



112 TRANS CANADA HIGHWAY | DEER LAKE, NL A8A 2E4 | PH. 709-635-4363 | FX. 709-635-4367

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**Registration:**

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

**Undertaking:**

Microbrewery

**Location:**

53-55 West Street, Corner Brook, NL

**Submitted by:**

Dean Major and Patricia Pinksen, on behalf  
of Major's Logging Limited

**Submission Date:**

August 10, 2017



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**Name of Undertaking**

Boomstick Brewing Company

**Proponent**

Name of Corporate Body

78117 Newfoundland and Labrador – Boomstick Brewing Company

Address

53-55 West Street

Corner Brook, NL

A2H 2Y6

Canada

**Chief Executive Officer**

Name: Dean Major

Official Title: Project Manager

Address: 112 Trans-Canada Highway

Deer Lake, NL

A8A 2E4

**Principle Contact Person for purposes of environmental assessment:**

Name: Patti Pinksen

Official Title: Administrative Manager

Address: 112 Trans-Canada Highway

Deer Lake, NL

A8A 2E4

**1.0 The Undertaking:**

**1.1 Nature of Undertaking**

Dean Major, Desmond Major, and Darcy Major, owners of Boomstick Brewing Company, are presently seeking approval to re-develop a portion of a building located at 53-55 West Street Corner Brook to operate a 15-barrel capacity microbrewery, equating to approximately 3,000 hectolitres annually, along with tap room, growler fill station and retail area. The beer produced will be made with all natural ingredients (water, malted barley, hops and yeast) with no added preservatives or pasteurization. The definition of one hectolitre is a metric unit of capacity equal to one hundred litres.

The microbrewery operation, including production, packaging, storage, a tasting room and merchandise area, will take up approximately 7,000 sq. ft. of the 15,000 sq. ft. main level of the building. The total square footage of the property is 30,000+ sq. ft., with the microbrewery occupying approximately 23% of the building's overall space.



A microbrewery is a small brewery, often defined as producing less than 17,600 hectolitres (hl) annually. The Boomstick Brewing Company will be a very small microbrewery, with current projections estimating a production of approximately 3,000 hl per year - 17% of the total production that can still be classified as a microbrewery.

Exact floor dimensions for the Boomstick Brewing Company are not finalized, but the space committed to the production of beer will be approximately 35% of the 7,000 sq. ft. mentioned above, or 8% of total available building space. This brewery will not be an industrial brewery, but rather similar to those in other downtown cores such as: Millstreet Brewery in St. John's, Tatamagouche Brewing Company in Tatamagouche, NS, Unfiltered Brewing or Propeller Brewing, both in Halifax.

In addition to producing beer, we aim to provide a visitor experience by facilitating tours of the brewing equipment, involving a learning experience of how beer is made and creating the opportunity to meet and chat with knowledgeable staff. Visitors will also have the option to sample and drink the beer in the modern tasting room, purchase growlers and souvenir merchandise in the retail area.

## **1.2 Purpose / Rationale / Need for undertaking**

In March 2016, Major's Logging Limited (MLL) embarked on a new venture by purchasing an old building on historic West Street in downtown Corner Brook, NL — a derelict structure, vacant since early 2013. MLL plans to design the building to be a cultural hub for the city and region, including a 7,000 ft<sup>2</sup> micro- brewery, 2,000 ft<sup>2</sup> for-lease restaurant space, and 20,000+ ft<sup>2</sup> allocated to a lobby and boutique hotel in the remainder of the building. *Note that MLL will also be owning and operating the boutique hotel and will be managing a leasable restaurant space in the building; however, this environmental assessment application is specific to the microbrewery development.*

MLL is taking the opportunity to use a portion of this newly owned building to diversify into a different branch of business from the logging/construction industry and open a microbrewery and taproom under a related Company (78117 Newfoundland and Labrador). The Boomstick Brewing Company will be designed to pay tribute to the logging and pulp and paper industries, a core cultural factor of the City of Corner Brook as well as the key component of what MLL has developed and grown its successful business upon in the past 30+ years. MLL plans to establish a four-season hub for local residents and tourists, in aim to help revitalize the historic West Street in Corner Brook.

MLL believes a number of key opportunities highlighted in Corner Brook's Municipal Sustainability plan can be addressed in the Boomstick development. Central to the City's vision for growth is to promote the downtown as a focus of civic, social and commercial activity by identifying four key areas to improve upon.

- Physical Goals – City Fabric
- Environmental Goals – Natural City
- Infrastructure Goals - City Connections
- Social, Cultural and Economic Goals - Living City



MLL envisions the Boomstick development will enhance and celebrate the City of Corner Brook, increasing population density in the downtown core, and diversifying the neighborhood by offering a unique guest experience with this business trio of restaurant, microbrewery and boutique hotel combination.

Brewing is one of Canada's oldest industries and Canadian brewers today hold an 84% share of the domestic beer market (Source: 2015 Industry Trends – Beer Canada). Canada has many competitive advantages in making world class beers, including proximity to high quality malt barley and a large fresh water supply. Beer is the most popular alcoholic beverage in Canada, in terms of both volume and dollar value with Canadians consuming 22,707,133 hl of beer in 2015. Newfoundland and Labrador has the highest provincial consumption of beer, at 77.32 litres per person.

In 1980 there were 38 breweries in Canada. In 2014 that total has risen to approximately 520 (Source: Financial Post). Consumers now have a strong interest in local products and they are increasingly delving into the unique flavours offered by brewers within their community. Considering that Newfoundland and Labrador is the top consumer of beer per person but currently only has <1% of the licensed Canadian breweries, this indicates an obvious gap for a successful microbrewery.

Boomstick Brewing Company will also offer the experience of dining and drinking in our taproom at the same location where the beer production and canning takes place. This street front tasting room will be where beer lovers can sample, buy and drink one of the locally brewed craft beers. The taproom will not only be a place to drink beer but also be a community building hub where locals and tourists can gather, socialize and experience the microbrewery with a backdrop that exposes the microbrewery equipment.

A bright spot in the province's economic future is tourism, which has been on the rise in recent years. The Department of Tourism, Culture, Industry and Innovation released its 2016 report stating that non-resident auto visitors was up 4.8%, while airport passenger movements increased 4.1%. Corner Brook's closest airport, in Deer Lake, saw a 7.2% increase in passengers. Cruise ship activity, with Corner Brook being a popular port of call, increased 9.2% from the previous year. These statistics suggest that this increase in tourist traffic will also aid in the support for a successful, local microbrewery operation.

## **2.0 Description of the Undertaking**

### **2.1 Geographic location**

The site is located at 53-55 West Street in the city of Corner Brook, NL. Positioned on the north side of West Street, it includes an unoccupied two-story commercial building with a footprint of approximately 15,000 square feet. An above ground storage tank with a capacity of 2,273 L was located on the exterior northeast corner of the site building but has since been successfully removed without environmental impact. Flanked by commercial property to the west, bordering city owned undeveloped land to the north, Todd Street followed by an Ultramar retail gas station and car wash to the east, and the main thoroughfare of West Street followed by commercial properties to the south.



There have been numerous meetings with the City of Corner Brooks employees and council members who are all well abreast to the business plan for the building development. Most recently, concept has been approved and the City has issued the appropriate demolition permit for the building. (See Appendix 2: Site Images).

Site surfaces include gravel-covered in the area east of the site building and brick surfaced to the south of the site building. Sparsely vegetated areas with solid bedrock outcrops and areas of loose rock exist to the north of the site building, up-gradient of the site. The property is serviced by municipal water and sewer systems.

The site consists of a relatively flat on the South and East sides, a steep slope to a lookout called Three Bear Mountain to the North and West. The inferred direction of shallow groundwater flow appears to be to the southwest towards the Corner Brook Stream, with eventual discharge to Humber Arm. (See Appendix 1: Site Survey)

Corner Brook's geography is truly remarkable, and a visitor experience unto itself. The city nestled far into an estuary between the Bay of Islands and the Humber River, and surrounded by a dramatic, mountainous landscape. The city's neighbourhoods dot a series of steep slopes, with its downtown concentrated at the base in two central areas: West Street and Broadway. The urban pedestrian-friendly streets are separated by a primary vehicular thoroughfare.

While Newfoundland and Labrador is home to many of the most scenic and adventurous tourist attractions in all of Canada, Western Newfoundland in particular has the lion's share of four-season experiences, with Corner Brook ideally situated to access them.

## **2.2 Physical Features**

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

There has been no industrial use of the property (nor any in the area) and no kerosene on the property, the affected area or underground. The building is currently has no sourced heat as can be observed in Appendix 2: Image 3, showing the current state of the building after demolition. Upon purchase, a phase II environmental assessment was conducted on the property and all recommendations of the assessment were met prior to demolition.

The only wildlife in the area would be typical of those found in a greenbelt within an urban Newfoundland setting. The nearest bodies of water would be the ocean in the Bay of Islands, approximately 800 metres from this property, as well as a fresh water body at Glynmill Pond located approximately 600 metres from our location.





## 2.3 Construction

The existing building on the property has been demolished with exception of the original steel beams and foundation (Appendix 2: Site Images). The beams will be reinforced and the remainder of the building will be new construction. The microbrewery will be housed in the core of the main level, with a boutique hotel and restaurant also being part of the property's main level floor plan. The contract for the design package has been awarded to *Stantec Architecture and Design*, based out of St. John's, NL, and the related drawings are scheduled to be ready for tender by September 2017. For a reference perspective, see Appendix 3: Conceptual Floor Plan for the main level of the building.

After the general contractor for the building is awarded, it is anticipated that the construction for the property in its entirety will take 12-15 months. However; the construction does have the potential to be done in phases, with the main level of microbrewery, tap room, growler/retail area at the forefront of construction priority.

The general contractor, and all the tenders for subcontracts (electrical, mechanical, refrigeration, plumbing/brewery drainage, etc), will require confirmation that they are following provincial occupational health, safety and environmental standards and guidelines throughout the construction work, which will be monitored by MLL's internal Safety Manager for compliance.

A 12,000 Amp service is recommended to service all components of the building, i.e., Boutique hotel, microbrewery, tap room and kitchen. This would include such things as: HVAC system, a boiler and glycol condensing unit. The microbrewery and taproom will be on an independent meter to monitor energy consumption.

Floors should have a recommended slope of 1/8 - 1/4-inch per foot toward drains. It's recommended that 4 channel drains with stainless steel or fiberglass grating are installed.

Other construction and finishing work such as accessible access, fire rated materials, cleaning stations, sales areas, and proper draining will be complete to meet requirements of the necessary permits and licenses (e.g. Food establishment license, Building Accessibility and Life & Fire Safety, Newfoundland Liquor Corporation licenses, municipal requirements, etc.).

The interior design work has been awarded to Carvel & Helm, a design company based out of St. John's, NL, who has been working closely with the Boomstick Brewing Co. owners. The aesthetic of the tap room, microbrewery visuals, growler and retail area to encompass the logging heritage of Western NL, specifically Corner Brook's Pulp and Paper Mill and the related Company MLL's 30+ year history with supplying the mill with pulpwood. The intent is to use these inspirations to develop a design to pay tribute to this history of the community. The name "Boomstick Brewing Co." in itself pulls from the logging industry when pulpwood was towed by tugboats, gathered within the boomsticks, and floated to the mill or railway depot. Today, boomsticks are still actively being used by MLL as bog matting and for temporary crossings (See Appendix 8: Boomstick Image)



The only potential sources of pollutants during the construction period would be related to use of any machinery that could spill diesel fuel or lubricants. It is important to note that Major's Logging Limited has an environmental program and policies in place which will be sourced during construction, unless the general contractor has an acceptable, equivalent program to adhere to. Such things included in the MLL environmental program to mitigate environmental risk and to be prepared for a potential incident are:

- Environmental awareness training for all supervisors
- Spill kits located in all pieces of equipment
- Pre-use inspection requirements for all equipment
- Emergency response plan for safety and environment incidents that include site specific emergency numbers

As a result of the brewery shareholders also owning a successful, 30+ year construction and logging Company that has been involved in major contracts related to the forestry industry and Maritime Link Project, the programs, policies and resources available to the microbrewery's construction will mitigate any conflicts that may arise during construction.

This microbrewery equipment requirement will be sourced through DME and CASK. Purchase orders for the appropriate equipment along with mechanical and electrical requirements and lead times have been provided to ensure a smooth order process to timely delivery during the construction program. Organization and planning of this nature will be maintained to ensure effective and efficient resource management

## **2.4 Operations**

### **2.4.1 Microbrewery Operations**

The Boomstick Brewing Company operations will include: milling, brewing beer, packaging product in kegs and cans and, finally, cleaning equipment.

There are a series of standardized steps that are required for any microbrewery to brew craft beer but the difference in each brewery's flavours is created by the variations and strains of ingredients, as well as the head brewmaster's creativity with recipe development, to produce the unique taste for the end consumer. The process for brewing beer is stated below:

- The head brewmaster chooses a base grain (most often barley) which will create the majority of alcohol content in beer. The grain is then put through the grist mill to ground and break out the starches and proteins required for the production of beer, termed the grist. Barley Malt kernels need to be cracked, prior to steeping in hot water, by a process called milling. These small amounts of grains will be milled in a separate room with explosion-proof fixtures, emergency stops and outside ventilation.





- Meanwhile, the hot liquor tank brings the appropriate volume of water to the proper temperature for the brew and be transferred to the lauter tun (mash) vessel.
- The grist is then augured to the lauter tun filled with hot water to convert the starches and crushed grain into sugars for fermentation. It also deactivates enzymes that could cause trouble or bad flavours in the beer. Speciality malts/barley can also be added for colouring and flavour. This process in the lauter tun takes approximately 60 minutes at a temperature at around 150°F degrees Fahrenheit. This hot water containing the sugars is now called wort.
- The spent grains are filtered out as a by-product. This requires to be properly disposed of but there is an opportunity, as many craft breweries do, to make an arrangement with a local farm that can use the spent grains as feed for livestock.
- The wort is then transferred to a kettle and brought to a boil. This is when hops are added, to counteract with the sweetness of the wort but also serve as a natural preservative to the beer. Hops can be added at different times of the boil to create different flavours and aromas. The wort is boiled for about an hour or two with the hops and then sits in the brew for a short period of time to ensure the flavours infuse into the brew.
- The brew leaves the kettle and is transferred to a whirlpool tank where other ingredients can be added, although its main purpose is to remove large debris by using a series of methods to cause the debris to settle to the bottom.
- The liquid is then run through a heat exchange system and aerated with oxygen.
- After cooling, the mixture is sent to the fermenter vessels where yeast is added to begin the fermentation process which ultimately turns the mixture to alcohol.
- The beer is then transferred and kept in cool, conditioning tanks for the proper duration of time to allow the beer to ferment according to flavour profile trying to be achieved. Lagers can take anywhere from 2 to 6 weeks, while ales are kept for shorter periods, from 5 days to 3 weeks.
- Finally, the beer is filtered and then moved to a bright tank to have CO<sup>2</sup> added for pressurizing the beer and carbonating the beer.
- Beer will then be transferred to the CASK canning system or to the kegging station and stored in refrigeration units for sale to NLC liquor stores, local bars or directly through taps located in the adjoining tap room.

The Boomstick Brewing Co. microbrewery area will be equipped with a 15 barrel brewhouse with 4 batches brewed per week, operating 45 weeks of the year. This equates to an annual production of 3,159 hectolitres. This volume is anticipated to be have a product allocation of: 20% Kegs, 10% pints/taproom growler sales and 70% canned product through NLC distributors

Boomstick Brewing Co. has enlisted the services of DME for specifications and optimal layout. The chosen general contractor proponent will work closely with the designated DME project manager to ensure optimal layout and engineering specifications to best help the flow and efficiency of the brewery.

In consultation with DME, have decided on 7 tanks for initial setup:



- 4 Masterbrew 15 BBL Unitank, 1 Masterbrew 30 BBL Unitank,
- 1 Masterbrew 15 BBL Bright Beer Tank, 1 Masterbrew 30 BBL Bright Beer Tank

A draft/tap system will be installed in the taproom to provide the ability to serve pints in the NLC licensed lounge area. The microbrewery will be visible from the taproom and dining area, which can accommodate 100 occupants, and will allow for guests to experience and observe the fermenting tanks and interact with the brewmaster. This provides for a level of service that safely engages customers in observing the brewing of craft beer to the end product served to them in a pint glass. There will be a designated retail area for merchandise growlers, to be approved under the NLC taproom license that will also service our customers.

#### **2.4.2 Water Consumption / Waste Water**

Water consumption on a per week bases for maximum production scenario is 17,550 Litres, or 2,500 Litres a day.

1. Beer Production: 12,000L – this is assuming when the brewery ramps up to peak utilization of the equipment with 4 brews per week yielding 7,000L of beer per week. It is important to note that there is a substantial amount of evaporation of water during the brewing process.
2. Cleaning: 450L per wash x 4 brew washes per week = 1,800L
3. Taproom consumption = 3,750L – this would be the maximum capacity scenario in that there was full occupancy of the taproom each day that it is planned to be opened to the public; this includes washroom water consumption, drinking water, water usage for cleaning facility and washing glasses.

Waste water going to sewer on a per week bases for maximum consumption scenario: 6,250L, which is comprised of:

1. Beer Production: 700L of beer as a result of the intentional flushing of fluid transfer lines between tanks, improper sealing of cans that cannot be sold, accidental spillage, etc. - This consist of all-natural ingredients of water, malted barley, hops and yeast.
2. Cleaning water: 1800L of water mixed with the cleaning agents (See Appendix 4: Specification Sheets):
  - Powdered Brewery Wash (PBW) is a low alkaline, non-caustic, environmentally and user-friendly clean-in-place cleaner predominately for organic matter – mixed at a ratio of 1:26 cleaner to water, with every wash of 450L there would be 50% of the water would be mixed with PBW which is  $(450L * 50%) / 26 * 4$  brew washes per week = 32 L of PBW per week
  - Star San is a high foam, final acid anionic rinse for use in the meat, beverage and food industries – mixed at a ratio of 1:565 the once per week cleaning session require phosphoric acid based detergent to be diluted in water to dissolve scale and beerstone from inside the tanks to make sure there is nothing for bacteria to latch on and reduce the effectiveness of the PBW, with each wash  $(450L) / 565 * 1$



brew washes per week = 0.80 L of Star San per week which is a 5.8% phosphoric acid based detergent.

3. Taproom water usage: 3750L – this consist of washroom use, drinking water, washing glasses and space cleaning. Assuming full occupancy and no one leaving with anything in their bladders

### 2.4.3 Potential sources of Pollutants

#### *Airborne Emissions:*

There are two potential sources of airborne emissions related to brewing beer: vented steam and vented grain dust during milling. There will be minimal to no actual air emissions and all would be 100% naturally based (organic ingredients) with no chemicals or toxic substances. The engineers assigned to our mechanical construction package are well-informed of the microbrewery operation process and potential airborne emissions and have been assigned to provide ventilation and filtering mechanisms to mitigate any emissions output. Again, all mentioned emissions are small in nature, all natural and disperse through our vents located off the third level of the building.

#### *Solid Waste and Liquid effluents:*

Boomstick Brewing Company will make priority to adhere to all environmental regulations to ensure minimal to no impact on its surroundings as a result of the microbrewery operations. Fortunately, all by-product of the brewing process is organic, all-natural materials consisting of spent grains, waste water and trub. Spent grains result from barley, yeast and hops during the brewing process that are filtered off once the product is transferred between equipment (Lauter Tun, kettle, whirlpool tank).

There are many local farms in the area which Boomstick Brewing Company intends on developing a relationship with to provide these spent grains as livestock feed. Through market research and developed relationships with owners of other microbreweries in Atlantic Canada, it has been the consistent feedback that this is the common practice and has proven to be a mutually beneficial relationship between farmers and microbreweries. Trub is generated as a result of the yeast/fermentation process. This by-product can be recycled and used in other brew batches until ultimately it will be used for compost purposes.

Boomstick Brewing Company has had multiple meetings with the City of Corner Brook and operators of the Corner Brook water treatment facility to present the microbrewery operation process and associated potential by-products. Review of the filtered out spent grains and its resulting reduction of Total Suspended Solids (TSS) levels in the waste water is understood as well as the microbrewery's procedure of monitoring and randomly testing for pH levels to ensure a neutral pH level of 7 will be achieved is another means to mitigate any risk to the environment. Finally, the relatively small total effluent outflow



that may make its way into the municipal waste system will not have an impact due to dilution from all other waste water sources in the City.

## **2.5 Occupants**

As a result of Boomstick Brewing Co. ownership groups having 30+ years of business management, the human resource (HR) policy and procedures will be adopted from MLL and will prove beneficial when acquiring the microbrewery staff. These policies include: a diversity plan, employment equity declaration, zero-tolerance harassment policy, an occupational health and safety program, and others that will be sourced as required to ensure operational excellence within the facility.

To ensure ease of functionality for the microbrewery, the following positions will be hired:

- One head brewmaster, acquired through a thorough interviewing process based on skills, knowledge, education, years' experience and recipe development abilities.
- One assistant brewer who will also support with microbrewery operations, packaging and needs of brewmaster
- Shipper/Delivery Truck operator to transport keged and canned product
- One sales/marketing coordinator, whom will be shared with the other business operations of the building, to promote the product and increase tourist/local traffic with events, sales, etc.
- One janitor staff shared with the other business operations of the building
- Three full time bar staff to ensure proper coverage of the bar area. Note that table service will be managed by restaurant tenant.

Management decisions, administration, accounting and payroll support will be sourced through Boomstick Brewing Company's related Company - Major's Logging Limited.

## **2.6 Project Related Documents**

Attachments in Appendices include:

1. Property Survey
2. Site Images
3. Conceptual Floor Plans
4. Cleaner Specification Sheets
5. Corner Brook Elevation Map
6. West Street Map
7. City of Corner Brook Zoning Map



### **3.0 Approval of Undertaking**

List permits, licenses, approvals for undertaking:

#### **3.1 Municipal**

Municipal approval – City employee’s (development, inspection, etc.,) and the municipal town council are actively engaged and abreast to business intentions or the property. Approved demolition permit is in hand and related work has been completed. Verbal approval of business intent has been provided, pending Environmental application approval.

#### **3.2 Provincial**

Food Establishment licence – Department of Health

Environmental Assessment Approval and Registration – Department of Environment and Conservation

Building Accessibility & Fire and Life Safety Approval – Service NL

Manufacturer’s License (Brewery) (NLC) – Inquiries with NLC’s representatives on license requirements have been underway and Boomstick Brewing Co. management have already engaged local NLC inspectors on floor plans, layouts, sale intentions and have received verbal approval of concept for the NLC licensing application process.

Lounge Licences (NLC) – See above

Tap Room Licence (NLC) – See above

Hotel / Motel & Lounge License (NLC) – See above

#### **3.3 Federal**

Excise Duty License (Canada Revenue Agency) – Boomstick Brewing Co. has already engaged with CRA contacts and are processing application requirements for bonding and excise duty licensing.

Labelling Requirements for Product Sale – Canadian Food Inspection Agency





#### 4.0 Schedule

Should funding and all permit, license and applications be approved, construction will commence in September 2017. The construction period is estimated to take 12-15 months.

#### 5.0 Funding

Financial support will be provided through the related company - Major's Logging Limited, investments through shareholders and a loan request currently in processing with the Business Development Bank of Canada (BDC).

09- Aug - 2017

Date

A handwritten signature in black ink, appearing to read "Sean Major", is written over a horizontal line.

Signature of Chief Executive Officer



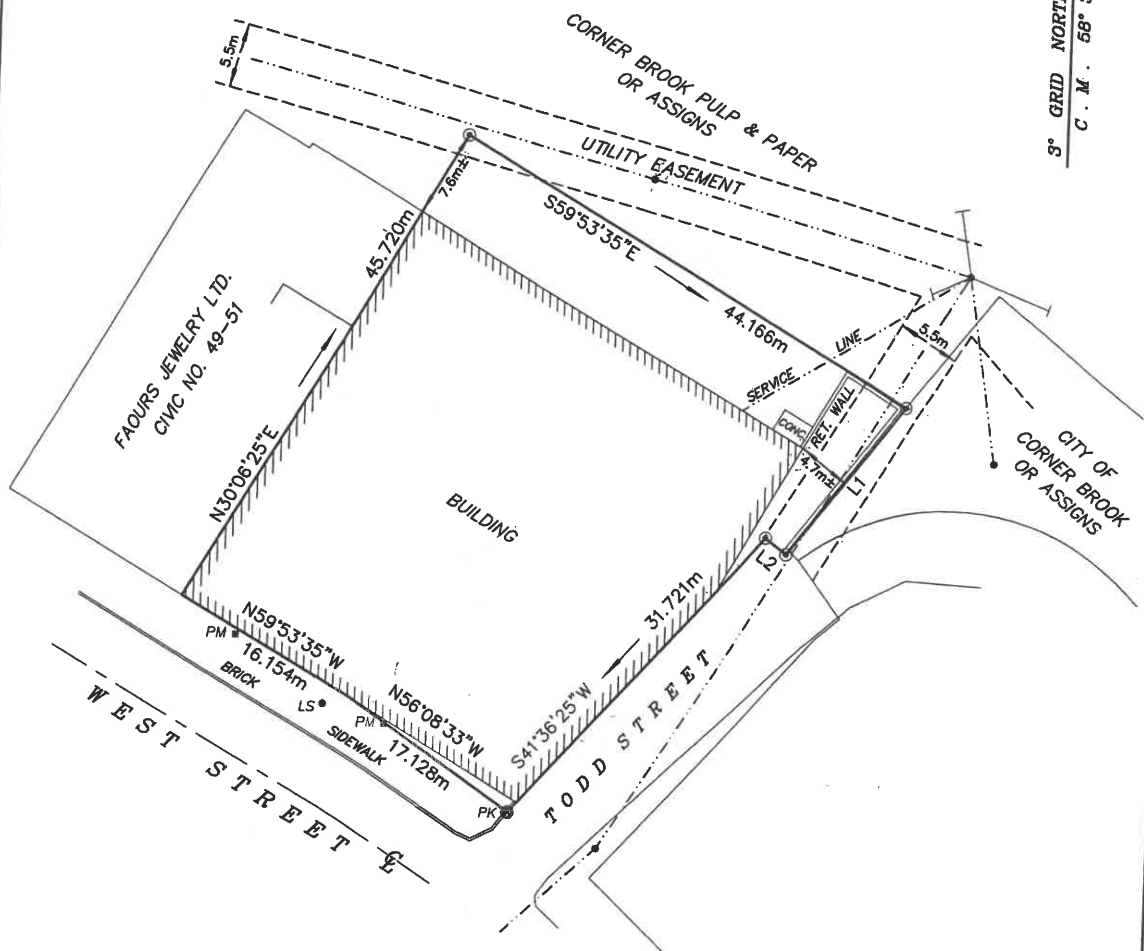
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## **Appendix 1:**

### **Site Survey**

9° GRID NORTH ( NAD, 83 )  
 C. M. . 68° 30' W . I. .



**LEGEND**

- CONTROL MONUMENT ..... (PK)
- CAPPED IRON PIN ..... (PM)
- FOUND IRON PIN ..... (LS)
- PK NAIL ..... (PK)
- BOUNDARY LINE ..... (solid line)
- POLE OR LIGHT STANDARD ..... (dot)
- HYDRANT ..... (dot with cross)
- PARKING METER ..... (PM)
- FENCE LINES ..... (X-X)
- GUY WIRE ..... (T)
- POWER-TELEPHONE LINES ..... (dashed line)
- EASEMENTS ..... (dotted line)
- CENTERLINE ..... (line with cross-ticks)

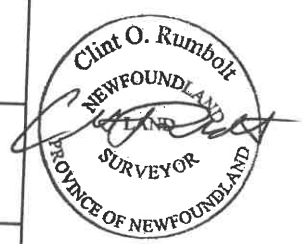
NUM	BEARING	DISTANCE
L1	S38°27'38"W	16.198m
L2	N53°02'35"W	2.259m

**NOTES**

THIS PLAN CERTIFIES THE INFORMATION SHOWN AS OF MARCH 1, 2016 AND ONLY AS OF THAT DATE  
 THIS IS PAGE 3 OF 3 FOR THE REAL PROPERTY REPORT.  
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**SURVEYORS REAL PROPERTY REPORT FOR MAJORS LOGGING LIMITED., CIVIC NO. 55 WEST STREET CORNER BROOK, NL.**



SCALE: 1 : 500

DWG. NO. 16031-1

DRAWN BY M.D.L.

DATE: MARCH 1, 2016



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## **Appendix 2:**

### **Site Images**



Image 1: The 53-55 West Street building was previously owned by Woolworth's and Eatons. Above image taken in mid-1960's



Image 2: The previous owner before the MLL purchased the building developed the property to a retail bargain shop





Image 3: The current state of the building after demolition is complete.



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**Appendix 3:**  
Conceptual Floor Plans







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**Appendix 4:**  
Safety Data Sheets



## **P.B.W.**

Patent Nos. 5,663,132 & 5,789,361

### ***Environmentally friendly, caustic replacement with multiple uses.***

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#### **❖ BENEFITS**

- ❖ Replaces Caustic Soda cleaners
- ❖ Effective at All Temperatures
- ❖ Free Rinsing
- ❖ Safe on Polycarbonate surfaces
- ❖ Safe to handle
- ❖ Generates 4 - 5% Oxygen
- ❖ Non-hazardous & Non-corrosive
- ❖ Excellent hard water tolerance
- ❖ Removes protein soil and staining, baked on carbon, and fatty acids

#### **❖ DESCRIPTION**

P.B.W. is a buffered alkaline detergent that has been proven to be more than an effective substitute for caustic soda cleaners. Because of its unique formulation of buffers and mild alkalis, it is safe on skin as well as soft metals such as stainless steel, aluminum, and on plastics. P.B.W. uses active oxygen to penetrate carbon or protein soils and is not effected by hard water. The oxygen also helps in reducing B.O.D. and C.O.D. in wastewater, which is an added environmental benefit.

P.B.W. has been formulated as a C.I.P. cleaner and is very effective in removing protein soils found on brew kettles, fermenters, conditioning tanks, filters and all packaging areas. The concentrations to remove these soils are typically in the 1% range. However, due to soil and water conditions this concentration will vary. To help in hard water areas P.B.W. has been formulated with enough chelators to tolerate hard water over 17 grains.

P.B.W. is an excellent choice as a soak cleaner because it does not require excessive heat as do most caustic based cleaners. This product has cleaned brass and copper filters, and industrial aluminum surfaces successfully.

❖ **PROPERTIES**

APPEARANCE.....WHITE  
POWDER  
RINSING ABILITY .....  
EXCELLENT  
FOAM .....NONE ABOVE 100 ° F  
pH OF 1% SOLUTION .....12.0%

❖ **GENERAL USE DIRECTIONS**

**CIRCULATION CLEANING:** Use 1 to 3 ounces per gallon depending on soil load. Heat to 130° to 180° F for 30 minutes.

**CARBON REMOVAL:** Use 6 to 8 ounces per gallon of water. Heat to 140 ° F for 4 hours or allow to soak cold overnight.

When using P.B.W. in food processing areas the equipment that has been cleaned must be rinsed with potable water. Just prior to use, sanitize the equipment in accordance with public health standards.

❖ **SAFETY**

**DANGER:** Can be harmful if swallowed. Can cause eye irritation. Contains sodium metasilicate and sodium carbonate.

**FIRST AID:** For contact with skin and eyes, flush thoroughly with cool running water. For eyes, flush for at least 15 minutes and get medical attention. If swallowed, do not induce vomiting. Drink large amounts of milk or water. Call a physician.

# Star San HB

***A high foam, final acid anionic rinse for use in the meat, beverage and food industries.***

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❖ **BENEFITS**

- ❖ Leaves Tanks and Equipment Spotless.
- ❖ Not Affected by Organic Materials
- ❖ Accepted by USDA

❖ **DESCRIPTION**

STAR SAN HB is a blend of phosphoric acid and dodecylbenzenesulfonic acid. This synergistic blend provides a unique synergistic system that is unaffected by excessive organic soils. STAR SAN HB is also a self-foaming acid anionic detergent. It can be applied through a foamer to produce self-adhering foam or manual application. Cleaning with STAR SAN HB on a daily basis will leave equipment in an acid condition that will eliminate water spotting, mineral build-up, and corrosion. It is not recommended to use STAR SAN HB on soft metals because of the acid nature of this product.

❖ **PROPERTIES**

APPEARANCE .....	LIGHT BROWN
ODOR .....	SLIGHTLY ALCOHOLIC
PHOSPHATE CONTENT AS % Phosphorus .....	5.8%
SPECIFIC GRAVITY.....	1.320

# Star San HB

## ❖ GENERAL USE DIRECTIONS

**Brewing Tanks** – Once the equipment has been properly cleaned make up a final acid anionic rinse using STAR SAN HB as follows: In every barrel of water add 7 fluid ounces, circulate for a minimum of 3 minutes at ambient temperatures. Just prior to start-up rinse with potable water and follow state and local Health Department regulations covering start up sanitation.

**Part Soaking**- In a 5 gallon bucket add 4 gallons of water and 2 ounces of STARSAN HB. Once all parts have been removed from equipment and hand washed allow them to soak in the STARSAN HB solution for a minimum of 5 minutes. Remove parts from solution. Reassemble wet parts on equipment to reduce the possibility of water spotting or any other undesirable conditions to occur, rinse equipment with potable water. Follow State and Local Health Department Regulations covering start up sanitation.

## ❖ COMPLIANCE

Always sanitize equipment just prior to start up with a suitable sanitizer as required by local public health regulations.

## ❖ SAFETY

**DANGER:** Corrosive to skin and eye, contains Phosphoric Acid. Harmful if swallowed. Do not get in eyes, on skin or on clothing. Wear protective goggles and clothing when using. Avoid contamination of food. DO NOT MIX STARSAN HB with chlorinated cleaners as chlorine gas will result. See Label for more precautionary information. Contains Phosphoric Acid. A known corrosive.

### FIRST AID:

**For Eyes:** Hold eyes open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first five minutes. Then continue rinsing. Call Poison Control Center or doctor for treatment advice.

**If Swallowed:** Call Poison Control Center or doctor immediately for treatment advice. Have person sip on a glass of water if able to swallow. Do not induce vomiting unless told to do so by the Poison Control doctor. Do not give anything to an unconscious person.

**If on Skin or Clothing:** Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call Poison Control Center for treatment advice.

**If Inhaled:** Move person to fresh air. If person is not breathing call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth if possible. Call a Poison Control Center or doctor for treatment.

**NOTE TO PHYSICIAN:** Probable mucosal damage may contraindicate the use of gastric lavage. Measure against circulatory shock, respiratory depression and convulsion may be needed.



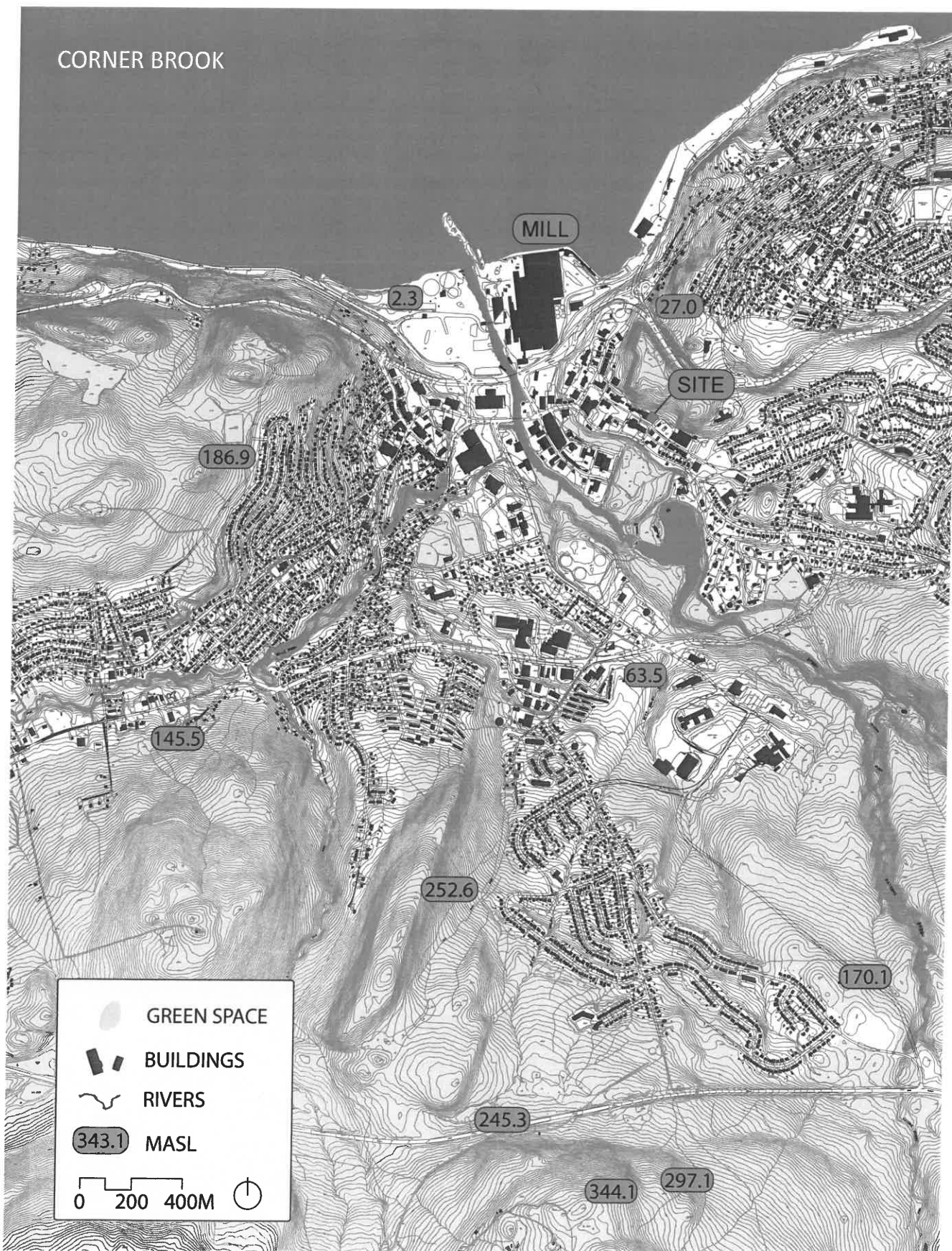
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## **Appendix 5:**

### **Corner Brook Elevation Map**





Map of Corner Brook exhibiting the building site and mill in relationship to the cities dramatic elevation change, green space, and connection to the water (Base map data from the City of Corner Brook website).

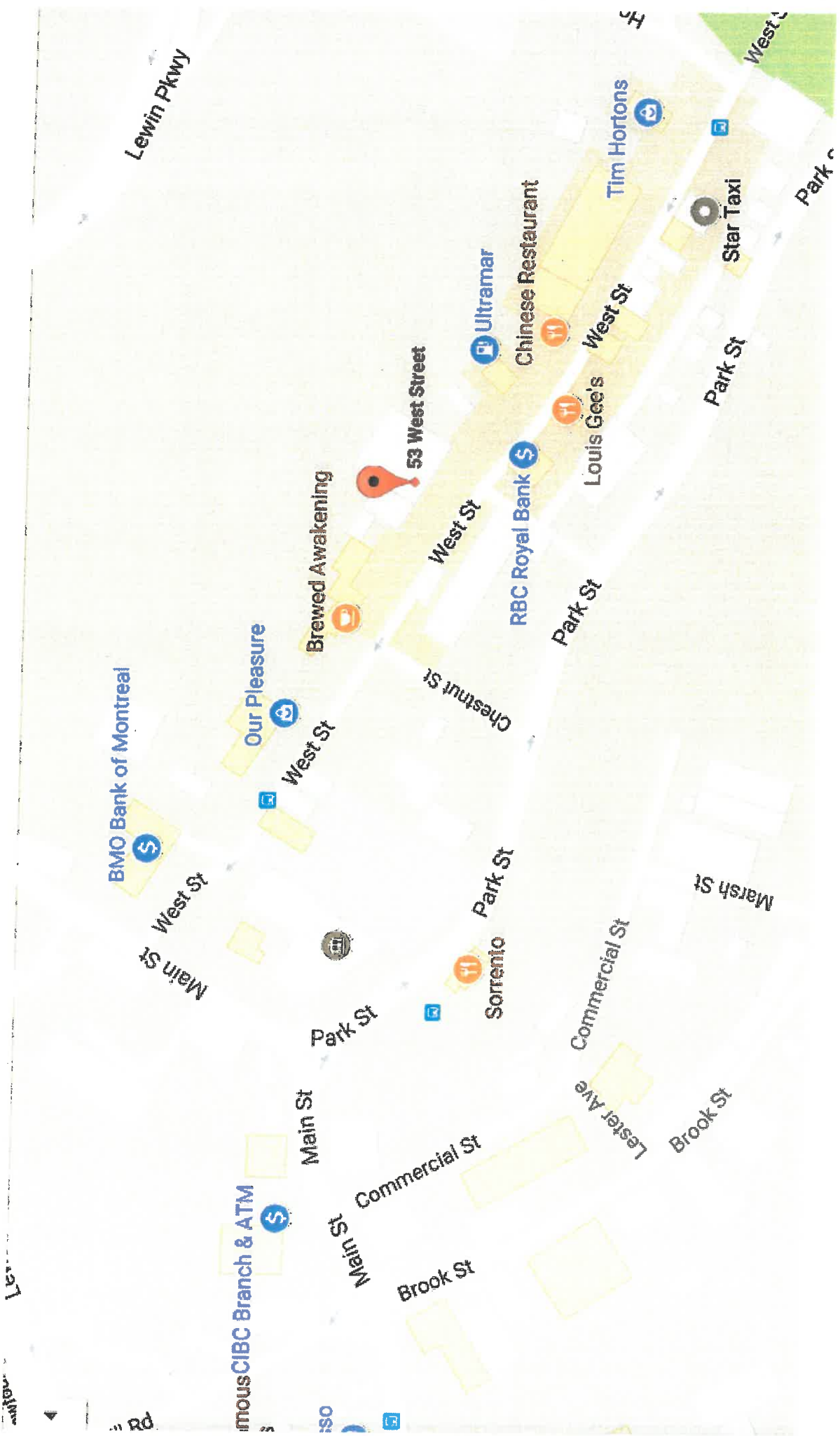


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## **Appendix 6:**

### **West Street Map**



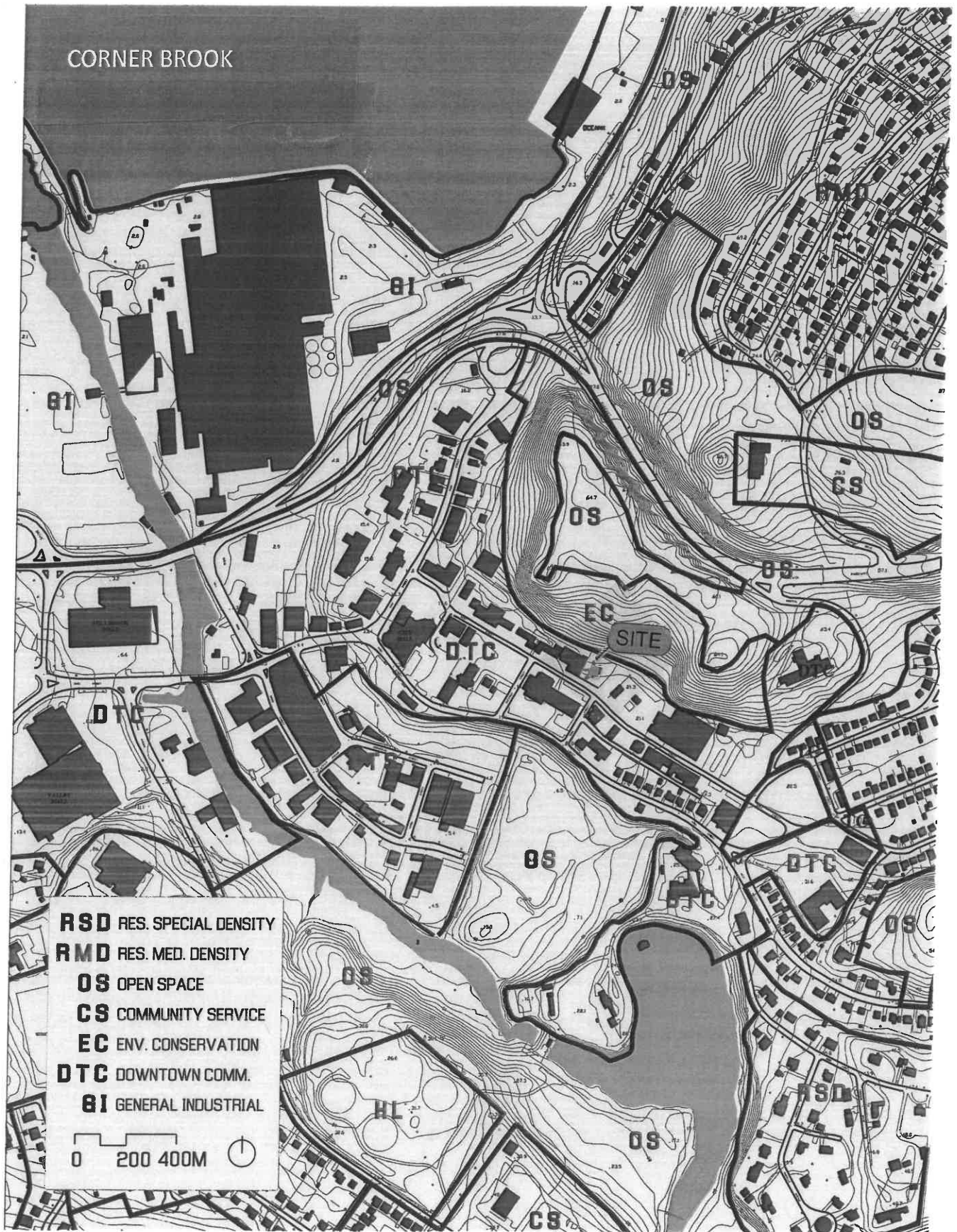


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## **Appendix 7:**

### **City of Corner Brook Zoning Map**



Plan of Corner Brook exhibiting city zoning. The building site within the downtown commercial zone (DTC) bordering Three Bear Mountain (which is classified as Environmental Conservation (EC)) (Base map data from City of Corner Brook website).





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## **Appendix 8:**

**Boomstick Image**



Photo of CEO, Dean Major, in front of a stockpile of modern boomsticks at Major's Logging Limited headquarters.