Technical Document LA24039

# Part 2 — Technical Requirements

NRCB Natural Resources Conservation Board

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

| NRCB USE ONLY | Application number | Legal land description |
|---|---|---|
| ☐ Approval ☒ Registration ☐ Authorization ☐ Amendment | LA24039 | SW 9-20-13 W4M |

## 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.

February 14, 2025
Date of signing

[redacted]

Quintus Dairy LTD
Corporate name (if applicable)

Philip Van Steekelenburg
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) |
|---|---|
| Dairy Barn Extension | 198 x 80 ft. [60.3 m x 24.4 m] |
| Transfer pit | 10 ft x 12 ft x 10 ft deep (3 m x 3.65 m x 3 m deep) |
| | |
| | |

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

| Existing facilities | Dimensions (m) (length, width, and depth) | NRCB USE ONLY |
|---|---|---|
| Existing Barn | 132 x 60 ft. | |
| | | |
| | | |
| NRCB USE ONLY | | |

Dairy barn : U-shape
16 x 46m + 27 x 21m + 27 + 19m

All facilities confirmed. (LA20034)

Existing facilities (see previous page)

Pen area 1 with shelter: 43 m x 45 m

Pen north of pen area 1: 20 m x 26 m

Pen area 2 (triangular shape): 61 m x 73 m x 91 m + 73 m x 212 m

Pen north of pen area 2: 19 m x 41 m

EMS: 49 m x 34 m x 3.6 m deep plus an extension on the south side: 29 m x 21m x 3.6 m

Pen area 1 and Pen area 2 are the areas effected by the pen redaction in order to allow the construction of the barn extension.

Legend
Untitled Map
Write a description for your map.
N
100 m
sheep pens
Removal of sheep pen space
Extension
existing barn
EMS
sheep pens
Water
Well
gas
Google Earth
Image © 2025 Airbus

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

**Construction completion date for proposed facilities** December 2027

**Additional information**

In order to construct the dairy barn extension, some parts of the existing sheep pens will have to be decommissioned. A condition will be attached in that respect. The existing pen space will be reduced by 983 m³.

The applicant also ask for a exemption for the water well that is within 100 m of the dairy barn. Please see Decision Summary LA24039 for details.

**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).

| **Livestock category and type** (Available in the Schedule 2 of the Part 2 Matters Regulation) | **Permitted number** | **Proposed increase or decrease in number (if applicable)** | **Total** |
|---|---|---|---|
| Proposed increase | | | |
| Dairy cows (plus dries+ replacements) | | | |
| 73 ⟶ 102 | | | |
| Sheep will remain at | | | |
| 130 (ewes w. lambs) | | | |
| | | | |
| | | | |

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## 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 ____ day of _____, 20____. _____

*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 MM 13 14 day of February, 20 25. [redacted]

*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*

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## 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:** Sheep Pen **Proposed 1:** 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 height 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 | not in known floodplain |
| Surface water information | How many springs are within 100 m of the manure storage facility or manure collection area? | None | None | | | ☒ YES ☐ NO ☐ YES with exemption | confirmed during site visit and EPA databse |
| | How many water wells are within 100 m of the manure storage facility or manure collection area? | 20m | 20m. | | | ☐ YES ☐ NO ☒ YES with exemption | confirmed distance is 10 m Well ID 183331 |
| | What is the shortest distance from the manure collection or storage facility to a surface water body? (e.g., lake, creek, slough, seasonal) | 150 m | ~~200~~ 100 m. | | | ☒ YES ☐ NO ☐ YES with exemption | confirmed during site visit |
| Groundwater information | What is the depth to the water table? | | | | | ☒ YES ☐ NO ☐ YES with exemption | Below 9 m (drilling report attached to LA20034) |
| | What is the depth to the groundwater resource/aquifer you draw water from? | 17.68m. | 17.68m | | | ☒ YES ☐ NO ☐ YES with exemption | Drilling log of Water well 183331 |

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

# Water Well Drilling Report

View in Imperial | Export to Excel

The driller supplies the data contained in this report. The Province disclaims responsibility for its accuracy. The information on this report will be retained in a public database.

GOWN ID

GIC Well ID 183331
GoA Well Tag No.
Drilling Company Well ID
Date Report Received 1985/04/24

## Well Identification and Location

Measurement in Metric

| Owner Name | Address | Town | Province | Country | Postal Code |
|---|---|---|---|---|---|
| VAN STAKALENBURG, PHILIP | GEN DEL, MILLICENT | | | | T0J 2H0 |

| Location | 1/4 or LSD | SEC | TWP | RGE | W of MER | Lot | Block | Plan | Additional Description |
|---|---|---|---|---|---|---|---|---|---|
| | SW | 9 | 20 | 13 | 4 | | | | |

Measured from Boundary of
m from
m from

GPS Coordinates in Decimal Degrees (NAD 83)
Latitude 50.677494 Longitude -111.752889
How Location Obtained
Not Verified

Elevation m
How Elevation Obtained
Not Obtained

## Drilling Information

**Method of Drilling**
Rotary

**Proposed Well Use**
Domestic & Stock

**Type of Work**
New Well

## Formation Log

Measurement in Metric

| Depth from ground level (m) | Water Bearing | Lithology Description |
|---|---|---|
| 1.83 | | Brown Clay & Coal |
| 14.63 | | Brown Sandy Clay |
| 15.85 | | Light Brown Clay |
| 17.68 | | Brown Clay |
| 17.98 | Yes | Water Bearing Gravel |
| 22.86 | | Blue Sandy Clay |
| 24.99 | | See Comments |
| 26.52 | | Blue Clay |
| 32.61 | | Shale |
| 33.22 | | Brown Sandy Shale |
| 39.93 | | Blue Shale |
| 42.06 | | Gray Sandy Shale |
| 60.35 | | Blue Gray Shale |
| 62.79 | | Gray Sandy Shale & Sandstone |
| 69.19 | | Gray Shale |
| 74.37 | Yes | Water Bearing Sandstone |
| 78.64 | | Brown Shale |
| 79.55 | Yes | Gray Water Bearing Sandstone |
| 81.99 | Yes | Water Bearing Shale & Sandstone Ledges |
| 97.54 | | Blue Gray Shale |

## Yield Test Summary

Measurement in Metric

Recommended Pump Rate 68.19 L/min

| Test Date | Water Removal Rate (L/min) | Static Water Level (m) |
|---|---|---|
| 1985/04/16 | 68.19 | 4.57 |

## Well Completion

Measurement in Metric

| Total Depth Drilled | Finished Well Depth | Start Date | End Date |
|---|---|---|---|
| 97.54 m | | 1985/04/09 | 1985/04/16 |

**Borehole**

| Diameter (cm) | From (m) | To (m) |
|---|---|---|
| 0.00 | 0.00 | 97.54 |

**Surface Casing (if applicable)**
Size OD : 0.00 cm
Wall Thickness : 0.000 cm
Bottom at : 0.00 m

**Well Casing/Liner**
Steel
Size OD : 14.12 cm
Wall Thickness : 0.478 cm
Top at : 0.00 m
Bottom at : 82.60 m

**Perforations**

| From (m) | To (m) | Diameter or Slot Width (cm) | Slot Length (cm) | Hole or Slot Interval(cm) |
|---|---|---|---|---|
| 70.10 | 74.07 | 0.000 | | 0.00 |
| 79.25 | 82.60 | 0.000 | | 0.00 |

Perforated by Unknown

**Annular Seal** Driven
Placed from 0.00 m to 67.06 m
Amount

Other Seals

| Type | At (m) |
|---|---|
| | |

**Screen Type**
Size OD : 0.00 cm

| From (m) | To (m) | Slot Size (cm) |
|---|---|---|
| | | |

Attachment
Top Fittings
Bottom Fittings

**Pack**
Type
Grain Size
Amount 0.00

## Contractor Certification

Name of Journeyman responsible for drilling/construction of well
UNKNOWN NA DRILLER

Company Name
M&M DRILLING CO. LTD.

Certification No
1

Copy of Well report provided to owner Date approval holder signed

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**NRCB USE ONLY**

## WATER WELL AND SURFACE WATER INFORMATION

Well IDs: Well ID 183331

Surface water related concerns from directly affected parties or referral agencies: ☐ YES ☒ NO

Groundwater related concerns from directly affected parties or referral agencies: ☐ YES ☒ NO

**Water wells** ☐ N/A

If applicable, exemption for 100 m distance requirements applied: ☒ YES ☐ NO Condition required: ☒ YES ☐ NO

**Surface water** ☒ N/A

If applicable, exemption for 30 m distance requirements applied: ☐ YES ☐ NO Condition required: ☐ YES ☐ NO

**Water Well Exemption Screening Tool** ☐ N/A

| Water Well ID | Preliminary Screening Score | Secondary Screening Score | Facility |
|---|---|---|---|
| 183331 | 15 | 17 (EMS) 21 (barn) | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |

**Groundwater or surface water related comments:**

The main risk to the water well is assumed to be the due to the proximity of the dairy barn to the well. The well is protected and in good condition. Therefore, and as explained in Appendix B of Decision Summary LA240039, I am prepared to grant an exemption from the required setback to water wells as laid out in section 7(1)(b) Standards and Administration Regulation, AOPA.

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**NRCB USE ONLY**

## ENVIRONMENTAL RISK SCREENING INFORMATION

**ERST** for **proposed** facilities

| Facility | Groundwater score | Surface water score | File number |
|---|---|---|---|
| dairy barn extension | low | low | LA24039 |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |

**ERST** for **existing** facilities

| Facility | Groundwater score | Surface water score | File number |
|---|---|---|---|
| sheep pens | low | low | LA20034 |
| EMS | low | low | LA20034 |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |

**ERST related comments:**

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

| | | | NRCB USE ONLY | | | | |
|---|---|---|---|---|---|---|---|
| **Neighbour name(s)** | **Legal land description** | **Distance (m)** | **Zoning (LUB) category** | **MDS category (1-4)** | **Distance (m)** | **Waiver attached (if required)** | **Meets regulations** |
| Shepards | ¼NW 9-20-13 | 800m. | Ag | 1 | 802 m | | yes |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |

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

| | | | | NRCB USE ONLY | |
|---|---|---|---|---|---|
| **Name of land owner(s)*** | **Legal land description** | **Usable area** (ha)** | **Soil zone *** ** | **Usable area (ha)** | **Agreement attached (if required)** |
| Quintus Dairy | SW 9-20-13 | 150 acres | irrigated | 150 acres | |
| | NW 7-20-13 | 160 acres | irrigated | 135 acres | |
| | NE 17-20-13 | 160 acres | irrigated | 120 acres | |
| | | | | | |
| | | | | | |
| | | | Total | 405 acres irrigated | |

* 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)**

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**NRCB USE ONLY**

## MINIMUM DISTANCE SEPARATION

Methods used to determine distance (if applicable): aerial photos (Google earth)

Margin of error (if applicable): +/- 3 m

Requirements (m): Category 1: 280 m Category 2: 372 m Category 3: 467 m Category 4: 747 m

Technology factor: ☐ YES ☒ NO

Expansion factor: ☐ YES ☒ NO

MDS related concerns from directly affected parties or referral agencies: ☐ YES ☒ NO

## LAND BASE FOR MANURE AND COMPOST APPLICATION

Land base required: 193.6 acres irrigated

Land base listed: 470 acres irrigated

Area not suitable: approx. 50 acres

Available area 405 acres irrigated Requirement met: ☒ YES ☐ NO

Land spreading agreements required: ☐ YES ☒ NO

Manure management plan: ☐ YES ☒ NO If yes, plan is attached: ☐

## PLANS

Submitted and attached construction plans: ☒ YES ☐ NO

Submitted aerial photos: ☒ YES ☐ NO

Submitted photos: ☐ YES ☒ NO

## GRANDFATHERING

Already completed: ☒ YES ☐ NO ☐ N/A

If already completed, see LA20034

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**NRCB USE ONLY**

**ALL SIGNATURES IN FILE** ☒ YES ☐ NO

**DATES OF APPROVAL OFFICER SITE VISITS**

| | |
|---|---|
| Feb 14, 2025 | |
| | |
| | |

**CORRESPONDENCE WITH MUNICIPALITIES AND REFERRAL AGENCIES**

Date deeming letters sent: Feb 26, 2025

**Municipality:** Newell County

☒ letter sent ☒ response received ☒ written/email ☐ verbal ☐ no comments received

**Alberta Health Services:** NA

☐ letter sent ☐ response received ☐ written/email ☐ verbal ☐ no comments received

**Alberta Environment and Parks:** ☐ N/A

☒ letter sent ☐ response received ☐ written/email ☐ verbal ☒ no comments received

**Alberta Transportation:** ☐ N/A

☒ letter sent ☒ response received ☒ written/email ☐ verbal ☐ no comments received

**Alberta Regulatory Services:** ☐ N/A

☒ letter sent ☒ response received ☒ written/email ☐ verbal ☐ no comments received

**Other:** Torxen Energy Ltd., NovaChem, Dinosaur Gas Coop Ltd, Journey Energy Inc. ☐ N/A

☒ letter sent ☐ response received ☐ written/email ☐ verbal ☒ no comments received

**Other:** _____ ☐ N/A

☐ letter sent ☐ response received ☐ written/email ☐ verbal ☐ no comments received

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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. Dairy Barn Extension
2. Transfer Pit
3. _____

**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. | 198ft | 80 ft. | | 0 | |
| 2. | 11 ft | 12ft. | 10ft | 10ft. | |
| 3. | | | | | |
| | | | | TOTAL CAPACITY | sufficient 9 mth storage |

**Concrete liner details**

| | | | |
|---|---|---|---|
| Scrape alleys or unslatted portions of barn floors (if applicable) | Concrete thickness: 6-8 inch | Method of sulphate protection: Type 50 | |
| | Concrete strength: 32 mpa | Concrete reinforcement size and spacing: 10 mm 16 inch gr OC | |
| In-barn manure pit floors | Concrete thickness: 6-8 inch | Method of sulphate protection: Type 50 | |
| | Concrete strength: 32 mpa | Concrete reinforcement size and spacing: 10mm 16 inch OC | |
| similar to above<br>In-barn manure pit walls | Concrete thickness | Method of sulphate protection | |
| | Concrete strength | Horizontal reinforcement size and spacing | Vertical reinforcement size and spacing |

## 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 stops and Silka flex

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

Same as above

**Concrete requirements can be found in Technical Guideline Agdex 096-93**
*Guideline minimums:*
*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: below 9 m (*) Requirements met: ☒ YES ☐ NO

Depth to uppermost groundwater resource: 17.68 (Well 183331) Requirements met: ☒ YES ☐ NO

(*): Drilling report attached to Technical Guideline LA20034

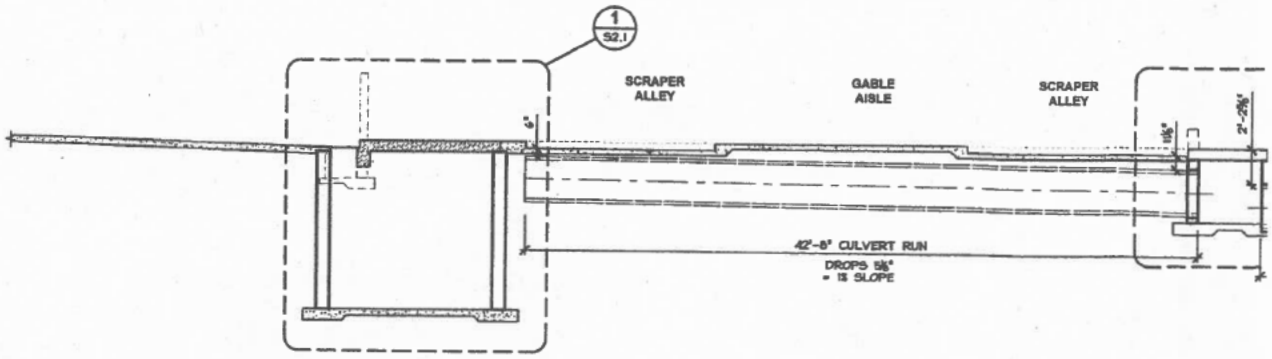
Condition included requiring Quintus to provide proof that concrete specs have been met.

ERST completed: ☒ see ERST page for details

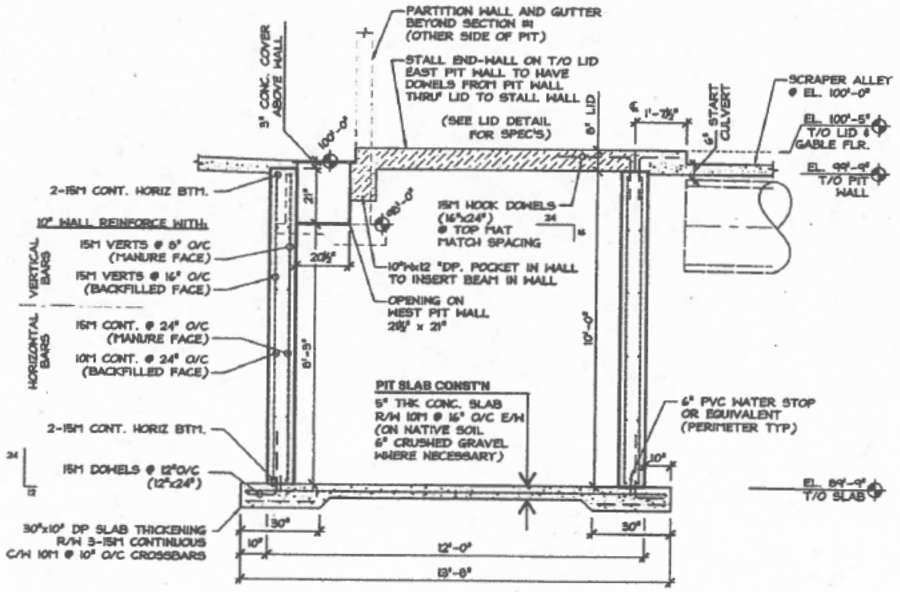
**Concrete liner requirements**

Leakage detection system required: ☐ YES ☒ NO If yes, please explain why

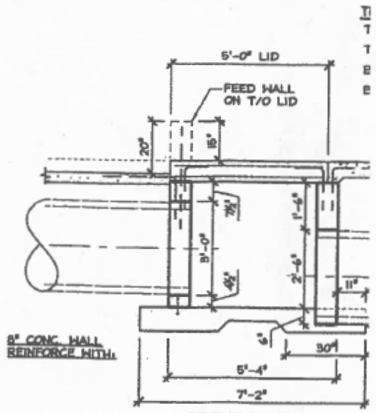
| NRCB USE ONLY<br>**LIQUID MANURE STORAGE VOLUME CALCULATOR (if applicable)** | |
|---|---|
| **Facility 1** | |
| Name / description: Existing EMS | Capacity: approximately 3000 $m^3$ |
| **Facility 2** | (facility of irregular shape) |
| Name / description | Capacity |
| **Facility 3** | |
| Name / description | Capacity |
| **Facility 4** | |
| Name / description | Capacity |
| **TOTAL CAPACITY** | 3000 $m^3$ |
| **REQUIRED 9 MONTH STORAGE CAPACITY** | 2753 $m^3$ |
| **MEETS THE REQUIREMENTS FOR A MINIMUM OF 9 MONTHS STORAGE** | ☒ YES ☐ NO |




H S1.3 OVERALL SECTION THRU' PITS & CULVERT
SCALE: 3/16" = 1'-0"




1 S2.1 FLUSH PIT
SCALE: 3/8" = 1'-0"




PIT SLAB CONST'N:
SAME AS FLUSH PIT

2 S2.1 TRANSFER PIT
SCALE: 3/8" = 1'-0"

**BAR PLACEMENT LEGEND:**

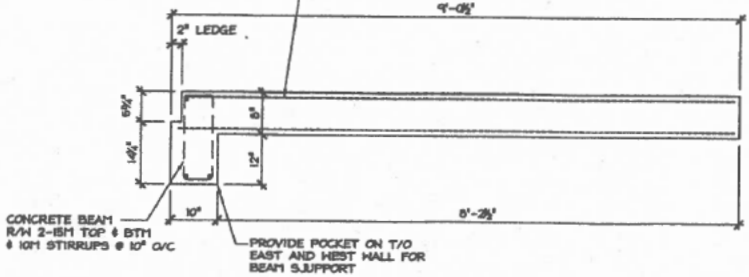
B.L.L. = BOTTOM LOWER LEVEL
B.U.L. = BOTTOM UPPER LEVEL
T.L.L. = TOP LOWER LEVEL
T.U.L. = TOP UPPER LEVEL

**FLUSH PIT LID SPECS**

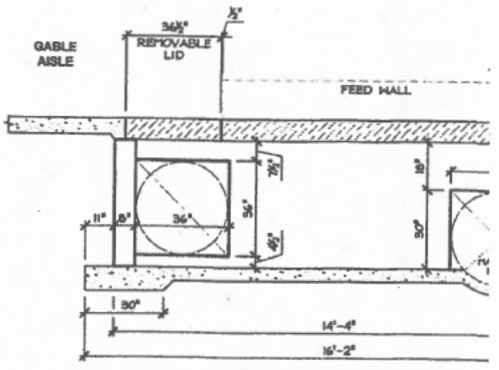
T.U.L. = 15M @ 14" O/C
T.L.L. = 10M @ 18" O/C
B.U.L. = 10M @ 16" O/C
B.U.L. = 15M @ 12" O/C

**NOTE:**

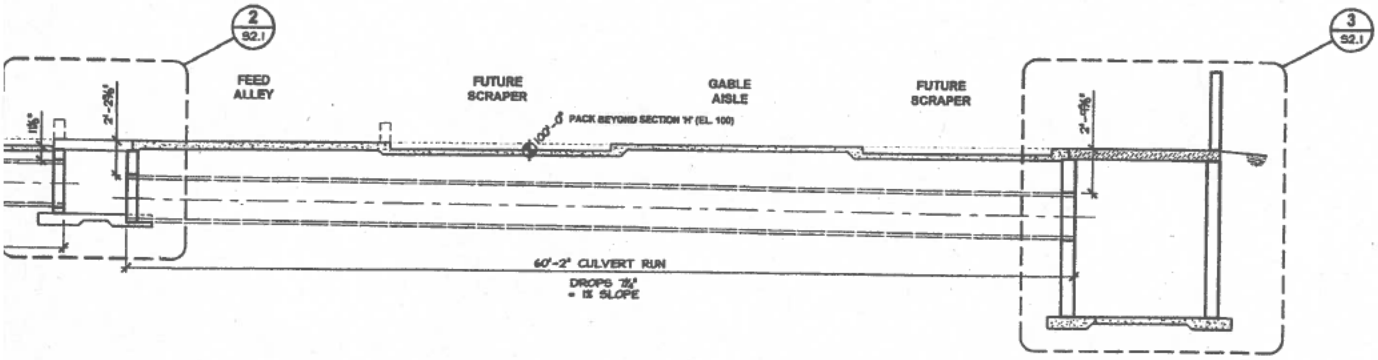
ENSURE THE ORIENTATION OF BARS UPPER LEVEL/ LOWER LEVEL (EAST-WEST NORTH-SOUTH) IS FOLLOWED AS DRAWN BELOW. (DUE TO ORIENTATION OF OPENING IN LID)

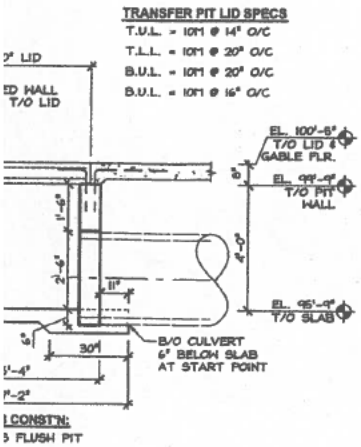


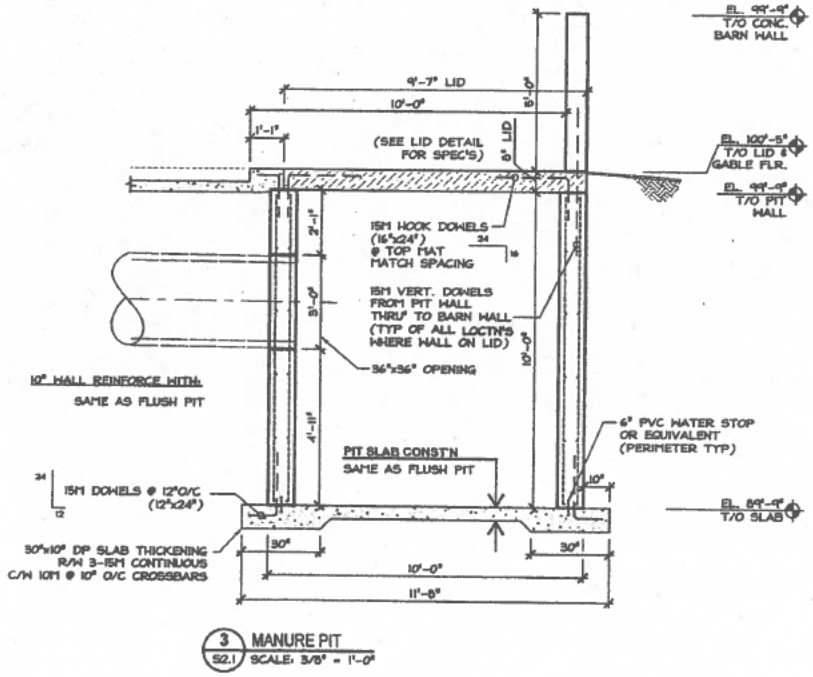

6 S2.1 LID BEAM DETAIL - FLUSH PIT
SCALE: 3/4" = 1'-0"



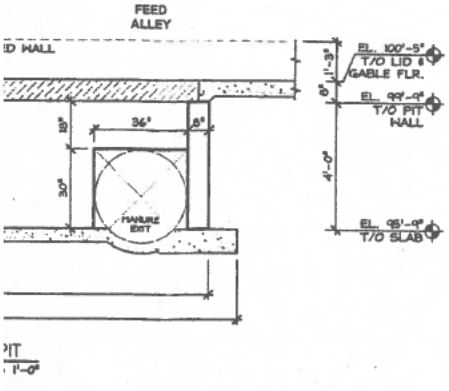

4 TRANSFER PIT
SCALE: 3/8" = 1'-0"

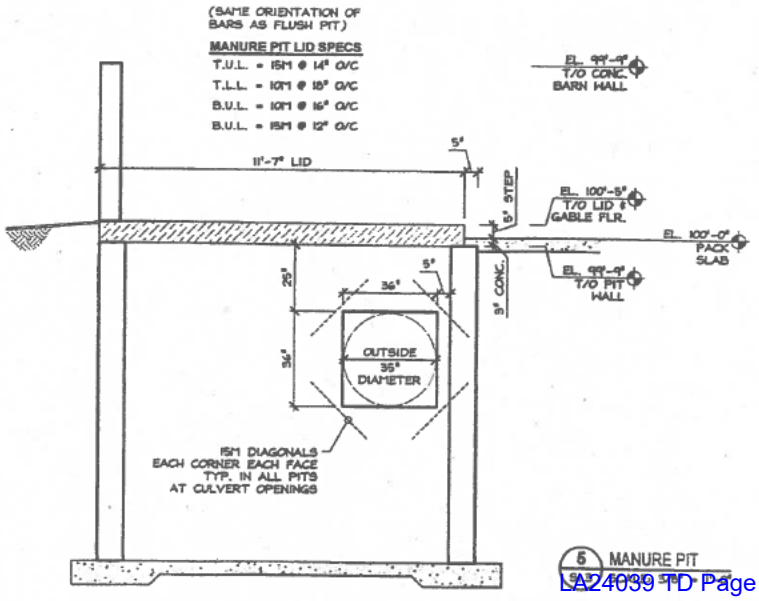


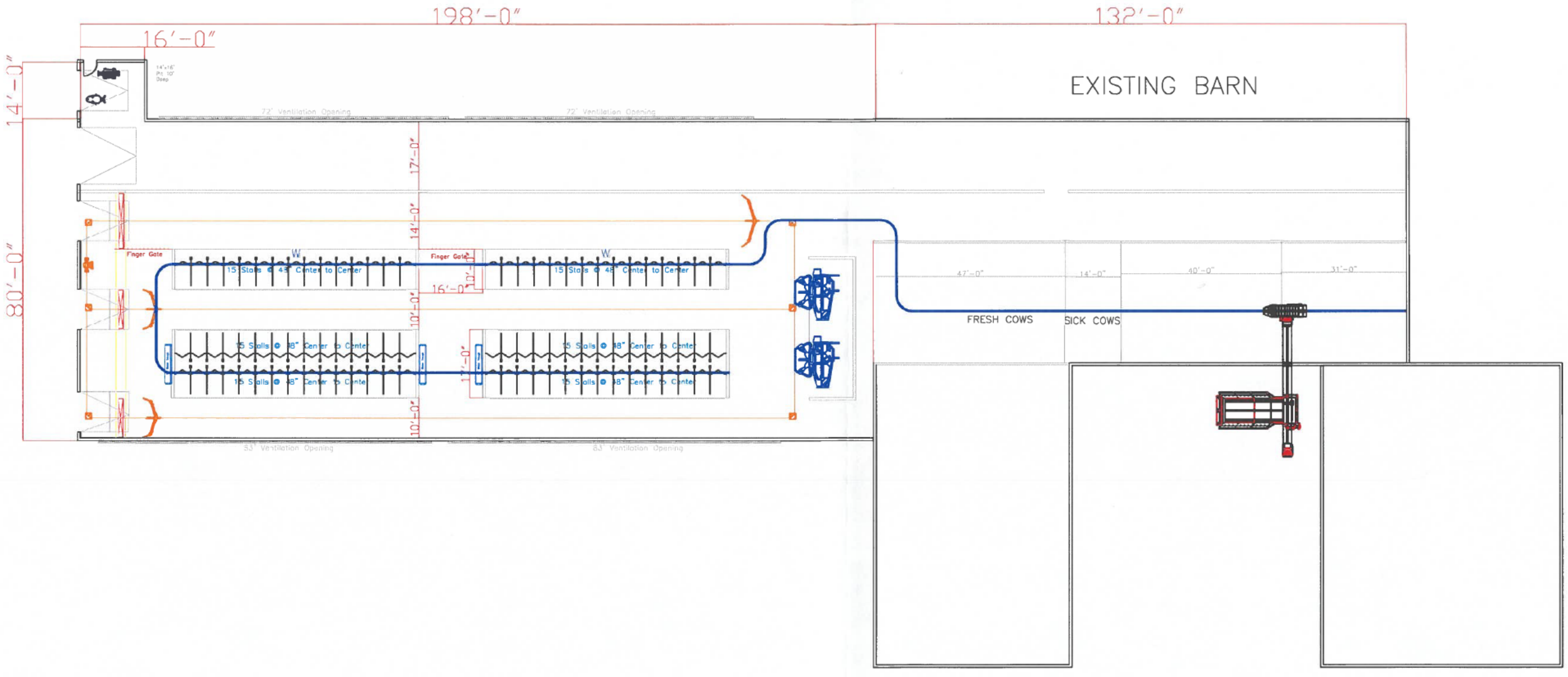




3 S2.1 MANURE PIT
SCALE: 3/8" = 1'-0"




5 MANURE PIT




| NO. | DESCRIPTION | DATE |
|---|---|---|
| | Track length for bedding robot 566' | |

| Customer Information | |
|---|---|
| Name | Quintus Dairy |
| Project | Barn Extension |
| Location | AB |

Notes

| | |
|---|---|
| Drawn By | Paul Templeman |
| Contact Info | 403-885-2527 paul@chinookfarm.com |
| Date | November 18th 2024 |
| Scale 1:1 | Sheet # 1 of 1 |

CHINOOK FARM INNOVATIONS INC