temperature" means the soils temperature as indicated by the closest soil temperature monitoring location available on the MDA soil temperature network (including those taken at a 4-inch depth) available at https://www.mda.state.mn.us/protecting/soilprotection/soiltemp. "Solid Manure" means manure that has 15 percent or more solids, can be stacked at a 3:1 vertical to horizontal ratio, and is handled as a solid product. "Liquid Manure" means manure that does not meet the definition of solid manure. Process wastewater and manure-contaminated runoff are considered to be liquid manure. "Winter Conditions" means when the soils of the land application site are frozen or when the application site is snow-covered. [Minn. R. 7001, Minn. R. 7020]
13.3	Prior to Rainfall - Manure applied during non-winter conditions shall be injected or immediately incorporated into the soil surface if a high probability (over 50 percent chance predicted by National Weather Service) of rainfall of 0.5 inches, or greater, is predicted within 24 hours of the end of the application period, unless it is an emergency manure application. [Minn. R. 7001.0150]
13.4	June, July, August, or September Restrictions - Manure shall not be applied in June, July, August, or September unless at least one of the following nitrogen BMPs are implemented: a) the application is to an actively growing perennial or row crop that is reasonably expected to utilize the nitrogen application; b) the application is to an actively growing cover crop that will be allowed to continue growing until termination in the spring or via winter-kill; or c) a cover crop, or second crop, is planted/seeded as soon as possible, but no later than 14 days, following manure application. Cover crops must be planted in accordance with MES recommendations and allowed to continue growing until termination in the spring or via winter-kill. Alternatives developed by a land grant University or governmental agency can be used if approved by the MPCA and included as part of the approved MMP. [Minn. R. 7001.0150, Minn. R. 7020.2225]

13.5	October 1 to 14 Restrictions - Manure shall not be land applied in vulnerable groundwater areas October 1 to 14 unless the requirements of Part 13.4 are followed. Manure shall not be land applied outside of vulnerable groundwater areas October 1 to 14 unless at least one of the following nitrogen BMPs are implemented: a) soil temperature has reached 50 degrees or less for two consecutive days; b) a nitrpyrin-based nitrogen stabilizing agent/product is added at the recommended inclusion rates; c) the requirements of Part 13.4 are followed; or d) a split application of nitrogen is used where no more than 1/2 of the recommended nitrogen rate is applied October 1 to 14. Application of the remaining recommended nitrogen rate is prohibited during winter conditions within the months of December, January, February, and March. The Permittee shall maintain records of nitrogen BMPs implemented October 1 to 14 in the Nutrient Management Tool. Alternatives developed by a land grant University or governmental agency can be used if approved by the MPCA and included as part of the approved MMP. Nitrogen BMP implementation is not required for emergency manure application. [Minn. R. 7001.0150]
13.6	October 15 to 31 Restrictions in Vulnerable Groundwater Areas - Beginning with the calendar year 2027, manure shall not be land applied in vulnerable groundwater areas from October 15 to 31 unless at least one of the following nitrogen BMPs are implemented: a) the requirements of Part 13.4 are followed; b) the soil temperature has reached 50 degrees or less for two consecutive days and the crop rotation for the field includes a perennial crop for at least 2 years during any 5 year period; or c) the soil temperature has reached 50 degrees or less for two consecutive days and: 1) for all liquid manure, a nitrpyrin-based nitrogen stabilizing agent/product is added at the recommended inclusion rates; or 2) for all solid manure, a split application of nitrogen is used where no more than 1/2 of the recommended nitrogen rate is applied October 15 to 31. For application outside of vulnerable groundwater areas these BMPs are encouraged but not required by this Permit. The Permittee shall maintain records of nitrogen BMPs implemented October 15 to 31 in vulnerable groundwater areas within in the Nutrient Management Tool. Alternatives developed by a land grant University or governmental agency can be used if approved by the MPCA and included as part of the approved MMP. Vulnerable groundwater area restrictions are not required for emergency manure application. [Minn. R. 7001.0150]

13.7	November Restrictions in Vulnerable Groundwater Areas for Liquid Manure - Beginning with the calendar year 2027, liquid manure shall not be land applied in vulnerable groundwater areas in November unless at least one of the following nitrogen BMPs are implemented: a) the requirements of Part 13.4 are followed; b) the crop rotation for the field includes a perennial crop for at least two years during any five year period; or c) a nitrpyrin-based nitrogen stabilizing agent/product is added at the recommended inclusion rates. For application outside of vulnerable groundwater areas these BMPs are encouraged but not required by this Permit. The Permittee shall maintain records of nitrogen BMPs implemented in vulnerable groundwater areas during November within the Nutrient Management Tool. Alternatives developed by a land grant University or governmental agency can be used if approved by the MPCA and included as part of the approved MMP. Vulnerable groundwater area restrictions are not required for emergency manure application. [Minn. R. 7001.0150]
13.8	December, January, February, and March prohibition for liquid manure application - Application of liquid manure is prohibited during the months of December, January, February, and March if winter conditions exist. If winter conditions do not exist during these months, land application of liquid manure is allowed so long as the manure is injected or incorporated below the soil surface within 24 hours and prior to precipitation. Emergency manure application, during winter conditions is allowed provided the application complies with all of the following: a) apply only the volume of manure that is necessary to prevent manure storage overflows; b) apply only on those fields identified in the MPCA approved MMP for emergency application; c) apply only to fields with slopes of less than or equal to four percent; d) apply a maximum of 3,500 gallons per acre per winter season, not to exceed 60 pounds of crop available P205; e) apply at least 300 feet from sensitive features; f) apply at a rate to preclude runoff or ponding of liquid manure during the application process; and g) notify the MPCA within 24 hours of the emergency application. [Minn. R. 7001.0150]
13.9	December and January restrictions for solid manure application - Application of solid manure during winter conditions within the months of December and January shall comply with all of the following: a) manure is applied on fields identified in the MPCA approved MMP for application during winter conditions; b) manure is not applied in vulnerable groundwater areas of the field; c) manure is applied more than 300 feet from sensitive features; d) water or ice do not occupy tillage furrows to the extent that additional snowmelt or precipitation cannot be contained between furrows or in other depressions within the field; e) fields used for land application meet a total phosphorus loss risk index number of two or less (low to very low relative risk) as calculated according to the Minnesota Phosphorus Index; f) air temperatures are less than 40 degrees Fahrenheit during, and for at least 24 hours from the end of, the application process when two or more inches of snow are on the field; g) less than a 50% probability of rainfall of 0.25 inches, or greater, predicted by the National Weather Service within 24 hours of the end of the application period; and h) slopes are less than or equal to six percent on the entire portion of the field where manure is land applied. If winter conditions do not exist during these months, land application of solid manure is allowed so long as the manure is either incorporated within 24 hours or items c, g, and h above are implemented. [Minn. R. 7001.0150]

13.10	February Restrictions for solid manure applications - Application of solid manure during winter conditions within the month of February shall comply with all of the following: a) Manure is applied on fields identified in the MPCA approved MMP for application during winter conditions; b) Manure is not applied in vulnerable groundwater areas of the field; c) Manure is applied more than 300 feet from sensitive features; d) Water or ice do not occupy tillage furrows to the extent that additional snowmelt or precipitation cannot be contained between furrows or in other depressions within the field; e) Fields used for land application meet a total phosphorus loss risk index number of two or less (low to very low relative risk) as calculated according to the Minnesota Phosphorus Index; f) Air temperatures are less than 40 degrees Fahrenheit during, and for at least 5 days from the end of, the application process when two or more inches of snow are on the field; g) Less than a 50% probability of rainfall of 0.25 inches, or greater, predicted by the National Weather Service within 5 days of the end of the application period; and h) Slopes are less than or equal to two percent on the entire portion of the field where manure is land applied. If winter conditions do not exist during this month, land application of solid manure is allowed so long as the manure is either incorporated within 24 hours or items c, g, and h above are implemented. [Minn. R. 7001.0150]
13.11	March prohibition for solid manure application - Application of solid manure during winter conditions within the month of March is prohibited. If winter conditions do not exist during this month, land application of solid manure is allowed so long as the manure is incorporated below the soil surface within 24 hours and prior to precipitation. [Minn. R. 7001.0150]
13.12	Application of snow removed from animal holding areas, mixed with an incidental amount of manure (snow-manure mix), is not subject to the Permit requirements applicable to application during winter conditions provided the application complies with all of the following: a) snow-manure mix is applied to the field(s) approved within the manure management plan for application of the snow-manure mix; b) snow-manure mix is applied at least 300 feet from sensitive features; and c) snow-manure mix applied during the month of March is limited to the amount necessary to ensure animal welfare, such as access to feed, water, or shelter. [Minn. R. 7001.0150]
13.13	The Permittee may establish a temporary solid manure stockpile at the facility during March without the need to modify coverage under this Permit provided an approved permanent manure stockpile site is unavailable, weather or field conditions do not allow short term stockpiling of manure within land application fields, and the temporary stockpile location complies with all of the following: a) the stockpile site complies with the location requirements of Minn. R. 7020.2125 subp. 2(C); b) the slope of the stockpile site does not exceed 2%; c) the stockpile site is elevated or bermed so that surface water cannot enter or flow through the stockpile site; d) snow is removed from the stockpile site prior to establishing the stockpile; and e) manure is removed from the stockpile site as soon as practicable. The Permittee must notify the MPCA, via telephone or electronic mail, within 48 hours of establishment of the temporary stockpile. Temporary stockpiling activities under this part do not release the Permittee from compliance with the effluent limitations of this Permit. [Minn. R. 7001.0150]
14.1	Land Application of Manure - Inspections. [Minn. R. 7020]
14.2	Part 9.2 of this Permit identifies who (Permittee or manure recipient) must comply with the requirements of this part. [Minn. R. 7020]

14.3	All fields that receive manure application shall be visually inspected to check for evidence of manure discharge. The inspections shall take place at all downgradient field edges and any other potential discharge locations such as sensitive features, tile intakes, ditches, or other conveyances to waters. Inspections are required at all of the following intervals in the land application process: a) at least once each day manure is applied to the field; b) at the end of manure application to the field; and c) as soon as possible but at a minimum within 24 hours of rainfall of 0.5 inch, or greater, that occurs within 14 days of the end of manure application to the field, unless the manure is injected or incorporated. Any discharge observed must be responded to and reported in accordance the requirements of this Permit. [Minn. R. 7001.0150]
15.1	Land Application of Manure - Setbacks. [Minn. R. 7020]
15.2	Part 9.2 of this Permit identifies who (Permittee or manure recipient) must comply with the requirements of this part. [Minn. R. 7020]
15.3	Manure application shall comply with the following land application of manure setbacks for the features identified in this part that are located within or adjacent to the field used for land application. Implementing one or more of the measures identified in this part is considered equivalent to the 100 foot setback required by federal law and shall not be considered a modification of the MMP. [Minn. R. 7001.0150]
15.4	Floodplain - Manure application is prohibited within the 100-year floodplain unless the manure is injected or immediately incorporated. [Minn. R. 7001.0150]
15.5	Open Tile Intakes - Manure application is prohibited within 300 feet of an open tile intake unless one of the following protective measures is employed: a) manure is injected or incorporated prior to rainfall or within 24 hours (whichever occurs first) within 300 feet of the open tile intake; b) manure is not applied within 100 feet of the open tile intake and a one rod (16.5 feet) perennial vegetated buffer exists around the open tile intake; or c) a 35-foot perennial vegetated buffer exists around the open tile intake and manure is not applied to the buffer. [Minn. R. 7020.2225]
15.6	Drainage Ditches - Manure application is prohibited within 300 feet of a drainage ditch unless one of the following protective measures is employed: a) a protective berm prohibits runoff from directly entering the drainage ditch such that runoff must travel at least 300 feet, measured from the nearest point of manure application, before entering the drainage ditch; b) manure is not applied within 25 feet of the drainage ditch and manure is injected or incorporated prior to rainfall or within 24 hours (whichever occurs first) within 300 feet of the drainage ditch. Additionally, soil phosphorus levels must be managed so that levels do not increase beyond 21 ppm (Bray P1) or 16 ppm (Olsen) within any six year period; c) manure is not applied within 100 feet of the drainage ditch and a one rod (16.5 feet) perennial vegetated buffer exists along the drainage ditch; or d) a 50-foot perennial vegetated buffer exists along the drainage ditch and manure is not applied to the buffer. [Minn. R. 7020.2225]
15.7	Lakes, Rivers, and Perennial Streams - Manure application is prohibited within 300 feet of a lake, river, or perennial stream unless one of the following protective measures is employed: a) manure is not applied within 25 feet of the lake, river, or perennial stream and manure is injected or incorporated prior to rainfall or within 24 hours (whichever occurs first) within 300 feet of the lake, river, or perennial stream. Additionally, soil phosphorus levels must be managed so that levels do not increase beyond 21 ppm (Bray P1) or 16 ppm (Olsen) within any six year period; b) manure is not applied within 100 feet of the lake, river, or perennial stream and a one rod (16.5 feet) perennial vegetated buffer exists along the lake, river, or perennial stream; or c) a 100-foot perennial vegetated buffer exists along the lake, river, or perennial stream and manure is not applied to the buffer. [Minn. R. 7020.2225]

15.8	Intermittent Streams and Public Waters Wetlands - Manure application is prohibited within 300 feet of an intermittent stream or public waters wetland unless one of the following protective measures is employed: a) manure is not applied within 25 feet of the intermittent stream or wetland and manure is injected or incorporated prior to rainfall or within 24 hours (whichever occurs first) within 300 feet of the intermittent stream or wetland. Additionally, soil phosphorus levels must be managed so that levels do not increase beyond 21 ppm (Bray P1) or 16 ppm (Olsen) within any six year period; b) manure is not applied within 100 feet of the intermittent stream or wetland and a one rod (16.5 feet) perennial vegetated buffer exists along the intermittent stream or wetland; or c) a 50-foot perennial vegetated buffer exists along the intermittent stream or wetland and manure is not applied to the buffer. [Minn. R. 7020.2225]
15.9	Wells, Mines, and Quarries - Manure application is prohibited within 100 feet of a well, mine, or quarry. [40 CFR 412.4]
15.10	Sinkholes - Manure application is prohibited within 300 feet of a sinkhole unless one of the following protective measures is employed: a) manure is not applied within 100 feet of the sinkhole and is injected or incorporated prior to rainfall or within 24 hours (whichever occurs first) within 300 feet of the sinkhole; or b) manure is not applied within 50 feet of the sinkhole and a protective berm exists that prohibits runoff from entering the sinkhole. [Minn. R. 7020.2225]
15.11	Road Ditches - Manure application is prohibited within road ditches. When manure is applied near a road ditch that is also an intermittent stream or drainage ditch, the requirements applicable to intermittent streams or drainage ditches must be followed. [Minn. R. 7020.2225]
15.12	Other Conduits to Waters - Manure application is prohibited within 100 feet of any other downgradient conduit to surface waters not identified in this Part. [40 CFR 412.4]
16.1	Requirements for Operation and Maintenance of the Facility. [Minn. R. 7020]
16.2	For any facility meeting the definition of New Source, the Permittee shall ensure that the production area is designed, constructed, operated, and maintained to contain all manure, manure-contaminated runoff, process wastewater, and all direct precipitation. [40 CFR 412, Minn. R. 7020.2003]
16.3	For any facility the does not meet the definition of New Source, the Permittee shall ensure that the production area is designed, constructed, operated, and maintained to contain all manure, manure-contaminated runoff, process wastewater, and the direct precipitation from a 25-year, 24-hour storm event as defined by the Precipitation - Frequency Atlas of the United States, National Oceanic and Atmospheric Administration. [40 CFR 412, Minn. R. 7020.2003]
16.4	The Permittee shall operate and maintain the facility in accordance with the application materials, all MPCA approved plans and specifications, and the requirements of this Permit. Approved plans and specifications include any proposed plans and specifications submitted with the current application for permit coverage and any plans and specifications for an existing facility component that have been previously approved by the MPCA. [Minn. R. 7001.0150]
16.5	The Permittee shall ensure animals at the facility do not enter waters of the state. [Minn. R. 7020.2015]
16.6	The Permittee shall operate and maintain any required facility monitoring equipment in accordance with the MPCA approved monitoring plan. [Minn. R. 7001.0150]
16.7	The Permittee is prohibited from discharging, depositing, or otherwise placing any substance into a manure storage area(s) except manure, process wastewater, manure-contaminated runoff, or direct precipitation unless expressly authorized in writing by the MPCA. [Minn. R. 7001.0150]
16.8	The Permittee is prohibited from discharging, depositing, or otherwise placing chemicals and other contaminants handled on-site into a storm water storage or treatment system(s) unless specifically designed to treat such chemicals and other contaminants. [40 CFR 122.42, Minn. R. 7001.0150]
16.9	The Permittee shall ensure clean water is diverted, as appropriate, from the production area and that areas around any manure storage area are graded so that surface water drains away from the structures such that pooling of rain or snow melt waters around the immediate vicinity of these structures is prevented. [Minn. R. 7001.0150]
16.10	The Permittee shall manage animal mortalities in accordance with all applicable requirements of the Board of Animal Health (Minn. R. ch. 1721) and the approved emergency response plan. [Minn. R. 7001.0150]

16.11	The Permittee is prohibited from disposing of animal mortalities within any manure storage area or stormwater storage area. [40 CFR 122.42, Minn. R. 7001.0150]
16.12	When manure is used as compost medium for an animal mortality composting area, the requirements of Minn. R. 7020.2125 for manure stockpiles shall apply. [Minn. R. 7020]
16.13	The Permittee is exempt from ambient air quality standards during agitation and removal of manure from the facility if the Permittee has notified the MPCA in writing prior to commencement of the agitation and removal of manure. The written notification shall be via letter or electronic mail and must include the following: a) the names of the owners or the legal name of the facility; b) the location of the facility by county, township, section, and quarter section; c) the facility's feedlot registration number; and d) the anticipated start date and the anticipated number of days of removal of manure. The maximum cumulative exemption days claimed by the Permittee shall not exceed 21 days per calendar year. [Minn. R. 7020.2002]
16.14	For temporary closure of a facility component, the Permittee shall, within one year of ceasing operation of the component, remove all manure from the component. The Permittee shall maintain permit coverage for the facility, including the temporarily closed component. [Minn. R. 7001.0150]
16.15	The Permittee may establish a short-term manure stockpile at the facility in conjunction with manure pack removal activities from animal holding areas without the need to modify coverage under this Permit, provided the manure is stockpiled for fewer than 10 consecutive days, and no more than 6 times per calendar year. This does not release the Permittee from compliance with the effluent limitations of this Permit. [Minn. R. 7001.0150]
17.1	Additional Requirements for Operation and Maintenance of Liquid Manure Storage Areas (LMSA). [Minn. R. 7020]
17.2	The Permittee shall maintain a fence around the perimeter of any at-grade or near-grade LMSA. [Minn. R. 7001.0150]
17.3	The Permittee shall operate the LMSA to maintain the freeboard of the LMSA as indicated in the approved plans and specifications or Minn. R. 7020.2100, subp. 4, item D, whichever is greater. [Minn. R. 7020.2100]
17.4	For open-air LMSAs the Permittee shall install and maintain a visual marker that clearly indicates the freeboard of the LMSA. For covered LMSAs, including those that are below a barn, the Permittee shall develop and employ a system to measure and monitor the liquid level in the LMSA such that the freeboard of the LMSA is maintained. [40 CFR 412.37]
17.5	The Permittee shall notify the MPCA, via telephone or electronic mail, within 24 hours of discovery of encroachment into the freeboard of the LMSA. The notification must include the approximate depth of storage space remaining, an estimated timeline for manure or process wastewater removal from the LMSA, and the date (known or estimated) when the freeboard encroachment began. Notification under this part does not release the Permittee from the obligation to maintain the freeboard of a LMSA. [Minn. R. 7001.0150]
17.6	For anaerobic digesters, the Permittee shall notify the MPCA via telephone or electronic mail within three business days whenever manure must circumvent the anaerobic digester and be deposited into a LMSA that does not have an impermeable cover. The notification must include the reasons for the interruption of service as well as the start and anticipated end date. This does not release the Permittee from the state ambient air quality standards for hydrogen sulfide. [Minn. R. 7001.0150]
17.7	When a LMSA undergoes temporary closure, the Permittee shall comply with the following: a) maintain, at a minimum, a two-foot depth of manure and/or water in a LMSA to provide protection from damage caused by freezing temperatures; b) maintain the LMSA in accordance with the MPCA approved plans and specifications and the requirements of this Permit, including maintenance of the required freeboard; and c) prior to using any LMSA that has been unused for three years or more, a professional engineer must evaluate and prepare a report on the condition of the liner. The MPCA must review and approve the report prior to using the LMSA. [Minn. R. 7001.0150]
18.1	Additional Requirements for Operation and Maintenance of Permanent Solid Manure Stockpiles. [Minn. R. 7020]

18.2	The Permittee shall repair any damage to a stockpile pad that compromises the integrity or thickness of the pad within 60 days of discovery. This includes any ruts made by vehicles in excess of six inches in depth within a cohesive soil pad. [Minn. R. 7020.2125]
18.3	The Permittee shall operate and maintain the runoff controls for the permanent manure stockpile such that all liquids produced, including leachate and contaminated runoff, are captured by a control structure. [Minn. R. 7020.2125]
18.4	A manure compost site is also a manure stockpile. The Permittee shall comply with all requirements applicable to manure stockpiles. [Minn. R. 7020.2150]
19.1	Additional Requirements for Operation and Maintenance of Feed Storage Areas. [Minn. R. 7020]
19.2	The Permittee shall not store manure on a feed storage area pad unless part of the MPCA approved design. [Minn. R. 7001.0150]
19.3	The Permittee shall repair any damage to a feed storage pad that compromises the integrity or thickness of the pad within 60 days of discovery. This includes any ruts made by vehicles in excess of six inches in depth within a cohesive soil pad. [Minn. R. 7001.0150]
19.4	The Permittee shall operate and maintain feed storage areas such that all liquids produced, including leachate and contaminated runoff, are captured by a MPCA approved control structure or LMSA. [Minn. R. 7001.0150]
19.5	When leachate and feed storage area runoff is managed with a vegetated infiltration basin, the Permittee shall perform the following operation and maintenance activities: a) clean out and repair structures that contain and convey contaminated liquids on an annual basis; b) remove accumulated solids from solids settling areas when the depth of solids exceeds one foot; c) repair channel/rill erosion; d) re-establish vegetation that has been damaged or destroyed; and e) harvest vegetation at least two times per year. The preferred method of harvesting is by mechanical means; however, grazing by animals can be utilized provided it is limited to no more than three grazing periods per year, with each grazing period lasting no more than five days. When 1,000 or more tons of sweet corn silage is stored at the facility, the Permittee is prohibited from using a vegetated infiltration basin as a leachate and contaminated runoff control structure. [Minn. R. 7001.0150]
20.1	Required Facility Inspections. [Minn. R. 7020]
20.2	The Permittee shall make the following inspections: a) a daily inspection of all water lines unless an equivalent method for checking water lines is employed such as water meters or pressure gauges; b) a weekly visual inspection of all facility components including animal holding areas, manure storage areas, manure transfer systems, feed storage areas, runoff control measures, and mortality handling areas to assess their conformance to this Permit; and c) inspection of manure application equipment for leaks prior to use. [40 CFR 412.37, 40 CFR 412.4]
21.1	Additional Required Inspections for Liquid Manure Storage Areas. [Minn. R. 7020]
21.2	The Permittee shall make the following inspections for any LMSA at the facility according to the schedule indicated and after any rainfall event exceeding the 25-year, 24-hour storm event: a) a weekly visual inspection of the LMSA and any devices channeling manure-contaminated runoff to the LMSA to assess conformance to the approved plans and this Permit; b) a weekly visual inspection of the liquid level and freeboard marker in each LMSA to ensure that adequate freeboard is maintained; c) for LMSAs with a perimeter drain tile, a monthly examination of the monitoring port or drain tile outlet for water flow and signs of discoloration or odor in any water flowing in the drain tile; and d) for anaerobic digesters, in addition to the inspections for LMSAs above, the Permittee shall conduct a weekly visual inspection of any digester system to assess its performance and to check for system malfunctions. [40 CFR 412.37]

21.3	Any repair to the liner of a LMSA must be approved by the MPCA prior to commencement of the repair and the Permittee shall submit plans and specifications prepared by a design engineer if requested by the MPCA. [Minn. R. 7001.0150]
22.1	Correction of Deficiencies Discovered During Required Inspections. [Minn. R. 7020]
22.2	The Permittee shall correct any deficiencies found as a result of the inspections required by this Permit within 30 days, or within a shorter timeframe when required elsewhere in this Permit, unless one of the following apply: a) construction is required that cannot be effectively performed during the winter season; b) the activity to correct the deficiency requires a permit modification or permit issuance; c) a piece of equipment/part required to correct the deficiency cannot be manufactured and installed within 30 days; or d) other reasons beyond the control of the Permittee. [40 CFR 412.37, Minn. R. 7001.0150]
22.3	The Permittee shall notify the MPCA within 20 days of discovery of any deficiency that cannot be corrected within 30 days. The notice shall include an explanation for the delay and indicate the expected period of time needed to correct the deficiency. This notification does not preclude the MPCA from taking any administrative or legal actions to compel compliance. [Minn. R. 7001.1050]
23.1	Permanent Closure. [Minn. R. 7020]
23.2	Within one year after permanently ceasing operation of a facility component, the Permittee shall remove, from the closed component, all manure and any soils visibly contaminated by manure. [Minn. R. 7020.2025]
23.3	The Permittee shall notify the MPCA via telephone or electronic mail within 3 business days of completion of manure and contaminated soils removal and prior to filling/covering the area previously occupied by the closed component. [Minn. R. 7020.2025]
23.4	The Permittee shall, after removing manure and manure-contaminated soils from the closed component, reduce soil nitrogen by growing alfalfa, grasses, or other perennial forage for at least five years unless: a) the component is, or is within, a building that will not be demolished; b) the liner/floor/base of the component was concrete or asphalt that will not be removed; c) a structure or other impervious surface will be constructed over the area occupied by the component within 60 days; or d) the component was a LMSA. The alfalfa, grasses, or other perennial forage must be established as soon as practicable within the current growing season or at the start of the following growing season when manure removal happens after September 30th. [Minn. R. 7001.0150]
23.5	Within 60 days after completing the requirements for permanent closure of an animal holding area or manure storage area, the Permittee shall provide written notification to the MPCA that the closure requirements have been completed. When closure requires growing alfalfa, grasses, or other perennial forage for at least five years, this notification shall be provided within 60 days of initial establishment of the vegetation. [Minn. R. 7020.2025]
24.1	Recordkeeping Requirements. [Minn. R. 7020]
24.2	Except where specifically noted, the Permittee shall retain all records/reports/submittals required by this Permit for a minimum of six years. This retention period shall be automatically extended during the course of any legal or administrative proceedings or when so requested by the MPCA. Documents shall be maintained at the facility or at the Permittee's business address. The Permittee shall make all documents available for examination and copying upon request of the MPCA or county feedlot officer (CFO) and shall, upon request, submit any documents to the MPCA or CFO within 30 days. [Minn. R. 7001.0150]
24.3	The Permittee shall maintain the following facility maintenance records: a) a description of any modifications, or damage and repair, to the manure collection, containment, and storage components; b) any significant activities that alter the nature of the facility or that would increase the likelihood of discharge from the facility or potential for groundwater pollution; and c) any other factors affecting compliance with the requirements of this Permit. [Minn. R. 7001.0150]

24.4	The Permittee shall either maintain records of the dates and amounts for all precipitation events when manure is exposed to precipitation, including 24 hours prior to and following land application events, or direct the MPCA to data maintained by governmental agencies or educational institutions. [40 CFR 412.37]
24.5	The Permittee shall maintain records of the results of any inspections required by this Permit, including any deficiencies found and documentation of any actions taken to correct deficiencies, including the discovery date and the date when corrective measures were completed. For any deficiencies not corrected within the specified timeframe, the documentation must include an explanation as to why the corrections were not made within the timeframe. [Minn. R. 7001.0150]
24.6	The Permittee shall maintain records of the written requests for exemption from the ambient air quality standards during manure removal. [Minn. R. 7001.0150]
24.7	The Permittee shall maintain records of manure application activities, including when manure ownership is transferred, within the Nutrient Management Tool. [Minn. R. 7020.2225]
24.8	The Permittee shall maintain records pertaining to any required facility monitoring as identified in the MPCA-approved monitoring plan until the Permittee receives written approval from the MPCA to cease the monitoring activities. [Minn. R. 7001.0150]
24.9	The Permittee shall maintain records of any design plans, material testing results, and final certification/reports for any manure storage areas until such time that the structure is permanently closed. [Minn. R. 7001.0150]
25.1	Annual Reporting. [Minn. R. 7020]
25.2	The Permittee shall submit annual report: Due annually, by the 1st of March. The Permittee shall submit the annual report to the MPCA regarding facility activities which occurred during the crop year that ended in the previous calendar year. The Permittee must use the Feedlot Annual Report online service to submit the annual report. In the event of a delay in the availability of the Feedlot Annual Report online service, the Permittee is authorized to submit the paper form " <i>Animal Feedlot Or Manure Storage Area Annual Report (wq-f3-22b)</i> ". [40 CFR 122.42]
25.3	The standardized form identifies the information required for the annual report, which at a minimum includes the requirements of 40 CFR 122.42 (e)(4) and land application records. [40 CFR 122.42]
26.1	Effluent Limitations. [Minn. R. 7020]
26.2	The Permittee shall not discharge manure, manure-contaminated runoff, or process wastewater from a land application area into surface waters of the State, except where the discharge is an agricultural stormwater discharge as defined by this Permit. [40 CFR 122.23]
26.3	For any facility meeting the definition of New Source, the Permittee shall not discharge manure, manure-contaminated runoff, or process wastewater into surface waters of the State from the production area. [40 CFR 412.46]
26.4	For any facility that does not meet the definition of New Source, the Permittee shall not discharge manure, manure-contaminated runoff, or process wastewater into surface waters of the State from the production area unless the discharge is an overflow of manure or process wastewater that is caused by a precipitation event and the facility is in compliance with the requirements of this part and the operational, design, and recordkeeping requirements of this Permit. [40 CFR 412.31]
27.1	Discharges, Spills, and Overflows. [Minn. R. 7020]
27.2	The Permittee shall immediately report by telephone to the State Duty Officer (800-422-0798) any discharge, spill, or overflow of manure, process wastewater, or manure-contaminated runoff, including those authorized by this Permit. The report to the State Duty Officer must include the location of any known fish kill directly related and the location and name, if available, of any drinking water supply management area (DWSMA) or surface water source DWSMA that could be impacted. [Minn. Stat. 115.061]
27.3	When a discharge, spill, or overflow occurs, whether authorized by this Permit or not, the Permittee shall take all actions necessary to minimize that discharge, spill, or overflow, to recover the material released, and to mitigate impacts to waters of the state. [Minn. Stat. 115.061]

27.4	Within five days of any discharge, spill, or overflow, the Permittee shall submit a written statement to the MPCA that includes the following information: a) cause of discharge, spill, or overflow, such as precipitation (inches of rain or snow per day) or other cause (e.g., structural failure, equipment breakdown); b) a description and approximate volume of any discharge, spill, or overflow; c) location and name, if available, of the drinking water supply management area (DWSMA), surface water source DWSMA, waterway, dry ditch, gully, creek, stream, pond, lake, river, or other waters of the state receiving the discharge, spill, or overflow; d) corrective steps being taken to reduce or eliminate and prevent a recurrence of a non-permitted discharge, spill, or overflow; e) the period of time the discharge, spill, or overflow occurred including exact dates and times or, if still occurring, the anticipated time the discharge, spill, or overflow will continue; and f) name of person reporting the discharge, spill, or overflow. [Minn. R. 7001.0150]
28.1	Additional Requirements for Discharges to Waters of the State. [Minn. R. 7020]
28.2	Discharge, defined in Part 31.18 of this Permit, means the addition of a pollutant to waters of the state which includes spills and overflows that enter waters of the state. A spill or overflow that does not reach waters of the state is not a discharge and is not subject to the requirements of this Part. [Minn. R. 7001.0150]
28.3	The Permittee shall ensure that all discharges associated with the facility, including those authorized by the Permit, do not cause or contribute to non-attainment of applicable state water quality standards. The Permittee must monitor discharges in accordance with all of the following: a) collect a minimum of one representative grab sample of the discharge as close as possible to the point of entry into waters of the state; b) sample the discharge within 6 hours of the discovery unless the discharge has stopped as a result of compliance with Part 27.3 or 30.17 of this Permit. If the discharge occurs multiple days, at least one sample shall be taken daily; c) samples shall be collected in accordance with Minn. R. 7053.0155; and d) samples shall be analyzed by a certified lab for the following parameters, pH, total nitrogen, ammonia nitrogen, total phosphorus, E. coli, five-day biochemical oxygen demand (BOD5), and total suspended solids. If conditions are not safe for sampling or do not allow for a representative sample to be obtained (such as flooding, severe weather, etc.), the Permittee may delay sampling until such conditions have passed. [40 CFR 122.44, Minn. R. 7001.0150]
28.4	Reporting - The Permittee shall submit a written report of the analytical results to the MPCA within 7 days of receipt. The report must also include, as applicable, reasons why sampling was delayed. If a sample was not taken, the Permittee shall, in lieu of this report, include the reasons a sample was not taken within the statement required by Part 27.4 of this Permit. [Minn. R. 7001.0150]
29.1	Permit Eligibility. [Minn. R. 7020]

29.2	An owner of a facility is not eligible for coverage under this Permit when any of the following apply: a) a schedule of compliance is required to address a pollution hazard; b) special conditions are required as the result of environmental review; c) a new technology for construction or operation which is not addressed by this Permit is proposed; d) removal of bedrock is proposed to comply with site restrictions under Minn. R. 7020.2100; e) feed for animals will be brokered or sold at the facility; f) the facility, including the feed storage area, does not meet the design standards of Minn. R. ch. 7020 and this Permit; g) the MPCA determines that the facility operations would be more appropriately controlled by an individual permit; h) the owner is proposing to land apply manure in a manner that is not consistent with the requirements of this Permit; i) the owner is proposing to use a vegetative infiltration basin (VIB) to control runoff from an open lot or manure storage area; j) the MPCA determines that discharges from a facility or the land application areas under the Permittee's control have the potential to cause or contribute to non-attainment of applicable water quality standards; k) an anaerobic digester at the facility processes a mixture of organic materials (including manure) that is less than 90% (by volume) manure, process wastewater, or manure contaminated runoff regulated by Minn. Rule Ch. 7020; or l) the facility is located within Indian Country, as defined by federal law. [Minn. R. 7001.0210]
30.1	General Conditions. [Minn. R. 7020]
30.2	Compliance with other laws - The agency's issuance of a permit does not release the Permittee from any liability, penalty, or duty imposed by Minnesota or federal statutes or rules or local ordinances, except the obligation to obtain the permit. This includes any restitution/damages for fish kills or other wildlife loss imposed by the Minnesota Department of Natural Resources under Minn. Stat. 97A.341. [Minn. R. 7001.0150]
30.3	Future rules and standards - The agency's issuance of a permit does not prevent the future adoption by the agency of pollution control rules, standards, or orders more stringent than those now in existence and does not prevent the enforcement of these rules, standards, or orders against the Permittee. [Minn. R. 7001.0150]
30.4	Property right - The permit does not convey a property right or an exclusive privilege. [Minn. R. 7001.0150]
30.5	Agency obligation - The agency's issuance of a permit does not obligate the agency to enforce local laws, rules, or plans beyond that authorized by Minnesota statutes. [Minn. R. 7001.0150]
30.6	Permitted actions - The Permittee shall perform the actions or conduct the activity authorized by the permit in accordance with the plans and specifications approved by the agency and in compliance with the conditions of the permit. [Minn. R. 7001.0150]
30.7	System reliability - The Permittee shall at all times properly operate and maintain the facilities and systems of treatment and control and the appurtenances related to them which are installed or used by the Permittee to achieve compliance with the conditions of the permit. Proper operation and maintenance includes effective performance, adequate funding, adequate operator staffing and training, and adequate laboratory and process controls, including appropriate quality assurance procedures. The Permittee shall install and maintain appropriate backup or auxiliary facilities if they are necessary to achieve compliance with the conditions of the permit and, for all permits other than hazardous waste facility permits, if these backup or auxiliary facilities are technically and economically feasible. [Minn. R. 7001.0150]
30.8	False information - The Permittee may not knowingly make a false or misleading statement, representation, or certification in a record, report, plan, or other document required to be submitted to the agency or to the commissioner by the permit. The Permittee shall immediately upon discovery report to the commissioner an error or omission in these records, reports, plans, or other documents. [Minn. R. 7001.0150]
30.9	Submittals - The Permittee shall, when requested by the commissioner, submit within a reasonable time the information and reports that are relevant to the control of pollution regarding the construction, modification, or operation of the facility covered by the permit or regarding the conduct of the activity covered by the permit. [Minn. R. 7001.0150]
30.10	Right of Entry - When authorized by Minnesota Statutes, sections 115.04; 115B.17, subdivision 4; and 116.091, and upon presentation of proper credentials, the agency, or an authorized employee or agent of the agency, shall be allowed by the Permittee to enter at reasonable times upon the property of the Permittee to examine and copy books, papers, records, or memoranda pertaining to the construction, modification, or operation of the facility covered by the permit or pertaining to the activity covered by the permit; and to conduct surveys and investigations, including sampling or monitoring, pertaining to the construction, modification, or operation of the facility covered by the permit or pertaining to the activity covered by the permit. [Minn. R. 7001.0150]

30.11	Steps to minimize non-compliance impacts - If the Permittee discovers, through any means, including notification by the agency, that noncompliance with a condition of the permit has occurred, the Permittee shall take all reasonable steps to minimize the adverse impacts on human health, public drinking water supplies, or the environment resulting from the noncompliance. [Minn. R. 7001.0150]
30.12	Non-compliance notification - If the Permittee discovers that noncompliance with a condition of the permit has occurred which could endanger human health, public drinking water supplies, or the environment, the Permittee shall, within 24 hours of the discovery of the noncompliance, orally notify the commissioner. Within five days of the discovery of the noncompliance, the Permittee shall submit to the commissioner a written description of the noncompliance; the cause of the noncompliance; the exact dates of the period of the noncompliance; if the noncompliance has not been corrected, the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance. [Minn. R. 7001.0150]
30.13	Non-compliance report - The Permittee shall report noncompliance with the permit not reported as a part of the next report which the Permittee is required to submit under this Permit. If no reports are required within 30 days of the discovery of the noncompliance, the Permittee shall submit the report within 30 days of the discovery of the noncompliance. [Minn. R. 7001.0150]
30.14	Advance notice of potential non-compliance - The Permittee shall give advance notice to the commissioner as soon as possible of planned physical alterations or additions to the permitted facility or activity that may result in noncompliance with a Minnesota or federal pollution control statute or rule or a condition of the permit. [Minn. R. 7001.0150]
30.15	Permit transfer - The permit is not transferable to any person without the express written approval of the agency after compliance with the requirements of Part 7001.0190. A person to whom the permit has been transferred shall comply with the conditions of the permit. [Minn. R. 7001.0150]
30.16	Liability - The permit authorizes the Permittee to perform the activities described in the permit under the conditions of the permit. In issuing the permit, the state and agency assume no responsibility for damage to persons, property, or the environment caused by the activities of the Permittee in the conduct of its actions, including those activities authorized, directed, or undertaken under the permit. To the extent the state and agency may be liable for the activities of its employees, that liability is explicitly limited to that provided in the Tort Claims Act, Minnesota Statutes, section 3.736. [Minn. R. 7001.0150]
30.17	Duty to Prevent and Mitigate - The Permittee shall notify the agency immediately of the discharge, accidental or otherwise, of any substance or material under its control which, if not recovered, may cause pollution of waters of the state, and the responsible person shall recover as rapidly and as thoroughly as possible such substance or material and take immediately such other action as may be reasonably possible to minimize or abate pollution of waters of the state caused thereby. [Minn. Stat. 115.061]
30.18	Need to Halt or Reduce Activity Not a Defense - It shall not be a defense for a Permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this Permit. [40 CFR 122.41]
30.19	Civil and Criminal Liability - Nothing in this Permit shall be construed to relieve the Permittee from civil or criminal penalties for noncompliance with the terms and conditions provided herein. [Minn. R. 7001]
30.20	Severability - The provisions of this Permit are severable, and if any provision of this Permit or the application of any provision of this Permit to any circumstance is held invalid, the application of such provision to other circumstances, and the remainder of this Permit shall not be affected thereby. [Minn. R. 7001]
30.21	Discharge Monitoring Reports - This Permit requires the submittal of annual reports in lieu of discharge monitoring reports as the Permittee is not authorized to discharge to surface waters except as provided in Minn. R. 7020.2003, subp. 2, which references 40 CFR pt. 412. [40 CFR 412]
30.22	Availability of Reports - Except for data determined to be confidential under Minn. Stat. 116.075, subd. 2, all reports prepared in accordance with the terms of this Permit shall be available for public inspection at the offices of the MPCA. Procedures for submitting such confidential material shall be pursuant to Minn. R. 7000. Monitoring data shall not be considered confidential. Knowingly making any false statement on any such report may result in the imposition of criminal penalties as provided for in Minn. Stat. 115.071, subd. 2. [Minn. R. 7000.1200]
30.23	Website links/references - When a link to a website referenced in this Permit becomes non-functional, the agency may direct Permittees to an equivalent data source without a modification to this Permit. The agency will post the equivalent data source link on the "feedlot permits" portion of its website: www.pca.state.mn.us/feedlots . [Minn. R. 7001]

30.24	Standard conditions - This permit requires compliance with the standard conditions of 40 CFR 122.41. [40 CFR 122.41]
31.1	Definitions. [Minn. R. 7020]
31.2	"Agency" means the Minnesota Pollution Control Agency, as constituted pursuant to Minn. Stat. 116.02. [Minn. R. 7020.0300]
31.3	"Agricultural Stormwater" means a precipitation-related discharge of manure, litter or process wastewater from land areas under the control of a CAFO where the manure, litter or process wastewater has been applied in accordance with site specific nutrient management practices that ensure appropriate agricultural utilization of the nutrients in the manure, litter or process wastewater, as specified in 40 CFR 122.42(e)(1)(vi)-(ix). [40 CFR 122.23]
31.4	"Anaerobic Digester" means a liquid manure storage area that is constructed with the intent to capture and re-purpose gas emissions resulting from the digestion of waste by microbes in anaerobic conditions. An anaerobic digester is a LMSA and is required to comply with all requirements applicable to LMSAs. Requirements specific to anaerobic digesters will be noted when applicable. [Minn. R. 7020]
31.5	"Animal Feeding Operation" ("AFO") means a lot or facility (other than an aquatic animal production facility) where animals have been, are, or will be stabled or confined and fed or maintained for a total of 45 days or more in any 12-month period, and crops, vegetation, forage growth, or post-harvest residues are not sustained in the normal growing season over any portion of the lot or facility. [40 CFR 122.23]
31.6	"Animal Feedlot" means a lot or building or combination of lots and buildings intended for the confined feeding, breeding, raising, or holding of animals and specifically designed as a confinement area in which manure may accumulate or where the concentration of animals is such that a vegetative cover cannot be maintained within the enclosures. For the purposes of this Permit, open lots used for the feeding and rearing of poultry (poultry ranges) shall be considered to be animal feedlots. Pastures shall not be considered animal feedlots under this Permit. [Minn. R. 7020.0300]
31.7	"Animal Manure" or "Manure" means poultry, livestock, or other animal excreta or a mixture of excreta with feed, bedding, precipitation, or other materials. [Minn. R. 7020.0300]
31.8	"Application Materials or Permit Application" means all information submitted by the applicant for coverage under this Permit and relied upon by the MPCA to make a decision on the request for permit coverage. This includes but is not limited to the application form, manure management plan, plans and specifications for facility components, emergency response plan, and required monitoring plans as approved by the MPCA. The standardized permit application is equivalent to the notice of intent (NOI) required by federal law and includes all content required by 40 CFR 122.28 (b)(2)(ii). [Minn. R. 7001]
31.9	"Approved Plans or MPCA Approved" means any previously approved plans/documents or new/revised plans/documents required by this Permit that receive approval from the MPCA. [Minn. R. 7001]
31.10	"Best Management Practices" ("BMPs") means schedules of activities, prohibitions of practices, maintenance procedures, and other management practices to prevent or reduce the pollution of waters of the state. BMPs also include treatment requirements, operating procedures, and practices to control site runoff, spillage or leaks, sludge or waste disposal, or drainage from raw material storage. [Minn. R. 7001]
31.11	"Closure" refers to the cessation of use of all or any part of the facility, including: a) the removal of livestock or poultry from all or any of the animal holding areas located within the production area; and b) the discontinuation of a structure or area located within the production area to handle, store, or treat manure. [Minn. R. 7020]
31.12	"Coarse-textured Soils" means fields that have at least 33 percent of the surface soil and/or subsoil (within three (3) feet of the surface) with one of the following soil texture types: sand, loamy sand, loamy coarse sand, fine sand, loamy fine sand, coarse sand, or very fine sand. [Minn. R. 7001]
31.13	"Commissioner" means the Commissioner, or other MPCA staff authorized by the Commissioner, of the MPCA, as described in Minn. Stat. 116.03, as amended. [Minn. R. 7020.0300]
31.14	"Completion of Construction" means to complete the placement, assembly, or installation of facilities for the components of the facility authorized by this Permit. [Minn. R. 7001]
31.15	"Concentrated Animal Feeding Operation" ("CAFO") means an AFO that is defined as a Large CAFO or as a Medium CAFO by the terms of 40 CFR 122.23(b)(2), or that is designated as a CAFO in accordance with 40 CFR 122.23(c). [Minn. R. 7020.0300]

31.16	"Corrective or Protective Measure" means a practice, structure, condition, or combination thereof that prevents or reduces the discharge of pollutants from an animal feedlot or manure storage area to a level in conformity with MPCA rules. [Minn. R. 7020.0300]
31.17	"Design Engineer or Professional Engineer" means an engineer licensed in the state of Minnesota or a NRCS staff person having NRCS approval authority for the project. [Minn. R. 7020.0300]
31.18	"Discharge" means the addition of a pollutant to waters of the state, including a release of animal manure or process wastewater from an animal holding area, manure storage area, or a manure land application site by leaking, pumping, pouring, emitting, emptying, dumping, escaping, seeping, leaching, or any other means. Discharge includes both point source and nonpoint source discharges. [Minn. R. 7020.0300]
31.19	"DWSMA" means drinking water supply management areas as identified by the Minnesota Department of Health. [Minn. R. 7001]
31.20	"Emergency Manure Application" Emergency manure application means instances of land application of manure that are the direct result of situations beyond the control of the Permittee, such as unusual weather conditions, unavoidable equipment failure, or other circumstances that could not have been avoided with proper planning and management and there is no opportunity to provide temporary storage within another approved manure storage area at the facility. In these situations, only the application of the volume of manure that is necessary to prevent manure storage overflow is considered to be emergency manure application. [Minn. R. 7001]
31.21	"Facility" means an animal feedlot, a manure storage area, or an animal feedlot with a manure storage area that is subject to this Permit. [Minn. R. 7020.0300]
31.22	"Feedlot Annual Report" means the online service developed by the MPCA that the Permittee must use to submit the annual report required by this Permit. [Minn. R. 7001]
31.23	"Feed Storage Area" means a designated area at the production facility, paved or unpaved, covered or uncovered, that is utilized for storage of any materials used to create the rations for livestock. Also included are those areas used to store spoiled, spilled, or other unused rations for livestock. For purposes of this Permit, "feed storage area" does not include buildings or roofed structures that contain dry commodities, provided that precipitation does not come into contact with the commodities stored inside the structure. "Feed storage area" does not include areas used for the storage of hay bales and other absorbent materials which do not create contaminated leachate and do not create a pollution hazard. [Minn. R. 7001]
31.24	"Feed Storage Area Runoff" means liquid that leaves the feed storage area that is the result of precipitation on the feedstocks or on the surrounding feed storage area where residual feed is present. This does not include water that flows off of the tarp/roof of a feed storage, unless that liquid is allowed to come into contact with feedstocks, residual feed, or other liquid that has come into contact with feedstocks or residual feed. This liquid is not stormwater and should not be allowed to directly enter waters of the state, tile intakes, or stormwater collection/mitigation area (stormwater ponds, etc.). [Minn. R. 7001]
31.25	"Fish Kill" means an incident resulting in the death of 25 or more fish within one linear mile of a flowing water or 25 or more fish within a square mile of a nonflowing water, excluding fish lawfully taken under the game and fish laws. [Minn. R. 7001]
31.26	"Incorporate or Incorporation" means applying manure using injection, disking into the soil, tilling the soil after application, or using other practices that result in a majority of the manure being placed below the ground surface within 24 hours of application and prior to rainfall. [Minn. R. 7001]
31.27	"Intermittent Stream" means all watercourses identified as intermittent streams on United States Geological Survey quadrangle maps. [Minn. R. 7020.0300]
31.28	"Land Application Area" means land under the control of an AFO owner or operator, whether it is owned, rented, or leased, to which manure, litter, or process wastewater from the production area is or may be applied. [Minn. R. 7001]
31.29	"Liquid Manure" means manure that does not meet the definition of solid manure. Process wastewater and manure-contaminated runoff are considered to be liquid manure. [Minn. R. 7020.0300]
31.30	"Liquid Manure Storage Area" ("LMSA") means an area where liquid animal manure and process wastewaters are stored or processed. [Minn. R. 7020.0300]
31.31	"Manure-contaminated Runoff" means a liquid that has come into contact with animal manure and drains over land from any animal feedlot, manure storage area, or animal manure land application site. [Minn. R. 7020.0300]

31.32	"Manure Storage Area" means an area where animal manure or process generated wastewater are stored or processed. Short-term and permanent stockpile sites and composting sites are manure storage areas. Animal manure packs or mounding are not manure storage areas provided they are managed in accordance with Minn. R. 7020.2000, subp. 3. [Minn. R. 7020.0300]
31.33	"MPCA" means the Minnesota Pollution Control Agency or Minnesota Pollution Control Agency staff as delegated by the Minnesota Pollution Control Agency. [Minn. R. 7001]
31.34	"Modification" means a change to a facility component or operational practice described, required, or authorized by this Permit, including an expansion. Major and minor modifications are described by Minn. R. 7020.0300, Minn. R. 7020.0405, subp. 5, and Minn. R. 7001.0190. A change to a facility component or operational practice that is not described, required, or authorized by a permit is not a modification, including changes to: a) the type of crop or manure application rate if consistent with the methodology portion of the manure management plan and reflected in required records; b) routine maintenance; c) feeding or milking schedules; d) animal diets; e) bedding materials so long as consistent with approved plans and specifications; f) equipment used to clean the facility so long as consistent with approved design plans and specifications; g) lands used as pasture; or h) facility components not involved directly in animal or manure management such as an office or machine shed. [Minn. R. 7020.0300]
31.35	"MES" means the University of Minnesota Extension System. [Minn. R. 7001]
31.36	"Methodology" means the portion of the manure management plan (MMP) that describes the methods used to determine field specific manure application rates in accordance with University of Minnesota recommendations, the requirements of this Permit, and other applicable rules. A MMP developed using the Nutrient Management Tool includes the required Methodology and satisfies the requirements related to the narrative approach identified in 40 CFR 122.42. [Minn. R. 7001]
31.37	"National Pollutant Discharge Elimination System Permit" or "NPDES" means a permit issued by the MPCA as required by federal law for the purpose of regulating the discharge of pollutants from point sources into waters of the United States from concentrated animal feeding operations (CAFOs) as defined by federal law. [Minn. R. 7020.0300]
31.38	"New Source" means a swine, poultry, or veal calf facility that began construction after December 4, 2008, and is subject to a new source performance standard in 40 CFR pt. 412 prohibiting discharges from the production area. [40 CFR 122.2]
31.39	"NRCS" means the Natural Resources Conservation Service. [Minn. R. 7001]
31.40	"Nutrient Management Tool" means the online tool developed by the MPCA that the Permittee must use for development of a manure management plan for submittal with the permit application. The Nutrient Management Tool includes the necessary information to satisfy applicable manure management planning and record keeping rules and Permit requirements. [Minn. R. 7001]
31.41	"Overflow" means the release of manure or process wastewater resulting from the filling of wastewater or manure storage structures beyond the point where manure, process wastewater, or stormwater can be contained by the structure. [Minn. R. 7001]
31.42	"Owner" or "Owners" shall mean all persons having possession, control, or title to an animal feedlot or manure storage area as defined by Minn. R. 7020.0300, subp. 17. [Minn. R. 7020.0300]
31.43	"Permanent Closure" means ceasing operation of all or any part of the facility with the intent that the animal holding area(s) and/or manure storage area(s) will no longer be used for that purpose. [Minn. R. 7020]
31.44	"Permanent Manure Stockpile" means a solid manure storage area where manure is stored or processed that does not meet the requirements of Minn. R. 7020.2125, subp. 2, for short-term stockpiles. [Minn. R. 7020.0300]
31.45	"Permittee" means the owner or owners or any person or group of persons including, but not limited to, a single individual, manager, partnership, limited partnership, cooperative, or any form of corporate entity that has possession or control or title to the feedlot granted coverage under this Permit in accordance with the MPCA-approved application materials. [Minn. R. 7001]

31.46	"Probability of Rainfall" means National Weather Service statistical predictions (may be found at the website: http://www.weather.gov). [Minn. R. 7001]
31.47	"Process Wastewater" means waters and/or precipitation, including rain or snow, which comes into contact with manure, litter, bedding, or other raw material or intermediate or final material or product used in or resulting from the production of animals, poultry, or direct products such as milk or eggs as defined by Minn. R. 7020.0300, subp. 19(b). [Minn. R. 7020.0300]
31.48	"Production Area" means that part of the animal feeding operation that includes the animal confinement area, the manure storage area, the raw materials storage area, and the waste containment areas. The animal confinement area includes, but is not limited to, open lots, housed lots, feedlots, confinement houses, stall barns, free stall barns, calf huts/hutches, milkrooms, milking centers, cowyards, barnyards, medication pens, walkers, animal walkways, and stables. The manure storage area includes, but is not limited to, lagoons, runoff ponds, storage sheds, stockpiles, under-house or pit storages, liquid impoundments, static piles, and composting piles. The raw materials storage area includes, but is not limited to, feed silos, silage bunkers, and bedding materials. The waste containment area includes, but is not limited to, settling basins and areas within berms and diversions which separate uncontaminated stormwater. Also included in the definition of production area is any egg washing or egg processing facility, and any area used in the storage, handling, treatment, or disposal of mortalities. [40 CFR 412.2]
31.49	"Sensitive feature(s)" means all Special Protection Areas, open tile intakes, sinkholes, mines, quarries, and wells (active or inactive). [Minn. R. 7001]
31.50	"Short-term Manure Stockpile" means a manure storage area where manure is stored or processed according to Minn. R. 7020.2125, subp. 1-3. [Minn. R. 7020.0300]
31.51	"Sinkhole" means a surface depression caused by a collapse of soil or overlying formation above fractured or cavernous bedrock as defined by Minn. R. 7020.0300, subp. 22. [Minn. R. 7020.0300]
31.52	"Soil Temperature" means the soils temperature as indicated by the closest soil temperature monitoring location available on the MDA soil temperature network (including those taken at a 4-inch depth) available at https://www.mda.state.mn.us/protecting/soilprotection/soiltemp . [Minn. R. 7001]
31.53	"Solid Manure" means manure that has 15 percent or more solids, can be stacked at a 3:1 vertical to horizontal ratio, and is handled as a solid product. [Minn. R. 7020]
31.54	"Spill" means the release of manure, manure contaminated runoff, or process wastewater from the confines of an animal feedlot, manure storage area, manure transfer system, or other component used to collect, transfer, or store manure, manure-contaminated runoff, or process wastewater that if not recovered would pollute waters of the state. Spill includes releases from activities associated with land application that do not comply with this Permit. [Minn. R. 7001]
31.55	"Special Protection Area" means land that is within 300 feet of all protected waters (lakes and streams) and protected wetlands, identified on Department of Natural Resources (DNR) protected waters and wetlands maps and intermittent streams and ditches identified on United States Geological Survey (USGS) quadrangle maps, excluding drainage ditches with berms and segments of intermittent streams which are grassed waterways. [Minn. R. 7020.0300]
31.56	"Start of Construction" means to begin or cause to begin, as part of a continuous program, the placement, assembly, or installation of facilities or equipment; or to conduct significant site preparation work, including clearing excavation or removal of existing buildings, structures, or facilities, necessary for the placement, assembly, or installation of facilities; or equipment for any new, modified, or expanded component of the facility authorized by this Permit. [Minn. R. 7020.0300]
31.57	"Temporary Closure" means ceasing operation of all or part of a facility with the intent of reusing the facility or portion of the facility at a future date. [Minn. R. 7020]
31.58	"Vulnerable Groundwater Area" means any area identified as a Vulnerable Groundwater Area on the Nutrient Management Planning map available at: www.pca.state.mn.us/feedlots . The map is also incorporated into the Nutrient Management Tool. If a land application field is located partially within a vulnerable groundwater area, only the portion of the field within the vulnerable groundwater area is subject to the regulations of this Permit pertaining to vulnerable groundwater areas. [Minn. R. 7001]

31.59	"Waters of the State" means all streams, lakes, ponds, marshes, watercourses, waterways, wells, springs, reservoirs, aquifers, irrigation systems, drainage systems, and all other bodies or accumulations of water, surface or underground, natural or artificial, public or private, that are contained within, flow through, or border upon the state or any portions of the state as defined by Minn. R. 7020.0300, subp. 26. [Minn. R. 7020.0300]
31.60	"Waters of the United States" has the meaning given under 40 CFR 122.2. [Minn. R. 7020.0300]
31.61	"Winter Conditions" means when the soils of the land application site are frozen or when the application site is snow-covered. [Minn. R. 7001]

AGRICULTURAL LAND PURCHASE AGREEMENT

TWIN EAGLE DAIRY L.L.P., a Minnesota limited liability partnership, with a chief executive office address of 20061 380th St., Clarissa, MN 56440, and **Patrick Lunemann a/k/a Patrick F. Lunemann** and **Jody Lunemann, a/k/a Jody R. Lunemann**, husband and wife, with a mailing address of 20061 380th St., Clarissa, MN 56440 (collectively, the "**Seller**"), and **New Heights Dairy, LLC**, a Minnesota limited liability company, with a registered office address of 3145 155th St. NW, Rice, MN 56367 (the "**Buyer**"), make and enter into this Agricultural Land Purchase Agreement (this "**Agreement**") effective as of April _____, 2025 (the "**Effective Date**").

In consideration of the parties' mutual covenants and representations in this Agreement and for other good and valuable consideration, the sufficiency of which the parties acknowledge, the parties agree as follows:

1. **Sale of Property.** Seller agrees to sell to Buyer, and Buyer agrees to purchase from Seller, all of Seller's right, title, and interest in the real property located in Todd County, Minnesota (Todd County PID No. 07-0008801) (the "**Land**"), together with any building, structure, facility, fixture, and improvement (including all replacements and additions) constructed or located on the Land, and any and all easements, privileges and rights appurtenant to the Land (collectively, the "**North Property**"), and a three hundred foot (300') wide strip of land adjacent to the northerly and easterly boundary lines of the North Property (the "**North Buffer**"), each as legally described on the attached **Exhibit A**.
2. **Purchase Price.** The total purchase price Buyer will pay to Seller for the North Property and North Buffer will be TWO MILLION EIGHTY-FIVE THOUSAND FIVE HUNDRED and No/100 Dollars (\$2,085,500.00) (the "**Purchase Price**"), payable via the terms and conditions of a contract for deed by and between Buyer and Seller (the "**Contract for Deed**"). The Contract for Deed shall be payable in equal monthly installments of FIFTEEN THOUSAND and NO/DOLLARS (\$15,000.00) commencing July 1, 2025, which payment includes interest at the rate of five percent (5.00%), accruing on a monthly basis, beginning July 1, 2025. Said installment payments shall be applied first upon interest and the balance in reduction of principal. Subsequent payments shall become due on the 1st day of each month thereafter until and including August 1, 2042. A final payment of \$12,993.74 shall be due and payable on September 1, 2042 (the "**Maturity Date**").
3. **Option Property.** Seller grants to Buyer, and Buyer accepts, an option (the "**Option**") for the period beginning on the Effective Date and terminating at 5:00 p.m. on May 1, 2030 (the "**Option Termination Date**"), to purchase the forty (40) acre parcel in Todd County, Minnesota (Todd County PID No. 07-0009000) (the "**Option Property**") and a three hundred foot (300') wide strip of land adjacent to the easterly boundary line of the Option Property (the "**South Buffer**") (collectively, the North Property, North Buffer, Option Property, and South Buffer shall be referred to herein as the "**Property**"), and all easements, privileges and rights appurtenant to the Option Property and South Buffer and other valuable consideration as set forth in this Agreement, for the following price:
 - a. \$462,955.00 if the Option is exercised between the Effective Date and April 30, 2027;

- b. \$486,102.75 if the Option is exercised between May 1, 2027, and April 30, 2028;
- c. \$510,407.89 if the Option is exercised between May 1, 2028, and April 30, 2029;
- d. \$535,928.28 if the Option is exercised between May 1, 2029, and the Option Expiration Date.

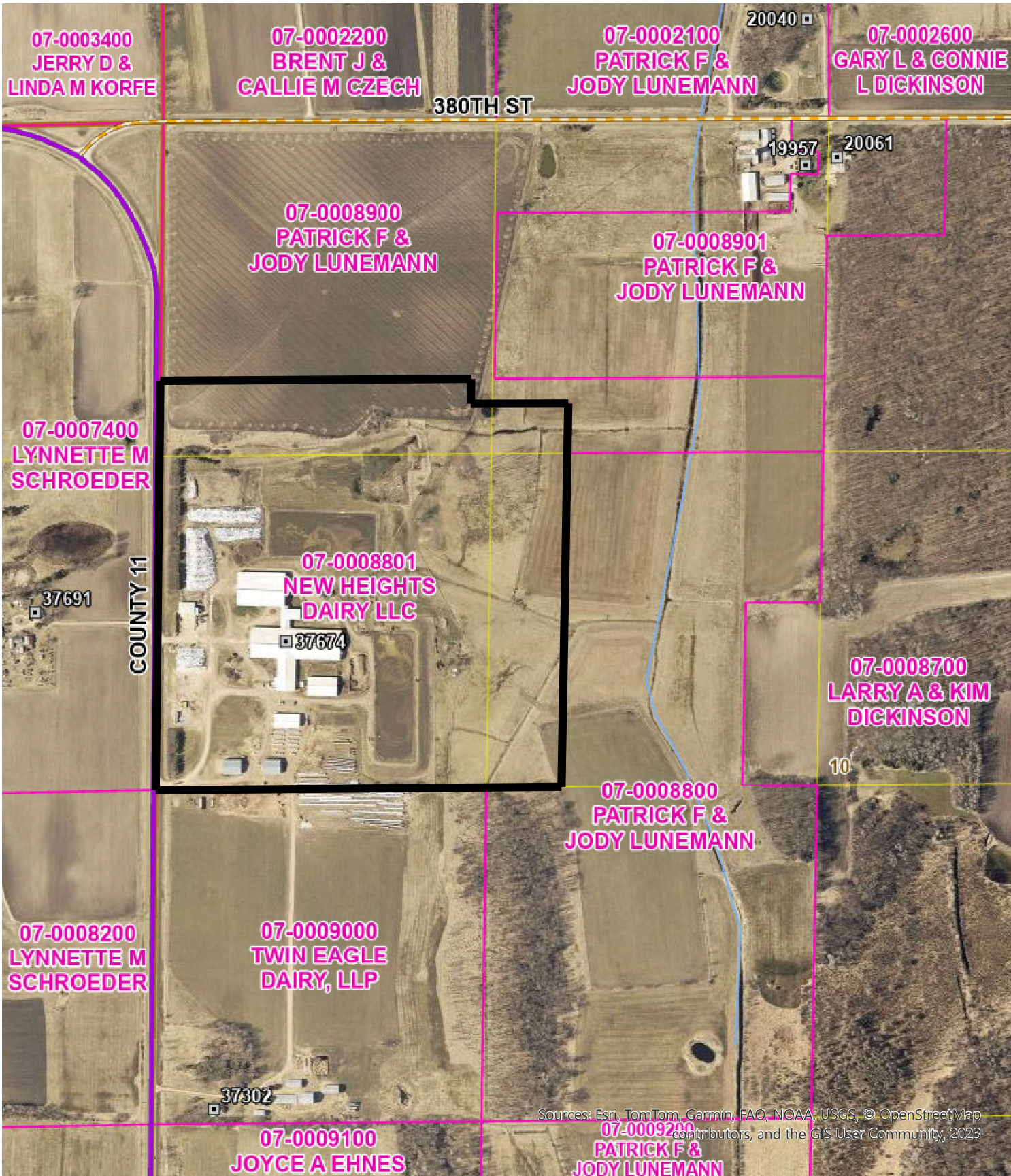
Seller and Buyer may extend the Option upon the mutual agreement of the parties in writing prior to the Option Termination Date in which case Buyer shall pay to Seller a non-refundable Option extension fee in the amount of \$10,000.00. In the event Buyer elects to exercise the Option, Buyer and Seller agree that the terms contained in this Agreement shall govern the transaction contemplated herein, and the Contract for Deed shall be amended to add the legal descriptions of the Option Property and South Buffer thereto. In the event Buyer does not exercise the Option or Buyer and Seller do not agree to extend the Option, this Agreement, as to the Option Property and South Buffer, shall be null and void and of no further effect.

The Option Property and South Buffer shall be subject to an ingress, egress, and utility easement (the **Easement**"), as legally described on the attached **Exhibit B**, reserved by and for the use and benefit of Seller and Seller's heirs, representatives, invitees, permittees, successors, and assigns.

4. **Contingencies.** The obligations of Buyer under this Agreement are contingent upon each of the following:

- a. **Representations and Warranties.** The representations and warranties contained in this Agreement must be true now and on the Closing Date as if made on the Closing Date.
- b. **Title.** Title shall have been found acceptable, or been made acceptable, in accordance with the requirements and terms of Section 7, below.
- c. **Asset Purchase Agreement.** TWIN EAGLE DAIRY L.L.P., a Minnesota limited partnership (the "**Selling Party**"), and New Heights Dairy, LLC, a Minnesota limited liability company (the "**Buying Party**"), shall enter into an Asset Purchase Agreement of even date herewith (the "**APA**") whereby Buying Party will purchase certain assets associated with the business of Selling Party and said transaction shall close concurrently with the transaction contemplated by this Agreement.
- d. **Contract for Deed.** The Contract for Deed shall close concurrently with the transaction contemplated by this Agreement.

5. **Closing Date; Possession.** This Agreement shall close (the "**Closing**") on or before April 24, 2025 (the "**Closing Date**"), or as may be reasonably extended from time to time pursuant to the mutual agreement of the parties. The Closing shall take place at the office of Larson Abstract Company, Inc., located 70 1st Avenue SE, Little Falls, Minnesota 56345 (the "**Closer**"), or at such other place as may be agreed to by Buyer and Seller. Seller agrees to deliver possession of the North Property and North Buffer to Buyer on the Closing Date. Notwithstanding the foregoing or anything to the contrary contained in this Agreement or the Contract for Deed, Buyer agrees to make available the use of the machinery storage shed in the southwest corner of the North Property to Seller for the storage of Seller's crop equipment for a period of thirty-eight



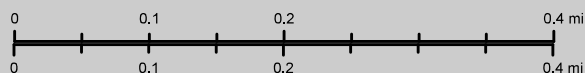
Todd County

MINNESOTA



Todd County GIS
215 1st Ave S, Ste 102
Long Prairie, MN 56347
(Office) 320-732-4248

GIS Site Map



The Todd County GIS & Land Services Department has made every effort to provide the most accurate and up-to-date information available in this publication and cannot be held responsible for any unforeseen errors or omissions. If the recipient wishes to locate parcel corners and property lines, employ the services of a Registered Land Surveyor.

Printed on:
Tuesday, June 9, 2026

Receipt: 2026-0265



WHERE THE FOREST MEETS THE PRAIRIE

Todd County

• MINNESOTA • EST. 1855 •

PLANNING & ZONING

215 1st Avenue South, Suite 103

Long Prairie, MN 56347

Phone: 320-732-4420 Fax: 320-732-4803

Email: ToddPlan.Zone@Co.Todd.MN.US

CONDITIONAL USE PERMIT APPLICATION

Applicant Andy and Ella Rober Mailing Address 31570 CR 11
Site Address 31570 CR 11 Clarks MN 56440
Phone Number X E-Mail Address X
Property Owners Name & Address (if not applicant) _____

Received

JUN 10 2026

Parcel ID(s) 13-0009800 Township Iona Lake/River Name _____
Zoning District (circle one): AF-1; AF2; R-2; R-10; UG; RT; Comm; L-M; or Shoreland.

Todd County Planning & Zoning

Full and Current Legal Description(s) _____
(attach if necessary)

Current tax statement or other proof of ownership attached ☒ yes () no

Measurement of land involved: Width _____ Length _____ Acres _____

Septic System: Date installed 2006 or 2007 Date of latest Compliance Inspection 5/28/2026

Is an upgrade needed: () yes () no

Site accessed by: ☒ public road () easement

If easement, is the easement legally recorded? () yes () no

Detailed Explanation of Request:

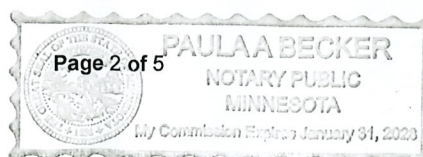
manufacturing
a request for a CUP in building of outdoor Poly furniture and
also retailing at site of our products and also retailing of
accessories and outdoor products such as gazebos, wishing wells, birdhouses to
a 40x80 shop with porch or overhang with a 24x16 indoor display
for outdoor display

Did you meet with the Township Board to present the Application for Conditional Use Permit?

Yes ☒ No _____ Date of the meeting: 2 / 9 / 2026

April Brown
Optional Township Board Signature

Supervisor, Chairman
Board Position



Paula A. Becker
2.9.2026

Will the request create an excessive burden on the existing roads or other utilities? **Explain**

No it should not as most of our ~~these~~ customers were already using the pavement on their way to their recreation sites and I can't build huge amounts of furniture

Is the requested use compatible with the surrounding properties? **Explain**

Could the use significantly depreciate near-by properties? **Explain**

It should not as there is no smell and not much noise

Will the structure and the use have an appearance that will not have an adverse effect on near-by properties? **Explain**

No

Will the requested use create an adverse affect on near-by properties because of noise, odor, glare, hours of operation, or general unsightliness? **Explain**

It's a quiet no odor or glare and we only operate between 9:00am to 4:00pm and unsightliness isn't my plan rather would like to keep neat.

**RETURN APPLICATION, SITE PLAN, SEWER INFORMATION AND ANY ADDITION
INFORMATION, AND FEE TO:**

Todd County Planning & Zoning Office
215 1st Ave South, Suite 103
Long Prairie, MN 56347

Fee: \$600.00 or After-the-Fact Fee: \$1,200.00 payable to "Todd County"

Only complete applications may be placed on an agenda

****A PARCEL IN JOINT OWNERSHIP MUST PROVIDE WRITTEN SIGNATURE OF ALL OWNERS****

Andy Raber
Applicant Name Printed

Andy Raber
Signature

1-4-26
Date

Ella M Raber
Property Owner Name Printed

Ella M Raber
Signature (If different than applicant)

2-4-26
Date

spouse

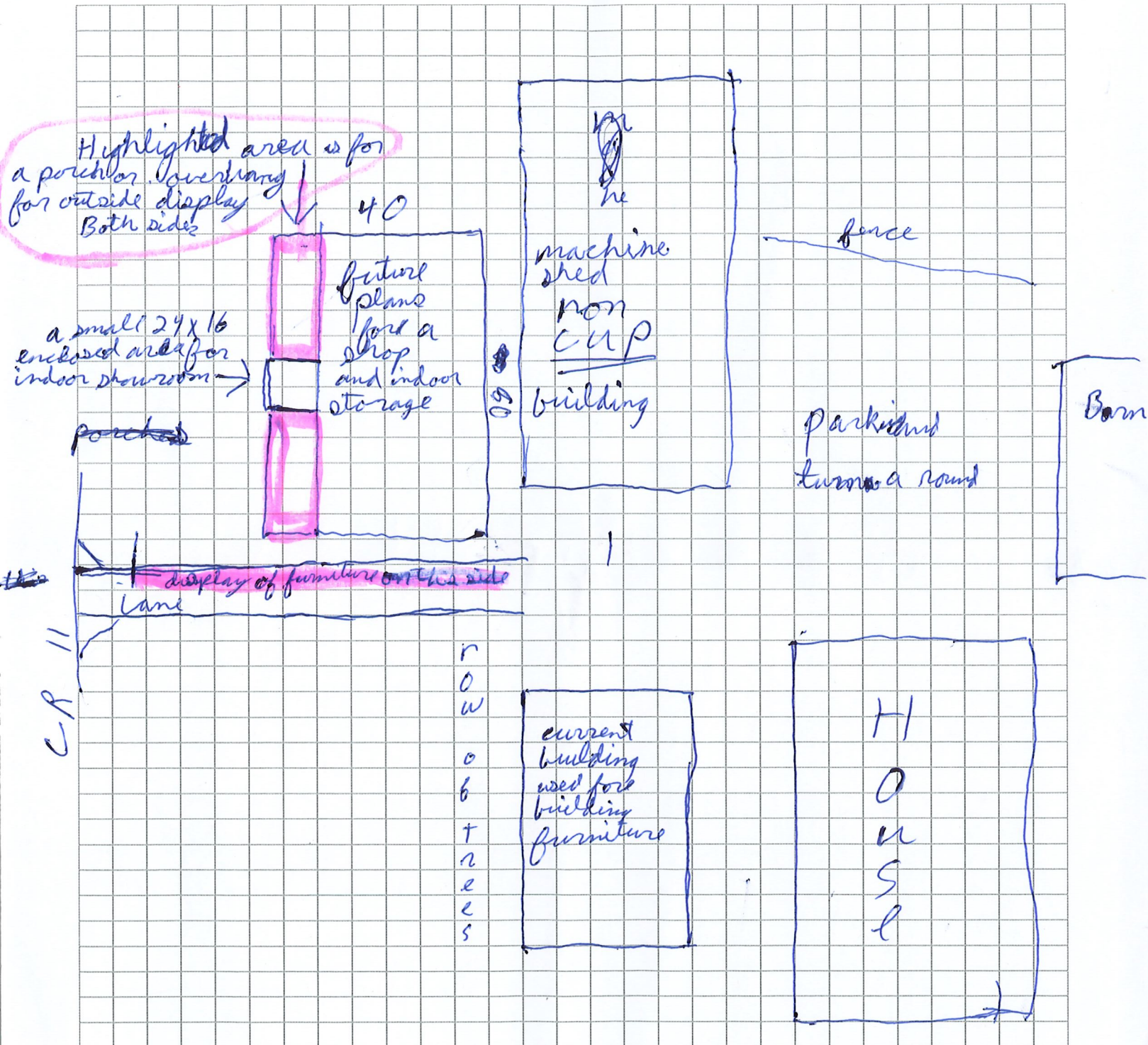
spouse

A Conditional Use Permit expires and is considered invalid unless they are substantially completed within thirty-six months of the date the CUP is granted by the County Board (Section 5.05(N) of the County Zoning Ordinance).

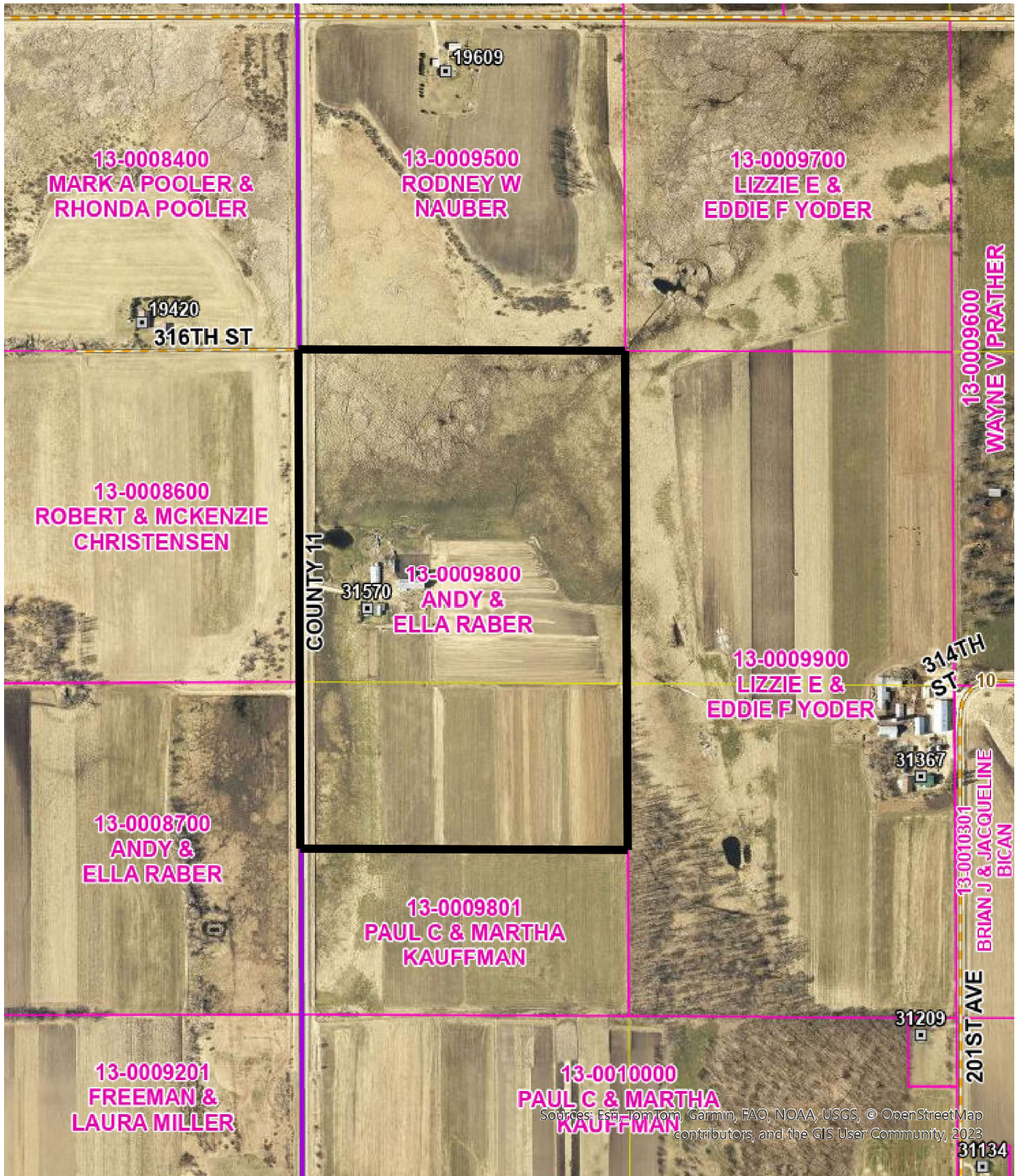
Notes: on proposed 40x80 shop with additional porch and 24x16 indoor showroom is to work with Wetland specialist on how far from the road we can build with possible removal of existing machine shed

Site Plan

Outline how the intended use will be situated on the property including buildings, parking areas, signage, material storage areas, etc.







Sources: Esri, TomTom, Garmin, FAO, NOAA, USGS, © OpenStreetMap contributors, and the GIS User Community, 2023

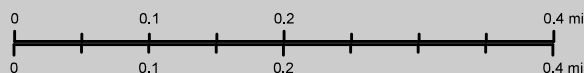
Todd County

MINNESOTA



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GIS Site Map



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Printed on:
Tuesday, June 9, 2026



WHERE THE FOREST MEETS THE PRAIRIE

Todd County

• MINNESOTA • EST. 1855 •

PLANNING & ZONING

215 1st Avenue South, Suite 103

Long Prairie, MN 56347

Phone: 320-732-4420 Fax: 320-732-4803

Email: ToddPlan.Zone@Co.Todd.MN.US

CONDITIONAL USE PERMIT APPLICATION

Applicant Eli Bontrager Mailing Address Same as other

Site Address 3667 County 89 Browerville MN 56438

Phone Number _____ E-Mail Address _____

Property Owners Name & Address (if not applicant) Eli & Susie Bontrager

3667 County 89 Browerville MN 56438

Parcel ID(s) 07-0012600 Township Eagle Valley Lake/River Name _____

Zoning District (circle one): AF-1; AF2; R-2; R-10; UG; RT; Comm; L-M; or Shoreland.

Full and Current Legal Description(s) see attach
(attach if necessary)

Current tax statement or other proof of ownership attached ☒ yes () no

Received
JUN 12 2026
JCC
Todd County Planning
& Zoning

Measurement of land involved: Width _____ Length _____ Acres 1.5

Septic System: Date installed 1994 Date of latest Compliance Inspection 6/10/26

Is an upgrade needed: () yes () no

Site accessed by: ☒ public road () easement

If easement, is the easement legally recorded? () yes () no

Detailed Explanation of Request:

CUP to Reman Lumber and proposed
40' x 50' addition to existing shop.
8-5 monday thru Friday
1 hired employee

Did you meet with the Township Board to present the Application for Conditional Use Permit?

Yes ☒ No _____ Date of the meeting: 6/2/26

[Signature]
Optional Township Board Signature

chair
Board Position

Receipt # 2026-0273

Will the request create an excessive burden on the existing roads or other utilities? **Explain**

None

Is the requested use compatible with the surrounding properties? **Explain**

Yes

Could the use significantly depreciate near-by properties? **Explain**

NO loud noises

Will the structure and the use have an appearance that will not have an adverse effect on near-by properties? **Explain**

No adverse effect. some outdoor storage

Will the requested use create an adverse affect on near-by properties because of noise, odor, glare, hours of operation, or general unsightliness? **Explain**

No

**RETURN APPLICATION, SITE PLAN, SEWER INFORMATION AND ANY ADDITION
INFORMATION, AND FEE TO:**

Todd County Planning & Zoning Office
215 1st Ave South, Suite 103
Long Prairie, MN 56347

Fee: \$600.00 or After-the-Fact Fee: \$1,200.00 payable to "Todd County"

Only complete applications may be placed on an agenda

****A PARCEL IN JOINT OWNERSHIP MUST PROVIDE WRITTEN SIGNATURE OF ALL OWNERS****

Eli Bontroger
Applicant Name Printed

Eli Bontroger
Signature

6-27-26
Date

Property Owner Name Printed

Signature (If different than applicant)

Date

A Conditional Use Permit expires and is considered invalid unless they are substantially completed within thirty-six months of the date the CUP is granted by the County Board (Section 5.05(N) of the County Zoning Ordinance).

Site Plan

Outline how the intended use will be situated on the property including buildings, parking areas, signage, material storage areas, etc.

* see attached

07-0012600
ELI J & SUSIE
M BONTRAGER

26-0017300
ROMAN &
WILMA RABER

COUNTY 89

52' x 86'
Existing

Proposed
50'
40'

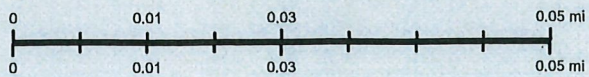
Sources: Esri, TomTom, Garmin, FAO, NOAA, USGS, © OpenStreetMap contributors, and the GIS User Community, 2023

Todd County
MINNESOTA



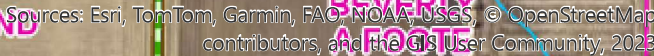
Todd County GIS
215 1st Ave S, Ste 102
Long Prairie, MN 56347
(Office) 320-732-4248

GIS Site Map



The Todd County GIS & Land Services Department has made every effort to provide the most accurate and up-to-date information available in this publication and cannot be held responsible for any unforeseen errors or omissions. If the recipient wishes to locate parcel corners and property lines, employ the services of a Registered Land Surveyor.

Printed on:
Wednesday, May 27, 2026





WHERE THE FOREST MEETS THE PRAIRIE

Todd County

• MINNESOTA • EST. 1855 •

PLANNING & ZONING
215 1st Avenue South, Suite 103
Long Prairie, MN 56347

Receipt # 2026-0274

SUBDIVISION APPLICATION

Property Owner: _____

JEFFREY A. HAWERSON

Mailing Address: _____

28220 SNOWSHOE TR. STAPLES, MN 56479

Email: _____

Phone: _____

Developer (if not property owner): _____

Mailing Address: _____

Email: _____

Phone: _____

Parcel Number

25-0018601

Lake/River Name: _____

Legal Description (attach if necessary):

Sect. 18 Twp 133 Range 32

S 300 Ft. of S2 SW 4

Land is presently zoned

R2 + Shoreland

Zone Requested or required

Total Amount of land involved: _____

2 1/2

Acres

(of original 16.98)

Explain Proposal Here:

2 lot plat

Proposed Name of Subdivision: _____

Plat of Halves

Yes ☒

No ☐

Contacted the Records Office to ensure plat name has not been previously used.

1. How will sewer and water service be provided for the proposed subdivision?

(a) Is the proposed subdivision near or adjacent to a municipality providing public sewer and/or water? Yes ☐ No ☒

SUB #2026-04

SCANNED

Received
JUN 12 2026
JCC
Todd County Planning
& Zoning

(b) Is private sewer proposed? Yes X No _____

If yes, attach a written report provided by a licensed sewer designer stating that they have conducted soil borings on each proposed lot and that there are at least two soil treatment areas on each lot that can support a standard sewage treatment system (STS). Documentation of the soil borings may be required.

(c) Is private water supply proposed? Yes X No _____

2. Do you own additional land adjacent to the proposed subdivision that you intend to develop in the future? Yes _____ No X

3. Did you meet with the Township Board to present the Preliminary Plat?

Yes X No _____ Date of the meeting: 4/14/26

[Signature]
Optional Township Board Signature

Chairman
Board Position

If the Developer is not the property owner, both signatures are required below.

JEFF HALUGERSON
Developer's Name Printed

[Signature]
Signature

5-4-26
Date

JEFF HALUGERSON
Property Owner Name Printed

[Signature]
Signature (if different than applicant)

5-4-26
Date

Attachments – Must be included to be accepted at the Planning & Zoning Office:

(1) Five (5) – 8 ½" by 14" or 11" by 17" copies and two (2) larger copies of the Preliminary plat.
or

(2) One (1) - 8 ½" by 14" or 11" by 17" digital copy in .pdf format

(3) Statement from a Licensed Septic Designer – locations on each proposed lot for placement of two standard soil treatment system.

**From Phil 2 soil borings 2 locations statement*
(4) Wetland Delineation or statement from a Certified Wetland Delineator that one is not necessary for this plat.

(5) Total fees. Plat hearing fee: Make checks payable to the Todd County Treasurer

(1) Plats with 1 to 4 lots are \$600 plus \$200 per lot = *\$800 (1-lot)*

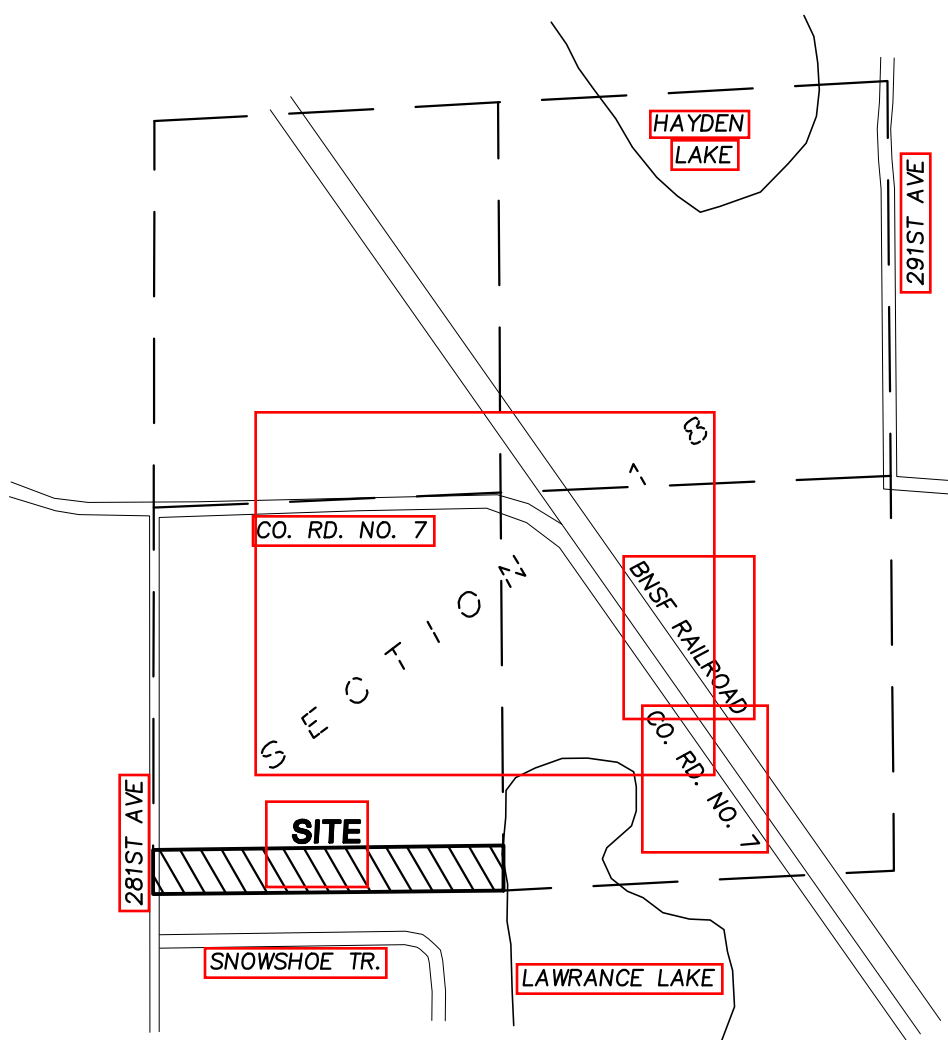
(2) Plats over 4 lots are \$1000 plus \$200 per lot

(3) ALL plats: \$56 recording fee submitted to Todd County Recorder's Office.

PRELIMINARY PLAT OF HALVES

STOECKEL-JAHNER SURVEYING FILE NO. 26-17502

VICINITY MAP
(NO SCALE)



SECTION 18, TOWNSHIP 133 NORTH, RANGE 32 WEST,
TODD COUNTY, MINNESOTA

DEVELOPMENT DATA:

OWNER & DEVELOPER:
Jeff Halverson
28220 Snowshoe Trail
Staples, MN 56479

SURVEYOR:
Stoeckel-Jahner Surveying Inc
1206 3rd Avenue East
Alexandria, MN 56308

EXISTING ZONING: Residential - 2 (R-2) and Shoreland (S) (NE)

SETBACKS: Rear Yard 20'
Side Yard 10'
Front yard 35'*
(*from county or township road right of way)
Lake Setback 150'

LOCATION: The south 300' of Section 18, Township 133 North, Range 32 West, Todd County, Minnesota.

Total area of Preliminary Plat = 16.39 Acres±

CONTOURS: Contours shown per Todd County Lidar.

LEGEND

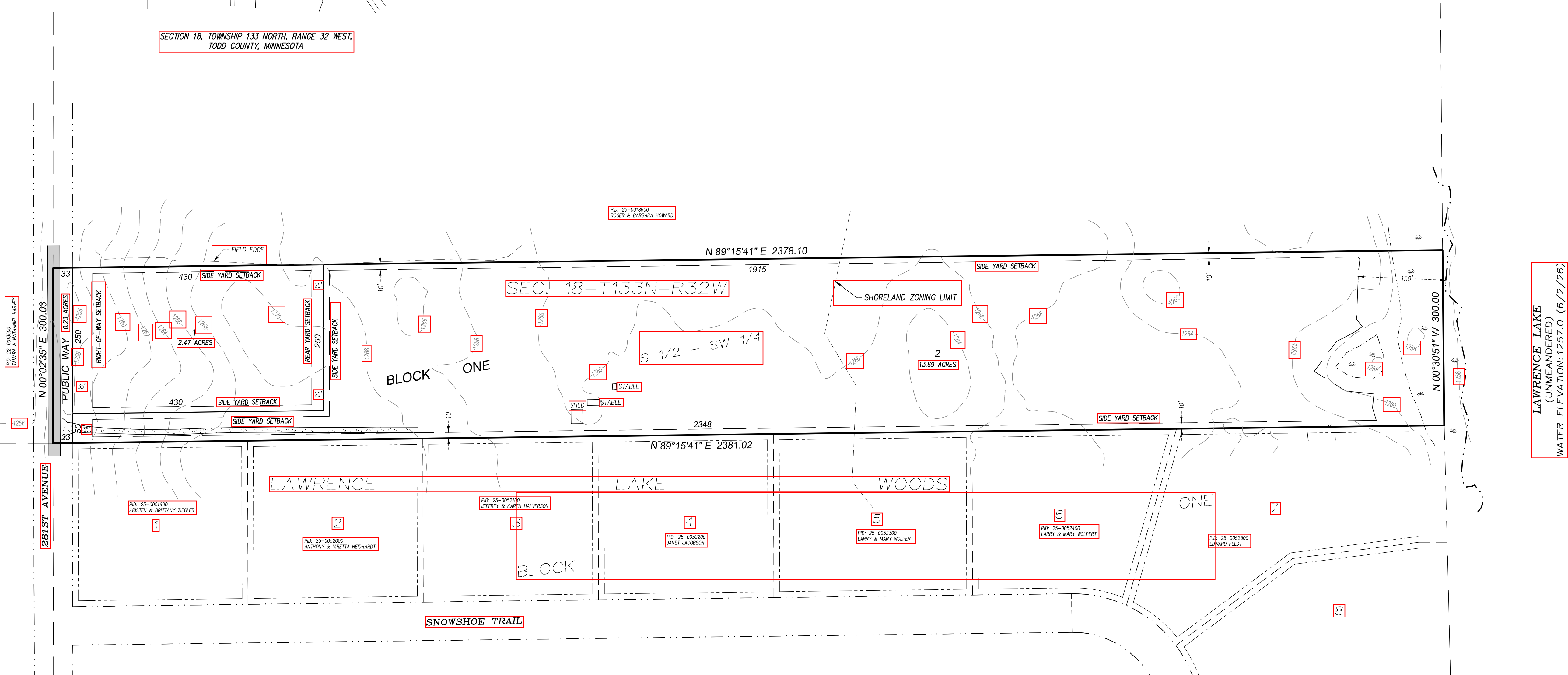
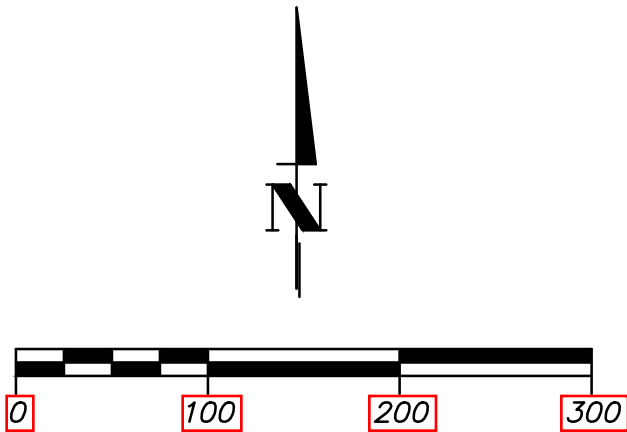
LIDAR CONTOUR

BITUMINOUS SURFACE

GRAVEL SURFACE

WIRE FENCE

NON-DELINEATED WETLAND



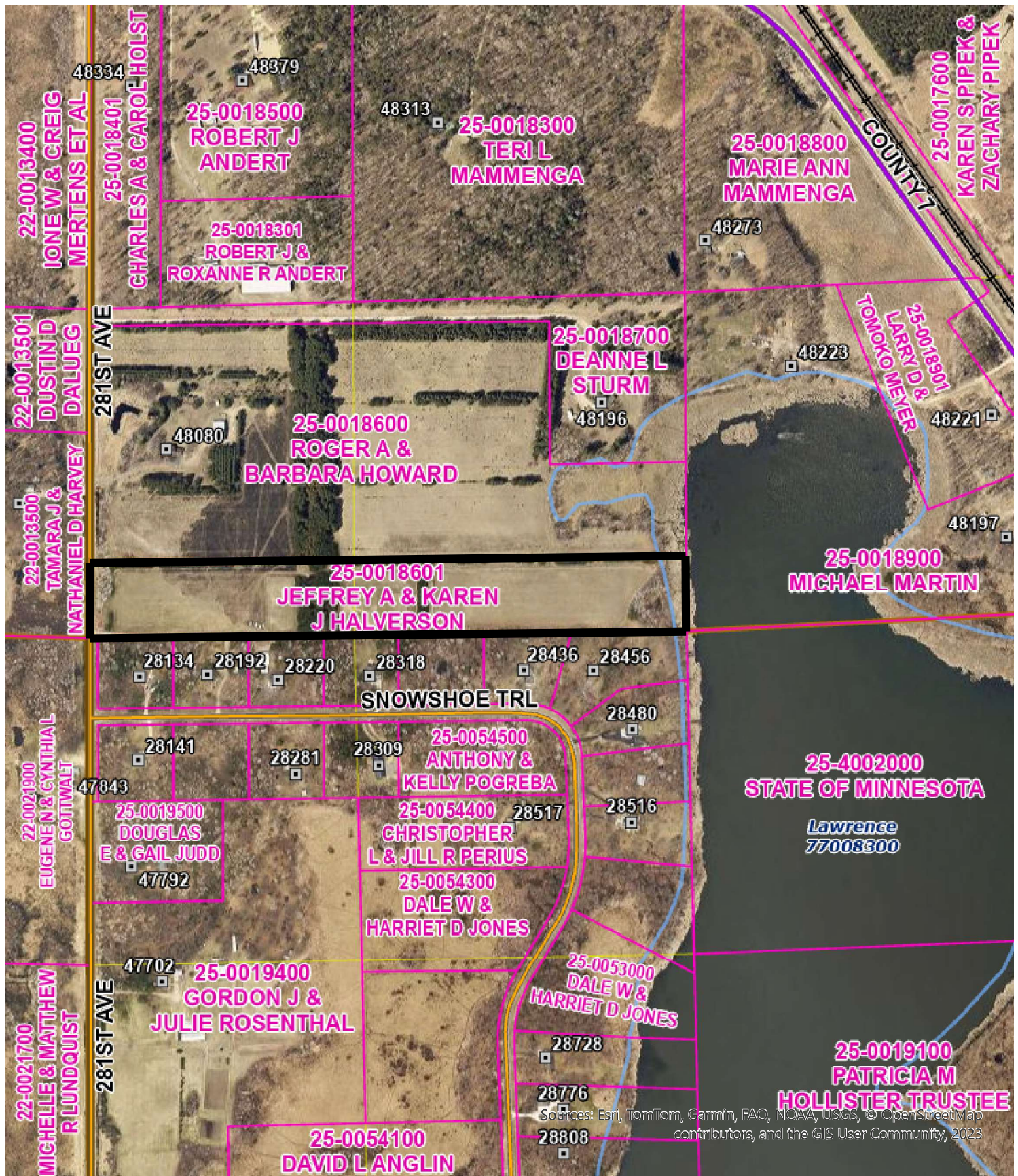
LAWRENCE LAKE
(UNMEASURED)
WATER ELEVATION: 1257.0 (6/2/26)

SEC. TWP. RANG. 18-133-32
DATE: 06-08-26
DRAWN BY: JMB
CHECKED BY: MEJ
FILE NUMBER: 26-17502

PREPARED FOR: JEFF HALVERSON

STOECKEL-JAHNER
LAND SURVEYING
...a division of JSD

I hereby certify that this survey, plan, or report was prepared by me or under my direct supervision and that I am a duly Licensed Land Surveyor under the laws of the State of Minnesota.
MARK F. JAHNER
LS 44493
06-08-2026
Date



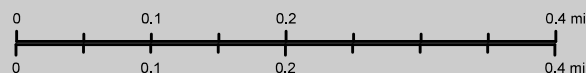
Sources: Esri, TomTom, Garmin, FAO, NOAA, USGS, © OpenStreetMap contributors, and the GIS User Community, 2023

Todd County
MINNESOTA



Todd County GIS
215 1st Ave S, Ste 102
Long Prairie, MN 56347
(Office) 320-732-4248

GIS Site Map



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Printed on:
Tuesday, June 9, 2026



COMPREHENSIVE PLAN

2026

*community-led planning
developed in partnership with*



REGION FIVE
Development Commission

ACKNOWLEDGEMENTS

Todd County acknowledges the dedication and volunteerism of its residents in updating this plan. This plan update represents the dedication of many community members who have invested their time, thought, and energy toward the future success of Todd County. This plan was directly developed by the following Planning Committee members, elected leaders, and city staff:

CITY STAFF

Adam Ossefoort, Todd County SWCD/P&Z Division Director
Jackie Bauer, County Coordinator

PLANNING COMMITTEE

Kevin Grondahl, Community Member
Anthony Berscheit, Community Member
Deja Anton, Community Member & SWCD Staff
Virgil Schmidt, Community Member
Delvin Durham, Community Member
Larry Bebus, Community Member
Ken Hovet, Community Member
Al Peters, Community Member
Julie Krause, Community Member
Andrew Stevens, Community Member
Savannah Winkler, Region Five Development Commission
Thomas Zimmermann, Region Five Development Commission
Angela Anderson, Region Five Development Commission



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Vision Statement

Where forest meets prairie, honoring rural heritage is just as important as opportunity. Todd County is committed to growth and creating a place where all generations can thrive.

Introduction

Todd County citizens and staff wanted to be intentional in creating a comprehensive plan to make Todd County even more prosperous. Through community engagement, surveys, and outreach, the plan represents a shared vision for the future and a strategic roadmap to achieve it.

The plan provides broad recommendations to guide and manage growth and development. These broad recommendations take the form of goals and action items that express the county's aspirations for the future. Efforts to implement the plan's vision, goals, and strategies began upon adoption.

This living document should be used as a guide for the day-to-day activities of commission members and staff. This plan should be easily accessible to elected and appointed officials, commissioners, staff, all Todd County residents, and visitors. Comprehensive Plans are intended to provide direction for a 10 to 15-year period. However, plans are most effective when reviewed annually and updated every five years.



How to Use This Plan

Todd County's Comprehensive Plan Update is divided into the following broad sections:

- Financial Assets – Access to Capital, Fiscal Transparency, Business Support, Public Investments
- Built Assets – Broadband, Transportation, Community Facilities, Housing
- Social Assets – Community Services, Childcare, Eldercare, Safety
- Individual Assets – Access to Health & Wellness
- Cultural Assets – Welcoming Communities, Opportunities for Innovation
- Political Assets – Zoning & Regulations, Governance, Land Use
- Social Assets – Access to childcare, Access to Eldercare, Community Services
- Environmental Assets – Energy Efficiency, Stormwater Management, Soil, Waste, and Parks & Recreation
- Intellectual Assets – Education Facilities, Specialized Knowledge, Learning Opportunities

Each section provides background information and goals developed based on community input. These goals are intended for a wide range of audiences and end users, including the commissioners, elected decision-makers, business owners, developers, permanent residents, seasonal residents, tourists, and prospective residents. We have tried to streamline this document as much as possible for the casual reader while providing enough specific information for the commission. To further describe the multi-faceted nature of this plan, the following list describes each of the users and how they might use this plan:

To further describe the multi-faceted nature of this plan, the following list describes each of the users and how they might use this plan:

1. GUIDE COUNTY OFFICIALS AND STAFF IN:
 - a. Communicating Todd County's vision for the future.
 - b. Establishing regulatory changes and permitting.
 - c. Acquiring and use of land.
 - d. Planning for capital improvement.
 - e. Development and infrastructure decisions.
2. GUIDE BUSINESSES, PROPERTY OWNERS, AND RESIDENTS IN:
 - a. Determining potential property use.
 - b. Understanding possible land use changes in the surrounding areas.
 - c. Establishing reasonable land use expectations.
 - d. Understanding future infrastructure improvements.
 - e. Improving and investing in property.
3. GUIDE DEVELOPERS WITH PROPERTY ACQUISITION AND THE COORDINATION OF PLANS WITH CITY GOALS, REGULATIONS, AND INFRASTRUCTURE PLANS.
4. ASSIST AND COORDINATE WITH NEIGHBORING JURISDICTIONS WITH ISSUES AND TOPICS OF MUTUAL INTEREST.

Authority to Plan

The State of Minnesota grants its communities the legal authority to adopt a Plan under the Municipal Planning Act (Minnesota State Statutes Sections 462.351 to 462.364). The Municipal Planning Act establishes a single, uniform procedure applicable to all cities. The Comprehensive Plan provides the legal framework to enact land use control and other municipal actions to implement long-term growth and development regulation strategies. Todd County's land-use (zoning) ordinances and official zoning map should be updated to conform to the Comprehensive Plan following its adoption.

Planning Process

In July 2024, Todd County contacted Region Five Development Commission (R5DC) requesting a proposal for professional technical assistance to help guide the planning process and facilitate meetings to update the county's Comprehensive Plan. The proposal was presented and approved by the Commission in October of 2024.

During 2024 and the start of 2025, the R5DC Team worked with county staff and officials to develop a local planning team tasked with guiding the planning process, attending the regular planning meetings, and providing key insights and expertise. The Team ensured that a process was implemented to gather community input and develop goals and strategies based on that input.

Public Informational Visioning Sessions – April 15 & 29, 2025 / May 1, 2025

Three public informational visioning sessions were held at various locations within Todd County. The first meeting was held in Browerville on April 15, 2025. The second meeting was held at Sourcewell in Staples on April 29, 2025. The final meeting was held at the Todd County Courthouse in Long Prairie on May 1, 2025. These meetings included a presentation from R5DC staff on what comprehensive planning is, its purpose, and how it can benefit communities; an asset mapping exercise; and a call to action to join the local planning team.

Local Planning Team

Following the public informational visioning sessions, R5DC and Todd County staff members requested volunteers to participate in the local planning team. Some members responded via this call to action, and others responded based on what they heard at the public informational kickoff meeting in April/May 2025. Once the local planning team was established, the group began meeting bi-monthly according to the timeline laid out by R5DC staff.

Dedicated Comprehensive Plan Update Webpage

With an emphasis on public and community engagement, the local planning team (LPT) directed staff to develop a webpage that would be easily accessible and dedicated to the comprehensive plan update. Here, residents unable to attend the local planning team meetings could stay informed of the planning process and would have access to all the meeting agendas, handouts, and summaries of the meetings, surveys, and outcomes. You can access this webpage at www.regionfive.org/todd.

Community Survey

One of the Local Planning Team's (LPT) first orders of business was to review the community survey and asset mapping exercise from the kickoff meeting. The LPT and R5DC staff carefully reviewed the individual responses to the 15-question survey that provided valuable community input for the planning team.

Discussion of Issues and Barriers

After many community discussions, at the visioning session and subsequent LPT meetings. Equipped with the community survey responses, the LPT focused on identifying community issues and barriers. R5DC facilitated a few LPT meetings dedicated solely to the topic of identifying issues. The LPT spent a considerable amount of time assessing the issues and barriers to appropriately identify solutions to the challenges that they identified throughout the planning process.

Development of Goals and Strategies

After collecting as much information as possible through the public informational visioning sessions, the development of a dedicated comprehensive plan webpage, the development of a local planning team, and the administration of a community survey, the LPT began to apply this information productively by developing goals and strategies to address the identified issues and barriers.

The LPT held a series of meetings aimed at identifying goals and strategies. The first meeting involved brainstorming a large list of projects. The following meeting focused on evaluating these projects for feasibility and actionability. This meeting also categorized items into topic areas like Built and Social. This led to a more concise list of goals and projects. Through this process, the LPT developed a categorized, prioritized, and actionable plan aligned with earlier community engagement, ready to be presented to the community and county board.



Community Character

Overview

Todd County was established in 1856 by the Minnesota Territorial Legislature. At that time, the county extended east to the Mississippi River, including Fort Ripley. Captain John Baines Smith Todd lent his name to the county as counties were named for prominent people in keeping with the custom of the times. Currently, Todd County has a population of 25,402 people. ^[1]

This plan seeks to use the most up-to-date information available. Some sources used in this plan include the 2023 U.S. Census Bureau, the Minnesota State Demographer's office, and a variety of other local sources. Among the data gathered were demographic information for community planning, including General Population (current and past), age, race, ethnicity, income levels, educational attainment, transportation volume, transportation costs, and transportation counts, among others.

It was the LPT's desired effort to not discard past planning efforts but rather build upon them and continue where those efforts left off. Therefore, staff and the LPT emphasized reviewing and using the previous 2009 comprehensive plan to the extent possible and where it made sense. Past goals were reviewed to determine if they had been accomplished, remained relevant for inclusion in this update, or were determined to no longer be relevant goals.

This document is a continuation of Todd County's ongoing planning process. The county has used this planning process as an opportunity to evaluate and reinforce the existing growth and development policies and to evaluate previous planning efforts to update and reinforce past decisions that are still valid. A major premise of this Plan, therefore, is to utilize portions of the previous comprehensive plan whenever applicable.



History

Origins and Founding

Todd County was established in 1856 by the Minnesota Territorial Legislature and named after Captain John Baines Smith Todd, who commanded Fort Ripley at the time. Following Minnesota's statehood in 1858, county boundaries were adjusted, resulting in the formation of Morrison County to the east. Todd County was fully organized by 1867, and its boundaries have remained unchanged since that time.

Long Prairie played an early and important role in the region's history, serving as the site of the Winnebago Indian Agency beginning in 1845. The Winnebago people were relocated to the area as a buffer between the Dakota and Ojibwe nations before being moved again in the mid-1850s.

The county's civic development was solidified in the late 19th and 20th centuries with the establishment of permanent county facilities in Long Prairie. The original courthouse was constructed in 1883, followed by jail and government expansions that culminated in the current Government Center and Law Enforcement/Detention Center complex.

Geographically, Todd County is located near the center of Minnesota and lies within a transition zone where eastern forests meet western prairies. The county encompasses approximately 631,000 acres of land, including more than 27,000 acres of lakes. Today, Todd County is governed by a five-member County Board and includes 28 townships, and 12 cities, with Long Prairie serving as the county seat. ^[2]

Population

This table shows the changes in population that have taken place from 2016 to the 2023 census for Todd County, surrounding counties, and the State of Minnesota. ^[3]

	2016	2017	2018	2019	2020	2021	2022	2023
Todd County	24,500	24,500	25,402	25,262	24,894	25,353	25,500	24,402
Wadena County	13,800	13,700	13,773	14,065	14,065	14,146	14,307	14,135
Douglas County	37,000	38,006	38,006	37,513	39,006	39,312	39,668	39,874
Cass County	28,663	28,810	29,022	29,268	29,462	29,917	30,066	31,446
Crow Wing County	63,757	64,324	64,957	65,191	65,644	67,270	67,884	68,304
State of Minnesota	5,525,360	5,569,283	5,608,762	5,640,053	5,706,494	5,717,968	5,714,300	5,737,915

Trends and Future

Demographics and Trends

In 2024, Todd County had a population of 25,955 residents. Since 2020, the county has grown by 693 people, representing a 2.7% increase and ranking 19th in growth statewide during that period. While growth has been modest, it has been steady. Todd County's median age is 42.8, compared to the statewide median of 38.6, reflecting a somewhat older population profile. A significant share of residents are age 55 and older, as the Baby Boom generation continues to move through the population structure.

Todd County's population structure is characterized by a relatively small young adult cohort and a large older adult population. In 2024, 15.4% of residents were ages 55–64, 12.8% were 65–74, and 7.2% were 75–84, while only 6.6% were under age 5. This distribution underscores a long term demographic shift toward an older population. The county experienced both natural increase (338 more births than deaths) and net in migration (360 new residents), including 73 international migrants, between 2020 and 2024. Todd County is also slowly diversifying, with the foreign born population increasing by 296 (34.9%) from 2013 to 2023.

According to the Minnesota State Demographic Center, Todd County's population is projected to grow from 26,077 residents in 2025 to 27,853 in 2035, a 6.8% increase. The most significant growth is expected among older adults. Residents aged 75–84 are projected to increase by 39.7%, and those 85+ by 36.5%, while the 55–64 age group is projected to decline 15.7%. These shifts will place increasing demands on healthcare, senior housing, transportation services, and age friendly community infrastructure. It will also have implications for schools and other community resources for youth, as student populations stabilize or decline.

Todd County's workforce reflects its aging demographic profile. In 2023, the county had 11,968 available workers, a labor force participation rate of 60.3%, and an unemployment rate of 4.5%, slightly above the statewide 3.9%. Labor force growth has slowed over time, with the county averaging a loss of workers annually since 2010. However, projections indicate modest growth ahead: the labor force is expected to increase from 12,004 workers in 2025 to 12,529 in 2035. Growth will be concentrated among younger and mid career workers, while the number of workers aged 55–64 is expected to decline. This trend highlights the importance of workforce retention, training, and strategies to attract new residents.

Todd County remains a predominantly White community, with 87.9% of residents identifying as White alone. Other racial and ethnic groups make up a small but meaningful portion of the population. Residents identifying as Two or More Races account for 9.0% of the population, making it the largest non White group in the county. Smaller groups include Black or African American residents at 0.7%, Asian or Pacific Islander residents at 0.7%, and American Indian or Alaska Native residents at 0.2%. Todd County also has a growing Hispanic or Latino community, which now represents 9.2% of the total population. While the county's foreign born population remains relatively small at 4.5%, most foreign born residents originate from Latin America, with 78.7% of the foreign born population coming from that region. ^[4]

Financial Assets - Access to Capital, Fiscal Transparency, Business Support, and Public Investments

Overview

Financial stewardship is essential to ensuring Todd County can continue to provide services, maintain infrastructure, and invest in future priorities. Responsible planning requires balancing community needs with available resources, long-term sustainability, and fiscal transparency. As service demands evolve and costs increase, thoughtful financial planning helps ensure public investments are strategic, equitable, and aligned with community values. A strong financial foundation supports the county's ability to respond to changing conditions, pursue grant opportunities, and deliver services efficiently across urban and rural areas.

Goals and Strategies

1. Strengthen countywide identity and promote Todd County as a destination to live, work, and visit.

This looks like:

- a. Launch a collaborative marketing task force with local businesses, cities, chambers, and tourism groups.
- b. Explore funding models such as tourism tax or voluntary business contributions (½%) for branding and promotions.
- c. Develop a countywide brand and slogan, and apply it across signage, events, and digital platforms.



2. Improve interconnection between businesses and industry sectors.

This looks like:

- a. Map economic interdependencies (agriculture, healthcare, education, manufacturing, etc.) to better support local economies.
- b. Support workforce training partnerships between schools and businesses.
- c. Include small-scale business and rural entrepreneur voices in economic development planning

3. Improve financial transparency through increased public understanding of county investments.

- a. Provide easy-to-understand summaries (without acronyms) explaining how county funds are allocated.
- b. Increase public awareness of a resident-facing annual “Where Your Tax Dollars Go” report, showing investments in schools, roads, emergency services, and community facilities.
- c. Clarify county-level “investment buckets” and budget priorities in plain language.
- d. Create and market communication tools to help residents view and understand the county’s business plan and long-term fiscal goals.

Built Assets – Broadband, Transportation, Community Facilities, and Housing

A well-designed built environment provides the foundation for Todd County’s long-term growth, connectivity, and quality of life. Investment in housing, broadband, transportation networks, and community facilities helps ensure that residents across urban and rural areas have access to essential services, reliable infrastructure, and safe, efficient mobility.

This section focuses on expanding housing opportunities, strengthening digital and transportation connectivity, and maximizing the use of public facilities through coordinated planning and partnerships. By supporting well-maintained infrastructure and strategically guiding future development, Todd County can enhance economic vitality, improve service delivery, and create resilient communities for current and future generations.

Issues we’ve heard:

1. Transportation & Mobility:
 - Limited public transportation options, including requests for expanded hours, routes, and ride-share options.
 - Safety concerns related to Amish buggies, farm equipment, and narrow road shoulders.
 - Request for wider shoulders, improved signage, and better speed control on county roads.
 - Lack of sidewalks and safe walking infrastructure in many communities.
 - Limited trail connections between towns and communities.
2. Broadband & Digital Connectivity
 - Inconsistent broadband and cell coverage in rural areas.
 - Dependence on expensive satellite internet in underserved areas.
 - Limited competition among providers, leading to service and affordability concerns.
 - Frustration over delayed or unmet broadband expansion promises.

3. Housing:

- Strong demand for affordable rental housing and workforce housing.
- Limited senior housing options in smaller communities.
- Need for housing options for young families and first-time homebuyers.
- Vacant and deteriorating homes and buildings in small towns.
- Concerns about housing development impacting farmland and natural areas.

4. Community Facilities & Public Spaces

- Limited access to community centers and recreational facilities in rural areas.
- Aging parks, buildings, and facilities in need of upgrades.
- Requests for more youth- and family-friendly amenities (splash pads, skate parks, pools and public swim areas, bike trails, teen spaces).
- Limited programming hours and accessibility.
- Underutilized downtown buildings and vacant properties.

Positives we've heard:

- Many residents find it easy to travel by car within the county.
- Appreciation for generally well-maintained county roads.
- Recognition of existing trail systems in some communities, such as Staples.
- Strong recognition of broadband as essential to daily life and economic participation.
- Support for continued investment in fiber and digital infrastructure.
- Appreciation for existing single-family neighborhoods and homeownership opportunities.
- Interest in balanced housing development that reflects community needs.
- Support for mixed-use and walkable development in more populated areas.
- Positive feedback on local libraries and existing community centers.
- Recognition that many facilities are functional and meet current needs.
- Support for expanding recreational amenities and outdoor spaces.



Broadband

Overview

Access to reliable, high-speed broadband is essential for Todd County's economic competitiveness, quality of life, and access to services. Broadband supports remote work, education, healthcare, public safety, and business development, particularly in rural areas where service distances are greater.

Availability and quality of service can vary across the county, creating challenges for residents, businesses, and service providers. Planning for broadband focuses on improving access, reliability, and understanding of service options while coordinating with regional partners and infrastructure providers to support long-term connectivity.

Goals and Strategies

1. Improve broadband and cell service across the county.

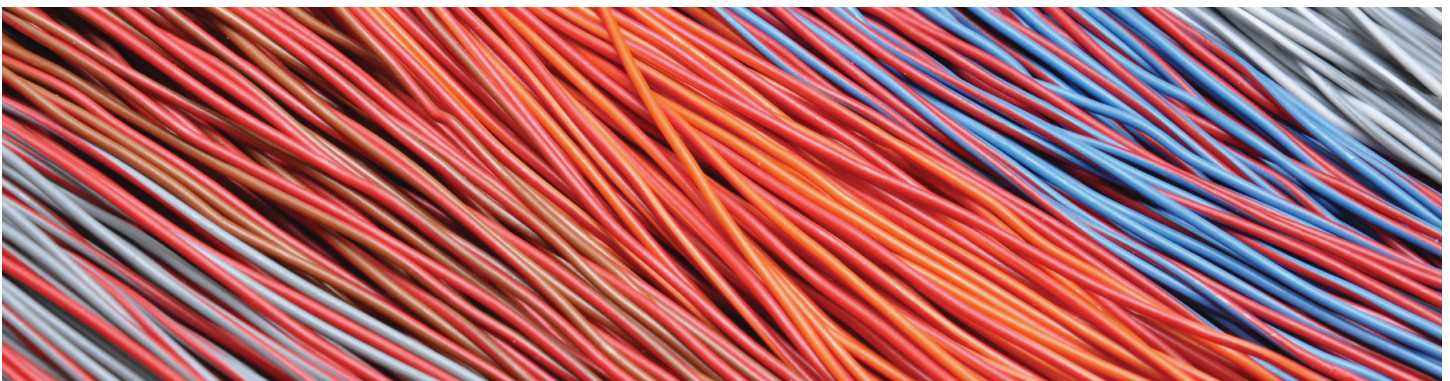
This looks like:

- a. Partner with local internet service providers to complete broadband buildouts, prioritizing underserved rural areas.
- b. Advocate at the state and federal levels for funding and policy support.
- c. Ensure that broadband access is factored into all economic development and housing plans.
- d. Provide community education on high-speed broadband and digital connectivity, including its role in education, entertainment, commerce, communication, and employment.
- e. Highlight the role of broadband in public safety, emergency communication, and community security through access to modern technology and connected systems.

2. Improve broadband and cell service across the county.

This looks like:

- a. Provide residents with information on government and provider assistance programs for low-income households.
- b. Promote affordable broadband options available through state, federal, or provider programs.
- c. Work with schools, libraries, and employers to connect residents to low-cost internet resources.
- d. Align broadband accessibility efforts with workforce training, housing, and digital literacy programs.



Transportation

Overview

Todd County's transportation system connects residents to jobs, education, healthcare, recreation, and regional destinations. Roads, highways, trails, and transit services all contribute to mobility across a largely rural landscape. Safe and reliable transportation is especially important for residents who travel longer distances for essential services.

Transportation planning in Todd County must balance safety, accessibility, maintenance, and connectivity while coordinating with local, regional, and state partners to support both daily travel and long-term growth.



Input & Data

As in most counties, the network of roads is a partnership between several jurisdictions, including its townships, cities, and the State of Minnesota and neighboring counties. When discussing highways and roads, functional classification is the grouping of streets and highways into classes or systems according to the character of service they are intended to provide. Basic to this process is the recognition that most travel involves movement through a network of roads. Functional classification defines the role that any road or street plays in serving the flow of trips through an entire network.

Federal, State and Local Programs, Plans and Planning

The Statewide Multimodal Transportation Plan is Minnesota's highest-level policy plan for transportation. It is a 20-year plan based on "Minnesota GO", a vision of a transportation system that maximizes the health of people, the environment, and our economy. The plan is for all types of transportation and all transportation partners. It covers more than just roadways and applies to more than just the Minnesota Department of Transportation. It evaluates the status of the transportation system, what is changing, and how we will move forward over the next twenty years. The Statewide Multimodal Transportation Plan was updated as of January 2017. You can read the plan at <https://minnesotago.org/final-plans/smtp-final-plan-2017>

10-Year Capital Highway Investment Plan (CHIP)

The 10-year Capital Highway Investment Plan details MnDOT's capital highway investments for the next ten years on the state highway network. The CHIP is updated yearly to remove projects that are being constructed, adjust the timing of existing planned projects, and add new planned projects. The primary purpose of the document is to communicate programmed and planned capital highway projects over the next 10 years. The document serves as a check to ensure that MnDOT is meeting the investment levels and performance outcomes identified in MnDOT's 20-year State Highway Investment Plan, MnSHIP, and explains any change in direction or outcomes from the investment direction. ^[5]

4-Year Statewide Transportation Improvement Program (STIP)

The STIP is a federally required public document that lists Minnesota's four-year transportation improvement program. The STIP includes all state and local transportation projects that use federal highway and/or federal transit funding, as well as state transportation projects that use 100% state funds. The STIP includes the cost, schedule, and funding sources for the identified projects. The STIP is developed annually and updated throughout the year to reflect significant changes in the program. In addition to federal highway and transit projects, the STIP includes rail and port projects for informational purposes.^[6]

Goals and Strategies

1. Promote pedestrian and bike access throughout the county.

This looks like:

- a. Invest in community trail development and expand connections between towns.
- b. Prioritize sidewalk improvements in towns with aging infrastructure.
- c. Create signage, maps, and promotional materials to highlight walkable and bike-friendly routes.

2. Expand transportation options for all residents, especially seniors, non-drivers, and rural communities.

This looks like:

- a. Work with regional partners to enhance rural bus routes, (e.g., Friendly Rider / Rainbow Rider) and extend hours.
- b. Explore the feasibility of ride-share partnerships, taxi cooperatives, or volunteer driver programs.
- c. Create dedicated lanes or safer shoulders on busy roads for buggies, bikes, and farm equipment.

3. Strengthen the transportation workforce and service capacity.

This looks like:

- a. Recruit volunteer drivers and promote ride-share options for medical appointments and essential trips.
- b. Partner with regional transit providers to expand coverage and reliability.
- c. Collaborate with high schools and technical colleges to offer CDL training, identifying funding to offset student costs.
- d. Evaluate the feasibility of a county transportation resource hub (digital or in-person) to connect residents with available services.
- e. Support Public Works staff in forming collaborations with townships, cities, and state highway departments to enhance transportation services.

Community Facilities

Overview

Community facilities serve as important gathering places and service hubs throughout Todd County, supporting civic life, recreation, public services, and emergency response. Facilities such as county courthouses, community centers, libraries, parks, and public buildings contribute to community identity and quality of life. As needs change over time, facilities must remain accessible, functional, and adaptable. Planning for community facilities helps ensure these spaces continue to meet resident needs while supporting collaboration and efficient use of public resources.



Goals & Strategies

1. Leverage county-owned facilities and partnerships.

This looks like:

- Explore innovative uses of county-owned fairgrounds, parks, and trails to support tourism and local business activity.
- Create marketing campaigns in partnership with chambers of commerce and business leaders to attract investment and events.
- Convene business owners, civic leaders, and county representatives regularly to align strategies for economic growth.

Housing

Overview

Housing plays a critical role in supporting Todd County's residents, workforce, and long-term economic stability. A diverse, accessible, and well-maintained housing supply is essential to meeting the needs of residents at all life stages, from young families to seniors aging in place.

Housing challenges and opportunities vary across the county's cities, townships, and rural areas, requiring flexible and locally responsive solutions. As demographic trends shift and workforce needs evolve, thoughtful housing planning will help ensure that Todd County remains a place where residents can live, work, and live out their lives.

Input & Data

A county's housing landscape and needs can be determined by the population living in the community and the current availability of housing. Todd County's current housing landscape and data include:

- A median age of 42.8 years, compared to 39.2 for the State of Minnesota. ^[7]
- The median value of owner-occupied units of \$200,000 – \$299,999. ^[7]
- A majority of residents in Todd County are owner-occupied with 83.1% of the residents owning their homes, compared to 71.6% for the State of Minnesota. ^[7]

Goals and Strategies

1. Expand access to diverse, affordable housing options across the county.

This looks like:

- a. Work with local developers and non-profits to encourage a mix of housing types (senior living, workforce housing, rentals, townhomes, single-family, entry-level, nontraditional, etc.).
- b. Support the renovation and reuse of vacant or deteriorated housing in small towns to attract new residents.
- c. Explore housing incentive programs for first-time homebuyers, seniors, and low-to-moderate income families.
- d. Ensure new development aligns with infrastructure and services and does not negatively impact natural resources.

2. Address housing needs of vulnerable and aging populations.

This looks like:

- a. Partner with healthcare providers, senior advocates, and service agencies to plan for more senior housing.
- b. Support independent living options near groceries, medical clinics, and transit.
- c. Advocate for housing designs that are accessible, energy-efficient, and affordable to maintain.

3. Consider the ability to increase access to housing through creative reuse and partnerships.

This looks like:

- a. Identify vacant or underutilized buildings/infrastructure that could be repurposed for housing or replaced with new housing infrastructure.
- b. Partner with local developers, chambers, and business owners to explore housing opportunities.
- c. Study successful housing initiatives in nearby communities and apply lessons learned.
- d. Prioritize housing types that attract and retain young families, including affordable starter homes and family-friendly rental options.



Social Assets – Access to Childcare, Community Services, Safety, and Eldercare

Social systems play a vital role in supporting the daily lives, well-being and resilience of Todd County residents. Access to childcare, eldercare, and community services influences workforce participation, family stability, aging in place, and overall quality of life. Volunteer fire and medical response teams are also a key part of this social fabric, reflecting the strong community networks and shared responsibility that underpin Todd County's social capital. These volunteer departments play an essential role in local emergency preparedness and are typically central partners in hazard mitigation planning. Needs can vary widely across cities, townships, and rural areas, requiring flexible and locally responsive approaches.

Access to Childcare

Overview

Access to reliable, affordable childcare is essential for working families and for the overall economic health of Todd County. Childcare availability influences workforce participation, business retention, and family stability. It also intersects with broader community priorities, including economic development, workforce sustainability, education outcomes, and overall quality of life.

Expanding access to affordable, high-quality childcare supports not only individual families but also the long-term vitality of Todd County. Strategic partnerships, provider support, and employer engagement will be critical to strengthening the local childcare system and ensuring it remains responsive to community needs.



Goals and Strategies

1. Increase access to affordable, high-quality childcare throughout Todd County.

This looks like:

- Explore public-private partnerships or use underutilized buildings (e.g., community centers or schools) to expand licensed care.
- Provide resources and startup support for in-home providers (grants, training, business tools, etc.)
- Work with employers to encourage family-friendly workplace policies that support childcare needs.

Access to Eldercare

Overview

As Todd County's population ages, providing services and environments that support older adults becomes increasingly important. Eldercare includes access to healthcare, housing options, transportation, social connection, and supportive services that allow residents to age with dignity and independence. Planning for eldercare helps communities anticipate future needs, strengthen regional partnerships, and ensure seniors remain active and valued members of their communities.

Goals and Strategies

1. Strengthen support services for seniors and caregivers.

This looks like:

- a. Expand volunteer driver programs and transportation options for seniors, especially in rural areas.
- b. Promote in-home care, Meals on Wheels, and respite care services for aging residents.
- c. Increase collaboration among senior centers, healthcare, and faith-based organizations.
- d. Support multi-generational living by encouraging housing options that allow extended families to live together, reducing the need for senior support services and caregivers.

Community Services

Overview

Community services contribute to the social fabric of Todd County by supporting residents through programs, resources, and opportunities for connection. Services such as recreation programs, food assistance, libraries, and community events help meet daily needs and foster a sense of belonging. As communities grow and change, service needs may shift. Long-term planning helps ensure services remain accessible, coordinated, and responsive to residents across both incorporated and rural areas.

Goals and Strategies

1. Improve availability and visibility of mental health services.

This looks like:

- a. Support mobile mental health units or satellite clinics in underserved areas.
- b. Launch a public campaign to reduce stigma and normalize mental health conversations.
- c. Encourage coordination between schools, healthcare providers, and law enforcement for mental health crisis options.

2. Increase the number and long-term sustainability of volunteers within medical and fire departments serving Todd County's small communities.

This looks like:

- a. Develop targeted recruitment strategies to address anticipated retirements and maintain service quality and response times.
- b. Partner with local school districts to build awareness of emergency service careers, while ensuring pathways support continued education and workforce development.
- c. Create mentorship and transition programs that pair retiring volunteers with new recruits to preserve institutional knowledge and strengthen readiness.
- d. Explore incentives such as stipends, tuition reimbursement, flexible scheduling, or tax credits to attract and retain volunteers.
- e. Increase public awareness of the community impact and personal benefits of volunteer service through coordinated outreach campaigns.



Individual Assets – Health & Wellness

Overview

The health and wellness of Todd County residents play a vital role in fostering a thriving and connected community. Access to healthcare services, recreational opportunities, and wellness programs contributes to the overall quality of life and long-term sustainability.

Recreational spaces, trails, and parks provide opportunities for physical activity and community engagement. By investing in health and wellness infrastructure and programs, Todd County aims to foster a supportive environment where all residents can lead healthy, active lives.

Health & Wellness

Overview

Access to health and wellness services is essential to supporting the physical, mental, and social well-being of Todd County residents. Healthcare access can vary across the county due to distance, transportation, and service availability. Beyond medical care, wellness is influenced by access to recreational opportunities, nutritious foods, safe environments, and supportive community spaces. Planning for health and wellness focuses on reducing barriers, supporting preventative care, and creating environments that promote healthy lifestyles for residents of all ages.

Goals and Strategies

1. Support equitable access to healthy food and healthcare.

This looks like:

- a. Expand mobile food pantries and farmers market access
- b. Promote community gardens and food-growing education.
- c. Work with clinics to identify gaps in rural health access.

2. Promote active living and community well-being.

This looks like:

- a. Enhance walking paths, playgrounds, splash pads, and fitness zones.
- b. Promote year-round events and programming at parks and libraries.
- c. Encourage community wellness challenges or health fairs.
- d. Offer tours of active living resources in the area.

3. Strengthen rural healthcare services by retaining and recruiting medical providers.

This looks like:

- a. Partner with regional healthcare systems, medical schools, and training programs to support rural residency placement, internships, and recruitment pipelines.
- b. Promote Todd County's small-town healthcare model and strong community relationships as a competitive advantage when attracting healthcare professionals.
- c. Work with local clinics, hospitals, and pharmacies to identify barriers to provide retention and develop strategies to improve long-term stability.
- d. Monitor access to pharmaceutical services and support efforts to maintain or expand local pharmacy options, especially in underserved communities.
- e. Explore housing, spousal employment and community integration initiatives that help healthcare providers establish long-term roots in the county.

Cultural Assets – Opportunities for Innovation, Welcoming Communities

Culture shapes how people experience, connect to, and take pride in their communities. In Todd County, cultural identity is influenced by local history, traditions, creativity, volunteerism, and the shared values that bring residents together. Cultural assets—such as community events, arts, historic places, local businesses, and public spaces—contribute to the quality of life and strengthen a sense of belonging across the county’s cities, townships, and rural areas.

A strong cultural foundation also supports welcoming communities and encourages innovation by fostering connection, collaboration, and new ideas. As Todd County continues to evolve, cultural planning focuses on honoring local character while creating inclusive environments where residents of all ages and backgrounds feel welcome and engaged. Thoughtful attention to culture helps strengthen community identity, support creativity, and ensure that growth and change reflect the values of those who live and work in Todd County.

Opportunities for Innovation

Overview

Innovation in Todd County often emerges through collaboration, creativity, and adaptive use of existing resources. Innovation supports resilience by helping communities respond to changing demographics, economic conditions, and service needs. Opportunities for innovation may include new partnerships, technology adoption, shared services, or reimagined spaces. Planning for innovation encourages practical, community-driven solutions that align with local values and long-term sustainability.

Goals and Strategies

1. Support grassroots community events and volunteerism.

This looks like:

- a. Create a small grant or mini-sponsorship fund for resident-led community gatherings
- b. Establish and maintain a countywide cultural events calendar.
- c. Encourage inter-town partnerships for shared events and services (e.g., rotating festivals, youth programs).

Welcoming Communities

Overview

Welcoming communities are those where residents feel connected, respected, and included. Todd County’s communities are shaped by strong local identities, volunteerism, and a shared sense of place. Fostering welcoming environments involves communication, community engagement, and opportunities for residents of all backgrounds and ages to participate. Planning for welcoming communities helps strengthen social connections and ensures all residents feel invested in the county’s future.

Goals and Strategies

1. Foster inclusivity and cultural connection.

This looks like:

- a. Organize multicultural events, festivals, or “Todd County Unity Days” to celebrate the diversity of communities.
- b. Consider developing a New Resident Toolkit/Welcome Packet introducing county services, events, and cultural resources.

- c. Provide cross-cultural and anti-bias training for public employees and boards.
- d. Showcase diversity in countywide marketing campaigns and outreach.
- e. Incorporate flexible engagement opportunities to account for differing working hours among residents (e.g., evening events, rotating meeting times, online participation options).

2. Strengthen language access, English learning pathways, and communication.

This looks like:

- a. Assess community demand for translation services across public meetings and documents.
- b. Provide multilingual communication for critical county information (safety, health, permits, zoning).
- c. Partner with schools, nonprofits, and businesses to strengthen translation and interpretation resources.
- d. Promote English and second-language learning opportunities offered by adult education programs, libraries, nonprofits, and schools – position as “bridging program” to strengthen communication between new residents and English-speaking community members.
- e. Provide access to interpretive services, including online or AI-assisted interpretation tools.
- f. Ensure that both translation services and English language learning are supported, recognizing that:
 - i. Languages are not learned overnight, and
 - ii. Access to interpretation is essential to navigating county systems.

Political Assets – Zoning & Regulations, Governance, Land Use

Overview

Political systems and governance provide the framework through which planning decisions are made, services are delivered, and community priorities are implemented. In Todd County, effective governance depends on coordination between the County, cities, townships, regional partners, and residents. Transparent processes, clear policies, and consistent communication help build public trust and support informed decision-making.

Political planning also includes land use regulation, intergovernmental coordination, and the processes that guide growth, development, and public investment. As Todd County plans for the future, attention to governance focuses on maintaining accessible and understandable decision-making processes, aligning policies with community values, and ensuring that regulations and procedures support long-term sustainability, economic vitality, and quality of life across both urban and rural areas.

Zoning & Regulations

Goals and Strategies

1. Prioritize education and public awareness on county services and regulations.

This looks like:

- a. Create a unified public education campaign (print, radio, online, video, in-person) around zoning, water, and land use.
- b. Update the county website to be more user-friendly, especially for permitting, regulations, and resources.
- c. Use newsletters, local radio, community events, and bilingual communication to reach all residents.

- d. Develop and implement a proactive, multi-platform communication strategy to educate residents in advance of major changes and promote clear, consistent public messaging.
- e. Provide simple guides explaining what each county department does and how to contact them.

2. Improve transparency and consistency in county decision-making.

This looks like:

- a. Summarize meeting minutes and decisions in plain language and distribute via a community update.
- b. Use a Q&A approach to explain controversial topics (e.g., feedlots, environmental regulations) and clarify who regulates what.
- c. Maintain a public calendar of opportunities for community input or engagement.

Governance

Overview

Governance in Todd County is carried out through public leadership, intergovernmental collaboration, and policy decisions that guide the County's direction and priorities. County officials are responsible for representing residents, stewarding public resources, and ensuring that services are delivered effectively and transparently.

Strong governance depends on clear communication, regional and state partnerships, and active participation in professional and legislative networks. Coordinated engagement with townships, cities, neighboring counties, and state and federal partners helps align local priorities with broader policy and funding opportunities. Clear and consistent governance practices strengthen accountability, build public trust, and support the County's long-term strategic goals.

1. Strengthen Todd County's regional and state-level advocacy capacity to advance local priorities and secure strategic partnerships.

This looks like:

- a. Maintain active participation and leadership within organizations such as Association of Minnesota Counties and Minnesota Rural Counties to elevate Todd County's voice in statewide policy discussions.
- b. Establish regular engagement with state and federal legislators to communicate county priorities, funding needs, and emerging challenges.
- c. Collaborate with neighboring counties to identify shared legislative priorities and coordinate advocacy efforts for greater regional influence.
- d. Encourage each county department to maintain active membership and participation in relevant professional associations or policy committees to strengthen subject-matter representation.

Land Use

Overview

Land use in Todd County is shaped through public policy decisions that guide how land is developed, preserved, and regulated over time. The County uses planning and zoning authority to balance private property rights with community goals related to growth, infrastructure, natural resources, and public services.

Land use policies are implemented through ordinances, maps, and review processes in coordination with townships, cities, and partner agencies. Clear and consistent land use direction helps ensure transparency, predictability, and alignment with long-term county priorities.

Goals and Strategies

1. Promote education and awareness around agriculture and land use policies.

This looks like:

- a. Develop easy-to-understand public materials that explain existing agriculture regulations and responsibilities.
- b. Host annual “Ag & Environment Open Houses” in partnership with local producers and Soil & Water Conservation District staff.
- c. Create short videos or infographics about common misconceptions in agriculture and zoning.

Environmental Assets - Energy Efficiency, Stormwater Management, Soil, Waste, and Parks & Recreation

Overview

Todd County’s natural environment is a defining asset, shaping both community character and quality of life. Lakes, rivers, parks, farmland, and open spaces contribute to the county’s rural identity and recreational opportunities. Environmental stewardship and community beautification efforts help protect these resources while enhancing the appearance of communities, corridors, and public spaces. As development and infrastructure needs evolve, thoughtful planning can support clean water, healthy ecosystems, and visually appealing places that reflect community pride.

Implementation of these priorities is strengthened through coordination with adopted plans and policies, including the County’s Local Water Plan, Hazard Mitigation Plan, and related watershed and resource management plans. Aligning environmental decisions with these guiding documents promotes resilience, protects public investments, and ensures a consistent, long-term approach to natural resource stewardship.

Goals and Strategies

1. Support local farmers and protect farmland while addressing environmental concerns.

This looks like:

- a. Encourage voluntary conservation practices like cover cropping, no-till farming, and rotational grazing.
- b. Promote incentives for landowners who implement runoff control and water quality protection measures.
- c. Collaborate with lake associations and water boards to develop joint education and restoration initiatives.

2. Support local farmers and protect farmland while improving shared understanding of water quality impacts.

This looks like:

- a. Encourage voluntary conservation practices such as cover cropping, no-till farming, rotational grazing, and other soil health practices.
- b. Offer incentives for landowners who implement runoff control and water quality protection measures.
- c. Collaborate with lake associations, watershed districts, MPCA, and DNR to align water quality efforts and ensure shared understanding.
- d. Develop joint education initiatives that explain the connection between agricultural practices and lakeshore impacts – and vice versa.
- e. Promote collaborative messaging, emphasizing that:
 - i. Many farmers already follow conservation, and
 - ii. Lakeshore property owners do significantly impact water quality through lawn care, shoreline alteration, and stormwater runoff.
- f. Create clear communication materials about natural processes affecting land and water – and responsibilities for each group.

3. Raise public awareness of water quality concerns and responsibilities.

This looks like:

- a. Partner with lake associations and watershed districts to deliver seasonal water education materials.
- b. Add a “What You Need to Know on the Lake” guide for lakeshore residents (mail + online + signage).
- c. Encourage local water associations to continue local water testing programs.



4. Support community collaboration on long-term water and environmental health.

This looks like:

- a. Host an annual Todd County Water Summit with farmers, lakeshore owners, and local officials.
- b. Encourage resident participation in shoreline restoration, buffer planting, and clean-up events.
- c. Maintain alignment with changing state and federal environmental standards through regular staff updates.

5. Protect Todd County's forests, farmland, lakes, and open spaces.

This looks like:

- a. Support voluntary conservation programs and landowner education on sustainable land management practices.
- b. Educate people on the benefits of diverse tree plantings for forest/ecological environmental health.
- c. Encourage responsible development along shorelines and critical habitats.
- d. Encourage sustainable agriculture and low-impact development.
- e. Ensure comprehensive water plans are reflected in zoning, development review, and infrastructure decisions.

6. Expand recreational opportunities and public access.

This looks like:

- a. Improve trails, signage, and lake access points.
- b. Repurpose unused county land for recreation or conservation.
- c. Highlight scenic and cultural assets with wayfinding and storytelling.

7. Build a culture of environmental stewardship.

This looks like:

- a. Host community cleanup days, tree-planting, and community science events.
- b. Actively promote and encourage responsible use of the Todd County solid waste transfer station.
- c. Promote pollinator gardens and native plantings.
- d. Partner with schools for environmental education programs.

8. Improve stormwater management in urban, developing, and lakeshore areas.

This looks like:

- a. Collaborate with cities, townships, and watershed partners to assess drainage needs and stormwater infrastructure capacity, including impacts from lakeshore redevelopment and increased impervious surfaces.
- b. Utilize existing local water plans and support the development of additional water plans.
- c. Provide public education on how stormwater systems, surface runoff, and underground drainage affects lakes and waterways, and how residents can reduce runoff through management practices.

- d. Work with planning and zoning officials to consider stormwater and waterflow impacts when reviewing new development and redevelopment proposals, particularly in shoreline areas.
- e. Seek state and federal funding to improve stormwater infrastructure and implement mitigation projects in vulnerable areas.

9. Strengthen relationships with state environmental agencies.

This looks like:

- a. Form regular coordination meetings with MPCA, DNR, watershed districts, and lake associations.
- b. Ensure consistent messaging across all agencies regarding regulations, shoreline expectations, and water quality responsibilities.

10. Consider establishing a balanced county approach for evaluating renewable energy projects, including solar farms.

This looks like:

- a. Develop site evaluation criteria that balance the protection of prime agricultural land, natural resources, and community character with economic development opportunities and landowner interests.
- b. Encourage renewable energy development in already disturbed or previously developed areas (brownfields, rooftops, gravel pits, former industrial sites, etc.) when feasible.
- c. Discourage deforestation for solar farm installation.
- d. Coordinate with landowners, developers, and local government early in the planning process to identify mutually beneficial siting options.
- e. Align solar permitting with environmental preservation goals and county zoning ordinances.

Intellectual Assets – Education Facilities, Specialized Knowledge, and Learning Opportunities

Overview

Intellectual reflects the knowledge, skills, and learning capacity of Todd County’s residents and plays a vital role in workforce development, economic stability, and quality of life.

Todd County benefits from strong schools, extension services, youth programs, adult education, and community-based learning resources. However, some residents travel outside the county for training and enrichment due to limited local options or scheduling challenges. As the population ages and the workforce evolves, expanding flexibility and accessible learning pathways will become increasingly important.

Goals and Strategies

1. Expand and diversify education and learning pathways for residents of all ages.

This looks like:

- Support public, private, and homeschooling options for elementary and secondary school education.
- Support multiple education and career pathways, including internships, trade schools, colleges, folk schools, recreational programs, and adult education.
- Partner with schools, employers, and training programs, to increase access to local and regional internship and apprenticeship opportunities.
- Work with educational institutions to offer flexible scheduling and remote learning options to reduce the need for residents to travel outside of the county.
- Promote lifelong learning opportunities that address the needs of an aging population, including skill development, technology training, and enrichment programs.

2. Strengthen partnerships with extension and youth development programs to expand lifelong learning and leadership opportunities.

This looks like:

- Partner with the University of Minnesota Extension to expand adult education, agricultural education, and community learning programs.
- Support and promote 4-H, FFA, and other youth leadership and agricultural education programs.
- Increase awareness of extension and youth programs through county communications and schools.
- Explore opportunities to incorporate civic education, local government engagement, and youth advisory input into county decision-making processes.



3. Strengthen partnerships with extension and youth development programs to expand lifelong learning and leadership opportunities.

This looks like:

- a. Partner with the University of Minnesota Extension to expand adult education, agricultural education, and community learning programs.
- b. Support and promote 4-H, FFA, and other youth leadership and agricultural education programs.
- c. Increase awareness of extension and youth programs through county communications and schools.
- d. Explore opportunities to incorporate civic education, local government engagement, and youth advisory input into county decision-making processes.

3. Support the long-term vitality, reputation, and sustainability of Todd County's school systems.

This looks like:

- a. Facilitate regular dialogue between the County Commissioners and local superintendents to discuss enrollment trends, facility planning, workforce alignment, and long-term community impacts.
- b. Encourage regional collaboration among school districts to identify shared challenges and opportunities that extend beyond individual communities.
- c. Assess factors influencing school enrollment and public perception, and support strategies that strengthen educational quality and community confidence.
- d. Promote open dialogue between school leadership and community members to improve local support and drive shared efforts to enhance school system quality and sustainability.

4. Support informal learning environments and “third spaces” for community engagement.

This looks like:

- a. Encourage the development of community gathering spaces such as coffee shops, art studios, maker spaces, libraries, and cultural centers that foster discussion and creativity.
- b. Explore partnerships with local businesses and non-profits to create spaces for workshops, lectures, and informal learning.
- c. Incorporate learning-focused spaces into downtown revitalization and economic development strategies.

5. Promote experiential and place-based learning opportunities.

This looks like:

- a. Support hands-on educational activities such as farm-based learning, “pick-your-own” events, agritourism experiences, and nature-based programs.
- b. Encourage partnerships between landowners, educators, and tourism organizations to expand educational programming.
- c. Highlight local learning experiences through county marketing and visitor promotion efforts.

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RESOLUTION TO ADOPT AN INTERIM ORDINANCE TO ESTABLISH A MORATORIUM ON DATA CENTERS IN TODD COUNTY

WHEREAS, the purpose of this Interim Ordinance is to protect the public health, safety, and general welfare of residents of Todd County by temporarily prohibiting the establishment of data centers while the County conducts a study to develop appropriate performance standards, zoning controls, and other regulations related to the operation of a data center; and

WHEREAS, the County Board finds that data centers are a new, emerging land use with significant impacts related to energy demand, water use, noise, heat, stormwater management, and land use compatibility; and

WHEREAS, the Todd County Planning and Zoning Ordinance does not expressly regulate or impose standards on data centers; and

WHEREAS, Minnesota Statute 394.34 authorizes counties to adopt interim ordinances to regulate, restrict, or prohibit land uses while studies or plans are being conducted; and

WHEREAS, a temporary moratorium is necessary to allow Todd County sufficient time to study, draft, and adopt appropriate regulations;

NOW, THEREFORE BE IT RESOLVED; the Todd County Board of Commissioners Hereby Ordains:

Section 1 – Definition

The term “data center” shall mean any building or facility housing computers, servers, storage, or networking equipment used principally to process, transfer, manage, or store digital information. The term shall also encompass all accessory structures or facilities comprising offices, generators, water cooling, storage systems, utilities, or other infrastructure related to digital data operation.

Section 2 – Moratorium

No data center may be established, constructed, or permitted within Todd County for the duration of this Interim Ordinance. Additionally, no land use or zoning permit applications related to the establishment of a data center shall be accepted, processed, or approved during the moratorium.

Section 3 – Study

During the duration of the moratorium, County staff, along with the Todd County Planning Commission and the Todd County Board of Commissioners, shall conduct a study addressing to identify the land use impacts of data centers including, but not limited to, noise, water use, stormwater management, air quality and other environmental impacts, land use compatibility, hazard mitigation, and economic impacts.

Section 4 – Enforcement

Todd County may enforce any provision of this Interim Ordinance by any and all means authorized by the Todd County Planning and Zoning Ordinance and applicable State Statutes.



Section 5 – Effective Date

This Ordinance shall take effect on the date of its passage and shall be in effect for a period of one year from the date thereof. The Interim Ordinance may be terminated earlier by action of the Todd County Board of Commissioners.

Section 6 – Severability

If any section of this Interim Ordinance is determined to be invalid or unconstitutional by a court of competent jurisdiction, such decision shall not affect the validity of the remaining portions of the Ordinance, which shall remain in full force and effect.