Rideau Valley Conservation Authority

RVCA RECEIVED
AUG - 3 2023
REFER TO:

STREET/CIVIC INITIAL ☐
EMAIL ONLY
SEPTIC FILE # 23-265
OTTAWA

Septic Office

3889 Rideau Valley Drive Box 599 Manotick, ON K4M 1A5

Phone: 613-692-3571 PRESS "4" for septic office 1-800-267-3504 Fax: 613-692-1507 Email: septic@rvca.ca

SITE ADDRESS: 4 Campbell Reid Court Township:OSG-HUN-GLO-FIT-CUM-NEP-GOU-RID-KAN-TOR

CONTACT: 1. Argi Olender Holdings Ltd 2. ARCH-NOVA Design Inc 3. PH Robinson Consulting

INFORMATION FOR OWNER/APPLICANT

Attached is your Sewage System Permit. **A minimum of two inspections are required before your proposed sewage system can be approved for use (additional inspections may be required for clay soils/bedrock and/or re-inspections).** Inspections must be requested in writing. Please see attached:

- Inspection fax request form (all inspections MUST be requested in writing)
- As-built components and drawing form
- Copy of the approved application and schedule pages
- Approved Part 8 permit: ***Electronic copy only – Be sure to INCLUDE in Building Application Package for Plans Examiner at CITY of OTTAWA client services, if NEW or RENO construction project.**

Special Note

- **A permit is valid for 12 months from the original date of issuance noted in "*permit date*".** If lapsed, it may be renewed only once for a period of 12 months *from the date of expiry.*

- No person shall make a material change or cause a material change to be made to a plan, specification, document or other information on the basis of which a permit was issued without notifying, filing details with and obtaining the authorization of the Chief Building Official. *(Building Code Act 1992, c.23, s.8(12))*

Sewage System Permit Construction Requirements

1. Clay Soils/Bedrock only (if required per issued Approval)
In clay soils/bedrock, a site preparation inspection is required. The total contact area must be properly prepared. Scarification must be done under dry conditions prior to importing leaching bed fill.

2. Installation Inspection – 2nd inspection
When the sewage system is substantially completed (i.e., before the final fill is placed over the septic tank and leaching bed system) an installation inspection is required. Prior to any inspection request, the following must be submitted:

a) "as-built components" and "as-built drawings" — see attached form
b) "engineer letter" — if the system is engineered
c) grain size analysis and weight bills for all Filter Media types of septic systems
d) Weigh bills for washed septic stone, where applicable
e) Maintenance/service contract for treatment unit installed

3. Final Grading Inspection – 3rd inspection
When construction of the sewage system is complete, a final grading inspection is required. Before a Certificate of Completion can be issued, the following must be complete:

a) The leaching bed and septic tank must be covered with sand fill and topsoil and graded accordingly
b) All conditions of the Sewage System Permit & comments on the installation inspection report must be met
c) The depth of cover & material type must be identified by inspection pipes or holes placed over trenches at 4 corners of bed
d) The 4 corners of the bed must be staked

Application for a Permit to Construct or Demolish

This form is authorized under subsection 8(1.1) of the *Building Code Act, 1992*

SEPTIC FILE #

For use by Principal Authority

Application number: 23-265		Permit number (if different):	RVCA RECEIVED JAN - 1 2024 REFER TO:
Date received: OTTAWA		Roll number:	

Application submitted to: OTTAWA SEPTIC SYSTEM OFFICE
(Name of municipality, upper-tier municipality, board of health or conservation authority)

A. Project information

Building number, street name: 4 Campbell Reid		Unit number	Lot/con.: Pt Lt 15, C 3
Municipality: Kanata	Postal code: K2K 1X7	Plan number/other description	
Project value est. $: $60,000		Area of work (m^2): 4,864 m2	

B. Purpose of application

New construction | Addition to an existing building | Alteration/repair | Demolition | Conditional Permit

Proposed use of building : Veterinary Clinic (additi: Veterinary Clinic	Current use of building: existing house: Existing house

Description of proposed work: New construction for a veterinary clinic. Exisiting house is on the site. Exisiting septic system to be replaced with a new system to service both buildings.

C. Applicant — Applicant is: Owner or Authorized agent of owner

Last name: Olender	First name: Andrzej	Corporation or partnership: A & G Olender Holdings Ltd.	
Street address: 1405 Houston Crescent		Unit number	Lot/con.
Municipality: Ottawa	Postal code: K2W 1B6	Province: ON	E-mail: aolender.mrvh@gmail.com
Telephone number: (613) 8582520	Fax: ( )	Cell number: ( )	

D. Owner (if different from applicant)

Last name	First name	Corporation or partnership	
Street address		Unit number	Lot/con.
Municipality	Postal code	Province	E-mail
Telephone number: ( )	Fax: ( )	Cell number: ( )	

E. Builder (optional)			
Last name	First name	Corporation or partnership (if applicable)	
Street address		Unit number	Lot/con.
Municipality	Postal code	Province	E-mail
Telephone number ( )	Fax ( )	Cell number ( )	

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F. Tarion Warranty Corporation (Ontario New Home Warranty Program)		
i. Is proposed construction for a new home as defined in the *Ontario New Home Warranties Plan Act*? If no, go to section G.	Yes	No
ii. Is registration required under the *Ontario New Home Warranties Plan Act*?	Yes	No

iii. If yes to (ii) provide registration number(s): _____

G. Required Schedules

i) Attach Schedule 1 for each individual who reviews and takes responsibility for design activities.

ii) Attach Schedule 2 where application is to construct on-site, install or repair a sewage system.

H. Completeness and compliance with applicable law		
i) This application meets all the requirements of clauses 1.3.1.3 (5) (a) to (d) of Division C of the Building Code (the application is made in the correct form and by the owner or authorized agent, all applicable fields have been completed on the application and required schedules, and all required schedules are submitted).	(Yes)	No
Payment has been made of all fees that are required, under the applicable by-law, resolution or regulation made under clause 7(1)(c) of the *Building Code Act, 1992*, to be paid when the application is made.	Yes	No
ii) This application is accompanied by the plans and specifications prescribed by the applicable by-law, resolution or regulation made under clause 7(1)(b) of the *Building Code Act, 1992*.	(Yes)	No
iii) This application is accompanied by the information and documents prescribed by the applicable by-law, resolution or regulation made under clause 7(1)(b) of the *Building Code Act, 1992* which enable the chief building official to determine whether the proposed building, construction or demolition will contravene any applicable law.	(Yes)	No
iv) The proposed building, construction or demolition will not contravene any applicable law.	(Yes)	No

I. Declaration of applicant

I Andrzej Olender declare that:
(print name)

1. The information contained in this application, attached schedules, attached plans and specifications, and other attached documentation is true to the best of my knowledge.
2. If the owner is a corporation or partnership, I have the authority to bind the corporation or partnership.

Date July 26, 2023 Signature of applicant

Updated 21.12.2023

Personal information conta[illegible]ed under the authority of subsection 8(1.1) of the *Building Code Act, 1992*, and will be used in the administration and enforcement of the *Building Code Act, 1992*. Questions about the collection of personal information may be addressed to: a) the Chief Building Official of the municipality or upper-tier municipality to which this application is being made, or, b) the inspector having the powers and duties of a chief building official in relation to sewage systems or plumbing for an upper-tier municipality, board of health or conservation authority to whom this application is made, or, c) Director, Building and Development Branch, Ministry of Municipal Affairs and Housing 777 Bay St., 2nd Floor. Toronto, M5G 2E5 (416) 585-6666.

Schedule 1: Designer Information

Use one form for each individual who reviews and takes responsibility for design activities with respect to the project.

A. Project Information

Building number, street name		Unit no.	Lot/con.
4 Campbell Reid			Pt Lt 15 C 3
Municipality	**Postal code**	**Plan number/ other description**	
Kanata	K2K 1X7		

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B. Individual who reviews and takes responsibility for design activities

Name		Firm	
Zoran Mrdja		ARCH-NOVA Design Inc	
Street address		**Unit no.**	
45 Banner Rd			
Municipality	**Postal code**	**Province**	**E-mail**
Ottawa	K2H 8X5	ON	zoran@archnova.ca
Telephone number	**Fax number**		**Cell number**
(613)7023403	( )		( )

C. Design activities undertaken by individual identified in Section B. [Building Code Table 3.5.2.1. of Division C]

House	HVAC – House	Building Structural
Small Buildings	Building Services	Plumbing – House
Large Buildings	Detection, Lighting and Power	Plumbing – All Buildings
Complex Buildings	Fire Protection	On-site Sewage Systems

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Description of designer's work

Design for the new septic tank for the proposed veterinary clinic.

D. Declaration of Designer

I Zoran Mrdja, P.Eng. FEC. declare that (choose one as appropriate):
(print name)

I review and take responsibility for the design work on behalf of a firm registered under subsection 3.2.4.of Division C, of the Building Code. I am qualified, and the firm is registered, in the appropriate classes/categories.

Individual BCIN: _____

Firm BCIN: _____

I review and take responsibility for the design and am qualified in the appropriate category as an "other designer" under subsection 3.2.5.of Division C, of the Building Code.

Individual BCIN: _____

Basis for exemption from registration: _____

The design work is exempt from the registration and qualification requirements of the Building Code.

Basis for exemption from registration and qualification: _____

I certify that:

1. The information contained in this schedule is true to the best of my knowledge.
2. I have submitted this application with the knowledge and consent of the firm.

Date Signature of Designer

NOTE:

1. For the purposes of this form, "individual" means the "person" referred to in Clause 3.2.4.7(1) (c).of Division C, Article 3.2.5.1. of Division C, and all other persons who are exempt from qualification under Subsections 3.2.4. and 3.2.5. of Division C.
2. Schedule 1 is not required to be completed by a holder of a license, temporary license, or a certificate of practice, issued by the Ontario Association of Architects. Schedule 1 is also not required to be completed by a holder of a license to practise, a limited license to practise, or a certificate of authorization, issued by the Association of Professional Engineers of Ontario.

Schedule 2: Sewage System Installer Information

A. Project Information

Building number, street name		Unit number	Lot/con.
4 Campbell Reid			Pt Lt 15, C 3
Municipality	**Postal code**	**Plan number/ other description**	
Kanata	K2K 1X7		

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B. Sewage system installer

Is the installer of the sewage system engaged in the business of constructing on-site, installing, repairing, servicing, cleaning or emptying sewage systems, in accordance with Building Code Article 3.3.1.1, Division C?

Yes (Continue to Section C) No (Continue to Section E) Installer unknown at time of application (Continue to Section E)

C. Registered installer information (where answer to B is "Yes")

Name			BCIN
Street address			Unit number / Lot/con.
Municipality	Postal code	Province	E-mail
Telephone number ( )	Fax ( )		Cell number ( )

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D. Qualified supervisor information (where answer to section B is "Yes")

Name of qualified supervisor(s)	Building Code Identification Number (BCIN)

E. Declaration of Applicant:

I Andrzej Olender (print name) declare that:

I am the applicant for the permit to construct the sewage system. If the installer is unknown at time of application, I shall submit a new Schedule 2 prior to construction when the installer is known;

OR

I am the holder of the permit to construct the sewage system, and am submitting a new Schedule 2, now that the installer is known.

I certify that:

1. The information contained in this schedule is true to the best of my knowledge.
2. If the owner is a corporation or partnership, I have the authority to bind the corporation or partnership.

Date July 26, 2023 Signature of applicant A Olender

updated 21.12.2023

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Ottawa Septic System Office / Bureau des systèmes septiques d'Ottawa

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Revision # _____
Date _____

Schedule 4
Proposed Services
Complete Sections 1 thru 7

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1. **Engineered**
- [x] Yes
- [ ] No

2. **Water supply**
- [ ] Proposed
- [x] Existing

3. **Type of work proposed**
- [ ] New Installation
- [x] Replacement
- [ ] Alteration

4. **Type of Well**
- [ ] Dug/bored/Sandpoint well
- [x] Drilled well
- [ ] Municipal
- [ ] Other

5. **Residential** Sewage Design Flow Info.

Bedrooms	4	
House (floor area)	2368	**m²**
People	4	
Total Fixture Units	26.5	**(Schedule 8)**
Residential Flow	2325	**L/day**

6. Sewage Design Flow **Other Occupancies**
Design Flow 1875 L/day
Detailed sewage flow calculations:

_____
_____
_____

7. **Type of System**
- [ ] Treatment Unit _____
- [ ] Class 2 – Leaching Pit
- [ ] Class 3 – Cesspool
- [ ] Class 4 – Shallow Buried Trench

_____

- [ ] Class 4 – Trench **(Schedule 9)**
  - [ ] Fully raised
  - [ ] Partially raised
  - [ ] In-ground
- [ ] Class 4 – Filter Media **(Schedule 10)**
  - [ ] Fully raised
  - [ ] Partially raised
  - [ ] In-ground
- [ ] Class 4 – BMEC Area Bed **(Schedule 11)**
  - [ ] Fully raised
  - [ ] Partially raised
  - [ ] In-ground
- [x] Class 4 – "Type A" Dispersal **(Schedule 13)**
  - [x] Fully raised
  - [ ] Partially raised
  - [ ] In-ground
- [ ] Class 4 – "Type B" Dispersal **(Schedule 14)**
  - [ ] Fully raised
  - [ ] Partially raised
  - [ ] In-ground

- [ ] Class 5 – Holding Tank (9000L min)
- [ ] Tank/TreatmentUnit/PumpChamber ONLY
- [ ] Effluent Filter/Risers ONLY

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Revision No _____
Date _____

Schedule 5
Sewage System Details

Type of System: Class 4 Trench (Schedule 4)

Septic/Holding Tank Size: 10000 Litres Make: Waterloo

Septic Tank Effluent Filter Make: Waterloo Model: BFCN-9400

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Treatment Unit – Make & Model: Waterloo AD-12260 (anaerobic digester tank)

Number of Units: 1

Refer to Typical Drawing # _____

Mantle Information:

Native or (imported) =15m in South direction(s)

Slope subgrade 2.0 % slope

South direction(s)

Other: _____

Pump(s) required yes

Pump Rate manufacturer to provide L/15min

Note: Alarm required for all pumping systems

Site to be Scarified (If clay) YES / (NO) clay layer may be required. to be confirmed

Clay Seal Required (If bedrock) (YES) / NO upon stripping the site.

☐ **Trench**

Distribution Pipe Length _____ m

Loading Area _____ m²

Type of Chamber _____

Length of Chamber _____ m

☐ **Shallow Buried Trench**

Pipe Length _____ m

☐ **Filter Media Bed**

Stone _____ m²

Extended Base _____ m²

Pipe _____ m

Weight of Filter Media _____ Kg

Loading Area _____ m

■ **Dispersal Bed**

☐ **BMEC** ■ **Type A** ☐ **Type B**

Stone 150 m²

Sand 475 m²

Pipe 84 m²

Linear Loading 50 L/m²

☐ **Tank/Treatment Unit/Pump Chamber Replacement** ONLY

☐ **Effluent Filter & Riser** ONLY

Construction Notes:

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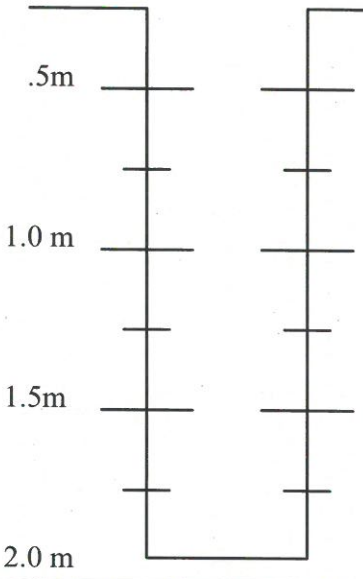
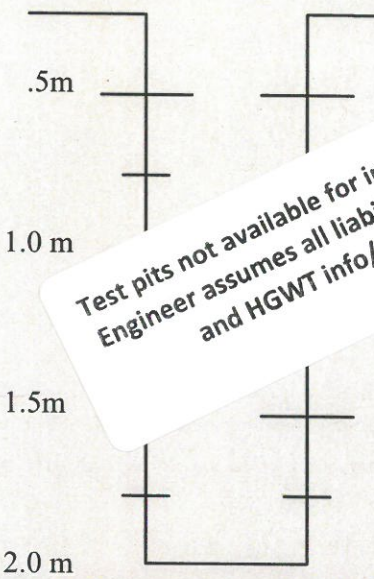
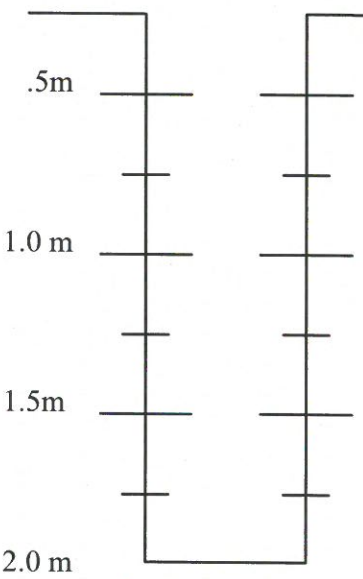
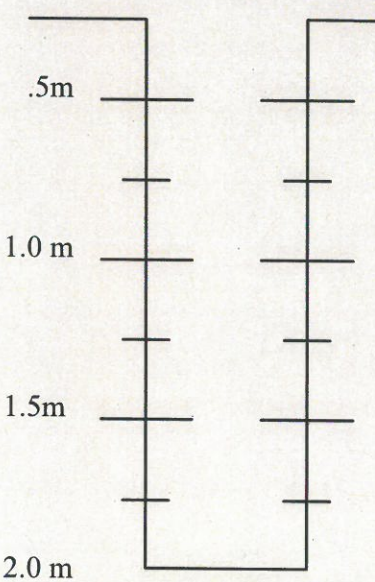
Schedule 6
Soil and Water Table Information
(Minimum depth of test pit: 2 metres)

see attached report: Gemtec HydroGeo report

Name of Applicant/Agent: _____
Date: _____ Time: _____
Applicant/Agent Signature: _____

Inspector: _____
Date: _____ Time: _____
Inspector Signature: _____

EG (……..) Soil Description	T	EG (……..) Soil Description	
			
EG (……..) Soil Description	T	EG (……..) Soil Description	T
			

Test pits not available for inspection. Engineer assumes all liability for soil and HGWT info/elv's

LEGEND

BR = Bedrock
GWT = Ground water table
HGWT = High ground water table
M = metres
EG = Existing grade
T = percolation rate

RECORD OF TEST PIT 21-4

CLIENT: TSH Custom Homes
PROJECT: Proposed Commercial Building-4 Campbell Reid Court
JOB#: 65103.01
LOCATION: See Test Pit Location Plan, Figure 1

SHEET: 1 OF 1
DATUM: CGVD28
BORING DATE: Jun 23 2021

DEPTH SCALE METRES	SOIL PROFILE: DESCRIPTION	STRATA PLOT	ELEV. / DEPTH (m)	SAMPLE NUMBER	SAMPLE TYPE	SHEAR STRENGTH (Cu), kPA (+ NATURAL, ⊕ REMOULDED) / WATER CONTENT, % (W_P — W — W_L)	ADDITIONAL LAB. TESTING	WATER LEVEL IN OPEN TEST PIT OR STANDPIPE INSTALLATION
0	Ground Surface		93.21			10 20 30 40 50 60 70 80 90		
	Dark brown to grey gravelly sandy silt with organics, rootlets, roots, cobbles, boulders and construction debris (FILL MATERIAL)			1	GS			Backfilled with excavated material
1	Dark brown silty clay with organic material (FORMER TOPSOIL)		92.21 1.00	2	GS			
	Test pit terminated due to practical shovel refusal on inferred bedrock surface		92.01 1.20					
2								
3								
4								
5								

GEMTEC
Consulting Engineers and Scientists

LOGGED: P.B.
CHECKED: G.D.

RECORD OF BOREHOLE 22-02

CLIENT: Dr. Andrzej Olender
PROJECT: Phase Two ESA, 4 Campbell Court, Kanata ON
JOB#: 65103.01
LOCATION: 4 Campbell Court, Kanata, ON

SHEET: 1 OF 1
DATUM: Unknown
BORING DATE: Mar 28 2022

DEPTH SCALE METRES	BORING METHOD	SOIL PROFILE: DESCRIPTION	STRATA PLOT	ELEV. / DEPTH (m)	SAMPLE DATA: NUMBER	TYPE	RECOVERY (mm)	BLOWS/0.3m	LABORATORY ANALYSES	COMBUSTIBLE VAPOUR CONCENTRATION (ppm)	ODOUR	TPH (mg/kg)	MONITORING WELL INSTALLATION AND NOTES
		Ground Surface		93.27									
0	Direct Push	Brown sand (FILL)			1		558.8		Metals, PAHs, PHCs, PCBs, VOCs	HEX: 0; IBL: 1			Native backfill
1		Dark organic matter (PEAT)		92.18 / 1.09									
		End of borehole Auger refusal		92.05 / 1.22									

GEMTEC
Consulting Engineers and Scientists

LOGGED: EW
CHECKED: MB

ENV - BOREHOLE LOG CAMPBELL COURT GINT.GPJ GEMTEC 2018.GDT 5/3/22

RECORD OF BOREHOLE 22-04

CLIENT: Dr. Andrzej Olender
PROJECT: Phase Two ESA, 4 Campbell Court, Kanata ON
JOB#: 65103.01
LOCATION: 4 Campbell Court, Kanata, ON

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SHEET: 1 OF 1
DATUM: Unknown
BORING DATE: Mar 28 2022

DEPTH SCALE METRES	BORING METHOD	SOIL PROFILE: DESCRIPTION	STRATA PLOT	ELEV. / DEPTH (m)	SAMPLE DATA: NUMBER	TYPE	RECOVERY (mm)	BLOWS/0.3m	LABORATORY ANALYSES	COMBUSTIBLE VAPOUR CONCENTRATION (ppm)	ODOUR	TPH (mg/kg)	MONITORING WELL INSTALLATION AND NOTES
		Ground Surface		93.25									
0	Direct Push	Dark grey brown sand with some gravel (FILL)		92.72									Native backfill
1		End of borehole Auger refusal		0.52	1	SS	444.5			HEX:10 ; IBL: 1			

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GEMTEC
Consulting Engineers and Scientists

LOGGED: EW
CHECKED: MB

ENV - BOREHOLE LOG CAMPBELL COURT GINT.GPJ GEMTEC 2018.GDT 5/3/22

RECORD OF BOREHOLE: 22-05

CLIENT: Dr. Andrzej Olender
PROJECT: Phase Two ESA, 4 Campbell Court, Kanata ON
JOB#: 65103.01
LOCATION: 4 Campbell Court, Kanata, ON

SHEET: 1 OF 1
DATUM: Unknown
BORING DATE: Mar 28 2022

DEPTH SCALE METRES	BORING METHOD	SOIL PROFILE: DESCRIPTION	STRATA PLOT	ELEV. / DEPTH (m)	SAMPLE DATA: NUMBER	TYPE	RECOVERY (mm)	BLOWS/0.3m	LABORATORY ANALYSES	COMBUSTIBLE VAPOUR CONCENTRATION (ppm)	ODOUR	TPH (mg/kg)	MONITORING WELL INSTALLATION AND NOTES
		Ground Surface		93.64									
0	Direct Push	Brown coarse sand with gravel (FILL)		93.13	1	CA	1092.2		Metal, PAHs, PHCs, PCBs, VOCs	HEX: 0; IBL: 0			Native backfill
		grey clay and silty clay with organics		0.51	2				Metal, PAHs, PHCs, PCBs, VOCsMetal, PAHs, PHCs, PCBs, VOCs	HEX: 5; IBL: 0			
1				92.55 1.09									

GEMTEC
Consulting Engineers and Scientists

LOGGED: EW
CHECKED: MB

ENV - BOREHOLE LOG CAMPBELL COURT GINT.GPJ GEMTEC 2018.GDT 5/3/22

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Date _____

Scale: 1Block = _____

Schedule 7
Layout Section

N

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○Dug Well ●Drilled Well ▲Neighbouring Homes ◊Benchmark ---Tile Drainage —Property Line

Elevations (metric only)
B.M. _____ m
B.M.Description_____
_____
Exact Location_____

Min. of 5 elevations in proposed system area (in X pattern)
X_1_____ X_2_____
X_3_____ X_4_____
X_5_____ $X_{6\ (toe)}$_____
X_7 X_8

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Date _____

Schedule 8
Fixture unit count

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Fixtures	# Existing	+	# Proposed	X	unit count	=	Fixture Count
Bathroom							
Bathroom group (toilet, sink and tub or shower) installed in the same room	2	+		X	6	=	12
Bathtub with/without overhead shower	1	+		X	1.5	=	1.5
Shower stall		+		X	1.5	=	
Wash basin (SINK) (1½inch trap)	2	+		X	1.5	=	3
Watercloset (TOILET) tank operated	1	+		X	4	=	4
Bidet		+		X	1	=	
Kitchen							
Dishwasher	1	+		X	1	=	1
Sink with/without garbage grinder(s), domestic and other small type single, double or 2 single with a common trap	1	+		X	1.5	=	1.5
Other							
Domestic washing machine	1	+		X	1.5	=	1.5
Combination sink and laundry tray single or double (Installed on 1½ trap)	1	+		X	1.5	=	1.5

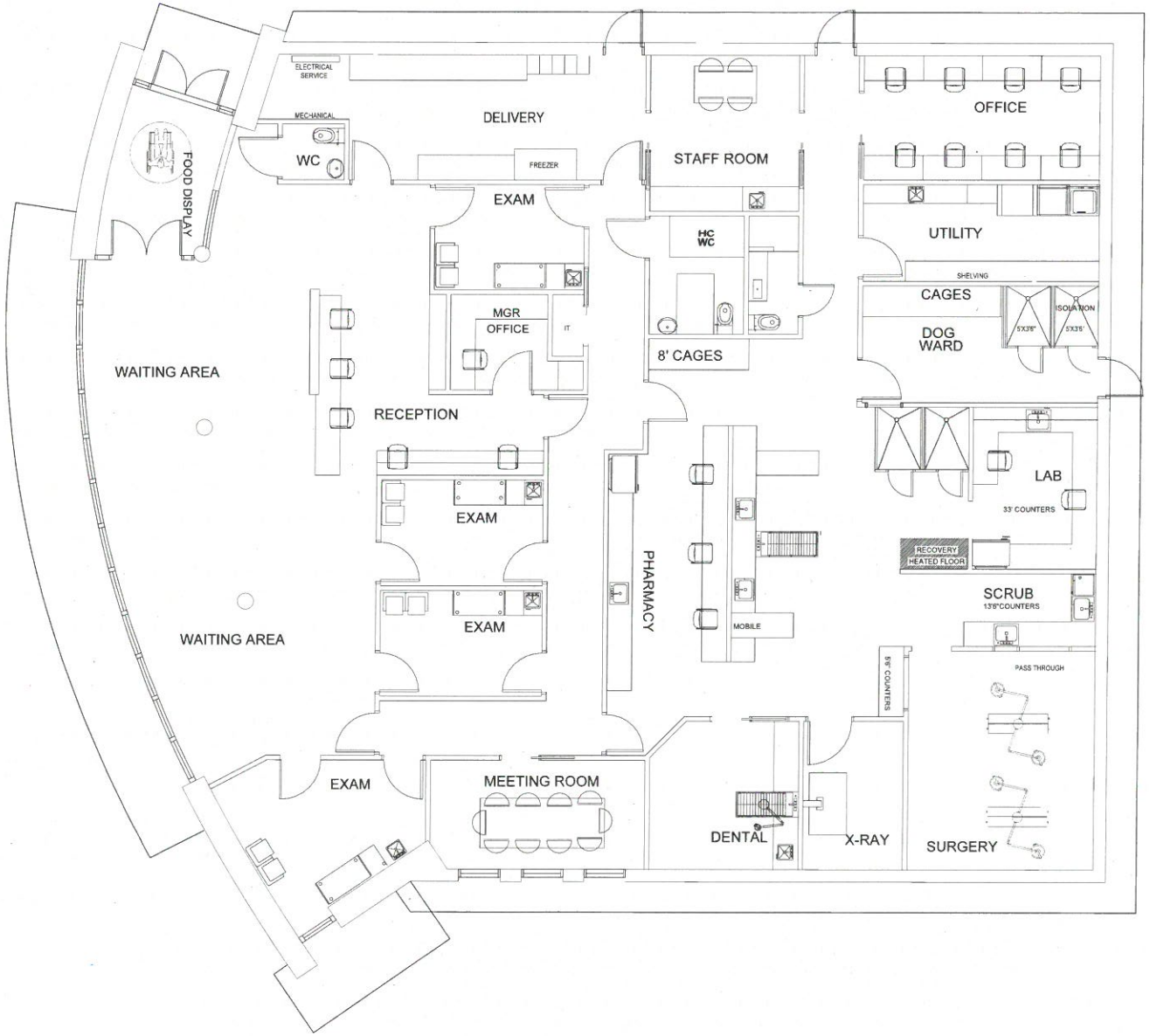
***Total:** 26.5

***Insert the TOTAL in section 5 of Schedule 4** (0.Reg 151/13 Table 7.4.9.3)

1. **Sump pumps and floor drains are not to be connected to the sewage system.** Connection of such fixtures to a sewage system may lead to a hydraulic failure of the said system. The above mentioned fixtures should be discharged separately to an approved Class 2 (leaching pit) sewage system.
2. Where laundry waste is not more than 20% of the total daily design sanitary sewage flow, it may discharge to a sewage system (Part 8, OBC, 8.1.3.1(2)).

_____ 04.10.2023

Agent/Owner signature **Date**



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ARTISTREE CONSTRUCTION

www.vetdesignbuild.com

78 STARLING BLVD. VAUGHAN ON L4H 2H2
t. 905 417 9527
f. 905 417 9530
e. info@vetdesignbuild.com

Consultant
Address
Address
Phone
Fax
e-mail

Consultant
Address
Address
Phone
Fax
e-mail

Consultant
Address
Address
Phone
Fax
e-mail

No.	Description	Date

4 CAMPBELL REID ROAD
PROPOSED VETERINARIAN CLINIC

L26B

Client	
Date	2021-07-05
Drawn by	JN
Checked by	GN

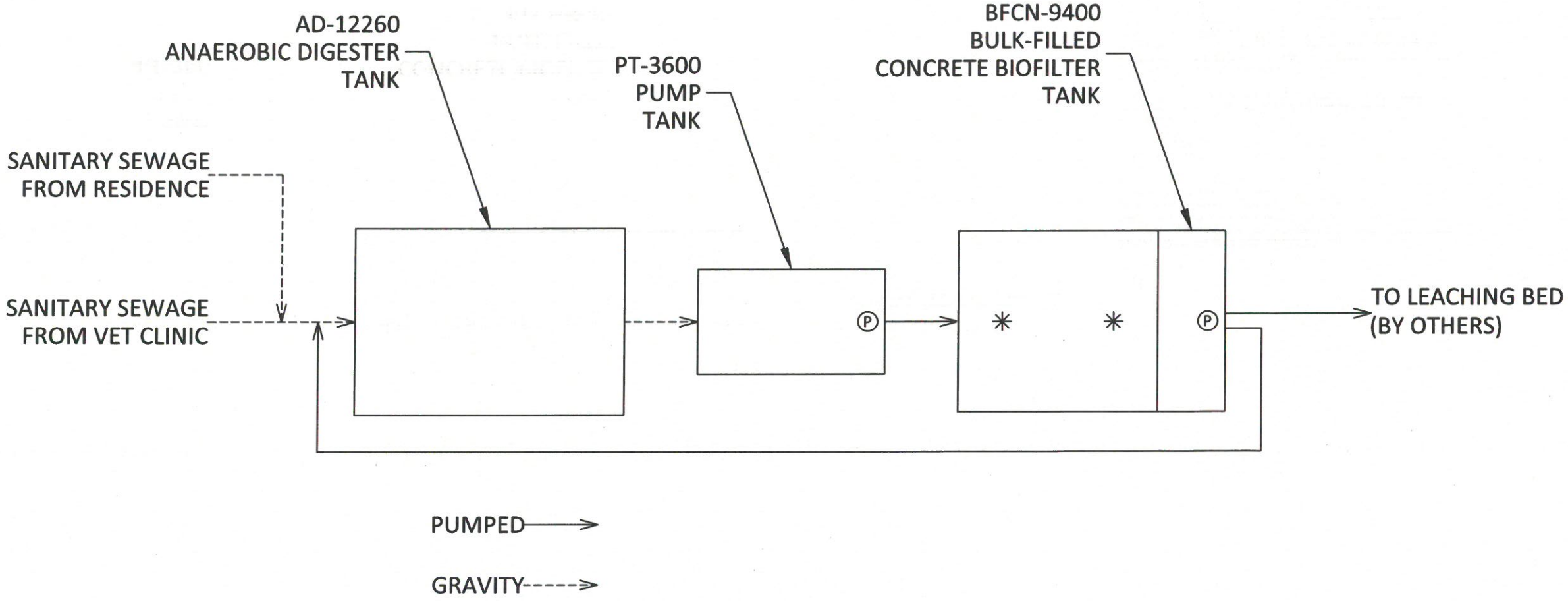
A100

Scale 1/4" = 1'0"

PRELIMINARY SCHEMATIC ONLY

SEPTIC FILE # 23-265 OTTAWA

RVCA RECEIVED JAN - 1 2024 REFER TO:



NOTES:

1. THIS IS A PRELIMINARY SCHEMATIC FOR A WATERLOO BIOFILTER SEWAGE TREATMENT SYSTEM. THIS IS FOR PLANNING PURPOSES ONLY AND IS NOT AN ENGINEERED DESIGN. WATERLOO BIOFILTER HAS NOT VISITED THE SITE TO CONFIRM SITE PARAMETERS. ALL FINAL DESIGN SPECIFICATIONS SUBMITTED FOR PERMIT ARE THE RESPONSIBILITY OF ARCH-NOVA DESIGN.

2. THE PEAK DAILY DESIGN SANITARY SEWAGE FLOW FOR THIS SITE IS 3,900 L/day. THIS CONSISTS OF A 2,325 L/day RESIDENCE AND A 1,575 L/day VET CLINIC. DESIGN FLOW PROVIDED BY ARCH-NOVA DESIGN. UNDER NO CIRCUMSTANCE SHOULD ANY PROCESS WATER OR PET WASTE GENERATED AT THE SITE BE DISCHARGED TO THE SANITARY SEWAGE TREATMENT SYSTEM.

3. THE RAW SANITARY SEWAGE IS EXPECTED TO HAVE THE FOLLOWING CHARACTERISTICS:

BOD = 190 mg/L
TSS = 210 mg/L

4. SANITARY SEWAGE FROM THE VET CLINIC AND THE RESIDENCE FLOW BY GRAVITY INTO AN AD-12260 ANAEROBIC DIGESTER TANK. THE INLET OF THE TANK IS EQUIPPED WITH A WATERLOO INNERTUBE. THE OUTLET OF THE TANK IS EQUIPPED WITH AN EFFLUENT FILTER.

5. EFFLUENT FROM THE AD-12260 TANK FLOWS BY GRAVITY INTO A PT-3600 PUMP TANK. THE TANK IS EQUIPPED WITH A SUBMERSIBLE EFFLUENT PUMP (P) OPERATING ON A TIMER.

6. THE PT-9000 TANK EFFLUENT IS DOSED TO A 2-COMPARTMENT BFCN-9400 BULK-FILLED CONCRETE BIOFILTER TANK. THE FIRST COMPARTMENT OF THE TANK IS FILLED WITH 6.3 m^3 BIOFILTER MEDIUM. THE PT-3900 EFFLUENT IS EVENLY DISTRIBUTED OVER THE SURFACE OF THE MEDIUM AND TREATED AS IT TRICKLES THROUGH THE INTERIOR OF THE MEDIUM. THE TREATED EFFLUENT COLLECTS ON THE FLOOR OF THE FIRST COMPARTMENT AND DRAINS INTO THE SECOND COMPARTMENT. THE SECOND COMPARTMENT OF THE TANK IS EQUIPPED WITH A SUBMERSIBLE EFFLUENT PUMP (P) OPERATING ON DEMAND.

7. EACH DOSE, THE PUMP IN THE SECOND COMPARTMENT OF THE BFCN-9400 TANK DOSES A PORTION OF THE EFFLUENT TO THE INLET OF THE AD-12260 TANK.

8. EACH DOSE, THE PUMP IN THE SECOND COMPARTMENT OF THE BFCN-9400 TANK DOSES THE REMAINING EFFLUENT TO A LEACHING BED (BY OTHERS).

9. ADHERENCE TO BEST MANAGEMENT PRACTICES (PROVIDING THE APPROPRIATE STRENGTH SEWAGE, PERFORMING ROUTINE MAINTENANCE, LIMITING TOXINS ENTERING THE SYSTEM, ETC.) IS NECESSARY FOR THE OPTIMAL PERFORMANCE OF THE WATERLOO BIOFILTER TREATMENT SYSTEM, WHICH IS DESIGNED FOR THE FOLLOWING EFFLUENT OBJECTIVES.

cBOD = 10 mg/L
TSS = 10 mg/L

Waterloo BIOFILTER

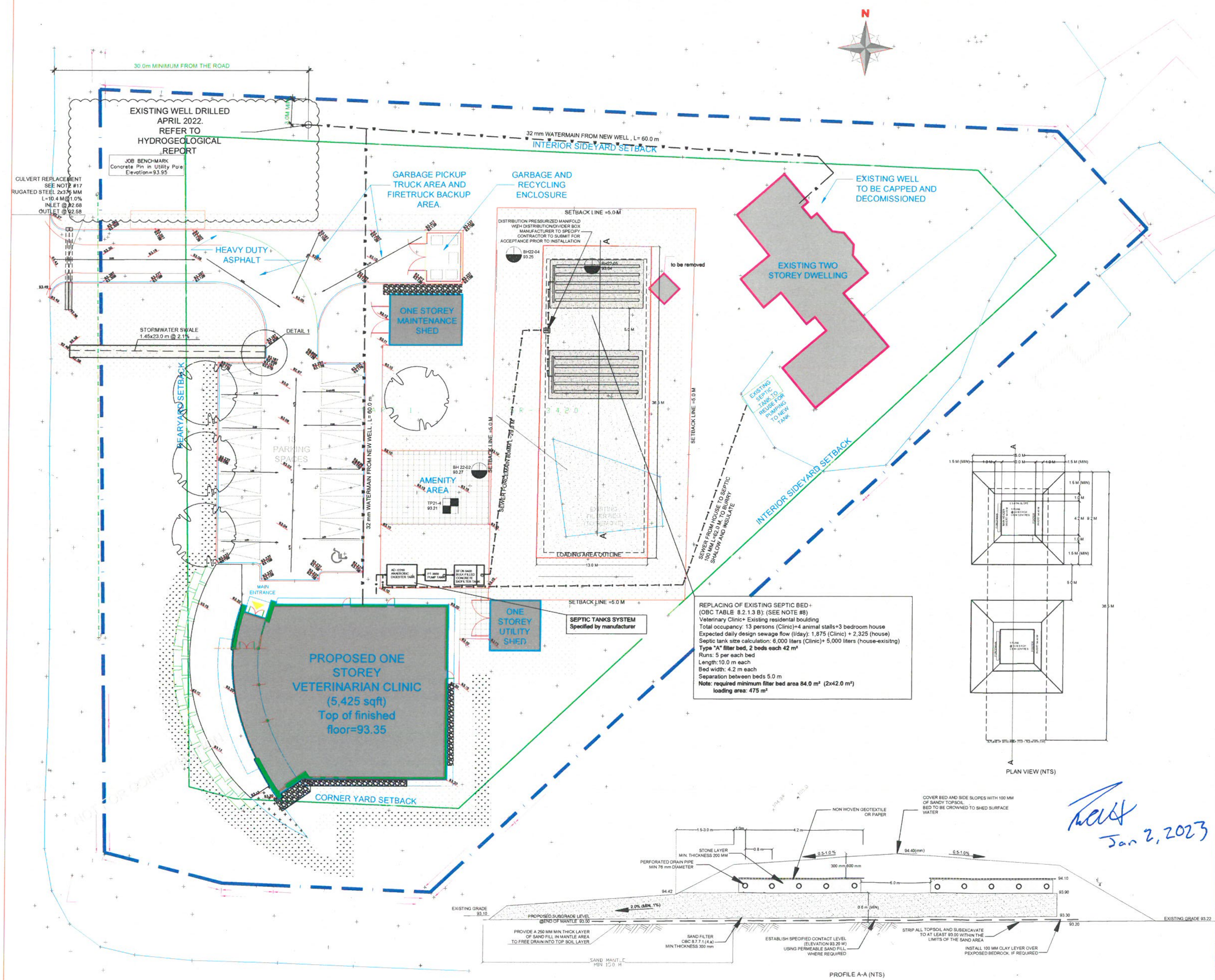
65 MASSEY ROAD, SUITE C, GUELPH ON N1H 7M6
TEL: 519-856-0757 FAX: 519-856-0759
EMAIL: INFO@WATERLOO-BIOFILTER.COM

TITLE: PRELIMINARY PROCESS SCHEMATIC

FOR: ARCH-NOVA DESIGN

PROJECT: VET CLINIC AND RESIDENCE

PROJECT NUMBER:	SEWAGE FLOW:	CONFIGURATION:	DATE:
ON-C-2023-0041	3,900 L/day	BFCN	MARCH 10, 2023
DRAWN BY:	PERCOLATION RATE:	DISPOSAL:	1 OF 1
B. STRAW	N/A	LEACHING BED	



REPLACING OF EXISTING SEPTIC BED
(OBC TABLE 8.2.1.3 B): (SEE NOTE #8)
Veterinary Clinic+ Existing residental boulding
Total occupancy: 13 persons (Clinic)+4 animal stalls+3 bedroom house
Expected daily design sewage flow (l/day): 1,875 (Clinic) + 2,325 (house)
Septic tank size calculation: 6,000 liters (Clinic)+ 5,000 liters (house-exisitng)
Type "A" filter bed, 2 beds each 42 m²
Runs: 5 per each bed
Length:10.0 m each
Bed width: 4.2 m each
Separation between beds 5.0 m
Note: required minimum filter bed area 84.0 m² (2x42.0 m²)
loading area: 475 m²

Jan 2, 2023

RVCA RECEIVED
JAN - 1 2024
REFER TO:

SEPTIC FILE #
23-265
OTTAWA

Notes:

1. All dimensions and elevations are in meters.
2. This drawing is only for the septic purposes and cannot be used as a survey, services or site plan.
3. Only upon approval from authorities this drawing can be used for the construction purposes.
4. No deposits or disposal of any material is allowed within the boundaries of the filter bed other than the material and equipment for the filter bed.
5. Native top soil to be removed from the location of the filter bed to expose the subgrade.
6. Imported material must be of 6 to 8 min/cm of percolation rate.
7. Stone layer to be washed septic stone, free of fine material, with gradation conforming to OBC Table 8.7.3.3.A.A fully raised (Type A) fill based absorption filter bed to be installed. A minimum thickness of 0.3 m of imported sand fill (OBC 8.7.7.1(4)(a), having a percolation rate of not lesser than 6 min/cm or more than 10 min/cm, shall be provided below the base of the trenches. The subgrade surface for the bed and mantle areas should be prepared by removal of all existing topsoil and subexcavation to at least elevation of 93.00 m. The specified contact level elevation 93.00 m shall be established using permeable sand fill, where required.The filter bed to be graded to provide positive drainage away from the system.
8. If bedrock is exposed , a layer of clay 100 mm thick may be required. Contractor to inform engineer if the clay layer is required. The top soil to be 75 to 300 mm permeable material suitable for the grass seeding.
9. Pressurized flow divider/forcemain 38 mm (nominal) shall be used to carry the effluent from the pump chamber to the leaching bed. the forcemain shall be provided with 1.5m soil cove or equivalent. The forcemain shall be overlain with 50 mm T x 600 mm W insulation boards at the pipe connection.
10. The forcemain shall discharge into a pressurized flow divider (Premier Tech PSF-200 or similar) which shall be installed into a secondary header pipe. The flow dividing tee shall be installed at the same level as the bed of compacted sand.
11. The distribution pipes should consist of 76 mm perforated septic pipe which should be embedded in a minimum 200 mm tick layer of 19 mm washed clear stone. the distribution pipes should be installed with a uniform downward slope from elevation 99.75 m (at the header) to 99.71 m (at the footer). the end of each run shall be interconnected with a footer pipe. the clear stone layer should be covered with an approved geotextile fabric.
12. The total thickness of the cover over the base of the trenches should be within the range of 0.6-0.9 m
13. Minimum clearance from treatment unit to:
    a. Structure= 1.5 m
    b. Property line= 3.0 m
    c. Drilled well= 15 .0 m
11. Minimum clearance from distribution piping:
    a. Structure=7.2 m
    b. Property line= 3.0 m
    c. Drilled well = 17.2 m
12. Arch-Nova Design Inc. has provided design services only for subject sewage system The design has been caried out in accordance with our interpretation of Part 8 of the Ontario Building Code 2017. Inspections by the Consultant during the installation of the system is a requirement of some regulating authorities and is strongly recommended by this firm. Periodic (min every 3 years) site inspection and sampling of effluent should be performed by local municipal authorities. All inspection records should be added to the septic record.

LEGEND
56.63 PROPOSED ELEVATION
57.67 EXISTING ELEVATION
PROPOSED CURB STOP & SERVICE POST
PROPOSED METER & REMOTE METER
ROOF DRAIN
PROPERTY LINE
D4 DRAIN
BH 22-02 93.27 BOREHOLE
TP21-4 93.21 TEST PIT

ARCH-NOVA Design Inc. 45 Banner Road NEPEAN ON K2H 8X6
813-702-3403 contact@archnova.ca

Drawn by: Z M		Septic System	
Checked by: Z M Approved by: Z M		Location	4 Campbell Reid Crt. , Dunrobin
Rev 1 — Date SEPT 2023	Description CITY COMMENTS	Owner	Dr. Andrzej Olender 1405 Houston Cres., Ottawa, ON, K2W 1B6
Rev 2 — Date OCT 2023	Description CITY COMMENTS	Project No	CW-06-21
Rev 3 — Date Nov 2023	Description CITY COMMENTS	Date	December 2023
		Drawing No	W-03 Scale 1:150

City of Ottawa File No. D07-17-22-0140
18859

Rideau Valley Conservation Authority

Permit
Part 8 – Sewage System
Ontario Building Code

Do Not Complete
Permit No 23-265
Revision No
Date
Related Application

A copy of this permit must be posted on the property at all time during construction. OBC, Division C — Part 1, Section 1.3.2.1

This permit verifies that the on-site sewage system was reviewed and approved for construction under the *Ontario Building Code* and *O.Reg. 323/12* as amended by *O.Reg. 151/13.*

Inspected & Recommended by: Ryan Hiemstra
Owner: A&G Olender Holdings Ltd.
Inspection Date & Time: Nov 1, 2023 @ 2pm
Weather: Clear
Civic Address: 4 Campbell Reid Court
Legal: Pt Lt 12, C 3
In the former Township/City of Kanata

Design Flow for Commercial / Institutional / Industrial (as per Table 8.2.1.3.B)

Q: 2325 L/d (Residential) + 1875 L/d (Veterinary Clinic) = 4200 L/day

pretreatment tank AD-12260 L
effluent filter YES
pump rate as per Waterloo Biofilter L/15 MIN
treatment unit Waterloo Biofilter BFCN-9400
number of units 1

weigh bills for	☐ yes	■ no
grain size analysis required	☐ yes	■ no
site to be scarified	☐ yes	■ no
clay seal inspection	■ yes	☐ no
mantle required	■ yes	☐ no
sub-grade inspection	■ yes	☐ no

ELEVATION ☐ In Ground ☐ Partially Raised ☒ Fully Raised

TYPE OF SYSTEM

☐ **Trench**
○ **Pipe and Stone or** ○ **Chambers**

type of chamber
loading area m^2
total trench length m
trench configuration

■ **Dispersal Bed**

○ BMEC ◉ Type A ○ Type B

stone 150 m^2
sand 475 m^2
pipe 10 runs at 10m; 0.8m o/c
weight of sand - kg

☐ **Shallow Buried Trench**

pipe length m
orifice spacing m

☐ **Filter Media Bed**

stone m^2
extended base m^2
pipe
weight of filter media kg
loading area m^2

☐ **Class 5 Holding Tank**

☐ **Septic Tank Only**

Manager, Septic System Approvals: Jennifer Downton Permit Date: JANUARY 2, 2024

Comments: 1. RVCA to inspect subgrade prior to the placement of sandfill

■ maintenance/pumping required ■ ESA permit # required ■ engineer to verify ■ subgrade ☐ squirt height

☐ Class 5 Holding Tank approval only valid for three years from date of issue

Manager, Septic System Approvals: Revision Date:

Comments:

NOTE: For further details, refer to corresponding application.