

Part 2 — Technical Requirements

Application under the Agricultural Operation Practices Act for a confined feeding operation, manure collection area, and/or manure storage facility(ies)



NRCB Natural Resources Conservation Board

NRCB USE ONLY

Application number

Legal land description

- ☒ Approval ☐ Registration ☐ Authorization
☐ Amendment

RA23012

NE-23-43-26-W4

APPLICATION DISCLOSURE

This information is collected under the authority of the *Agricultural Operation Practices Act (AOPA)*, and is subject to the provisions of the *Freedom of Information and Protection of Privacy Act*. This information is public unless the NRCB grants a written request that certain sections remain private.

Any construction prior to obtaining an NRCB permit is an offence and is subject to enforcement action, including prosecution.

I, the applicant, or applicant's agent, have read and understand the statements above, and I acknowledge that the information provided in this application is true to the best of my knowledge.

January 20 2024
Date of signing

Signature

Ridder Farms Ltd.
Corporate name (if applicable)

Deanna Ridder
Print name

GENERAL INFORMATION REQUIREMENTS

Proposed facilities: list all proposed confined feeding operation facilities and their dimensions. Indicate whether any of the proposed facilities are additions to existing facilities. (attach additional pages if needed)

Proposed facilities	Dimensions (m) (length, width, and depth)
New dairy Barn	110m x 110m max
decommission small pen	30m x 27m
change milking parlor to calf pens	11.9m x 26.2m

Existing facilities: list ALL existing confined feeding operation facilities and their dimensions

Existing facilities	Dimensions (m) (length, width, and depth)	NRCB USE ONLY
Dairy Barn	75m x 41.45m	
Shelters 2 youngstock A	217m x 81m	
" B	30m x 27m	

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Conservation Board
and/or manure storage facility(ies)

If a new facility is replacing an old facility, please explain what will happen to the old facility and when. ☐ N/A

Calves will be housed in old parlor area

Construction completion date for proposed facilities 2025?

Additional information

Livestock numbers: Complete only if livestock numbers are different from what was identified in the Part 1 application. Note: if livestock numbers increase in your Part 2 application, a new Part 1 application must be submitted which may result in a loss of priority for minimum distance separation (MDS).

[illegible]

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Natural Resources
Conservation Board

DECLARATION AND ACKNOWLEDGMENT OF APPLICANT CONCERNING WATER ACT LICENCE

Issued by Alberta Environment and Parks (AEP) for a confined feeding operation (CFO)

Date and sign one of the following four options

OPTION 1: Applying through the NRCB for both the AOPA permit and the Water Act licence

I DO want my water licence application coupled to my AOPA permit application.

Signed this _____ day of _____, 20____.

Signature of Applicant or Agent

OPTION 2: Processing the AOPA permit and Water Act licence separately

1. I (we) acknowledge that the CFO will need a new water licence from AEP under the *Water Act* for the development or activity proposed in this AOPA application.
2. I (we) request that the NRCB process the AOPA application **independently** of AEP's processing of the CFO's application for a water licence.
3. In making this request, I (we) recognize that, if this AOPA application is granted by the NRCB, the NRCB's decision will not be considered by AEP as improving or enhancing the CFO's eligibility for a water licence under the *Water Act*.
4. I (we) acknowledge that any construction or actions to populate the CFO with livestock pursuant to an AOPA permit in the absence of a *Water Act* licence will **not** be relevant to AEP's consideration of whether to grant the *Water Act* licence application.
5. I (we) acknowledge that any such construction or livestock populating will be at the CFO's sole risk if the *Water Act* licence application is denied or if the operation of the CFO is otherwise deemed to be in violation of the *Water Act*. This risk includes being required to depopulate the CFO and/or to cease further construction, or to remove "works" or "undertakings" (as defined in the *Water Act*).
6. **AS RELEVANT:** I (we) acknowledge that the CFO is located in the South Saskatchewan River Basin and that, pursuant to the *Bow, Oldman and South Saskatchewan River Basin Water Allocation Order* [Alta. Reg. 171/2007], this basin is currently closed to new surface water allocations.

Signed this 29 day of March, 2023.

Signature of Applicant or Agent

OPTION 3: Additional water licence not required

1. I (we) declare that the CFO will not need a new licence from AEP under the *Water Act* for the development or activity proposed in this AOPA application.

Signed this _____ day of _____, 20____.

Signature of Applicant or Agent

OPTION 4: Uncertain if Water Act licence is needed; acknowledgement of risk (for existing CFOs only)

1. At this time, I (we) do not know whether a new water licence is needed from AEP under the *Water Act* for the development or activity proposed in this AOPA application.
2. If a new *Water Act* licence is needed, I (we) request that the NRCB process the AOPA application **independently** of AEP's processing of the CFO's application for a water licence.
3. In making this request, I (we) recognize that, if this AOPA application is granted by the NRCB, the NRCB's decision will not be considered by AEP as improving or enhancing the CFO's eligibility for a water licence under the *Water Act*.
4. I (we) acknowledge that any construction or actions to populate the CFO with additional livestock pursuant to an AOPA permit in the absence of a *Water Act* licence will **not** be relevant to AEP's consideration of whether to grant my *Water Act* licence application, if a new water licence is needed.
5. I (we) acknowledge that any such construction or livestock increase will be at the CFO's sole risk if the *Water Act* licence application is denied or if the operation of the CFO is otherwise deemed to be in violation of the *Water Act*. This risk includes being required to depopulate the CFO and/or to cease further construction, or to remove "works" or "undertakings" (as defined in the *Water Act*).
6. **AS RELEVANT:** I (we) acknowledge that the CFO is located in the South Saskatchewan River Basin and that, pursuant to the *Bow, Oldman and South Saskatchewan River Basin Water Allocation Order* [Alta. Reg. 171/2007], this basin is currently closed to new surface water allocations.

Signed this _____ day of _____, 20____.

Signature of Applicant or Agent

AO Note: The applicant has provided the Approval Officer with copies of their existing water licenses.

3/30/23, 4:12 P

Google Maps

Ridder Farms
Proposed building site

Ridder Farms - Google Maps

N ↑



Imagery ©2023 CNES / Airbus, Maxar Technologies, Map data ©2023 20 m

Measure distance
Total area: 7,702.91 m² (82,913.48 ft²)
Total distance: 360.14 m (1,181.56 ft)



Ridder Farms Ltd.



Imagery ©2019 DigitalGlobe, Google, Map data ©2019 Google 200 m

spreadable land

Land Locations;	
Home 1/4 NE 23-43-26-W4	140
North 1/4 NW 36-43-26-W4	not included
Trailer 1/4 NW 24-43-26-W4	80
Slough 1/4 SE 23-43-26-W4	138
Lake 1/4 SW 23-43-26-W4	112
Ecklund 1/4 SW 24-43-26-W4	140
Jess 1/4 SW 26-43-26-W4	145
Jess SE 26-43-26-W4	Rented 55

755 ac owned
55 ac Rented
810
1/1

Ridder Farms Ltd.



Imagery ©2019 DigitalGlobe, Google, Map data ©2019 Google 200 m

spreadable land

Land Locations;

Home 1/4 NE 23-43-26-W4

North 1/4 NW 36-43-26-W4 not included

Trailer 1/4 NW 24-43-26-W4

Slough 1/4 SE 23-43-26-W4

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Ecklund 1/4 SW 24-43-26-W4

Jess 1/4 SW 26-43-26-W4

Jess SE 26-43-26-W4 Rented

140

80

138

112

140

145

55

755 ac
55 ac
810

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1/1



GENERAL ENVIRONMENTAL INFORMATION

(complete this section for the worst case of the existing facility which is the closest to water bodies or water wells and for each of the proposed facilities)
 Facility description / name (as indicated on site plan)

Existing: Dairy Barn

Proposed 1: Dairy Barn

Proposed 2: _____

Proposed 3: _____

Facility and environmental risk information		Facilities				NRCB USE ONLY	
		Existing	Proposed 1	Proposed 2	Proposed 3	Meets requirements	Comments
Flood plain information	What is the elevation of the floor of the lowest manure storage or collection facility above the 1:25 year flood plain or the highest known flood level?	☒ > 1 m ☐ ≤ 1 m	☒ > 1 m ☐ ≤ 1 m	☐ > 1 m ☐ ≤ 1 m	☐ > 1 m ☐ ≤ 1 m	☐ YES ☐ NO ☐ YES with exemption	
Surface water information	How many springs are within 100 m of the manure storage facility or manure collection area?	0	0			☐ YES ☐ NO ☐ YES with exemption	
	How many water wells are within 100 m of the manure storage facility or manure collection area?	2	0			☐ YES ☐ NO ☐ YES with exemption	
	What is the shortest distance from the manure collection or storage facility to a surface water body? (e.g., lake, creek, slough, seasonal)	>100				☐ YES ☐ NO ☐ YES with exemption	
Groundwater information	What is the depth to the water table?		>10			☐ YES ☐ NO ☐ YES with exemption	
	What is the depth to the groundwater resource/aquifer you draw water from?		> 70			☐ YES ☐ NO ☐ YES with exemption	

Additional information (attach supporting information, e.g. borehole logs, records, etc. you consider relevant to your application)

Part 2 – Technical Requirements



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DISTANCE OF ANY MANURE STORAGE FACILITY (EXISTING OR PROPOSED) TO NEIGHBOURING RESIDENCES

Neighbour name(s)	Legal land description	Distance (m)	NRCB USE ONLY				
			Zoning (LUB) category	MDS category (1-4)	Distance (m)	Waiver attached (if required)	Meets regulations
Dennis & Leslie Chernick	NW23-43-26-W4	388m					
Dennis & Joanne Ecklund	SW 24-43-26-W4	>800m					

LAND BASE FOR MANURE AND COMPOST APPLICATION (complete only if an increase in livestock or manure production will occur)

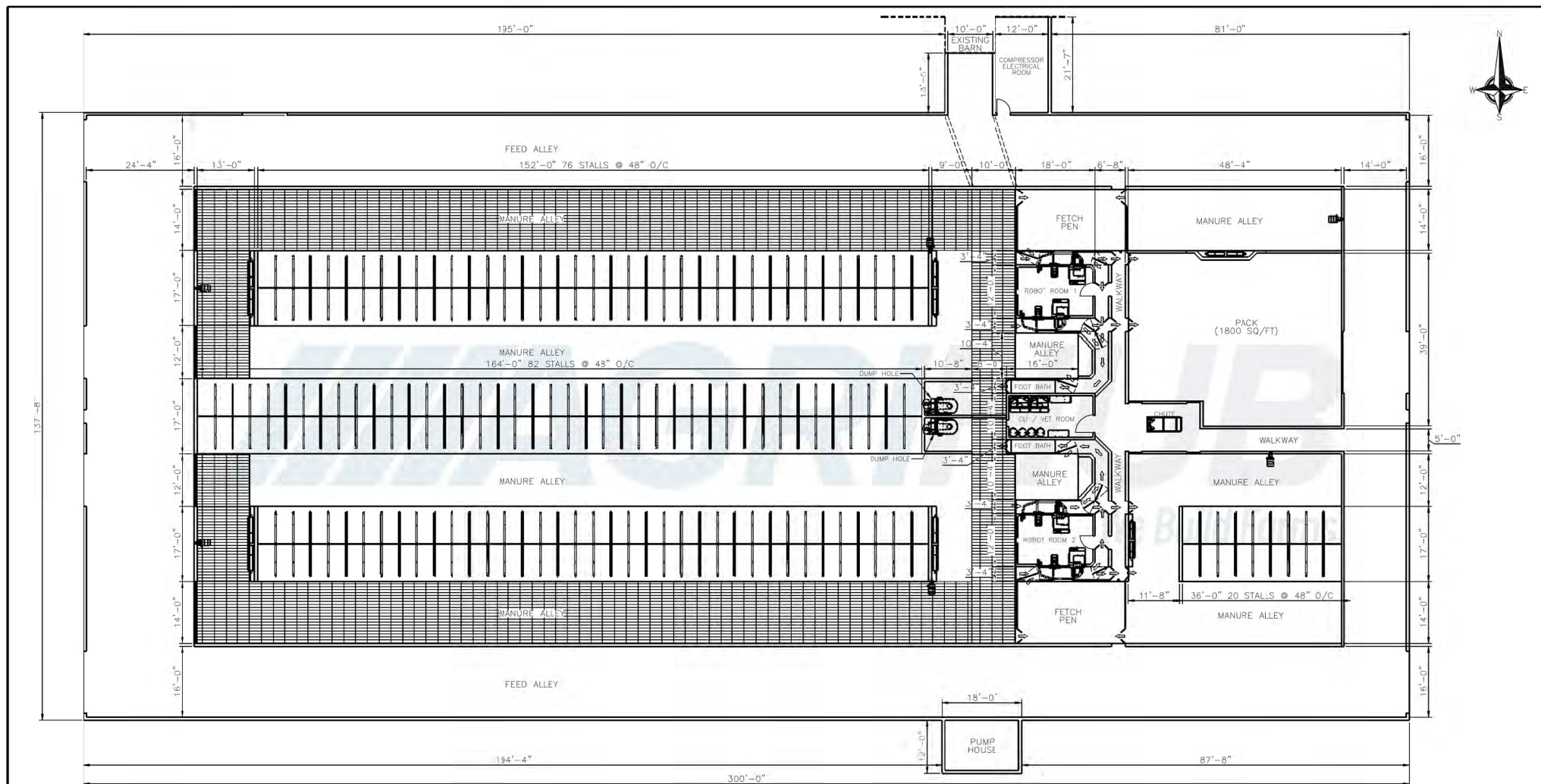
Name of land owner(s)*	Legal land description	Usable area** (ha)	Soil zone ***	NRCB USE ONLY	
				Usable area (ha)	Agreement attached (if required)
Ridder Farms	NE23-43-26-W4	56	Black		
"	SW26-43-26-W4	58	Black		
"	SW 24-43-26-W4	56	Black		
"	SW-23-43-26-W4	45	Black		
"	SE-23-43-26-W4	56	Black		
Total					

* If you are **not** the registered landowner, you must attach copies of land use agreements signed by all landowners.

** Available manure spreading area (excluding setback areas from residences, common bodies of water, water wells, etc. as identified in Agdex 096-5 [Manure Spreading Regulations](#))

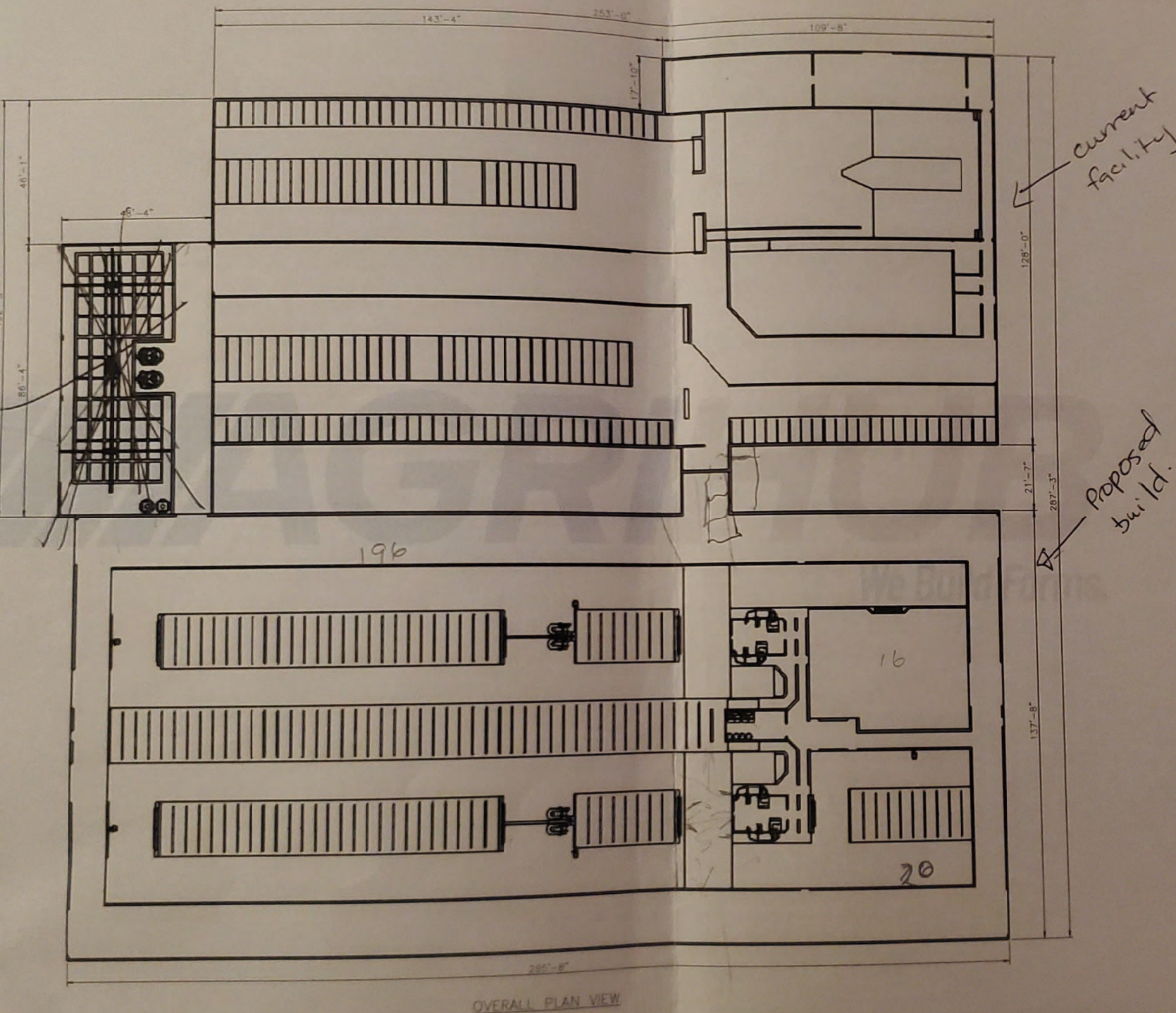
*** Brown, dark brown, black, grey wooded, or irrigated

Additional information (attach any additional information as required)



PLAN VIEW

ENGINEERING	STAMP	REVISIONS	64-27211 HWY. 12 LACOMBE, AB T4I 0E3 TOLL FREE: 1-866-339-0000 PH: 1-403-782-0675	CLIENT: RIDDER DAIRY EVERHARD RIDDER PONOKA, ALBERTA DRAWING TITLE: LELY ROBOT DAIRY BARN — PLAN VIEW <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="font-size: 8px;">SCALE: 1:128</td> <td style="font-size: 8px;">DATE: AUG/4/2023</td> <td style="font-size: 8px;">DRAWING NO: A3</td> </tr> <tr> <td style="font-size: 8px;">DWN: DJB</td> <td style="font-size: 8px;">CHK: NW</td> <td style="font-size: 8px;">REVISION: D</td> </tr> <tr> <td style="font-size: 8px;">JOB NO.:</td> <td style="font-size: 8px;">SHEET: 1 OF 1</td> <td style="font-size: 8px;"></td> </tr> </table>	SCALE: 1:128	DATE: AUG/4/2023	DRAWING NO: A3	DWN: DJB	CHK: NW	REVISION: D	JOB NO.:	SHEET: 1 OF 1																					
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4	2/12/24	REVISED AS PER CLIENT CHANGES, RE-IFR	DJB	NW	NW																												



OVERALL PLAN VIEW



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ENGINEERING	STAMP

REVISIONS				
NO.	DATE	DESCRIPTION	BY	CHK
1	1/19/2	ADDED/REVISED THE BOX		

CLIENT:
RIDDER DAIRY
EVERHARD RIDDER
PONOKA, ALBERTA

DRAWING TITLE:
LELY ROBOT ADDITION - OVERALL PLAN VIEW

SCALE:	DATE:	DESIGNED BY:
1:192	AUG. 31, 2023	
DWG:	REV:	
005	NW	

A3

B



Part 2 — Technical Requirements

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LIQUID MANURE COLLECTION AND/OR STORAGE: In-barn - Concrete liner

(complete a copy of this section for **EACH** proposed in-barn liquid manure storage facility with a concrete liner)

Facility description / name (as indicated on site plan)

1. Proposed new build
2. current existing 2008 build
3. parlor change

Manure storage capacity (use one row in the table for **EACH** in-barn storage. Attach additional pages if you require more rows)

Manure storage capacity (use one row in the table for EACH in-barn storage. Attach additional pages if you require more rows.)					NRCB USE ONLY
	Length (m)	Width (m)	Total depth (m)	Depth below ground level (m)	Calculated storage capacity (m ³)
1.	^{maximum} 110m	4.69m	2.25m	2.43m	
2.	33.71m	4.69m	2.25m	2.43m	existing 2008
3.	parlor	change next page.			
TOTAL CAPACITY					

Concrete liner details

Scrape alleys or unslatted portions of barn floors (if applicable)	Concrete thickness <u>> 100mm</u>		Method of sulphate protection <u>HS</u>	
	Concrete strength <u>30MPA</u>		Concrete reinforcement size and spacing <u>Adequate rebar</u> <u>3x floor spacing</u>	
In-barn manure pit floors	Concrete thickness <u>> 100mm</u>		Method of sulphate protection <u>HS</u>	
	Concrete strength <u>32MPA</u>		Concrete reinforcement size and spacing <u>Adequate rebar</u> <u>3x Floor spacing</u>	
In-barn manure pit walls	Concrete thickness <u>> 100mm</u>		Method of sulphate protection <u>HS</u>	
	Concrete strength <u>32MPA</u>	Horizontal reinforcement size and spacing <u>Adequate rebar and cover</u>	Vertical reinforcement size and spacing <u>cover</u>	

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LIQUID MANURE COLLECTION AND/OR STORAGE: In-barn - Concrete liner

(complete a copy of this section for **EACH** proposed in-barn liquid manure storage facility with a concrete liner)

Facility description / name (as indicated on site plan)

1. _____

2. _____

3. Parlor change

Manure storage capacity (use one row in the table for **EACH** in-barn storage. Attach additional pages if you require more rows)

	Length (m)	Width (m)	Total depth (m)	Depth below ground level (m)	NRCB USE ONLY Calculated storage capacity (m ³)
1.					
2.	23.2m	12.6m	>100mm	ground level	
3.	33.2m	12.6m	>100mm	ground level	
TOTAL CAPACITY					

Concrete liner details

Scrape alleys or unslatted portions of barn floors (if applicable)	Concrete thickness <u>> 100mm</u>		Method of sulphate protection <u>HS</u>	
	Concrete strength <u>30 MPA</u>		Concrete reinforcement size and spacing <u>Adequate Rebar</u>	
In-barn manure pit floors	Concrete thickness		Method of sulphate protection	
	Concrete strength		Concrete reinforcement size and spacing	
In-barn manure pit walls	Concrete thickness		Method of sulphate protection	
	Concrete strength	Horizontal reinforcement size and spacing	Vertical reinforcement size and spacing	

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LIQUID MANURE COLLECTION AND/OR STORAGE: In-barn - Concrete liner (cont.)

Describe how the joints at the junction of the pit walls, pit floors and any other joints will be sealed

Water stop, caulked joint, expanding
caulked joint

Describe sealing practices for piping, etc. that penetrates the liner

Expanded caulked joints, piping boots
Cast in place

Concrete requirements can be found in Technical Guideline Agdex 096-93

Guideline minimums:

Solid manure: 25MPa (D)

Solid manure (wet): 30MPa (C)

Liquid manure: 32MPa (B)

Category A is required to be engineered

Method of sulphate protection:

Type 50 or Type 10 with fly ash or equivalent

NRCB USE ONLY

Requirements met:

☐ YES ☐ NO

Condition required:

☐ YES ☐ NO

Additional information

NRCB USE ONLY

Liquid manure storage volume calculator attached: ☐ YES ☐ NO

Depth to water table: _____

Requirements met:

☐ YES ☐ NO

Depth to uppermost groundwater resource: _____

Requirements met:

☐ YES ☐ NO

ERST completed: ☐ see ERST page for details

Concrete liner requirements

Leakage detection system required:

☐ YES ☐ NO

If yes, please explain why