Ms. Angela Reid PO Box 284 Dildo, NL A0B 1P0

February 9, 2017

Honourable Perry Timper Minister of Environment and Climate Change PO Box 8700 St. John's NL A1B 4J6

Attention: Mr. Bas Cleary Director of Environmental Assessment

Dear Honourable Trimper:

Please accept the attached documents for registration and review of our proposed project through the environmental assessment process.

Please contact me at 709-680-0774 if you have any questions. I look forward to hearing from you soon.

Sincerely,

Angela Reid

REGISTRATION

Pursuant to s. 49 of the Environmental Protection Act, SNL 2002, c. E-14.2

UNDERTAKING:

Microbrewery

LOCATION:

1 Front Road, Dildo, Newfoundland

SUBMITTED BY:

Debbie George & Angela Reid, on behalf of Dildo Brewing Co., Tap Room & Museum

SUBMISSION DATE:

February 9, 2017

NAME OF UNDERTAKING:

Dildo Brewing Co., Tap Room & Museum

PROPONENT:

(i) Name of Corporate Body:

Dildo Brewing Co., Tap Room & Museum

(ii) Address:

PO Box 284 1 Front Road Dildo, NL A0B 1P0

(iii) Chief Executive Officer:

Name: Debra George Official Title: Director

Address: General Delivery, Whiteway, NL A0B 3L0

Telephone No.: (709)680-0038

(iv) Principal Contact Person for purposes of environmental assessment:

Name: Angela Reid Official Title: Director

Address: PO Box 284, Dildo, NL A0B 1P0

Telephone No.: (709)680-0774

THE UNDERTAKING:

(i) Nature of the Undertaking:

Angela Reid and Debra George, the owners of Dildo Brewing Co., Tap Room & Museum, are presently seeking approval to re-develop a two-story building (approximately 4100 square feet) located at 1 Front Road, Dildo to operate a 5-barrel capacity microbrewery along with a tap room and a museum. The beer we will produce will be made with all natural ingredients (water, malted barley, hops and yeast) with no added preservatives or pasteurization.

In 2014 Canadians consumed more than 220,000,000 litres of beer, a quantity that superseded any other alcoholic beverage. Of this quantity, 84% was Canadian produced. More than 520 breweries now exist in Canada and this number continues to grow yearly. Newfoundland and Labrador has lagged behind this trend somewhat. To date there exist six small scale breweries on the island. The Baccalieu Trail Region boasts no independent breweries at this time.

A microbrewery is a small brewery, often defined as producing less than 15,000 hectolitres per year. In our case, we will be a very, very small microbrewery, producing less than 500 hectolitres per year. This is pale in comparison to the major breweries, such as Labatt which produces 10 million hectolitres annually.

The existing museum has been in operation for more than 10 years, we will continue to preserve its contents and manage the museum as a part of our business. Visitors can tour the museum, have a delicious meal and taste local craft beer. The experience will continue with a tour of the brew house to learn how local craft beer is perfected from the brewmaster. pints, flights of beer & merchandise are available for purchase.

(ii) Purpose/Rationale/Need for the Undertaking:

The Baccalieu Trail region is a significant tourist destination area within the province, with out-of province visitors exceeding 30,000 per tourist season. A recent government study has shown that along with the beauty of the natural geography and friendliness of the local people, visitor/user experiences and locally-made products are two of the top reasons drawing visitors to the area and providing visitor satisfaction.

Craft beer and the microbrewery industry have also exploded across the country with many microbreweries opening in rural locations and experiencing unprecedented successes. For example, Nova Scotia currently has over 30 microbreweries with many of these succeeding in rural locations.

Therefore, there is a great opportunity in the tourism destination of Dildo to make craft beer on a small "artisan" level so as to offer a craft product to tourists as well as to provide them with a unique visitor experience of touring the brewery, learning about the process and meeting the brewer who made the product.

In order for us to offer this tourism business, we need to purchase the necessary equipment and carryout renovation work to the existing building that will accommodate the brewery, tap room and museum.

DESCRIPTION OF THE UNDERTAKING:

(i) Geographic Location:

The site (building) is located within the Town of Dildo, at 1 Front Road. The entire property (land and building) that the microbrewery will be located on is approximately 8,600 square feet. The front of the building is on the waterfront and the back of the building is road side. The right of the building is a parking area.

The property was owned by the SUF Lodge #84 and was used as a Museum in operation during the tourist season only. The community of Dildo is not a municipality, however there is a Local Service District Office. We do have assurances from the local service that this will be a problem and they are excited about our business plans.

Attached to this document, Appendix A, is a topographic map, a road map and a street view photo showing the vicinity of Dildo and location of our project. Also, attached in a separate document is a detailed drawing of the building indicating the portion that will contain the brewery and showing the location of the septic system and drilled well.

The Brewery will operate using the Artesian well owned by the SUF Lodge which will provide an ample water supply.

(ii) Physical Features:

The property will contain an approved septic field. The design of our septic system is on a commercial scale and has been approved by Service NL and the Department of Fisheries and Oceans for our commercial operations.

There will be no new buildings, pipelines, transmission lines, roads, etc. constructed for the microbrewery as the microbrewery will use all existing structures.

The brewery, museum and Tap Room areas will occupy the entire building approximately 4,100 square feet (2500 lower level/1606 upper level). The land for the parking lot that will accompany the septic system will be 6000 square feet in total, making the entire affected area only 8500 square feet.

There has been no industrial use of the property (nor any in the area) and no kerosene or oil tanks on the property, the affected area or underground. The building is currently heated by electricity only.

The area affected is very similar to other residential lots within the Town of Dildo. It is flat, contains our building and is landscaped such as grass and gravel. The lands surrounding the entire property lot consist of a gravel parking lot, an asphalt road, and waterfrontage.

The only wildlife in the area would be birds such as sea gulls and ducks. The nearest body of water is adjacent to the building, being the ocean/salt water. There are no fresh water bodies near the affected area.

There is a well across the road from our property which is owned by the SUF and will be shared with our business.

(iii) Construction:

The existing building in which the microbrewery will be housed was operated as a seasonal museum. The microbrewery, including the museum and small Tap Room is approximately 4,400 square feet. The microbrewery area itself (only where the brewing operations will occur) will be approximately 1000 square feet on the lower level. The museum will be approximately 1200 in the lower level. The Tap Room area will be on the upper floor and will be approximately 1800 square feet (includes kitchen and bathrooms).

The owners will also be installing a garage door and improving the existing cement slab in the building in order to receive and storage of the brewery tanks that will be delivered in the Fall of 2017.

We will require confirmation from all contractors that they are following provincial occupational health, safety and environmental standards and guidelines throughout the construction work.

The brewery construction work will consist of renovation work. This will be carried out over 8 - 10 months as follows:

- Electrical upgrade/three phase
- Plumbing upgrade and installations, including proper drainage in the brewery area.
- Installation of three bathrooms. Including work to ensure one is wheelchair accessible.
- Other construction and finishing work such as installation of a wheel chair ramp, fire-rated dry wall, industrial hand-washing sinks, etc. to bring the building up to code to obtain all the necessary permits and approvals (e.g. Building Accessibility and Life & Fire Safety, Food Establishment Licence, Newfoundland Liquor Corporation licences, etc.). The interior and exterior finishing of tap room and museum and the overall aesthetics of the building will be rustic in style, with historical traditional Newfoundland finishing's.
- The only potential sources of pollutants we can think of during the construction period would be related to the use of any machinery, such as an excavator, such as the spill of any diesel fuel or lubricants. Though the use of such equipment would very be minimal, should this be a concern, we will purchase a BrenKir (from Mount Pearl) spill kit on site. Equipment will be fueled off-site and should not need to be re-fueled at our location due to the short nature of the work requiring such equipment.

We will not be sharing any resources during the renovation phase and Dildo is primarily residential, so we are unaware of any potential resource conflicts.

(iv) Operations:

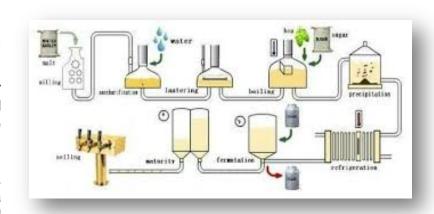
Microbrewery Operations:

The operation of the microbrewery will consist of: (a) the brewing process, which is carried out once or twice a week with stages taking place over a 2-3 week period, (b) cleaning.

(a) The Brewing Process

A schematic of the brewing process is as follows:

The brewing process typically runs over an 8-hour period and the steps shown above can be described as follows: Heating, via electrical elements, approximately 596 L of water in a large stainless steel tank to a temperature of 75 C. The heated water is transferred via pump



and hose to a second stainless steel insulated tank where malted barley/grain is added. The grains are "steeped" in the hot water (63 C) for approximately 1 hour. Additional water (approximately another 200 L, depending on the recipe) is added to sprinkle over the grains to draw off more starches where possible. The liquid (now called "wort") is then drawn off the tank via pump and hose and transferred into a third stainless steel tank fitted with electrical elements. The wort is heated to 100 C and boils for approximately 1 hour. During the boil, hops are added giving the beer its bitterness along with further flavour and aroma. The wort is then drawn off the tank via pump and hose and passes through a plate chiller that runs on cold water. In the plate chiller, the wort passes alongside cold running water to cool it down to room temperature.

The wort then leaves the plate chiller and enters a fermentation tank that contains a glycol jacket. Dry brewer's ale yeast is added to the wort in this tank. The temperature of the tank is controlled to hold the wort at a consistent 18 degrees Celsius for 5-7 days. Glycol circulates throughout the outside of the tank (via the "jacket") to keep the temperature consistent. The glycol is kept cool via the operation of a small glycol chiller. After fermentation is complete, the liquid is cooled in the same tank over a 12-24 hour period to reach a temperature of 4 degrees Celsius. The beer is then transferred via pump and hose to a carbonating/conditioning tank that is also glycol-jacketed. The temperature of the carbonating/conditioning tank is held at 4 degrees Celsius during which is carbonated via the addition of CO2. The carbonated beer is then transferred into kegs.

(b) Cleaning:

The tanks and equipment are cleaned and sanitized after every use utilizing a clean-in-place (CIP) system with non-caustic (alkaline) cleaner and sanitizer. Less frequently on an as-needed basis, diluted caustic cleaners are used to remove scale and stone from inside the tanks. The cleaners will be discussed further below.

Other Operations

We will also be operating a walk-in cooler in the premises for the Tap Room, keg and hop storage. The Tap Room will be a licensed food and lounge area, including a patio, where we will have a small draft system to offer our beer on tap to the public in pint and sample-sized glasses. We will operate a museum in the lower level of the building. We will also have a small retail area where we will offer souvenir merchandise.

Water Demand/Usage

During our entire operations, our water demand will fluctuate daily. Despite a baseline demand for regular washroom use of visitors, and the Tap Room demand, the only times water will be required will be: 1) on a brew day and 2) during cleaning. On a brew day, our water demand is approximately 750 litres (198 gallons) for the brewing process. During the cleaning process (which follows a brew day), approximately 150 litres (40 gallons) is used. Based on our discussions with Fire & Life Safety and Service NL, we are currently working on the assumption of a 50-person maximum occupancy and using the formula for water usage for a lounge/bar of "max. occupancy * 2 * 25 litres" to determine our maximum water usage for regular washroom use. This works out to "50 * 2 * 25 litres" = approximately 2,500 litres (660 gallons).

Therefore, the maximum water demand possible in one day, if we brewed, cleaned and had maximum capacity of occupants, would be approximately 3,400 litres (898 gallons).

This possibility is only once every 4 or 5 days as we will only be brewing every 4 or 5 days and if we had days of high occupancy of visitors to our premises, then we would do our cleaning on a non-brewing day to scatter our water demand.

We will also be using a hot water tank as a storage tank to collect our brewing water over time so that on a brew day we will already have the 750 litres (198 gallons) of water ready and will not need to draw that water in a single day.

Period of Operations

The brewery, Tap Room (lounge area) and museum will be open to the public on a seasonal basis from May until October. This is the peak time that the microbrewery will operate as well; however, there will be some brewing throughout the winter season on a minimal basis (it will not be open to the public during this time).

Potential Sources of Pollutants

Airborne emissions:

There is only a small opportunity for airborne emissions during our operations: vented steam during the brewing as well as minimal steam from the cooking in the kitchen.

The vented steam occurs during the brewing process. Water that has steeped in malted barley/wheat is drawn off and put into a boil kettle. It is boiled for approximately 1 hour and at this point, the liquid only contains starches from the grains and flavours drawn off of the hops, which are all-natural and contain no chemicals or toxic substances. We will be venting such steam outside of our building and there are no chemicals or toxic substances that will be emitted.

Solid Waste & Liquid effluents:

Fortunately, all waste produced during the brewing process is organic material, which therefore has the potential to be recycled, reused or composted. It is our goal to operate as environmentally-friendly as possible and with the very small scale of our operations, we believe a fully sustainable operation is attainable.

The wastes produced during the brewing process of a single batch of beer and subsequent cleaning of the equipment, consist of: Water (varies, around 200 litres) - though the majority of water used makes up the beer product, a considerable amount of water will also be used to cool the beer through our plate chiller and used in cleaning the equipment. We intend to recapture the water used in the plate chiller for our cleaning process to dilute and rinse our cleaners. Upon completion of the cleaning process, it will become an effluent discharge. Waste beer (variable) - this will be a minimal liquid effluent that will result from any accidental spillage. Spent grains (approx. 300 lb) - this is the "steeped" grains leftover once the liquid has been drawn off from the tank. Since this is a food-grade by-product, it will be reused as animal feed for local farming. We can also compost the grains if we cannot reuse them. Cleaning products (small amounts) fortunately there are environmentally-friendly products available for the cleaning needs of the brewery. The cleaning product most used, particularly for every cleaning session after every brew, will be PBW (powdered brewery wash). This is a low alkaline, non-caustic, environmentally and user-friendly clean-in-place cleaner. Not every cleaning session, but there may be some instances where we have to use a peroxide-based acid cleaner to dissolve scale and beerstone from inside the tanks. This would be highly diluted and will not be used during every cleaning session. When required with our system, 20mL of caustic is used and diluted with 40L of water. All "slurry" and liquid effluents will be disposed of to our septic system.

For cleaning of the Tap Room, museum, and bathrooms, etc. we also intend to use biodegradable, environmentally friendly cleaning products.

As an added preauction, we submitted our project to the Department of Fisheries and Oceans for their review. The responding letter is attached.

(v) Occupations:

The brewery will operate on a seasonal basis, focusing primarily on the tourism market. Because the brewery is small in size, there will only be one brewer and one assistant. The Tap Room will employee approximately 10 employees and the museum will employee 3. The business is small enough to be managed by the two owners.

All of the previously mentioned renovation work will be completed by local contractors with local suppliers. Once the business is operating, if any maintenance or repair-work is required for the equipment, this will also be contracted out to local businesses.

The business owners are local, one being of aboriginal status, and should we engage in any hiring down the road, we will ensure there will be no gender or age discrimination in that process.

APPROVAL OF THE UNDERTAKING:

The following is a list of permits, licences and approvals required for this microbrewery:

Municipal:

Municipal Approval – Local Service of Dildo

Provincial:

- Provincial Building Accessibility & Fire and Life Safety Approval Service NL
- Food Establishment License Department of Health
- Environmental Assessment Approval & Registration Department of Environment and Conservation
- Manufacturer's License (Brewery) Newfoundland Liquor Corporation
- Brewer's Agent Licence Newfoundland Liquor Corporation
- Patio Licence Newfoundland liquor Corporation

Federal

• Excise Duty License - Canada Revenue Agency

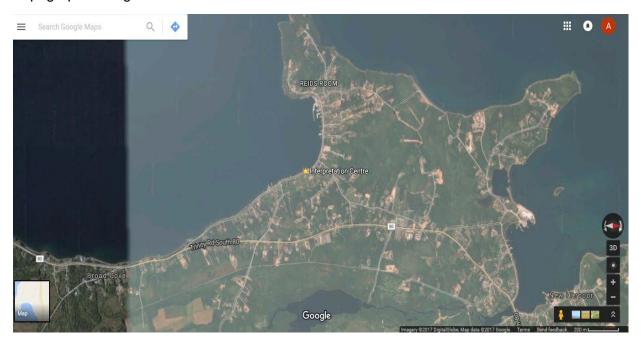
SCHEDULE:

When a	all approvals	were in place,	construction will	begin M	ay 1 st ,	2017.
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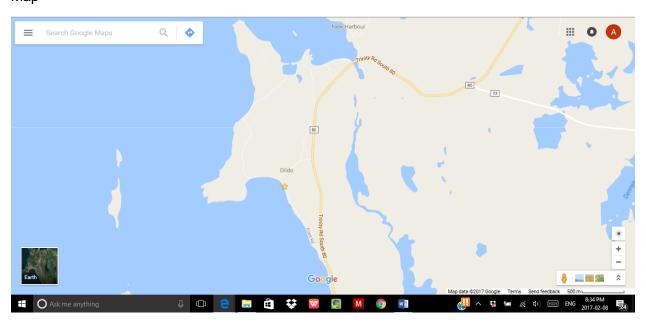
Date	Signature of Chief Executive Officer

Appendix A

Topographic Image

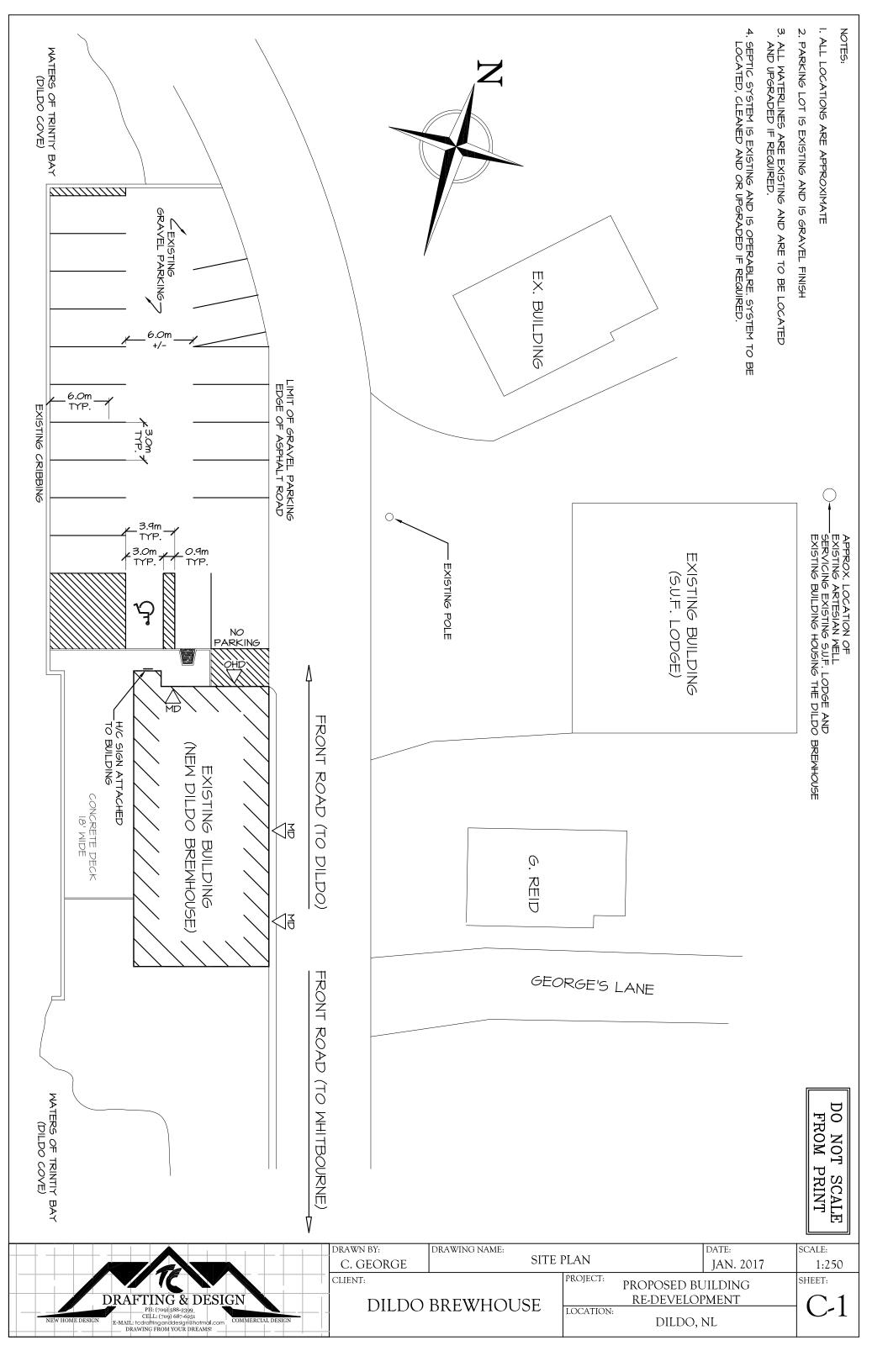


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Street View





APPLICATION FOR REPLACEMENT OF EXISTING SEPTIC TANK FOR A PROPOSED RESTUARANT & MICRO MINI BREWERY

Location:

Former Interpretation Centre Front Road Dildo, NL

Applicant:

Debra George 127 Old Track Road Whiteway, NL A0B 3L0

> APPROVED DESIGNER: BRANDICE WILLIAMS REG. # AD-2013 103509 00

Brandice Williams P.O. Box 77 New Harbour, NL A0B 2P0

December 21, 2016

Paul Noseworthy Government Services Centre Harbour Grace, NL A0A 2M0

RE: APPLICATION TO REPLACE AN EXISTING SEPTIC TANK

Dear. Mr. Noseworthy,

Please find enclosed a Proposal to upgrade an existing septic tank for the property formerly known as the Interpretation Centre located on Front Road, Dildo NL.

There has been a Proposal put forward to Re-develop the Interpretation Centre into a Micro Mini Brewery and small Restaurant. The Restaurant will have a capacity of 45 people or less which under the Sanitation Regulations will require a 1,000 gallon septic tank.

There is an existing sewer system on the Property which has a 500 gallon septic tank which will need to be replaced and reconnect to the existing effluent line that runs to the Greywater culvert to the salt water.

The following pages include a detailed sketch of the Existing Sewage Disposal System, the septic tank design, and a detailed drawing of the proposed Micro Mini Brewery and small restaurant.

If you should need any further information, please contact me at (709) 582-2082 or (709) 771-4974.

Sincerely,

Brandice Williams

Brandice Williams

AD-2013 103509



Application to Install a Private Water and Sewage System

For Office Use Only
Referral No.

APPLICANT INFORMATION (PLEASE PRINT IN INK) Name of Applicant(s) Mailing Address (P. O. Box) Fax Business/Mailing Address (P. O. Box) City/Town Postal Code Telephone Fax IF SUBMITTED BY AGENT/APPROVED DESIGNER OR PERSON OTHER THAN APPLICANT: 2 Approved Designer # D-2013 103509 Address (F 582 Describe proposed/existing development: Complete all sections that apply to your development 3 (A) # of bedrooms in single family dwelling (B) # of bedrooms in basement apartment of single family dwelling (C) Food Premises Commercial Duplex ___ (D) Basement plumbing for below-ground services Number and use of existing structures on building lot (if applicable): set back from road centre (F) use size set back from road centre (G) dwelling: # of bedrooms Apartment? Yes No. **Location of Proposed Development:** 4 Street Name **GPS** Latitude GPS Longitude rrorit Koaa or give distance from prominent land mark to nearest tenth of a kilometer (or road name (i.e., 1.5,km from post office)) Municipality (or nearest community) Litterpretation (entre It is essential that the proposed site be marked with corner posts or stakes with the applicant's name or some means of Please state type of marking and the name on the marking identification such as a coloured flag, etc. Size of Land Development 5 Frontage Land Ownership 6 Crown Land Application Number Water Supply and Sewage Disposal Please describe proposed method of water supply and sewage disposal system If existing, please describe Vegetation 8 Type of vegetation (forest, scrub, barren, cleared, etc.) Present use of adjacent land (Residential/Commercial/Unused/etc.) Kesidentia 10 do solemnly declare that the plans, specification, and statements herein contained in this application are to the best of my knowledge true and accurate. I further declare that the sewage disposal system and water supply are or will be installed in conformity with the requirements of the 02 02 150 001g_2015 02 Department, if the development as proposed is approved. I also agree that failure to comply with the requirements of the Department could render an approval null and void. rst hiteway (Month) (Year) W Witness (Applicant's Signature) To be Signed by Applicant Only

. Is there farming operation within a 610 meter (2000 ft) radius o	f your building lot? Yes No
2. Is the land part of a designated watershed area?	Yes No Don't know
3. Are there natural watercourses, streams, rivers, ponds, etc. With	in 30 meters (100 ft) from your land boundaries? Yes No
I. Are there natural watercourses, etc. Crossing or on your building	lot? Yes No
ur sketch should also provide the following info	mation:
Size of land (dirmensions) Location of house Location of bathroom Location and type (dug or drilled) well Location and type of wells on adjacent or neighbours property	 6. Proposed or existing location of sewage disposal system 7. Distance to nearest landmark 8. Entire floor plan (include <u>all</u> floors) for the proposed dwelling/establishment 9. Basement and below ground-level pipes/plumbing (if applicable)
ase draw sketch here:	
for detailed sketch	5 (Existing Sewer Design)
SAMPLE SKETCH BATHROOM DISPOSAL	RIVER

Please return completed application to one of the Government Service Centre offices listed below.

14 MOUNT PEARL

Motor Registration Building P. O. Box 8700 St. John's, NL A1B 4J6 Telephone: (709) 729-6362 Facsimile: (709) 729-3980

GRAND FALLS-WINDSOR

3 Cromer Avenue Grand Falls-Windsor, NL A2A 1W9 Telephone: (709) 292-4206 Facsimile: (709) 292-4528

P. O. Box 512 7-9 Roddick Crescent Harbour Grace, NL AOA 2MO Telephone: (709) 945-3107 Facsimile: (709) 945-3114

HARBOUR GRACE

CORNER BROOK

Sir Richard Squires Building Comer Brook, NL A2H 6J8 Telephone: (709) 637-2860 Facsimile: (709) 637-2905

CLARENVILLE

8 Myers Avenue, Suite 201

Clarenville, NL A5A 1T5

Telephone: (709) 466-4060

Facsimile: (709) 466-4070

GANDER

Fraser Mall, 230 Airport Blvd. P. O. Box 2222 Gander, NL A1V 2N9 Telephone: (709) 256-1420 Facsimile: (709) 256-1438

HAPPY VALLEY-GOOSE BAY

2 Tenth Street P. O. Box 3014, Stn. "B" Happy Valley-Goosc Bay, NL AOP 1EO Telephone: (709) 896-5428

Facsimile: (709) 896-4340

PRIVACY NOTICE

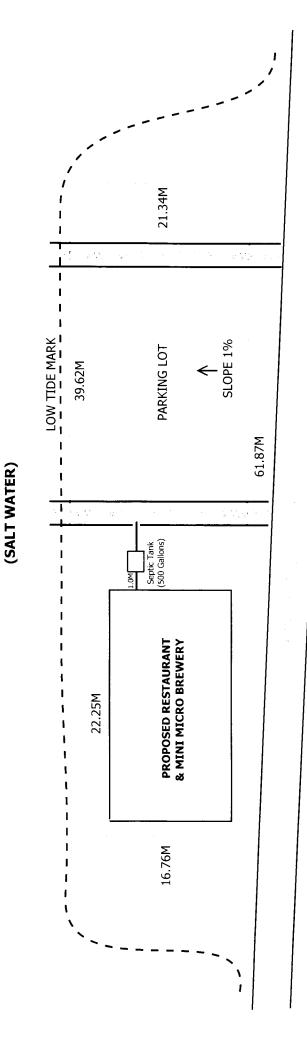
The Government Service Centre collects personal information relating to land development under the authority of the Health and Community Services Act and the Water Resources Act. Personal information collected by the Government of Newfoundland and Labrador is protected under the Access to Information and Protection of Privacy (ATIPP) Act. If you have any questions about the collection or use of this information, please contact a Government Service Centre representative at your nearest Service NL office.

EXISTING SEWAGE DISPOSAL SYSTEM

(DRAWING NOT TO SCALE)

DILDO COVE, TRINITY BAY NL

z



COUNTRY KRAVINS (VACANT) SUF LODGE

Drilled well 60.0M from existing sewer system. The SUF and the former Interpretation centre share.

SEPTIC TANK DESIGN

The Septic tank requirement based on 45 patrons or less for Proposed Restaurant and Mini Micro Brewery would require a 1,000 gallon septic tank as per Sanitation Regulations.

Finish grade 0.3 1.0m above tank



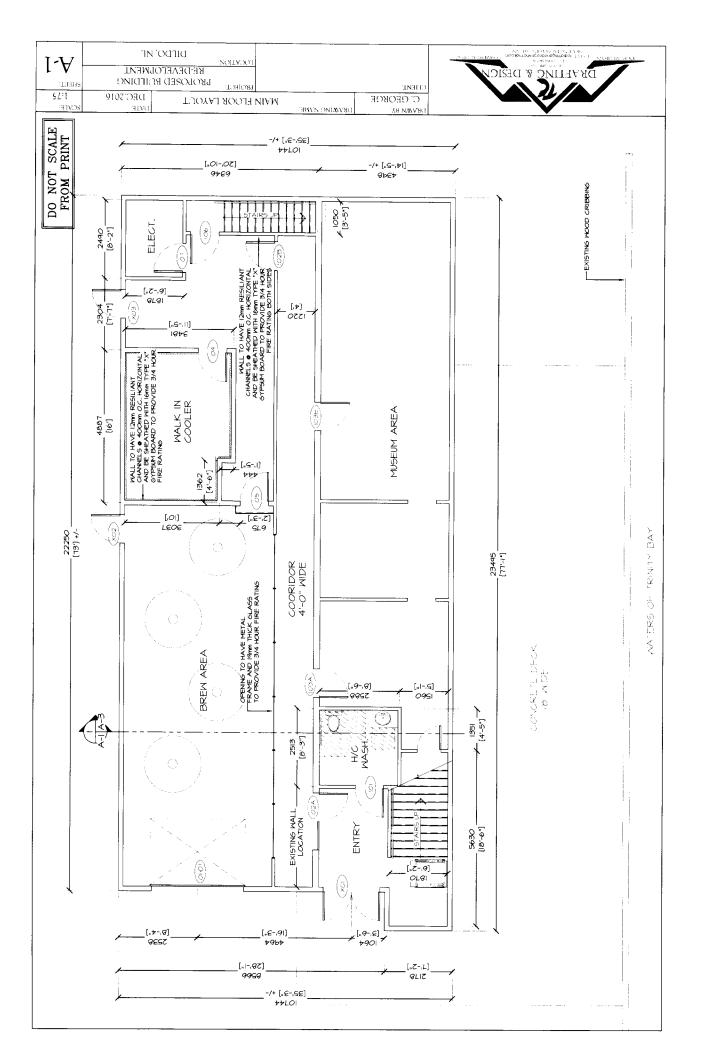
Septic tank must have an inlet and outlet of 10cm (4").

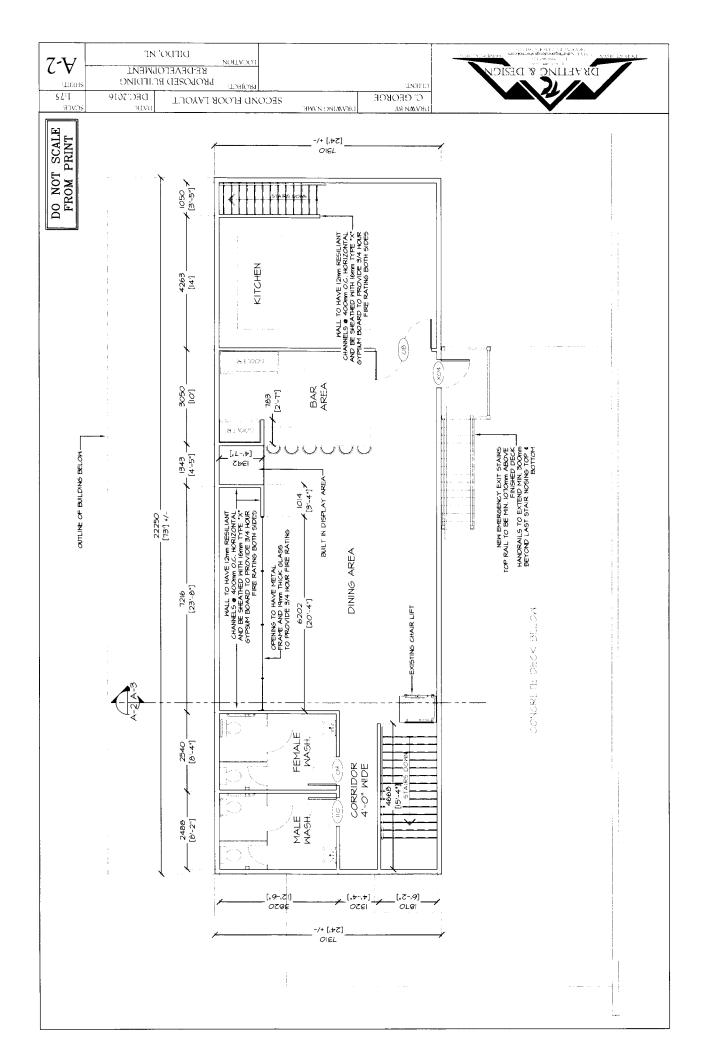
To be connected to the building and the effluent line with an approved 10cm (4") sewer pipe. Connections must be sealed water tight joins.

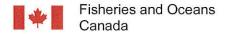
Minimum separtation distance from building 1.0M (3ft).

Tank installed level on well packed backfill or undisturbed ground.

Minimum of 30cm (12") of suitable soil cover. The depth of the septic tank is dependent on the toppography of the property. Maximum depth of septic tank 1.0M (3ft.)







Pêches et Océans Canada

P.O. Box 5667 St. John's, NL A1C 5X1

Your file

Votre référence

FEB 0 8 2017

Our file Notre référence 17-HNFL-00017

Ms. Angela Reid Dildo Brewing Company Co. P.O. Box 284 Didlo, NL A0B 1P0

Dear Ms. Reid:

Subject: Serious harm to fish can be avoided or mitigated

The Fisheries Protection Program (the Program) of Fisheries and Oceans Canada received your proposal on January 31, 2017.

Based on the information provided, your proposal has been identified as a project where a *Fisheries Act* authorization is not required given that serious harm to fish can be avoided by following standard measures. Proposals in this category are not considered to need an authorization from the Program under the *Fisheries Act* in order to proceed. In order to comply with the Act, it is recommended that you follow our guidance tools which can be found at the following website (http://www.dfo-mpo.gc.ca/pnw-ppe/measures-mesures/index-eng.html). It remains your responsibility to meet the other requirements of federal, provincial and municipal agencies.

Should your plans change or if you have omitted some information in your proposal such that your proposal meets the criteria for a site specific review, as described on our website (http://www.dfo-mpo.gc.ca/pnw-ppe/index-eng.html), you should complete and submit the request for review form that is also available on the website.

Should you have any questions or concerns about the compliance of your proposal with the *Fisheries Act* and/or those prohibitions of the *Species at Risk Act* that apply to listed aquatic species, you may wish to engage an environmental professional familiar with measures to avoid impacts to fish and fish habitat (http://www.dfo-mpo.gc.ca/pnw-ppe/env-pro-eng.html).

Yours sincerely

John O'Rourke A/Team Leader

Triage and Planning

^{*}Those sections most relevant to the review of development proposals include 20 and 35 of the *Fisheries Act* and sections 32, 33 and 58 of the *Species at Risk Act*. For more information please visit www.dfo-mpo.gc.ca.

