

Atlantic Cultivation Inc.
(81038 Newfoundland and Labrador Inc.)

St. John's, Newfoundland and Labrador

Environment Assessment Report
July 2018

July 23rd, 2018

Government of Newfoundland and Labrador
Environment and Conservation
Pollution Prevention Division
4th Floor, Confederation Bldg., West
P.O. Box 8700
St. John's NL
A1B 4J6

To whom it may concern:

RE: Atlantic Cultivation Inc. – Environmental Assessment, Cannabis Production Facility

Please accept the following document as an outline of Atlantic Cultivation plans to build and operate a state-of-the-art cannabis production and processing facility in St. Johns Newfoundland. Our Access to Cannabis for Medical Purposes (ACMPR) application was developed over six months with consultations from various industry specific consultants and suppliers to ensure our future facility will be fully compliant to Health Canadas stringent requirements.

Atlantic Cultivation intends to fulfill its commitment to the Province of Newfoundland by ensuring our build out phases, as well as ongoing operations are continuously compliant with all relevant by-laws and regulatory statutes.

Thank you for this opportunity.

Kindest Regards,

Mr. Donald Anthony
Chief Executive Officer
Atlantic Cultivation Inc.

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1.0 Engaging Entity

Atlantic Cultivation Inc. (81038 Newfoundland and Labrador Inc.)

2.0 Proponent / Company Profile

Atlantic Cultivation is an applicant under the Access to Cannabis for Medical Purposes Regulations in Canada.

2.1 Atlantic Cultivation Inc. / 81038 Newfoundland and Labrador Inc.

2.2 The proposed facility will be constructed at:

42 Sugarloaf Place
St. John's, Newfoundland
A1A 5V5

The current corporate address for the company is:

1 Crosbie Place, Suite 200, P.O. Box 55
St. Johns, Newfoundland
A1B 3Y8

2.3 The management team of the corporate entity is as followed:

Chief Executive Officer: Donald Walter Anthony
D.O.B: November 3rd 1967
Address: 17 Emylia Place, St. Phillips, Newfoundland, A1M 2V7
Telephone Number: 1-709-895-7777

Chief Operating Officer: Christopher Crosbie
D.O.B: November 11th 1983
Address: 16 Water Street, Unit 102, St. John's, Newfoundland, A1C 0A7
Telephone Number: 1-709-330-0703

2.4 The principal contact person will be the Chief Operating Officer and proposed Senior Person in Charge of the facility Mr. Christopher Crosbie.

3.0 Purpose / Undertaking

Atlantic Cultivation Inc. (81038 Newfoundland and Labrador Inc.) will be undertaking the project.

3.1 The purpose of this engagement is for Atlantic Cultivation to launch a fully functional licensed cannabis production facility in St. John's Newfoundland. Atlantic Cultivation currently has an application in process with Health Canada and the Office of Medical Cannabis under the Access to Cannabis for Medical Purposes Regulations to become a Licensed Producer of cannabis in Canada.

Once Atlantic Cultivation's application is approved through the Office of Medical Cannabis they will be permitted to conduct the following activities with all legal forms of regulated cannabis:

- Possession
- Production
- Sale or Provision
- Shipping
- Transportation
- Delivery
- Destruction

Atlantic Cultivation intends to produce and sell cannabis focusing on the Newfoundland population first, then nationally and where international jurisdictions allow for exportation. With the hopes of Atlantic Cultivation entering into a supply agreement with the province of Newfoundland and Labrador they intend to focus the operations on direct development and support of local resources and infrastructure.

The current proposed facility site located at 42 Sugarloaf Place in St. John's was acquired by Atlantic Cultivation due to the dissolution of another proposed project at the site. On account of the lack of commercially and industrial available zoned areas as well as optimal services in the province, Atlantic Cultivation determined this site would be ideal for the application of their ACMPR application.

Being that the property is one of the larger sites in the capital city along with its location to the downtown core and local shopping areas they anticipated future tourism aspects as well as economic output with the nearby facility location.

From a security standpoint the location was assessed and approved through a security threat risk assessment. The assessment was completed on behalf of an industry expert and security professional *David Hyde and Associates*. The report was completed and applied to identify security-related risks with a view to initiating and recommending countermeasures and mitigating strategies to detect and deter threats and reduce vulnerability to potential crime and security incidents.

4.0 Description of Undertaking

4.1 Location

The proposed facility will be located at 42 Sugarloaf Place in St. John's, Newfoundland. The property is located along the eastern side of Sugarloaf Place within the eastern portion of the City of St. John's in an area referred to as East White Hills. The property is adjacent to the border with the Town of Logy Bay - Middle Cove - Outer Cove. The primary land use within the subject area is industrial.

The subject property contains vacant land that has been partially cleared and graded at the front. The property is at grade with Sugarloaf Place and then slopes upward towards the rear boundary of the site. The property contains 7.65 acres and is somewhat rectangular in shape. Sugarloaf Place is a gravel Road which extends off Sugarloaf Road. The subject property is located at the end of Sugarloaf Place with the turnaround being located on the subject property.

The property is located within the Commercial Office zone which permits office development. The property was rezoned from Rural to Commercial Office in October 2016 in order to accommodate a proposed office development on the site containing two buildings. Requirements for the development of the office project as stated by the City include the extension of services from East White Hills Road to the subject development along with upgrading Sugarloaf Road and Sugarloaf Place to City standard.

The property is located outside 500 meters of any Church, School, highly populated residential area, or an area where persons under the age of 18 would frequent. These criteria were utilized to ensure safeguards were placed in the surrounding communities and opinions were considering with the opinions of the cannabis industry. Being that the property is located in an Industrial Park/Commercial Office zone, the operations of the facility would be similar to surrounding business operations.

The surrounding properties are as follows:

NORTH/EAST: A rural vacant wooded property is located to the north and the east side of the proposed facility.

SOUTH: McCarthy Roofing is located to the southwest of the proposed facility.

WEST: A HARVEY Container Depot is located to the southwest of proposed facility site.

Development within the immediate area of the subject property is mostly light industrial in nature. To the immediate north of the subject property is vacant land and single-family residential developments within the Town of Logy Bay - Middle Cove - Outer Cove. To the immediate east of the subject property is vacant land and single-family residential development along Sugarloaf Road. To the immediate south of the subject property is vacant land and light industrial development along Sugarloaf Road, East White Hills Road and Robin Hood Bay Road. To the immediate west of the property is light industrial development and vacant land.

Please refer to APPENDIX 1 where a recent land survey and site plan can be viewed.

4.2 Physical Features

4.2.1 Proposed Undertaking & Upgrades

The facility will include the development and construction of a 110,000ft² two-storey, pre-engineered steel-frame structure. The cultivation area will contain 14 grow rooms along with associated processing rooms, parking areas for staff and required security features.

The property perimeter will be outfitted with an industrial style chain-link fence with barbed wire to ensure the protection of employees and internal products. The facility will be secure in compliance with ACMPR with access controlled and monitored 24 hours a day, 7 days a week.

The property has the appropriate access to utility services that will be required for the ongoing functioning of the facility.

4.2.2 Existing Biophysical Layout

The current site is vacant land with majority of vegetation cleared. Atlantic Cultivation intends to preserve as much of the current vegetation as possible. They are committed to the long-term management of valuable natural resources while encouraging continued sustainable development with suppliers and contractors they work with. Atlantic Cultivation will demonstrate good land management principles, particularly in relation to protecting soil, water and biodiversity values.

The nearest body of water is 'Sugarloaf Pond' located approximately 200 m to the northeast of the proposed facility.

The frontage of the property is at grade with Sugarloaf Place and slopes moderately upward to the rear boundary. The front half of the property is mostly cleared and grubbed with the rear land being treed.

The property has approximately 250 feet frontage along Sugarloaf Place including the gravel turn around at the end of Sugarloaf Place which extends through the property.

The depth along the northern boundary of the property is approximately 915 feet and the depth along the southern boundary of the property is approximately 1,024 feet for an average depth of approximately 970 feet.

Please refer to topographical site documentation in APPENDIX 2.

4.3 Structural Upgrades

4.3.1 Site Development

The build out of the facility will occur once the ACMPR application in process with Health Canada received its preliminary approval (Confirmation of Readiness Letter). At this time formal permits will be submitted to the municipality to be granted a building permit and necessary upgrades can commence.

The key stages of site development include:

- Site Preparation
- Concrete / Foundations
- Structural Components
- Processing Facility & Warehouse Construction
- Security Infrastructure
- Electrical & Mechanical Components
- Finishings

4.3.2 Sources of Environmental Contaminants

During the construction phases potential pollution sources may arise from the following. Atlantic Cultivation has outlined corrective actions and preventative measures following each source.

Air Pollution

Construction activities that contribute to air pollution include: land clearing, operation of diesel engines, demolition, burning, and working with toxic materials. All construction sites generate high levels of dust

(typically from concrete, cement, wood, stone, silica) and this can carry for large distances over a long period of time. Atlantic Cultivation will ensure compliance with all local, provincial and federal bylaws and place appropriate procedures to mitigate this type of contaminant.

Water Pollution

Sources of water pollution on building sites include: diesel and oil; paint, solvents, cleaners and other harmful chemicals; and construction debris and dirt. When land is cleared it causes soil erosion that leads to silt-bearing run-off and sediment pollution. Silt and soil that runs into natural waterways turns them turbid, which restricts sunlight filtration and destroys aquatic life.

Surface water run-off also carries other pollutants from the site, such as diesel and oil, toxic chemicals, and building materials like cement. When these substances get into waterways they poison water life and any animal that drinks from them. Pollutants on construction sites can also soak into the groundwater, a source of human drinking water. Once contaminated, groundwater is much more difficult to treat than surface water. Solid waste generated during the construction of the project can potentially negatively impact area watercourses, as well as the esthetics of the area. Good housekeeping practices during the construction phase should effectively mitigate and potential negative effects related to solid waste.

Noise Pollution

Construction sites produce a lot of noise, mainly from vehicles, heavy equipment and machinery, but also from people shouting and radios turned up too loud.

During the long-term operation of the facility Atlantic Cultivation intends to reduce and control potential pollution sources through incorporating an environmental management strategy. By employing these practices Atlantic Cultivation is well positioned to control and prevent pollution.

Risk Mitigation

A few areas that Atlantic Cultivation will focus on are:

- No burning of materials on site
- Reducing noise pollution through careful handling of materials; modern quiet power tools, equipment and generators; low impact technologies; and wall structures as sound shields

- Using low sulphur diesel oil in all vehicles and equipment engines, and incorporating the latest specifications of particulate filters and catalytic converters
- Collecting any wastewater and storm water generated from site activities in settlement tanks, screen, discharge the clean, water and dispose of remaining sludge according to environmental regulations
- Cover and protect all drains on site
- In-depth protocols will be in place for monitoring toxic substances to prevent spills and possible contamination
- The use of non-toxic paints, solvents and other hazardous materials will be utilized whenever possible

4.3.3 Waste Management

Typical commercial solid wastes will be generated from the site; these will be collected and stored in proper waste containers for off-site disposal. All recyclable materials, such as plastic and cardboard, will be recycled. Cannabis waste will be reduced by Atlantic Cultivations oil processing systems. However, any controlled cannabis waste will be denatured as per Health Canada requirements and appropriately logged, tracked and disposed of.

Please refer to Atlantic Cultivation's Standard Operating Procedure 'Cannabis Waste Handling Process and Destruction Method' in APPENDIX 3.

4.3.4 Storm Water & Waste Water Management

The environmental impact of wastewater and storm water can be substantial. Solids in both wastewater and storm water form sediments and can eventually clog drains, streams and rivers. Grease particles form scum and are aesthetically undesirable. The nutrients Nitrogen and Phosphorous cause eutrophication of water bodies, with lakes and slow-moving waters affected to a greater degree than faster flowing waters.

Other pollutants in wastewater and storm water are heavy metals and possible toxic chemical hazardous substances. In high enough concentrations these heavy metals are toxic to bacteria, plants and animals, and to people. Toxic materials may also be disposed with household wastewater.

Spills of chemicals, particulates from motor vehicle exhausts can similarly contaminate storm water. These pollutants will affect downstream receiving waters, and treatment systems if the storm water is treated.

Atlantic Cultivation will be adhering to all environmental requirements under the Environmental Protection Act to prevent any storm water or waste water contamination. Atlantic Cultivation will be discharging its wastewater or sanitary waste directly into sanitary sewers to ensure no contaminations of soil or local water sources are created. Storm water will also be collected and discharged into the engineered purpose storm sewer and not left to erode facility structures or local land masses.

4.3.5 Air Quality & Odour Control

Air Pollution Control Regulations set allowable limits for air contaminants under the Environmental Protection Act of Newfoundland.

Air quality and odour control regulations have not been well established in Canada under the ACMPR. There are some municipalities that allow a facility to emit any odour that is considered a normal farm practice. However, Atlantic Cultivation understands that substantial amounts of air will be exhausted from the facility and with it the potential for odours from the operations to impact neighbouring communities. Odours emitted from cannabis facilities are not well supported and Atlantic Cultivation is committed to having significant measures in place to ensure minimal cannabis odours are being released from the facility causing a nuisance to neighbouring communities.

As per Section 61 of the ACMPR it states 'Areas must be equipped with a system that filters air to prevent the escape of odours and, if present pollen'.

Atlantic Cultivation has designed and will be installing a sophisticated HVAC system throughout the entire facility. This system will include air scrubbers, carbon and HEPA filters to mitigate odour escaping from the facility. Through regular Health Canada inspections, the facility will be assessed continuously on its odour protection practices.

APPENDIX 4 will provide information pertaining to the HVAC system.

4.3.6 Pesticide Use

As of April 9th, 2018, there are 21 registered pesticides approved by The Atlantic Cultivation Ltd. – St. Johns, Newfoundland – Environmental Assessment

Pest Management Regulatory Agency for use on cannabis. They are as follows:

Actinovate SP
 Agrotek Ascend Vaporized Sulphur
 Bio-Ceres G WP
 Bioprotec Caf
 Bioprotec Plus
 Botanigard 22 WP
 Botanigard ES
 Cyclone
 Doktor Doom Formula 420 Professional Use 3-in-1
 Influence LC
 Kopa Insecticidal Soap
 Lacto-San
 MilStop Foliar Fungicide
 Neudosan Commercial
 Opal Insecticidal Soap
 Prestop
 Purespray green spray oil 13E
 Rootshield(R) WP Biological Fungicide
 Rootshield HC Biological Fungicide Wettable Powder
 Sirocco
 Vegol Crop Oil

Licensed producers are required to have adequate controls within their facility to ensure that unauthorized pest control products are not used. These controls may include, but are not limited to, restricting access to pest control products, monitoring the application of products to fresh or dried cannabis, cannabis plants or seeds, or testing for unauthorized pesticide use. Atlantic Cultivation will regularly review and implement an integrated pest management program as part of their Good Production Practices. Pesticides Control Regulations control the sale, handling, use, and disposal of pesticides.

4.3.7 Natural Resource Exploitation

Currently, natural resources, such as water and soil, are greatly over-exploited worldwide. Only their sustainable use will secure the foundations of life for future generations.

Natural resources such as land, air, water, biodiversity and soil are the

foundations of life. They ensure our current quality of life but are heavily over-exploited. This is because our economy is configured to operate on a growth basis; as a result, resource consumption increased eightfold during the 20th century. The fact that natural resources are finite and exist only in limited supplies and that the current use of natural resources by the economy and society exceeds their capacity to regenerate continues to be disregarded.

Atlantic Cultivation is committed to operating with sustainable conservation practices to ensure local and national natural resources are not taken advantage of.

4.4 Operations

Atlantic Cultivations facility will be fully compliant with the ACMPR, the NCA, the CDSA and any relevant municipal and provincial regulations. The growing operations of the cannabis facility will take place in 13 flowering rooms, 2 mother rooms and 1 propagation room. Each room will be monitored with sophisticated and refined environmental controls that monitor environment, lighting, nutrient management and watering. Ancillary and processing operations will be logged and controlled through the comprehensive Ample Organic record keeping software system.

The plants will be grown aeroponically, using an aeroponic system. Aeroponics are a specialized version of hydroponics where the roots of the plant extend only in air and the roots are directly sprayed with a nutrient water mix. The primary difference is the availability of oxygen to the roots. In hydroponics, one has to be sure to supply oxygenated water. Standing water gets depleted of oxygen over time. In aeroponics, oxygen is surrounding the roots at all times. Surplus oxygen accelerates nutrient absorption at the root surface.

Plant support in both aeroponics and hydroponics are provided by the hosting environment. Hydroponic plants tend to be stabilized with hydroton clay balls or coco-coir soil alternatives and flooded or submerged in water. Nutrients for hydroponics are provided in solution in the water. For aeroponics, the roots dangle directly in the air and the nutrient salts are mixed with water and sprayed as a vapor directly onto the roots. This completely eliminates mechanical resistance. Roots can grow and expand their surface area at will.

Atlantic Cultivation has gathered information from a series of industry consultants that have experience in several similar cannabis production facilities across Canada. This experience has allowed the company to develop Standard Operating Procedures (SOPs) to ensure a high-quality production process with consistent

results. The St. John's facility will be GAP/GMP (Good Agricultural Practices/Good Manufacturing Practices) certified.

4.5 Labour Relations & Occupations

Atlantic Cultivations proposed facility is expected to create approximately 103 positions in the local area starting with construction. Atlantic Cultivation will be focussing its efforts in hiring local labour, suppliers and contractors.

Atlantic Cultivation is committed to employment equity relative to age and gender. Hiring practices will be in general conformance with the Atlantic Canada Employers Guide to Gender Diversity in Employment.

A breakdown of the projected occupations and numbers of personnel required during the construction and operation phases of the project are outlined on page 15.

LABOUR CREATION			
OCCUPATION	NOC 2016	NUMBER OF POSITIONS	LENGTH OF EMPLOYMENT
INITIAL YEAR LABOR BREAKDOWN			
Chief Executive Officer	0016	1	Full Time Permanent
Chief Operations Officer	1221	1	
Chief Financial Officer	0016	1	
Accounts Manager	0601	1	
Human Resources Manager	0112	1	
Quality Assurance Director Lead	2233	1	
Quality Assurance Person Secondary	2233	1	
Administrative Assistant Lead	1241	1	
Administrative Assistant Secondary	1243	1	
Director of Cultivation (Master Grower)	0822	1	
Cultivation Manager	2123	2	
Cultivation Technician	2225	12	
Propagation Technician	8432	4	
Director of Processing and Extraction	2211	1	
Processing and Extraction Technician	9232	6	
Director of Packaging and Distribution	0731	1	
Packaging and Distribution Associates	1521	6	
Maintenance Technician	0714	2	
Director of Sales and Marketing (Dispensary, Inside Sales, Marketing, Online Retail)	0124	1	
Manager of Dispensary	0621	4	
Sales Associate – Inside Sales	6421	1	
Dispensary Associates	6421	16	
Marketing and Advertising Associate	0124	1	

5.0 Approvals

The following is a list of permits, licenses, approvals and authorizations that may be required to enable the undertaking:

REQUIRED APPROVALS		
AUTHORIZATION	LEGISLATION	REGULATOR
Project Registration	<ul style="list-style-type: none"> - NL Environmental Protection Act - Environmental Assessment Regulations 	NL Department of Municipal Affairs and Environment
Storm Water & Waste Water Management	<ul style="list-style-type: none"> - Water Resources Act - Environmental Control Water and Sewage Regulations - Nutrient Management Act 	
Petroleum Storage	<ul style="list-style-type: none"> - NL Environmental Protection Act - Storage and Handling of Gasoline and Associated Products Regulations 	
ACMPR Application Approval	<ul style="list-style-type: none"> - Access to Cannabis for Medical Purposes Regulations - Cannabis Act / Cannabis Regulations 	Health Canada
Site Planning & Building Permits	<ul style="list-style-type: none"> - St. John's Municipal Site Planning Approval Regulations 	St. John's Municipal Planning Department
Electrical Safety Authority	<ul style="list-style-type: none"> - NL Electrical Regulations under the Public Safety Act 	Service NL
Utility Service Upgrades	<ul style="list-style-type: none"> - Various 	

6.0 Construction Scheduling

A construction schedule can be found in APPENDIX 5.

7.0 Funding

Atlantic Cultivation Inc. is a privately-owned company, and its current project will be funded by private investment groups throughout Canada. The capital costs to complete the undertaking is estimated at \$40,000,000.00 to build, upgrade and sustain operations and working capital for the 2019 production season.

APPENDIX 1



Photographs of Subject Property



View of subject property from Sugarloaf Place frontage.



Frontage along Sugarloaf Place.

Vacant Land
42 Sugarloaf Place, St. John's, NL
100907



Cleared land at front of site.



City view from subject property.



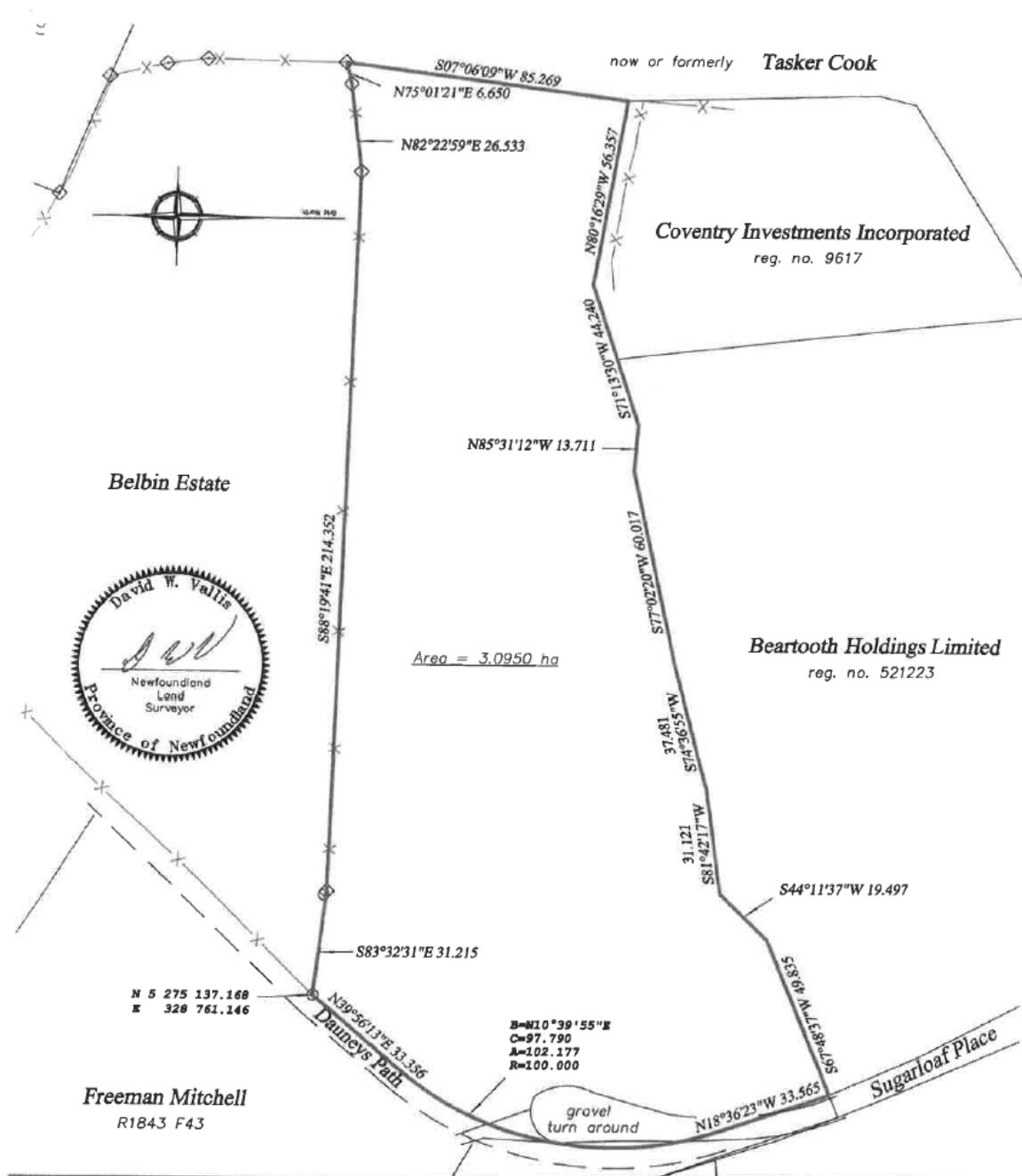
Trail through the property.



Treed land at the rear of the property.

Vacant Land
 42 Sugarloaf Place, St. John's, NL
 100907

Survey Plan



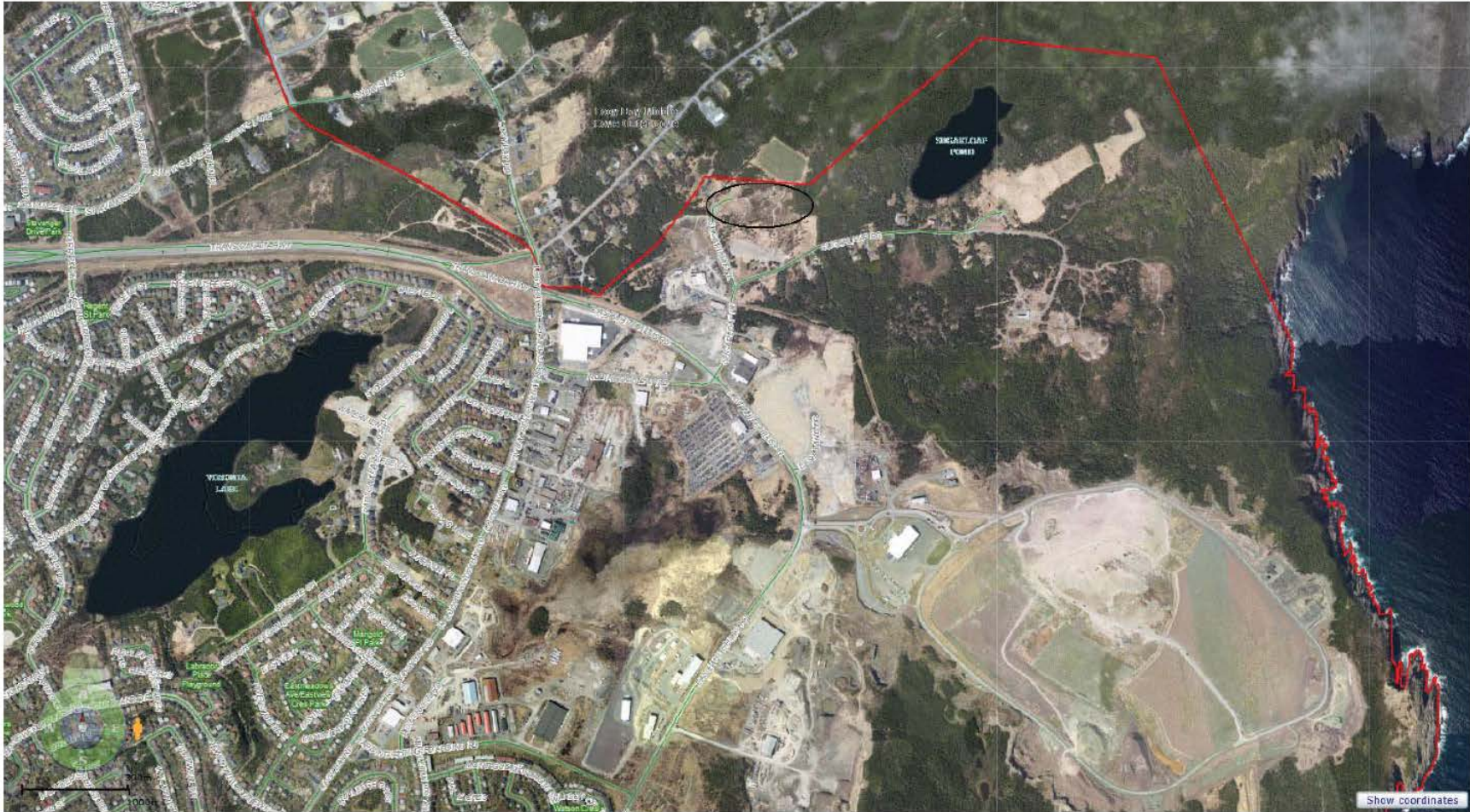
Notes:— This plan certifies the information as of the date shown and only as of this date. All distances are Metric.

© D.W. Vallis, Newfoundland Land Surveyor, 2013. Unauthorized use, alteration or reproduction of this property report is prohibited by law as outlined in the Copyright Act. However, use and reproduction thereof by or on behalf of the person to whom this report is addressed is permitted, provided that no alterations whatsoever are made thereto.

For further information contact the author at [709] 747-5923; Fax 747-0177, E-Mail dvallis@nf.aibn.com [C.M.53][NAD 83][GPS][RTK]

Boundary Survey J-3 Holdings Limited Sugarloaf Place, St. John's , NL	date: April 11, 14
	scale: 1:1500
	job no.: 14057

Vacant Land
42 Sugarloaf Place, St. John's, NL
100907

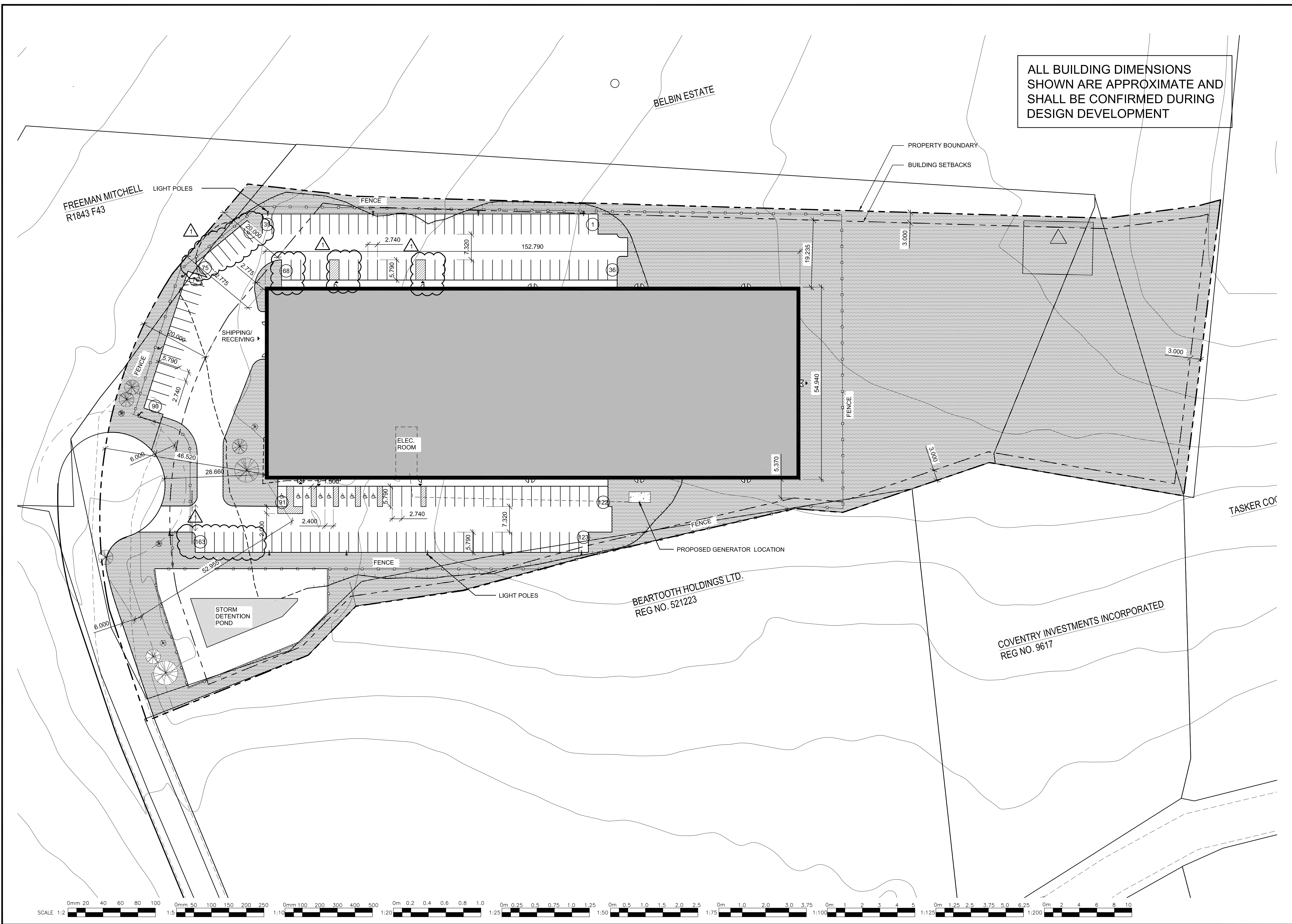


Aerial View of Proposed Site

Vacant Land
42 Sugarloaf Place, St. John's, NL
100907



Aerial View of Proposed Site



ALL BUILDING DIMENSIONS SHOWN ARE APPROXIMATE AND SHALL BE CONFIRMED DURING DESIGN DEVELOPMENT

Architect: Prime Consultant

FOUGERE MENCHENTON ARCHITECTURE

Discipline: ARCHITECTURAL

Sub-Consultant: Structural

Sub-Consultant: Mechanical & Electrical

Sub-Consultant: Mechanical & Electrical

Sub-Consultant: Civil

Client:

Drawn: S.H., R.M. Checked: R.M.

Designed: R.M. Approved: R.M.

Consultant's Project No. **2017-96**

Professional Stamp & Permit

Notes:

- DO NOT SCALE FROM THIS DRAWING
- UNLESS OTHERWISE NOTED, ALL DIMENSIONS ARE IN MILLIMETRES
- CONTRACTOR SHALL VERIFY ALL EXISTING CONDITIONS ON SITE PRIOR TO PROCEEDING WITH ANY PORTION OF THIS WORK
- CONTRACTOR SHALL DO ALL WORK IN ACCORDANCE WITH THE APPLICABLE STANDARDS AND CODES INCLUDING, BUT NOT LIMITED TO, THE NATIONAL BUILDING CODE OF CANADA, CURRENT EDITION.

No.	Revisions	MM/DD/YY
3	Dimension Added	06/21/18
2	Re-zoning Submission	06/15/18
1	Added Parking	05/30/18
0	Issued for Re-Zoning	05/28/18

Drawing Nomenclature

Detail/Section No. **3**

A-1 Dwg. No. where detailed

Project Title

PROPOSED PROCESSING FACILITY

St. John's Newfoundland Labrador

Client's Project No.:

DRAWING TITLE

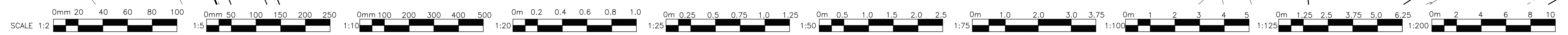
SITE PLAN

SCALE: 1 : 500

DATE: JAN 2018

REVISION NO. 3

DRAWING NO. **A-1.1**



APPENDIX 2

Doc #:	Title: Cannabis Waste Handling Process & Destruction Method SOP	Date Created: 01/02/2018
Rev #:	Prepared For: Atlantic Cultivation	Date Revised:
Rev #:	Prepared By: Fox D Consulting Inc. Verified By: Robert Needle	Date Revised:

ATLANTIC CULTIVATION

CANNABIS WASTE HANDLING PROCESS & DESTRUCTION METHOD SOP

Policy: Atlantic Cultivation requires that all waste will be collected on a daily basis and disposed of in the dedicated cannabis waste area. Atlantic Cultivation ensures that destruction of all controlled substance materials is rendered unfit for use or consumption.

Purpose: To follow the regulations of the ACMPR regarding cannabis waste as part of Division 3 and Health Canada’s Directive of secured compliant space. This procedure provides information and guidance for the correct and safe destruction procedure.

Scope: This procedure covers all forms of the cannabis plant and waste disposal protocols for cannabis present areas.

Responsibility: It is the PICs responsibility to remove all garbage from cannabis present areas and to approve and supervise cannabis destruction. A minimum of two people must witness the destruction one of whom must be a PIC.

Procedure(s):

1.0 General

- 1.1 All controlled cannabis waste must be mechanically ground and then denatured by adding bentonite clay (kitty litter) and water. This mixture will be mixed until all cannabis has been sufficiently denatured. The denatured waste will be disposed of with regular waste outside in the facility dumpster.
- 1.2 Each instance of disposal will be completed in the presence of a CCTV camera and witnessed by two designated individuals one of whom must be a PIC who will be responsible for ensuring that the weighing and documentation processes are followed, as outlined below.
- 1.3 Stems and stalks that are not controlled and can be disposed of without destruction. Stems and stalk will be disposed directly into the facility dumpster.
- 1.4 All product at the end of the day will be transferred and accompanied by at least one PIC and another employee to the secured destruction area.

- 1.5 Controlled products will be mixed with an approximate 50/50 ratio of kitty litter. Water will vary according to denaturing consistency.
- 1.6 All products are stored separately, weighed and documented prior to being combined for destruction. Ex. leaves, dried product, root balls, flowers etc.
- 1.7 Weigh and document the collected cannabis waste on the *Ample Organics* software system. Identify and label all waste containers.
- 1.8 All controlled product must be weighed, labeled and documented in the *Ample Organics* software.

2.0 Handling Responsibility

- 2.1 A PIC is responsible for removing all garbage in cannabis present areas. They must ensure that a full thorough inspection is conducted to ensure controlled and non-controlled substances are accurately separated. This will also ensure that no employee is attempting to dispose of cannabis in a non-controlled receptacle with the intent of retrieving it later.
- 2.2 Every garbage container throughout the facility will be equipped with only clear bags to ensure the contents can be visually inspected.

3.0 Documentation

- 3.1 Each PIC who approves cannabis for destruction will be responsible for observing the destruction process, weighing the cannabis and creating all records to ensure each amount is accounted for.
- 3.2 These records will be kept in our software and stored for a period of no less than (2) years. The records will be easily accessible for monthly reporting and when Health Canada requests it.
- 3.3 A destruction record and witness log will be stored within the *Ample Organics* system immediately.
- 3.4 In the event that manual documentation is required the *Cannabis Waste Disposal Form* may be used.

4.0 Requirements of Cannabis Waste Collection & Management

- 4.1 A PIC must ensure that all waste cannabis material meeting the definition of a controlled substance, is taken directly to the secured destruction area and denatured via a Health Canada-approved method.
- 4.2 All controlled cannabis waste must be destroyed in the presence of at least two (2) authorized individuals that are approved under section 20 of the ACMPR to witness the destruction of cannabis waste.
- 4.3 Ensure that all cannabis and cannabis waste product is only handled, moved, denatured or destroyed by those who are required to do so as part of their job duties.

- 4.4 Ensure that any and all irregularities related to cannabis and cannabis waste are immediately reported to a PIC.

5.0 Collection & Management of Non-Controlled Waste

- 5.1 All non-controlled waste from secured areas must be inspected by a PIC prior to being removed from the facility for disposal.
- 5.2 Municipal garbage is collected at least once per week.

6.0 Corrective Action

- 6.1 In the event of any issue related to the security of dried cannabis and cannabis waste handling procedures it must be recorded on the NUOCA log. A supervisor/PIC and a security team member will be notified immediately.

7.0 Management Review

- 7.1 In view of the potential serious nature of the security of dried cannabis and the cannabis waste handling process, and the fact that it should be a rare occurrence, any related issues and corrective actions are reviewed at the next convened cannabis safety committee meeting in order to ensure that the corrective and preventive actions were adequate.

APPENDIX 3

Mechanical Design Description

1. MECHANICAL SYSTEMS DESIGN DESCRIPTION

1.1 HVAC Systems – Administration

It is expected that HVAC equipment will be placed into operation to ventilate, cool and heat the administrative area. Ducting, cleaning and testing is included.

1.2 HVAC Systems – Production: Dry, Trim, Packaging and QA/QC lab

The design includes fancoil air handlers. The units are chilled water and hot water for precise humidity control flexibility and include high efficiency filter banks including pre-filter, mid efficiency filters and post filters. This filter bank will filter different size particles and reduce the frequency of filter replacement. The HVAC equipment includes flexibility to accommodate a range of Heating, Cooling and Dehumidifying modes. Air changes per hour will be augmented with fan system to obtain desired Air Changes per hour between 12 and 20.

The Dry Room unit is assumed to be a 7 day cycle and include humidification and heating capability. The design includes for each room to have a dedicated HVAC system to mitigate potential cross contamination. The design includes 8 pieces of air handling equipment. The design assumes it will be mounted on the floor or on a newly constructed platform immediately above a room. A Building Management Systems for temperature and Humidity control is included for each room and system equipment.

1.3 Central Chilled Water / Hot Water Plant

The OPC assumes a four pipe central plant to serve the fan coils and air handlers. Cooling plant size is estimated as 120 tons and is divided into two 60 ton air cooled chillers located in the side yard. A single 120 ton flat bed cooler is also included in the side yard to reduce energy consumption when outdoor air temperature is below switch over point. This also provides a second level of redundancy in addition to the chillers.

The heating source is estimate to be a 150 MBH, two condensing boiler plant located in a service area. Duty/Standby primary pumps for cooling system and Duty/Standby pumps for heating system (total of 4 pumps) are assumed to be base mounted and located in the service area. A Building Management Systems for temperature and energy management is included and all equipment is networked and available for monitoring and control by password authorized operators from any mobile or network device.

1.4 Plumbing

The documents regarding the sanitary system will follow building codes. The documents indicate underground sanitary and storm to grade. New floor drains are included to be installed in each wet operation room to allow cleaning. Hub drains to HVAC equipment for condensate collection and removal are included for each piece of HVAC equipment. Administration Plumbing fixtures are expected to be new.

1.5 Other

Shipping receiving includes Gas fired unit heaters at the shipping door, Air conditioning in the offices, Exhaust fans in the storage rooms.

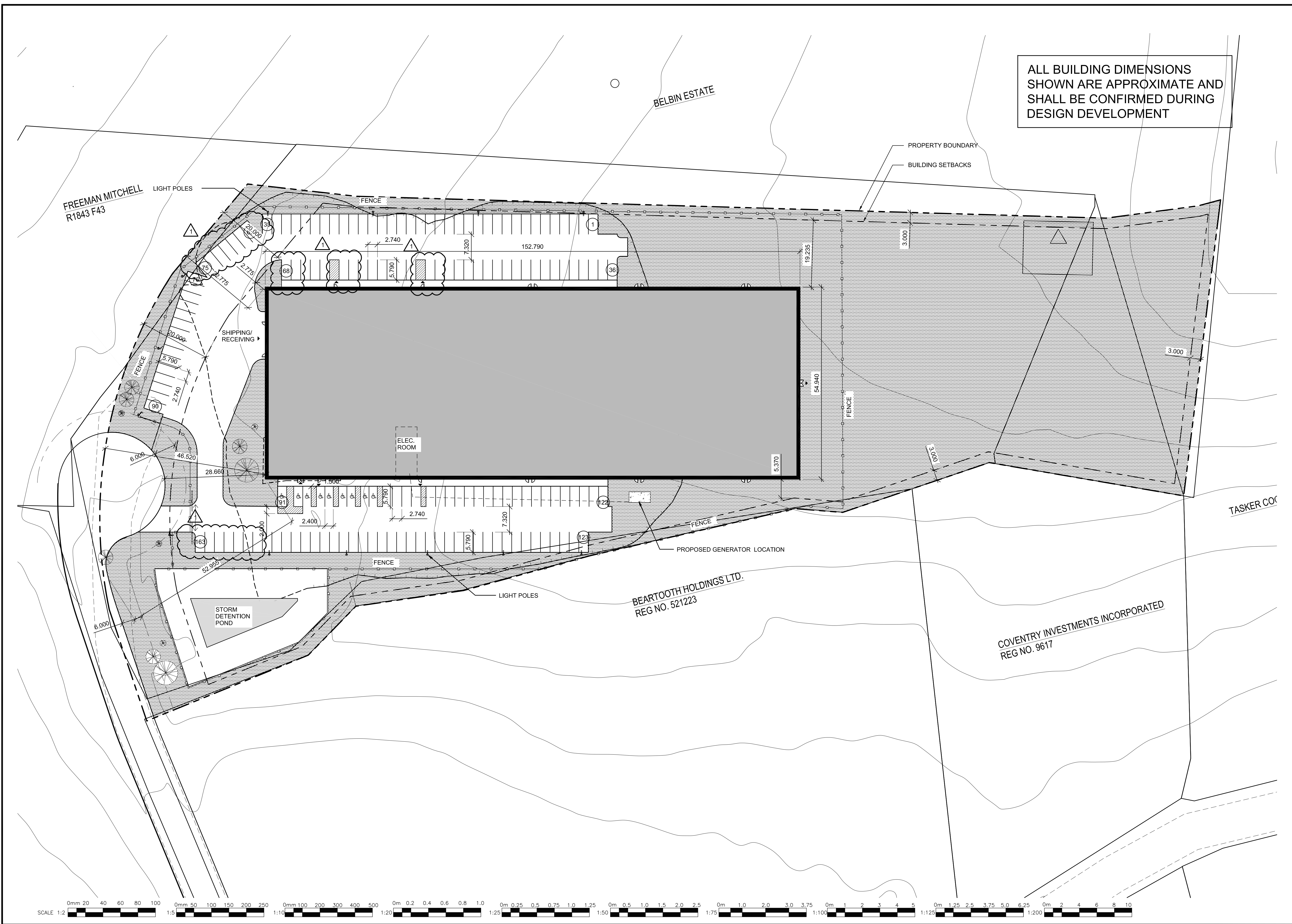
Vault includes a 3 ton dedicated ductless spit system, condensate drainage and condensing unit. Natural gas system piping distribution rework to serve new equipment and to serve the emergency generator.

APPENDIX 4

Milestone Schedule and Deadlines

	Milestone	Deadline
1	Complete Transaction of purchase of land in North East Avalon, NL where the production facility is to be built.	Negotiated
2	Application for federal and provincial production/distribution/sales licenses (including for greater clarity, the production license under the federal <i>Cannabis Act</i> and licences from NLC)	Federal Production License Application – Submitted and currently in the Review and Security Clearance Stage. Provincial Retail Licenses – Upon receipt of Federal production license or approved joint venture with an approved licensed producer from another province.
3	Re-zoning of land for proposed site of Production Facility. a. Application for re-zoning received by City of St. John’s b. Receipt of re-zoning confirmation from City of St. John’s	a. Submitted b. estimated receipt Prior to or on August 31, 2018
4	Receipt and continued maintenance of provincial distribution/sales license	TBD by NLC based on receipt of Federal production license or approved joint venture with an approved licensed producer from another province.
5	Environmental assessment: a. Application for final environmental assessment from the Province; and b. Receipt of final environmental assessment from the Province	a. environmental assessment application to be submitted prior to or on August 31, 2018. b. environmental assessment receipt expected prior to or on September 15, 2018
6	Completion of Design Development of Production Facility	August 31, 2018
7	Completion of design of Production Facility	March 31, 2019
8	Commencement of construction of the Production Facility, including full mobilization of the construction site.	Fall 2018
9	Progress monitoring of construction of the Production Facility; a. 50% completion (based on progress of construction of the Production Facility); b. Substantial Completion; and c. Final completion and commissioning of the Production Facility	a. Fall 2019 b. Summer 2020 c. Fall 2020
10	Health Canada inspection	Fall 2020
11	Receipt and maintenance of license form Health Canada at least in respect of production, sale/provision, possession, shipping, transportation, delivery and destruction of dried	Fall 2021

	<p>marijuana, cannabis oil, marijuana plants and marijuana seeds. In particular, the federal license shall be in accordance with the federal Cannabis Act and for production of non-medical cannabis in a category appropriate for the expected size of the Production Facility and required minimum production once the Production Facility completed and is operational.</p>	
12	Production of at least 4,000 kg (or Equivalent) of Cannabis at the Production Facility	Fall 2021
13	Production of at least 8,000 kg (or Equivalent) of Cannabis at the Production Facility	Fall 2022
14	Production of at least 12,000 kg (or Equivalent) of Cannabis at the Production Facility	Fall 2023



ALL BUILDING DIMENSIONS SHOWN ARE APPROXIMATE AND SHALL BE CONFIRMED DURING DESIGN DEVELOPMENT

Architect: Prime Consultant

FOUGERE MENCHENTON ARCHITECTURE

Discipline: ARCHITECTURAL

Sub-Consultant: Structural

Sub-Consultant: Mechanical & Electrical

Sub-Consultant: Mechanical & Electrical

Sub-Consultant: Civil

Client:

Drawn: S.H., R.M. | Checked: R.M.

Designed: R.M. | Approved: R.M.

Consultant's Project No. 2017-96

Professional Stamp & Permit

NEUFONDLAND AND LABRADOR
 Robert Menchenton M.L.A.R.
 Expires Dec. 31, 2018
 Date: May 28, 2018
 LICENSED TO PRACTISE
 ASSOCIATION OF ARCHITECTS

Notes:

- DO NOT SCALE FROM THIS DRAWING
- UNLESS OTHERWISE NOTED, ALL DIMENSIONS ARE IN MILLIMETRES
- CONTRACTOR SHALL VERIFY ALL EXISTING CONDITIONS ON SITE PRIOR TO PROCEEDING WITH ANY PORTION OF THIS WORK
- CONTRACTOR SHALL DO ALL WORK IN ACCORDANCE WITH THE APPLICABLE STANDARDS AND CODES INCLUDING, BUT NOT LIMITED TO, THE NATIONAL BUILDING CODE OF CANADA, CURRENT EDITION.

No.	Revisions	MM/DD/YY
3	Dimension Added	06/21/18
2	Re-zoning Submission	06/15/18
1	Added Parking	05/30/18
0	Issued for Re-Zoning	05/28/18

Drawing Nomenclature

Detail/Section No. **3**

A-1 Dwg. No. where detailed

Project Title

PROPOSED PROCESSING FACILITY

St. John's Newfoundland Labrador

Client's Project No.:

DRAWING TITLE

SITE PLAN

SCALE 1 : 500

DATE JAN 2018

REVISION NO. 3

DRAWING NO. **A-1.1**

