

March 15, 2016

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Mr. Robert Boswick, P. Eng
Manitoba Conservation and Water Stewardship
Environmental Stewardship Division
Environmental Approvals Branch
123 Main Street, Suite 160
Winnipeg, Manitoba
R3C 1A5

via email

L-169.75

Dear Mr. Boswick,

RE: Rural Municipality of La Broquerie – Wastewater Treatment Lagoon Expansion – Environment Act Proposal

Please find attached revised plans L1, L2, L3, L4 and L5 which addresses your request for additional information as indicated in your January 27, 2016 letter. Text from your January 27, 2016 letter is in *italics*.

1. *"All property lines adjacent to or associated with the site of the expanded lagoon, including easements and immediately adjacent properties;"* Property lines are shown and labeled on plan L1.
2. *"Specific locations or proposed area and site drainage and discharge ditches;"* Ditches are shown on Plan L3.
3. *"Specific Locations of proposed discharge pipe outlets;"* Discharge locations are shown on Plan L3.
4. *"Specific locations of existing and proposed fences and gates;"* Fence and gate locations are shown on Plan L3
5. *"Elevations of key points along the lagoon drainage routes to the Seine River;"* Elevations are indicated where new ditching meets existing drainage ditching on Plan L3. Existing drainage ditches to the Seine River will be utilized and re-graded if required to ensure positive drainage.
6. *"Locations and configurations of all soil stockpiles and other materials associated with previous lagoon construction activities, including all soil and other materials that may have been placed at the site and on adjoining properties;"* Locations of soil stockpiles are indicated on Plan L1
7. *"Topographies of lands owned by the Rural Municipality of La Broquerie and immediately adjacent lands that are privately owned and located between the existing lagoon and the Seine River."* Elevation contours are shown on Plan L1.

Plans L2, L4 and L5 have been modified as required to keep the proposed lagoon expansion inside of RM of La Broquerie property. The aeration cell operating depth has been revised from 3.5 m to 4.0 m.

In the event that flooding is occurring in the discharge route, the Municipality will be unable to discharge. Under those conditions the Municipality will continue to fill the storage cells until flood conditions on the Seine River cease.

If there are any questions, please contact the undersigned.

Yours truly,

JR Cousin Consultants Ltd.

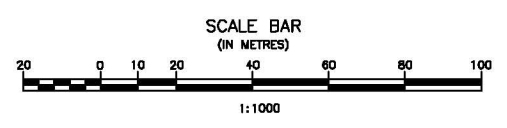

Jason Cousin, P.Eng.
Municipal Engineer

cc Ginette Tétrault, Interim CAO – RM of La Broquerie

enc. Revised Plans L1, L2, L3, L4 and L5



31-06-08-E
 COMMUNITY OF LA BROOQUERIE
 18/12/18 - 14/12/18
 J.R. Cousin Consultants Ltd.



No.	REVISIONS	DATE	INITIALS
1	REVISED LAYOUT TO STAY WITHIN PROPERTY	18/03/11	DK

B.M. EL.

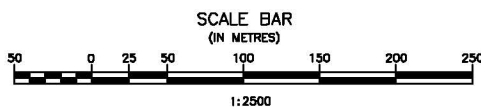
LOCATIONS OF UNDERGROUND STRUCTURES/UTILITIES AS SHOWN ARE BASED ON AVAILABLE INFORMATION BUT NO GUARANTEE IS GIVEN OR IMPLIED THAT ALL EXISTING UNDERGROUND STRUCTURES/UTILITIES ARE SHOWN OR THAT THE GIVEN LOCATIONS ARE EXACT. CONFIRMATION OF EXISTENCE AND EXACT LOCATION OF ALL UNDERGROUND STRUCTURES/UTILITIES MUST BE OBTAINED FROM THE APPROPRIATE AUTHORITY/OWNER, BY THE CONTRACTOR, BEFORE PROCEEDING WITH CONSTRUCTION.

APEGN
 Certificate of Authorization
J.R. Cousin Consultants Ltd.
 No. 234 Date: 14/12/18

ENGINEER'S SEAL
 ORIGINAL DRAWING
 SIGNED AND SEALED
 BY
G. R. COUSIN
 14/12/18

JRCC **ENGINEERING CONSULTANTS**
JR Cousin Consultants Ltd.
 91A Scurfield Blvd. Winnipeg MB R3Y 1G4
 p. (204) 489-0474
 f. (204) 489-0487
 www.jrcc.ca
 ENGINEERING EXCELLENCE SINCE 1981

CODE: L-189.75	PROJECT: RM OF LA BROOQUERIE AERATED LAGOON
DESIGNED BY: BM	TITLE: TEST HOLE LOCATIONS AND CONTOUR LINES
DRAWN BY: MP	SCALE: 1:1000
REVIEWED BY: JC	DATE: 14/12/15
	PLAN: L1
	SHEET: 1 of 6



No.	REVISIONS	DATE	INITIALS
1	REVISED LAYOUT TO STAY WITHIN PROPERTY	18/03/11	DK

B.M. EL.

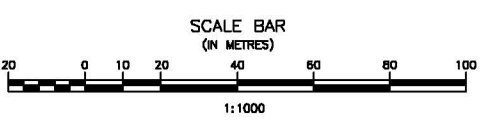
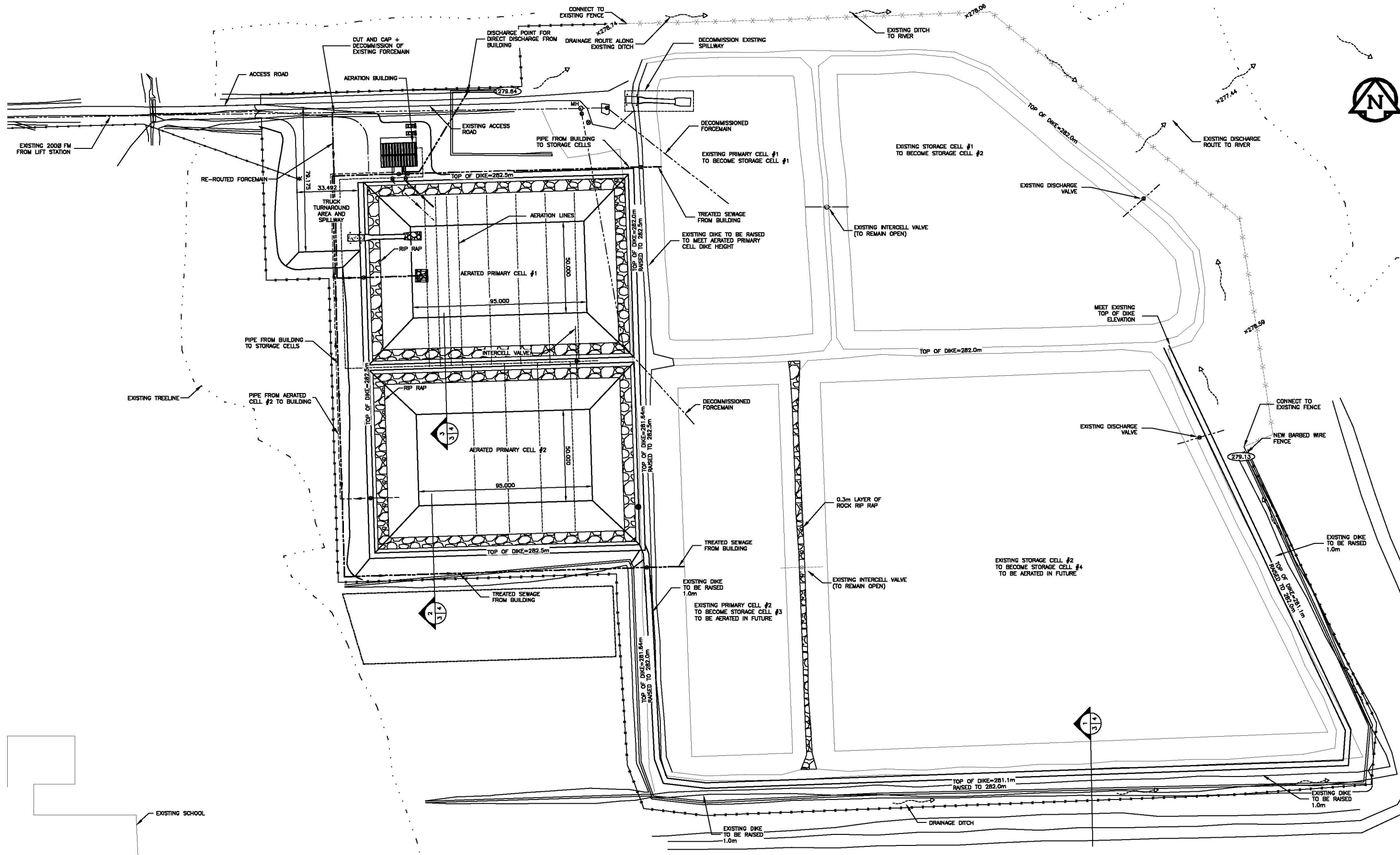
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CODE: L-189.75	PROJECT: RM OF LA BROOQUERIE AERATED LAGOON
DESIGNED BY: BM	TITLE: PROPOSED AERATED LAGOON WITH 300m SETBACK
DRAWN BY: MP	SCALE: 1:2500
REVIEWED BY: JC	DATE: 14/12/15
	PLAN: L2
	SHEET: 2 of 6



No.	REVISIONS	DATE	INITIALS	B.M. EL.
2	REVISED LAYOUT TO STAY WITHIN PROPERTY	18/03/11	DK	
1	ADDED DISCHARGE PIPE FROM BUILDING TO DITCH	15/12/04	BM	

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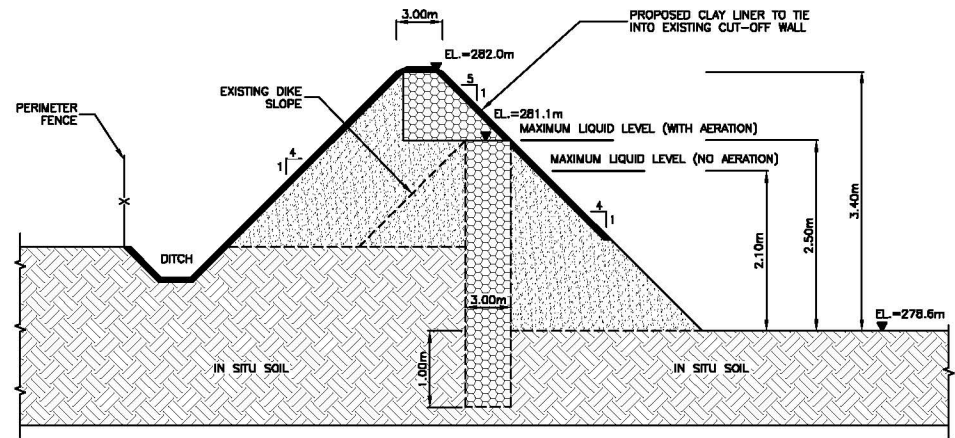
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CODE: L-189.75	PROJECT: RM OF LA BROQUERIE AERATED LAGOON
DESIGNED BY: BM	TITLE: PROPOSED AERATED LAGOON EXPANSION
DRAWN BY: MP	SCALE: 1:1000
REVIEWED BY: JC	DATE: 14/12/15
	PLAN: L3
	SHEET: 3 of 6

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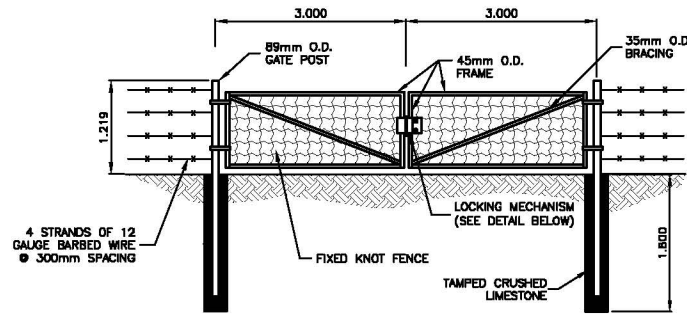


**SOUTH PERIMETER DIKE
TO BE RAISED 1.0m**

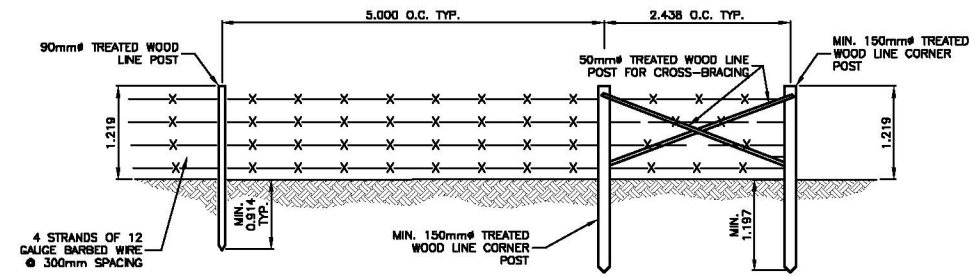
VERTICAL=1:50
HORIZONTAL=1:250

LEGEND

- TOPSOIL
- EXCAVATED AND COMPACTED SOILS SUITABLE FOR DIKE CONSTRUCTION
- EXCAVATED AND COMPACTED MEDIUM TO HIGH PLASTIC CLAY
- INSITU INORGANIC MEDIUM TO HIGH PLASTIC CLAY
- ROCK RIP RAP
- SILTY SANDS, SAND-SILT MIXTURES

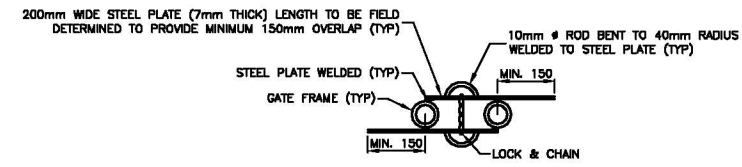


GATE DETAIL
Scale = 1:50

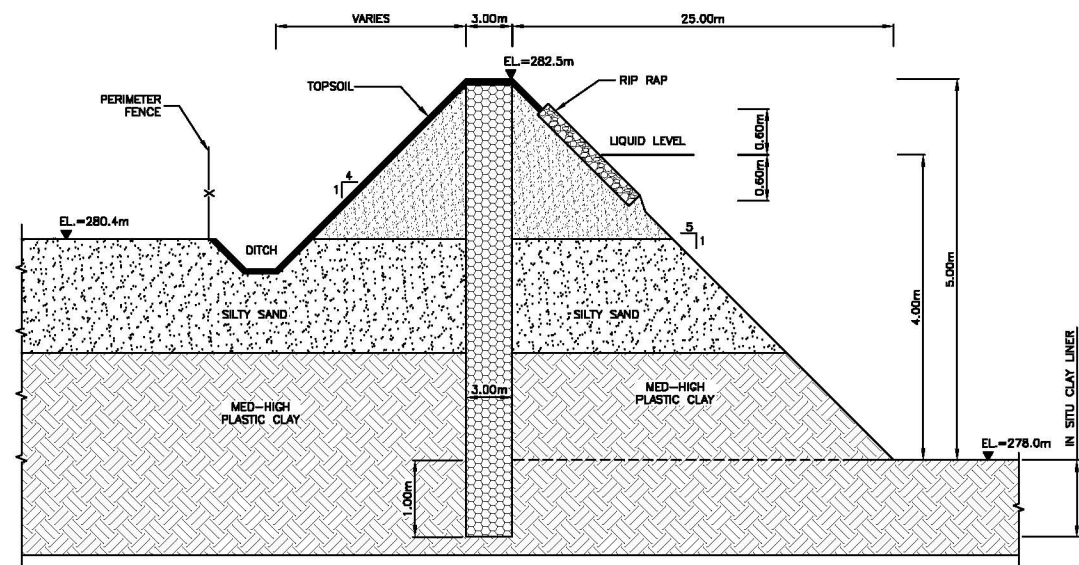


NOTE:
- PROVIDE CROSS BRACING AT CORNER POSTS IN BOTH DIRECTIONS.
- SHOWN DIAMETER REFERS TO SMALLEST END OF POST.

FENCE DETAIL
SCALE = 1:50

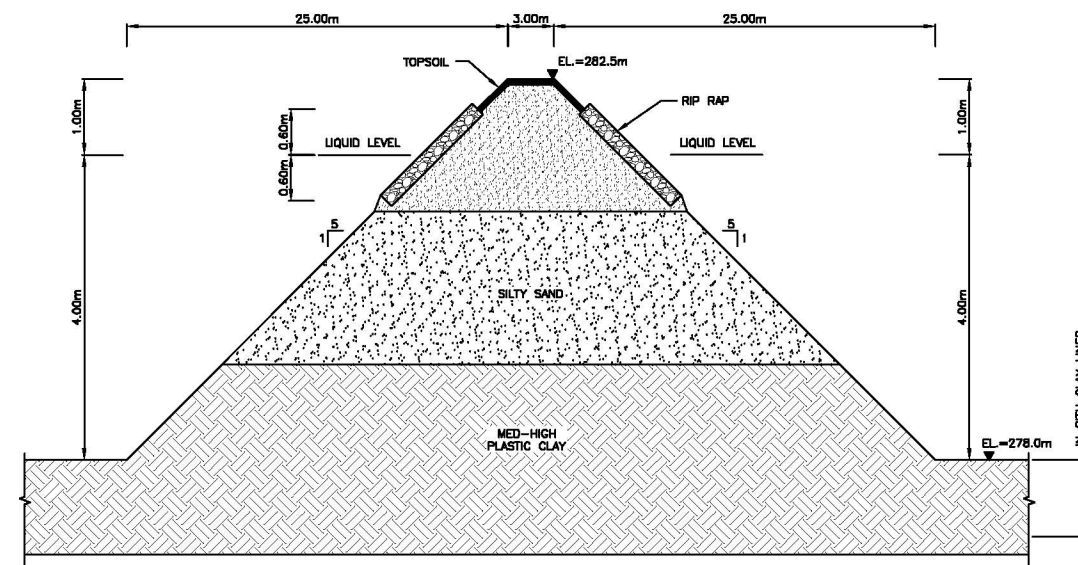


LOCK DETAIL
SCALE = 1:10



**PERIMETER DIKE OF NEW AERATED
PRIMARY CELL**

VERTICAL=1:50
HORIZONTAL=1:250



**INTERCELL DIKE OF NEW
AERATED PRIMARY CELL**

VERTICAL=1:50
HORIZONTAL=1:250

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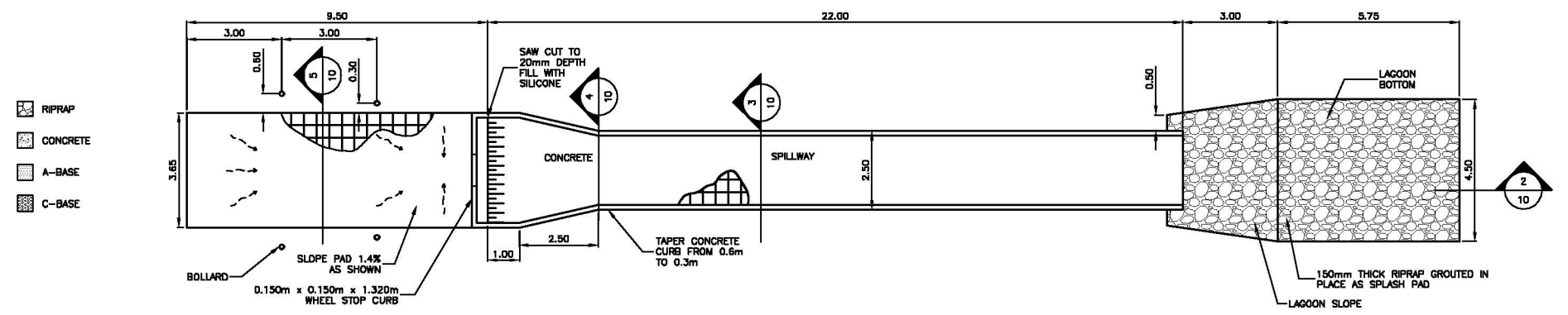
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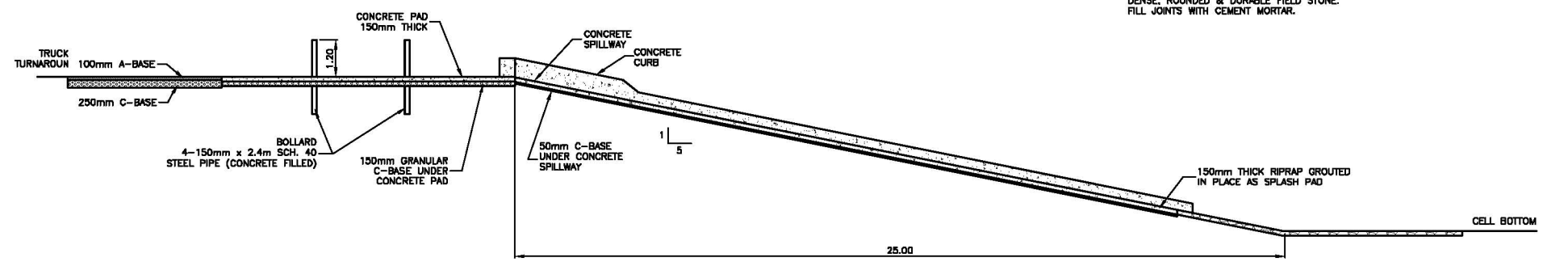
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CODE:	PROJECT:
L-189.75	RM OF LA BROQUERIE AERATED LAGOON
DESIGNED BY:	TITLE:
BM	DIKE CROSS SECTION AND FENCE DETAILS
DRAWN BY:	MP
REVIEWED BY:	JC
SCALE:	DATE:
AS NOTED	14/12/15
PLAN:	SHEET:
L4	4 of 6

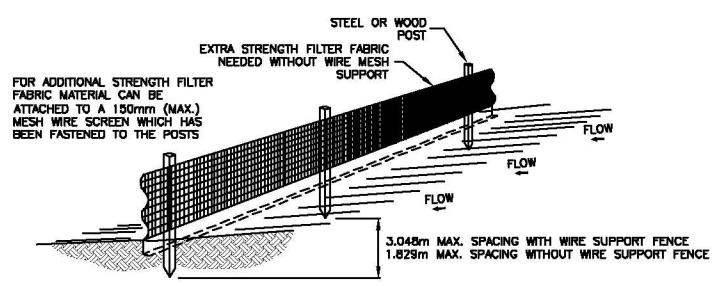


4 SPILLWAY PLAN VIEW
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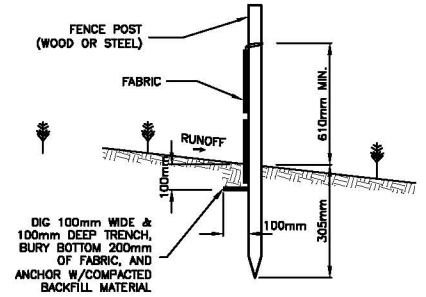


5 SPILLWAY SECTION
SCALE = 1:100

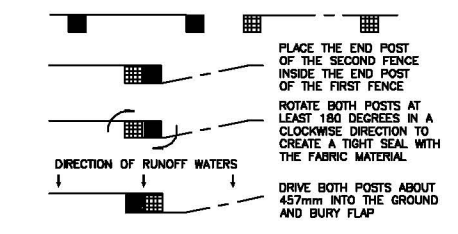
RIPRAP NOTE:
- RIPRAP MATERIAL SHALL BE WELL GRADED 125mm TO 200mm HARD, DENSE, ROUNDED & DURABLE FIELD STONE. FILL JOINTS WITH CEMENT MORTAR.



1 SILT FENCE DETAIL
SCALE = NTS

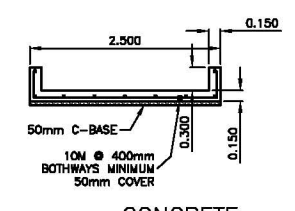


2 SILT FENCE SECTION
SCALE = NTS

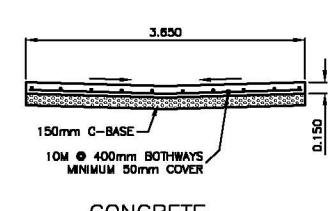


3 ATTACHING TWO SILT FENCES
SCALE = NTS

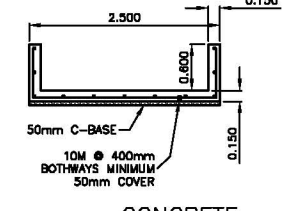
CONCRETE NOTE:
CONCRETE SHALL BE:
- TYPE GU PORTLAND CEMENT MINIMUM 28 DAY COMPRESSION OF 20 MPa
- 5-7% AIR CONTENT
- MAXIMUM AGGREGATE SIZE OF 20mm
- MAXIMUM SLUMP OF 100mm



6 CONCRETE SPILLWAY SECTION
SCALE = 1:50



7 CONCRETE PAD SECTION
SCALE = 1:50



8 CONCRETE SPILLWAY SECTION
SCALE = 1:50

- NOTES:
1. THE HEIGHT OF A SILT FENCE SHALL NOT EXCEED 914mm.
 2. THE FILTER FABRIC SHALL BE PURCHASED IN A CONTINUOUS ROLL CUT TO THE LENGTH OF THE BARRIER TO AVOID THE USE OF JOINTS.
 3. POSTS SHALL BE SPACED A MAXIMUM OF 3.048m APART AT THE BARRIER LOCATION AND DRIVEN SECURELY INTO THE GROUND A MINIMUM OF 300mm. WHEN EXTRA STRENGTH FABRIC IS USED WITHOUT THE WIRE SUPPORT FENCE, POST SPACING SHALL NOT EXCEED 1.829m.
 4. A TRENCH SHALL BE EXCAVATED APPROXIMATELY 100mm WIDE AND 100mm DEEP ALONG THE LINE OF POSTS AND UPSLOPE FROM THE BARRIER.
 5. WHEN STANDARD STRENGTH FILTER FABRIC IS USED, A WIRE MESH SUPPORT FENCE SHALL BE FASTENED SECURELY TO THE UPSLOPE SIDE OF THE POSTS USING HEAVY DUTY WIRE STAPLES AT LEAST 25mm LONG, THE WIRES, OR HOG RINGS. THE WIRE SHALL EXTEND INTO THE TRENCH A MINIMUM OF 50mm AND SHALL NOT EXTEND MORE THAN 914mm ABOVE THE ORIGINAL GROUND SURFACE.
 6. THE STANDARD STRENGTH FILTER FABRIC SHALL BE STAPLED OR WIRED TO THE FENCE, AND 200mm OF THE FABRIC SHALL BE EXTENDED INTO THE TRENCH. THE FABRIC SHALL NOT EXTEND MORE THAN 914mm ABOVE THE ORIGINAL SURFACE.
 7. THE TRENCH SHALL BE BACKFILLED AND THE SOIL COMPACTED OVER THE FILTER FABRIC.
 8. SILT FENCING TO BE POLYPROPYLENE SYNTHETIC FIBRE WITH ULTRAVIOLET STABILIZERS. ANODOC 1198 OR APPROVED EQUAL.
 9. WOOD POSTS TO BE 38mm X 89mm (2" X 4"), POINTED AT ONE END AND FABRICATED.
 10. INSTALL ALL SUPPORTING POSTS ON THE DOWN SLOPE SIDE OF THE FENCING.
 11. MAINTAIN SILT FENCE THROUGHOUT CONSTRUCTION AND UNTIL REVEGETATION OCCURS.

No.	REVISIONS	DATE	INITIALS	B.M. EL.
1	REVISED LAYOUT TO STAY WITHIN PROPERTY	16/03/11	DK	

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CODE: L-187.75	DESIGNED BY: BM	DRAWN BY: MP	REVIEWED BY: JC	SCALE: AS NOTED	DATE: 14/12/15	PLAN: L5	SHEET: 5 of 6
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PROJECT:
RM OF LA BROQUERIE
AERATED LAGOON
TITLE:
SILT FENCE AND CONCRETE SPILLWAY DETAILS