

EXHIBIT A1

TOWN OF WATERBURY ZONING PERMIT APPLICATION

Please provide all of the information requested in this application.

Read the Zoning Regulations and familiarize yourself with the requirements. Failure to provide all the required information will delay the process of this application. Based upon the nature of the project you may need to submit additional information. For instructions on how to fill out this form please refer to the *Zoning Permit Application Instructions & Fee Schedule* available on the municipal website or at the municipal offices. Submit one copy of the completed application and a check payable to the *Town of Waterbury* according to the zoning fee schedule. For questions about the permit process, please contact the Zoning Administrator at 802-244-1018.

| | | | |
|--------------|-------------------|------------------------|---------------|
| Date: | <u>05-03-2021</u> | Application #: | <u>039-21</u> |
| Fees Paid: | <u>150.</u> | + \$15 recording fee = | <u>165-</u> |
| Parcel ID #: | <u>948-0028.V</u> | | |
| Tax Map #: | <u>19-294.000</u> | | |

CONTACT INFORMATION

APPLICANT

Name: Perry Hill Partners c/o Aaron Flint & Jason Wulff

Mailing Address: 360 Upland Mowing

Waterbury, VT 05676

Home Phone : 802-371-9433

Work/Cell Phone: _____

Email: Aaron@aaronflintbuilders.com; jason_wulff@yahoo.com

PROPERTY OWNER (if different from Applicant)

Name: _____

Mailing Address: _____

Home Phone : _____

Work/Cell Phone: _____

Email: _____

PROJECT DESCRIPTION

Physical location of project (E911 address): 28 Stowe Street

Lot size: 0.24 Ac Zoning District: DWN DC, DDR Overlay

Existing Use: Office/Retail Space Proposed Use: Restaurant/Retail Space

Brief description of project: _____

Change in use of the 1st floor from retail/office space to a 21-seat restaurant/bar with 900 sf of retail space.

Cost of project: \$ N/A Estimated start date: N/A

Water system: Municipal Connection Waste water system: Municipal Connection

EXISTING

Square footage: 2,085 SF Height: N/A

Number of bedrooms/baths: _____

of parking spaces: 21

Setbacks: front: _____

sides: _____ / _____ rear: _____

PROPOSED

Square footage: 2,085 SF Height: N/A

Number of bedrooms/bath: _____

of parking spaces: 23

Setbacks: front: _____

sides: _____ / _____ rear: _____

ADDITIONAL MUNICIPAL PERMITS REQUIRED:

- Curb Cut / Access permit
- E911 Address Request
- Water & Sewer Allocation
- none of the above

[Additional State Permits may also be required]

CHECK ALL THAT APPLY:

NEW CONSTRUCTION

- Single-Family Dwelling
- Two-Family Dwelling
- Multi-Family Dwelling
- Commercial / Industrial Building
- Residential Building Addition
- Comm./ Industrial Building Addition
- Accessory Structure (garage, shed)
- Accessory Apartment
- Porch / Deck / Fence / Pool / Ramp
- Development in SFHA (including repairs and renovation)
- Other _____

USE

- Establish new use
- Change existing use
- Expand existing use
- Establish home occupation

OTHER

- Subdivision (# of Lots: _____)
- Boundary Line Adjustment (BLA)
- Planned Unit Development (PUD)
- Parking Lot
- Soil/sand/gravel/mineral extraction
- Other _____

SKETCH PLAN Please include a sketch of your project, drawn to scale, with all required measurements - see *Zoning Permit Application Instructions*. You may use the space below or attach separate sheets. For plans larger than 11"x17" please provide a digital copy (pdf. file format) in addition to a paper copy.

#039-21
PHP/Flint/Wulff

EXHIBIT A2

SEE ATTACHED PLAN

SIGNATURES The undersigned hereby applies for a Zoning Permit for the use described in this application to be issued on the basis of the representations made herein all of which the applicant swears to be complete and true.

Jason D Wulff 5/3/2021
Applicant Signature date

Jason D Wulff 5/3/2021
Property Owner Signature date

CONTACT Zoning Administrator Phone: (802) 244-1018
Mailing Address: Waterbury Municipal Offices, 28 North Main Street, Suite 1, Waterbury, VT 05676
Municipal Website: www.waterburyvt.com

| OFFICE USE ONLY | | <i>(HC)</i> <i>(DDR), Historic Commercial sub-district</i> |
|--|--|---|
| Zoning District/Overlay: <u>Downtown (DNN), Downtown Design Review</u> | REVIEW/APPLICATIONS: | |
| Review type: <input type="checkbox"/> Administrative <input checked="" type="checkbox"/> DRB | Public Warning Required: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No | <input checked="" type="checkbox"/> Conditional Use <input type="checkbox"/> Waiver |
| DRB Referral Issued (effective 15-days later): <u>May 12, 2021</u> | | <input checked="" type="checkbox"/> Site Plan |
| DRB Mtg Date: <u>6/2/21</u> Decision Date: _____ | | <input type="checkbox"/> Variance |
| Date Permit issued (effective 16-days later): _____ | | Subdivision: |
| Final Plat due (for Subdivision only): <u>-</u> | | <input type="checkbox"/> Subdv. <input type="checkbox"/> BLA <input type="checkbox"/> PUD |
| Remarks & Conditions: _____ | | Overlay: <i>(HC)</i> |
| _____ | | <input checked="" type="checkbox"/> DDR <input type="checkbox"/> SFHA <input type="checkbox"/> RHS <input type="checkbox"/> CMP |
| Authorized signature: _____ Date: _____ | | <input type="checkbox"/> Sign |
| | | <input type="checkbox"/> Other _____ |
| | | <input type="checkbox"/> n/a |

| | | | |
|--------------|-------------------------------------|-----------------------------------|---------------|
| Date: | <u>5/3/21</u> | Application #: | <u>039-21</u> |
| Fees Paid: | <input checked="" type="checkbox"/> | (\$15 recording fee already paid) | |
| Parcel ID #: | _____ | | |
| Tax Map #: | _____ | | |

28 Stowe St.

TOWN OF WATERBURY OVERLAY DISTRICT INFORMATION

This Overlay District information sheet supplements the Zoning Permit Application. Please provide all of the information requested on both forms. Read the Zoning Regulations and familiarize yourself with the requirements. Failure to provide all the required information will delay the process. Submit one copy of the completed forms and a check payable to the *Town of Waterbury* according to the zoning fee schedule. For questions about the permit process please contact the Zoning Administrator at 244-1018.

PROJECT DESCRIPTION

Brief description of project: Change in use of the 1st floor from retail/office space to a 21-seat restaurant/bar with 900 sf of accessory retail space. No exterior building changes.

Fill out only the relevant section(s) & utilize the following checklists to ensure your plans include all the required information.

~~DOWNTOWN DESIGN REVIEW OVERLAY DISTRICT (DDR)~~

DESIGN STANDARDS:

For Historic Structures (applying to all structures listed on the National Register of Historic Places):

- Original materials or materials typical of the architectural style are preserved or replaced with like materials to the extent feasible and appropriate.
- Historic building features shall be preserved or replicated to the extent feasible and appropriate.

For projects within the Historic/Commercial Sub-District:

- New building designs shall reinforce historic streetscape patterns, including orientation and setbacks.
- New buildings shall maintain overall height, size, massing, scale, and proportions compatible with those of buildings in the vicinity.
- New additions are designed to complement and be compatible with the original structure.
- Project design reinforces a pedestrian streetscape.
- On-site utilities shall be buried and utility boxes are screened from public view if the utilities along the street serving that structure are also buried.
- Buildings, or portions thereof, having eaves heights of 20-feet or less above ground level incorporate moderately to steeply pitched roofs, unless the another roof type is appropriate.

For projects within the Mixed-Use Sub-District:

- Building sites, including road and pedestrian networks, are designed in a manner that is integrated and compatible with adjoining parcels and areas.
- A proposed project located next to or facing a historic structure incorporates similar or complementary building features.
- New buildings are oriented to front upon, and relate both functionally and visually to, primary access roads.
- On-site parking is situated to the rear or on the sides of structures, where feasible and appropriate.
- The primary facades of principal structures are clearly defined through the placement of one or more prominent entryways, pedestrian walkways, or landscaping features.
- Building facades and rooflines are designed so as to reduce the perceived mass, scale, and uniform impersonal appearance of large buildings and additions, and to provide visual interest.
- Clearly defined pedestrian walkways are provided through parking areas, between buildings, and from public sidewalks to the site.

*No changes to previously approved exterior

SUBMISSION REQUIREMENTS.

- All information required under Site Plan (see Site Plan Application)
- Proposed architectural elevations (for each exterior wall) showing door and window types and placement, and other exterior details
- A description of all materials to be used on the exterior of building
- Photos of the existing building(s) on the site and adjacent and facing parcels
- For demolition of a structure listed on the National Register of Historic Places see additional requirements within the Regulations.

May 3, 2021

#039-21

PHP

5/3/21

Dina Bookmyer-Baker
Waterbury Zoning Administrator
28 North Main St, Suite 1
Waterbury, VT 05676

RE: Change in Use – 1st Floor Bell's Block
Perry Hill Partners, LLC, 28 Stowe Street
McCain Project No. 37052

Dear Dina,

Enclosed please find the following documents for the above referenced project:

- Fee Check in the Amount of \$165.00
- Project Narrative and Supporting Information
- Zoning Permit Application;
- DDR Overlay District Application;
- Fee Structure Worksheet;
- Site Plan Sheet C-1, dated December 24, 2019, last revised 05/01/21.

The enclosed application is for a proposed 21-seat restaurant/bar with 900 square feet of accessory retail space. Please see the attached project narrative and supporting information for additional details addressing the proposed use and responses to review criteria under the recently approved interim downtown zoning regulation and Site Plan review criteria per the WZR.

Feel free to reach out to us with any additional questions or comments that you may have.

Sincerely,
McCain Consulting, Inc.



George N. McCain Jr. P.E.
Enc.

PROJECT NARRATIVE AND SUPPORTING INFORMATION

PERRY HILL PARTNERS

CHANGE IN USE, 1ST FLOOR BELL'S BLOCK, 28 STOWE STREET

The project lies within the Town of Waterbury DC (Downtown Commercial) Zoning District and the Downtown Design Review (DDR) and Historic Commercial (HC) overlay/sub-districts. The project has been designed to meet the requirements of the newly approved interim zoning regulations for the Downtown Zoning District adopted by the Select Board on 4/26/2021.

The applicant proposes to change the use of the first floor from Retail store/service (>2,000sf) (<2,000sf) to a Restaurant/Bar, up to 4,000 sf and accessory retail space, both of which are identified as a permitted use under the interim zoning regulation. The existing first floor is approximately 2,085 sf.

Freak Folk Bier is a craft beer brewer that is seeking to create a 21-seat drinking establishment. Accessory to this will be a small retail area of the finished products and a production area. The retail component is allocated 900 sf and the remaining 1,185 sf to the restaurant/bar and production. No commercial kitchen or food preparation is proposed. Bar type snacks shall be served as regulated by the State of Vermont. The applicant will produce less than 2,000 barrels of alcoholic beverage on-site, and at least 25% of the beverage produced on-site will be sold on the premises. The applicant intends to have periodic live music events. Events would be during other tenant non-business hours. Live entertainment is acceptable as an accessory use under the definition of Restaurant/Bar.

Employees: The applicant plans 4 full time employees at full capacity.

Hours of operation:

Bar-

Tue-Thurs 3pm-11pm

Fri-Sun 12pm-11pm

Production

Mon-Fri 6am-6pm

Site Plan Review and Performance Standards:

Odors/ Noise:

Brew days will vary. 2-3 times per week. Smell of boiling wort will be produced during the hours of 11am-5pm. Steam from the kettle will be directed to the outside of the building facing the railroad. There will be noticeable smell during boiling but, is will be minimal. The process does not produce detectable noise outside of the building.

Glare:

All lighting will be downcast and shielded as per prior applications and approvals for the existing structure.

Vibration:

None associated with the proposed use.

Electrical or Radio Interference:

None associated with the proposed use.

Waste and Material Storage:

Normal refuse associated with the Restaurant/Bar will be disposed of in on-site dumpster within a screened area, as shown on the enclosed Site Plan. The applicant is working with the town on disposing of small amounts of

waste associated with the brewing operation off-line of the town wastewater system, none of which will be stored in a manner that attracts insects or rodents or creates a health hazard.

Particulate Matter and Airborne Solids:

None associated with the proposed use.

Flammable, Toxic or Hazardous Substances and Wastes:

None associated with the proposed use.

Traffic/circulation & parking:

There will be no change to the previously-approved traffic access to and through the site, with traffic circulating one-way, entering at Stowe Street and exiting at 11 N. Main Street.

Parking – currently permitted on site are:

11 N. Main Street – total 11 spaces

28 Stowe Street – 21 spaces

Total – 32 required. Existing site plan shows 33 available plus a spot reserved for Green Mountain Power guy wire. This wire was not needed and not installed by GMP. Therefore 34 spaces physically exist. 11 are dedicated to 11 N. Main leaving 23 available to 28 Stowe.

Prior approval described 28 Stowe St. as 6,255 sf combined office/retail requiring 21 spaces (1/300sf).

The proposed parking requirements based on WZR Parking Regulation 414 are calculated as follows:

Retail stores or services – 1 per 300 sf of floor area
900sf retail area.....3 spaces

Eating and drinking establishments – 1 for every three seats, including bar stools, plus one for every person normally working on premises during any one shift.
21 proposed seats.....7 spaces
1 space per employee.....3 spaces

A minimum of 13 spaces are required during peak hours. It is assumed that one of the employees listed is allocated within the Retail use. It is also reasonable to assume the retail function will be largely made up of the bar patrons.

Perry Hill Partnership expects to manage the available 23 spaces for Stowe St. as follows:

Office/Clinic Uses - Monday – Friday 8am - 5pm.....14 spaces
Freak Folk Bier - Monday – Friday 6am – 6pm.....9 spaces
Freak Folk Bier – Monday – Friday 6pm – 11pm.....21 spaces
Freak Folk Bier – Saturday – Sunday.....21 spaces

Deliveries – All deliveries are scheduled and via standard box type trucks. No tractor trailers.

Pedestrian access/landscaping/lighting and refuse – There are no proposed changes to the previously approved site plan with regard to these elements.

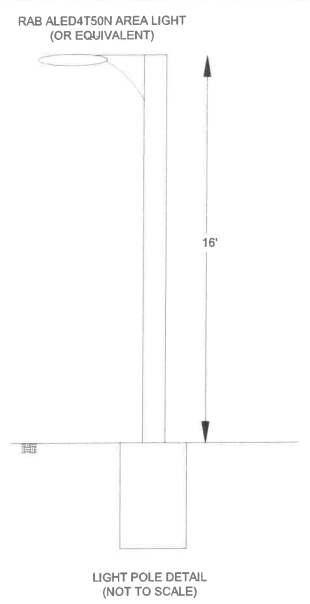
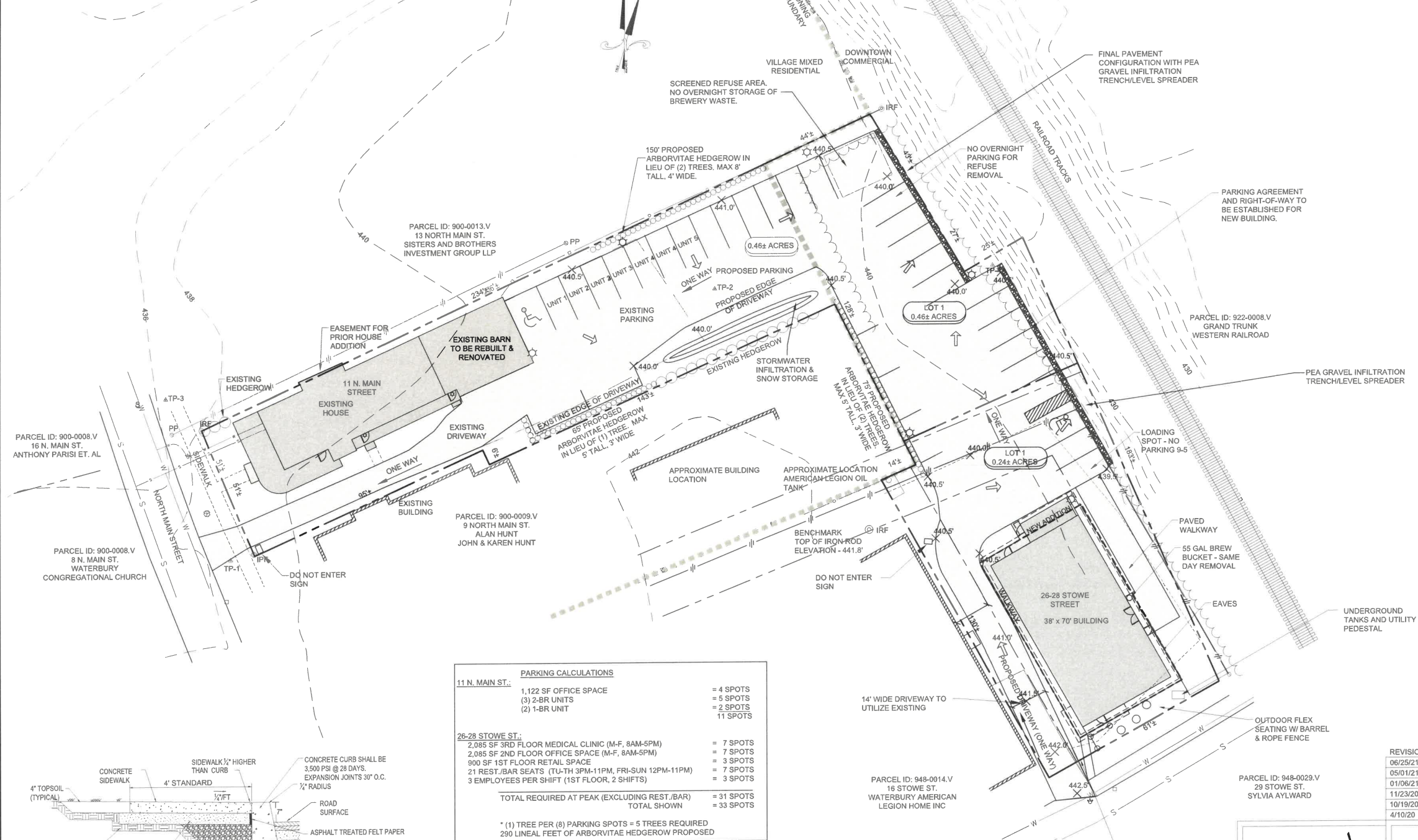
Conditional Use Criteria – not applicable as all proposed uses are Permitted within the Downtown Zoning District.

Downtown Design Review Overlay District – There are no proposed exterior changes except for claiming the one additional parking space, previously reserved for GMP guy wire.

#039-21
PH Partners
Reused

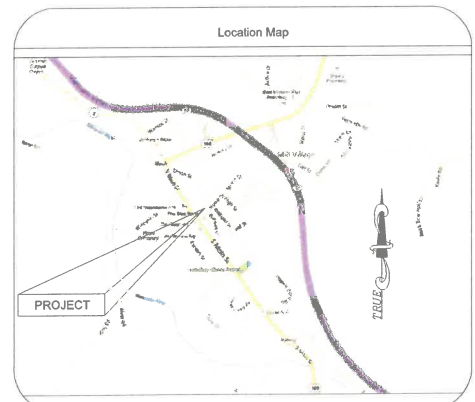
ZONING INFORMATION

| | |
|---|--|
| 26-28 STOWE ST. DISTRICT - LOT AREA - FRONT YARD SETBACK - SIDE YARD SETBACK - REAR YARD SETBACK - | DOWNTOWN COMMERCIAL 0 SF 0' 0' 0' |
| 11 NORTH MAIN ST. DISTRICT - LOT AREA - COVERAGE - FRONT YARD SETBACK - SIDE YARD SETBACK - REAR YARD SETBACK - | VILLAGE MIXED RESIDENTIAL 20,000 SF 25% 40' 25' 50' |



LEGEND

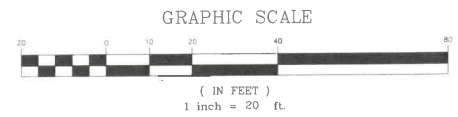
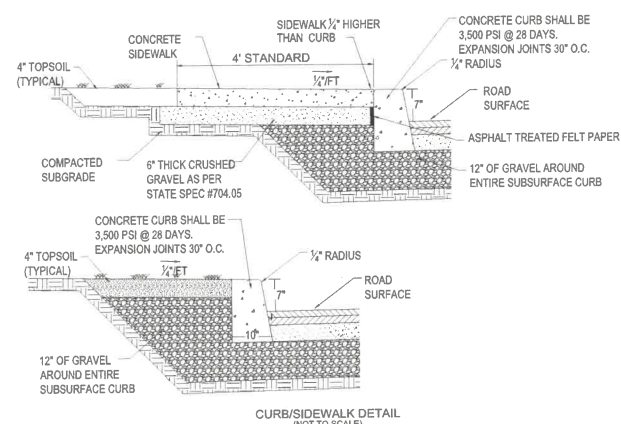
- △ TP-1 Traverse point
- IPF Iron pipe found
- IRF Iron rod found
- ⊕ Utility pole
- ⊕ PP Water shut off valve
- ⊕ Sewer manhole
- Tree
- Fence
- Overhead power lines
- Hedge row
- Property line
- Property line adjointer
- ⊙ Area light
- Zoning boundary
- Drainage direction
- Screening fence



PARKING CALCULATIONS

| | |
|-------------------------|--|
| 11 N. MAIN ST.: | 1,122 SF OFFICE SPACE = 4 SPOTS |
| | (3) 2-BR UNITS = 5 SPOTS |
| | (2) 1-BR UNIT = 2 SPOTS |
| | 11 SPOTS |
| 26-28 STOWE ST.: | 2,085 SF 3RD FLOOR MEDICAL CLINIC (M-F, 8AM-5PM) = 7 SPOTS |
| | 2,085 SF 2ND FLOOR OFFICE SPACE (M-F, 8AM-5PM) = 7 SPOTS |
| | 900 SF 1ST FLOOR RETAIL SPACE = 3 SPOTS |
| | 21 REST./BAR SEATS (TU-TH 3PM-11PM, FRI-SUN 12PM-11PM) = 7 SPOTS |
| | 3 EMPLOYEES PER SHIFT (1ST FLOOR, 2 SHIFTS) = 3 SPOTS |
| | TOTAL REQUIRED AT PEAK (EXCLUDING REST./BAR) = 31 SPOTS |
| | TOTAL SHOWN = 33 SPOTS |

* (1) TREE PER (8) PARKING SPOTS = 5 TREES REQUIRED
290 LINEAL FEET OF ARBORVITAE HEDGEROW PROPOSED



Topography by Total Station
Contour Interval 2'
Approximate USGS Datum
Based on Hand Held GPS Unit

THE CONTRACTOR SHALL REVIEW ALL CONSTRUCTION ACTIVITIES, COMPONENT LOCATIONS, SPECIFICATIONS, AND DETAILS PRIOR TO COMMENCEMENT OF SITE WORK AND SHALL NOTIFY MCCAIN CONSULTING OF ANY ISSUES OR DISCREPANCIES THAT ARISE FROM THAT REVIEW.

THIS IS NOT A SURVEY. THIS PLAN DOES NOT MEET THE REQUIREMENTS OF 27 VSA SEC. 1403 FOR THE FILING OF SURVEY PLATS.

PRELIMINARY
FOR TOWN PERMITTING

REVISIONS

| | |
|----------|--|
| 06/25/21 | UPDATED PARKING LAYOUT, AS-BUILT DOOR CONFIGURATION, MISC PER DRB REVIEW |
| 05/01/21 | UPDATED PARKING FOR 1ST FLOOR CHANGE IN USE, ADDED OUTDOOR FLEX SEATING AREA |
| 01/06/21 | UPDATED PARKING CALCULATIONS TO REFLECT 1ST FLOOR RETAIL |
| 11/23/20 | UPDATED PARKING CALCULATIONS, MISC FOR PROPOSED 3RD FLOOR CHANGE IN USE |
| 10/19/20 | UPDATED PARKING CALCULATIONS, MISC FOR PROPOSED 1ST FLOOR CHANGE IN USE |
| 04/10/20 | UPDATED 11 N. MAIN AS-BUILT CONDITIONS FOR TOWN PERMITTING |

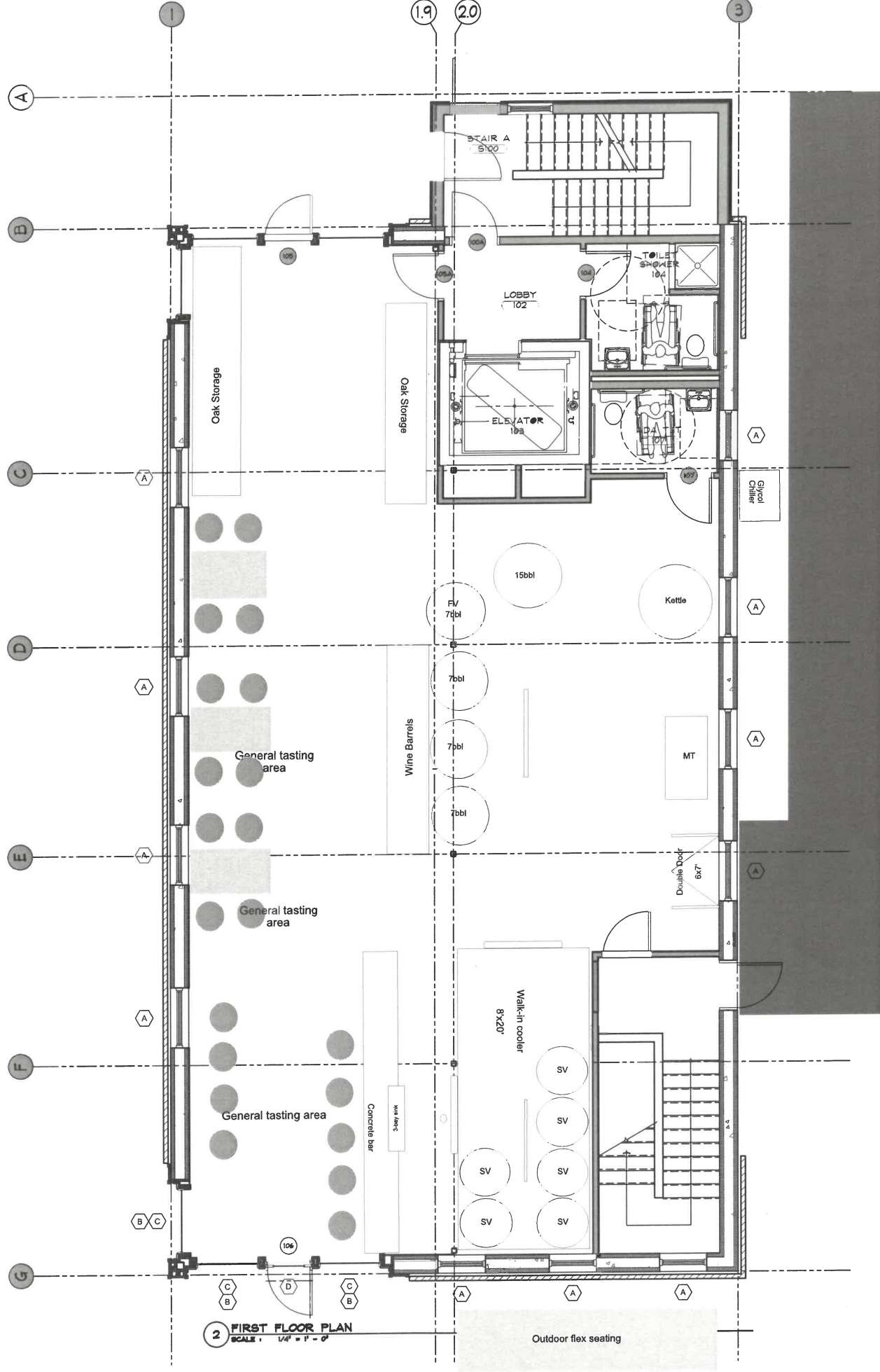
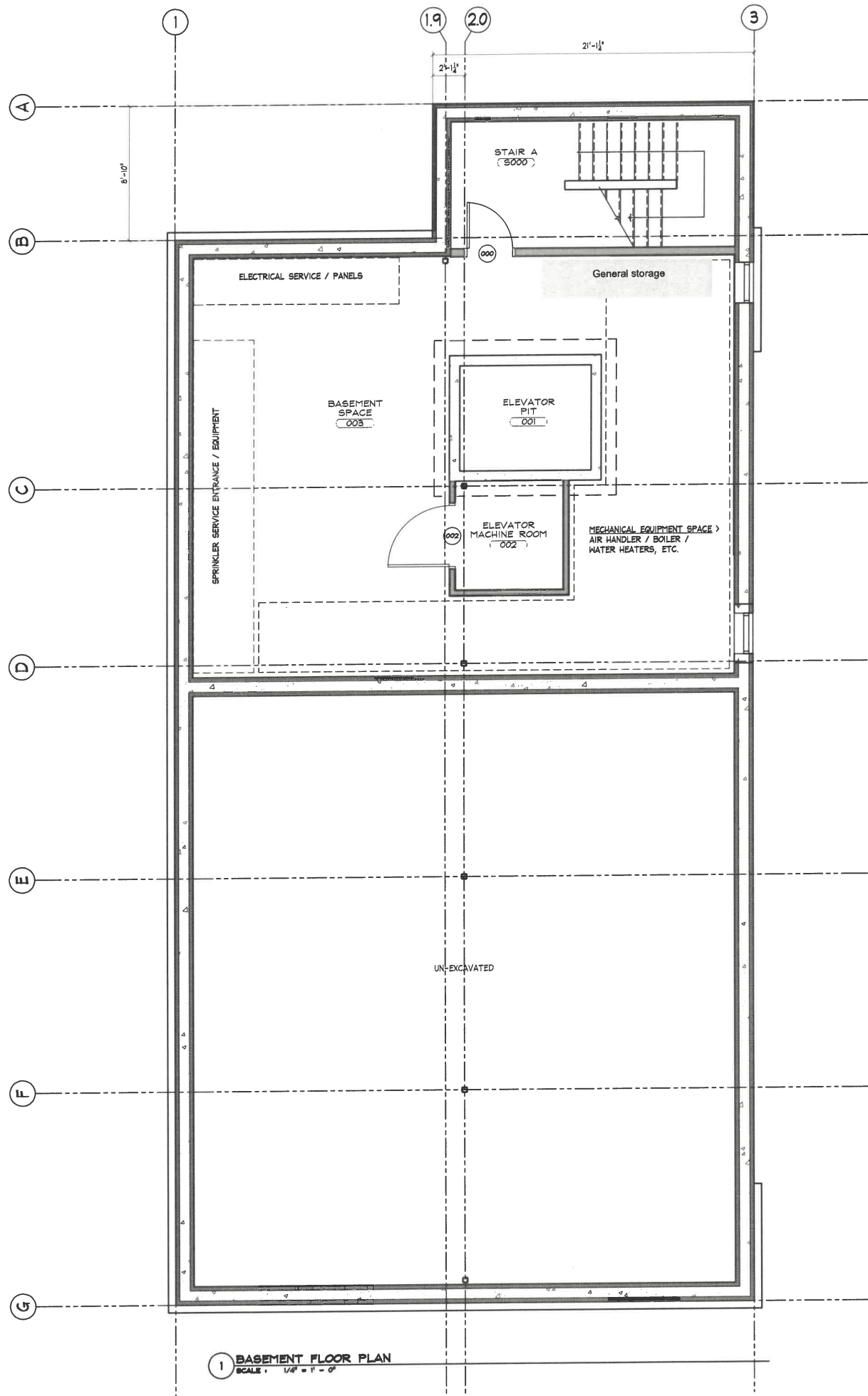
SITE PLAN
PERRY HILL PARTNERS
REVISIONS TO MULTI-USE DEVELOPMENT
11 N. MAIN ST. & 26-28 STOWE ST. WATERBURY, VT

SCALE: 1" = 20'
DESIGNED BY: GMJ PROJECT #37052
DRAWN BY: WDB
CHECKED BY: GMJ

MCCAIN CONSULTING, INC.
93 SOUTH MAIN STREET
WATERBURY, VERMONT 05676

DATE: DECEMBER 24, 2019 SHEET C-1

#039-21
PH Partners
Revised



Dina Bookmyer-Baker

(muni comment)

Perry Hill Partners

From: Gary Dillon
Sent: Monday, May 17, 2021 9:28 PM
To: Dina Bookmyer-Baker; Bill Woodruff; Alec Tuscany; Celia Clark
Subject: RE: 28 Stowe Street, restaurant/bar/brewery application

This is fine with me. Access keys to the entire building, to include the bar need to be provided to the fire department and locked into a fire department accessible Know Box. Application for a Knox Box can be provided.

Gary

Gary Dillon, Fire Chief
Waterbury Fire Department

*Don't practice until you get it right.
Practice until you can't get it wrong.*

From: Dina Bookmyer-Baker <dbookmyerbaker@waterburyvt.com>
Sent: Sunday, May 16, 2021 8:52 PM
To: Bill Woodruff <bwoodruff@waterburyvt.com>; Alec Tuscany <publicworksdirector@waterburyvt.com>; Celia Clark <cclark@waterburyvt.com>; Gary Dillon <waterburyfd@waterburyvt.com>
Subject: 28 Stowe Street, restaurant/bar/brewery application

Dear Woody, Celia, Gary, and Alec,

Attached is the application packet for a change of use to the first and basement floors of the new building named Bell's Block at 28 Stowe Street. It is for a Conditional Use review, and the last time it came to the Board I failed to forward it to the municipal departments in a timely manner for comment. The application is scheduled for review by the DRB on Wednesday, June 2 (Site Plan, Conditional Use, and Downtown Design Review).

It would be great to have your comments (either way, concerns or not) by 5/26 (one week prior to the meeting), if possible. Full-scale drawings are in the project folder in my office if you want to see them.

—Dina

Dina Bookmyer-Baker, Zoning Administrator
Town of Waterbury
28 N. Main St., Suite 1, Waterbury, VT 05676
802-244-1018

As of 11/18/20, until further notice, the Zoning Office is closed to the public. I am working remotely 4 days/week, receiving email & voice-mail.



June 30, 2021

EXHIBIT H

Dina Bookmyer-Baker
Waterbury Zoning Administrator
28 North Main St, Suite 1
Waterbury, VT 05676

RE: Resubmission Materials for #039-21 (Bell's Block 1st Floor Change In Use)
Perry Hill Partners, LLC, 28 Stowe Street
McCain Project No. 37052

Dear Dina,

Enclosed please find the following documents for the above referenced project:

- Site Plan, Sheet C-1, Last Revised 6/25/21 including the following edits per the DRB:
 - Updated parking layout with one parking spot designated as a loading zone, no parking 9-5, relocated ADA spot, and general layout revisions to the parking configuration;
 - Outdoor flex seating on the front side of the building with barrel & rope fence;
 - Paved walkway from the loading spot to side doors;
 - Door & swing locations accurately portrayed;
 - No blocking sidewalk sign to be installed.
- Updated first floor plan showing potential layout with door locations.
- Example photos of materials to be used for outdoor flex seating and approximate sketch of locations per DDR requirements.
- Waste management plan outlining disposal of materials, including scheduling pickup with Grow Compost or a local farmer prior to commencing brewing. Outdoor storage while waiting for pickup will be in a sealed, watertight, and pest-resistant refuse container. No outdoor overnight storage of spent grains or other brewery waste will be allowed.
- Events are anticipated to be a maximum of one per month, and will be limited to capacity defined by the Fire Marshall. Events will not be large scale weddings or parties, but will be akin to promotional releases of new beer varieties that may draw a slightly larger than normal crowd.

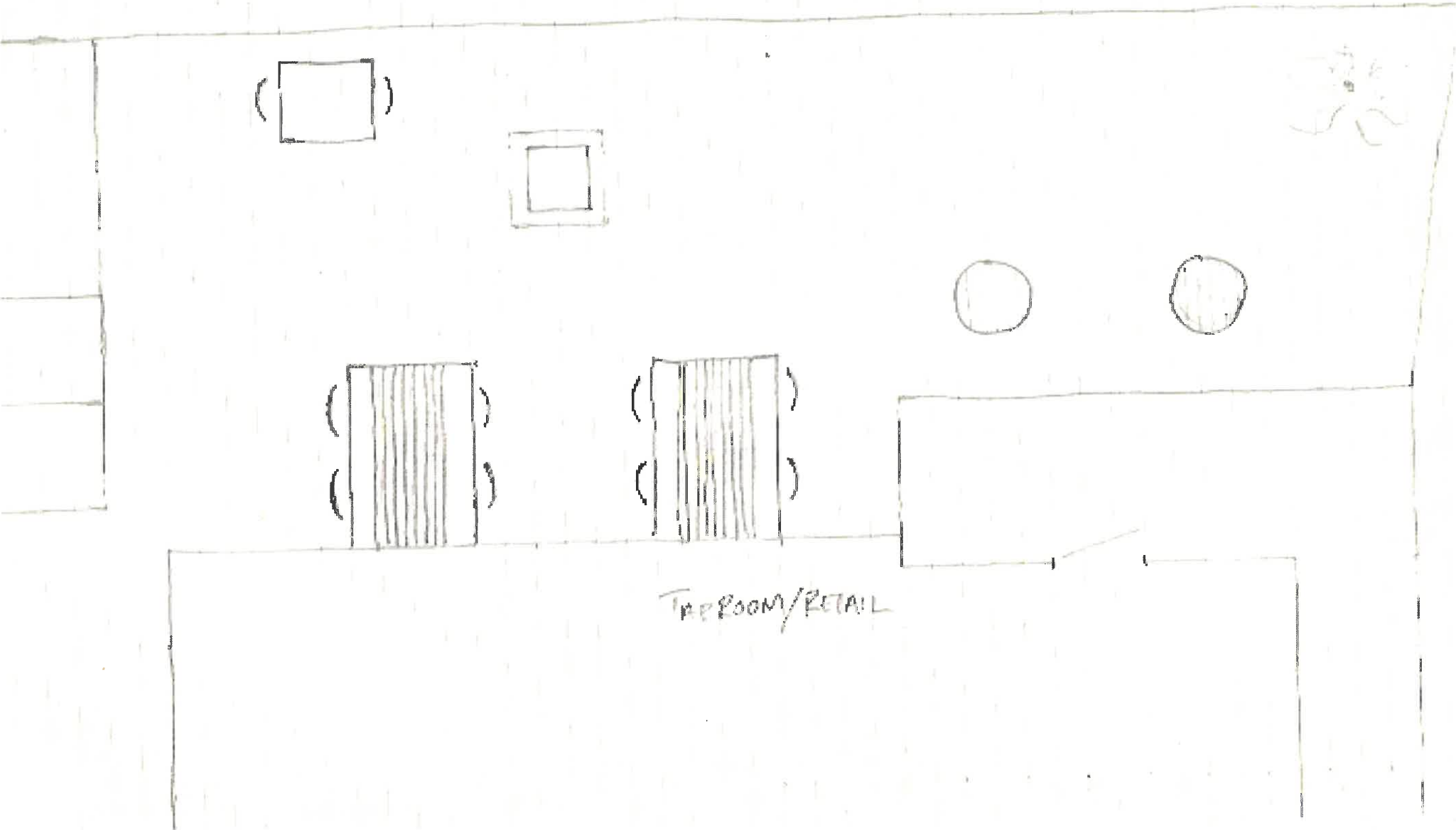
Feel free to reach out to us with any additional questions or comments that you may have.

Sincerely,
McCain Consulting, Inc.



George N. McCain Jr. P.E.
Enc.

BRIDGE/ROAD



TAP ROOM/RETAIL





Waste Management Plan
Freak Folk Bier
28 Stowe Street
Waterbury, VT

The following information is to explain best practices and planned implementation of waste management for a proposed brewpub operation for Freak Folk Bier at 28 Stowe Street in Waterbury, Vermont.

The proposed operation is a 7bbl brewery with 3 7bbl fermenters, one 14bbl fermenter and several oak barrels for conditioning. Expected yearly production is between 700-1000 bbl per year with a maximum possible production of 1500 bbl. Beer will be served in the pub from serving tanks, with some hand packaged for small bottle/can releases.

Below we have detailed methods for side streaming high strength waste from every part of our process, and for ensuring our chemical wastewater is properly treated before being sent to the drain.

Mash Lauter

Our vessel for this first step in our brewing operation will be a 250 gallon dairy tank outfitted with a false bottom. We will mash in this vessel with water recaptured from the heat exchanger from the previous brew heated in the kettle, or with water heated through an on demand heater. After mash and runoff to the kettle, any residual liquid from the spent grain will be sent to our liquid waste container. When dry, spent grain will be scooped out of the open top vessel with a shovel and transferred to 44 gallon plastic buckets. These will be placed outside the door for immediate pickup by a local farmer. We will maintain relationships with several local farmers to ensure that one will pick up grain if another is ill or otherwise indisposed. We have spoken with three farmers that are interested in our grain. We will always make arrangements for each grain pickup prior to commencing a brew.

Our local partners for grain pick up are Bill Woodruff of Waterbury, John Laplatte of Hinesburg, and Adam Chaquette of Enosburg.

Kettle

After the wort is boiled and sent through the heat exchanger to the kettle, we will have approximately 10 gallons of trub (hop particulate and coagulated proteins) in the dish of the kettle. This trub will be transferred with a centrifugal pump to the liquid waste container. Rinse water used to get the last bit out of the kettle will be pumped to the liquid waste container as well. Grow Compost of Vermont will pump out the liquid waste weekly or monthly depending on our needs. Our liquid waste container will be a 200 gallon plastic cone bottom tank with a top port and dump valve on the bottom. Grow Compost will pump liquid waste out through a valve on the bottom of the vessel and haul away.

Fermenter/Brite Tank

After fermentation of wort is complete, beer will be transferred to another vessel leaving 5 to 10 gallons of yeast behind. This yeast will be reused for 10+ generations by directly transferring it from the cone of one fermenter that has completed fermentation to the next tank awaiting fresh wort.

When yeast is ready for disposal, it will be transferred to the liquid waste container with a centrifugal pump, followed by water used to rinse the cone clean.

Hops added after fermentation will also be removed from the cone of the tank after the finished product is transferred to the serving tank. This will be pumped to the liquid waste container, along with water used to rinse.

If trub is removed prior to the transfer of yeast, it will be collected in a small bucket and dumped into the liquid waste container.

Cleaning

After emptying any vessel, The first rinse of the tank will be sent to the liquid waste tank through a 1 inch hose via centrifugal pump. A sightglass placed in line will allow us to determine when the tank has been rinsed clean. After the first rinse, the vessel will be cleaned via CIP. We will clean vessels with a 10 gallon solution of lerapur 284 from Loeffler Chemical at a dilution rate of 1 to 1.5 oz per gallon. Spent cleaning solution will be transferred with the CIP pump directly to the equalization tank or to 20 gallon buckets in the cellar for reuse to clean or sanitize stainless parts. If reused, this liquid will be dumped afterward into the top of the equalization tank.

The equalization tank will be a 90 gallon stainless tank (grundy) outfitted with a sampling valve on the side, a drain valve on the bottom, and a 24 inch hatch door on the top and 2 sight glasses. Markings on the inside of the vessel facilitate volume measurements as seen through a sightglass.

Tanks will be sanitized with peracetic acid from Loeffler Chemical. 10 gallons of solution at a dilution rate of 1-1.5 oz per gallon will be circulated through each tank via CIP. Sanitizer will be collected in buckets after CIP and reused for blowoff buckets or sanitizing stainless parts. After reuse, peracetic acid solution will be dumped into the top port of the equalization tank.

We will occasionally use a nitric/phosphoric acid blend for passivating steel vessels. This is Leracid KMS from Loeffler Chemical. It will be diluted in 10 gallons of water at a rate of 1 -1.5 oz/gal and circulated via CIP. After CIP, this will be sent to the equalization tank via a centrifugal pump.

At the end of the day, or when the equalization tank is nearly full, the pH of the solution within will be tested by drawing some off of the sample valve into a beaker and tested with pH strips. If the pH of solution is within the acceptable range of 5-9.5 SU, It will be slowly emptied to the drain. If pH is too low or too high, sodium hydroxide or peracetic acid will be added for adjustment until the ph is within the acceptable range before being sent to the drain

