

# Thornbury Village Cidery and Brewhouse: Expansion Project-Update

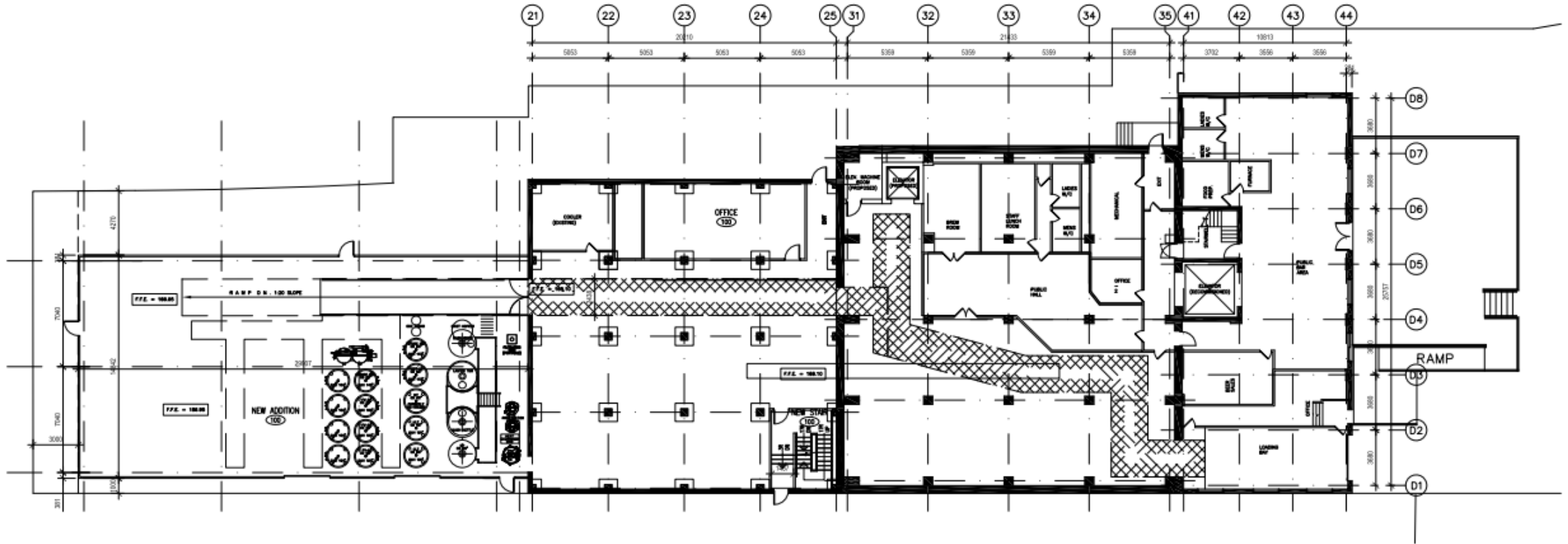
June 10<sup>th</sup> 2019

# Agenda

- A quick update on our expansion plans
- Town sewer connection to the Thornbury Brewery/Cidery
- Bylaw 5.12 – Billing of High Strength sewage
- Timing and Next Steps

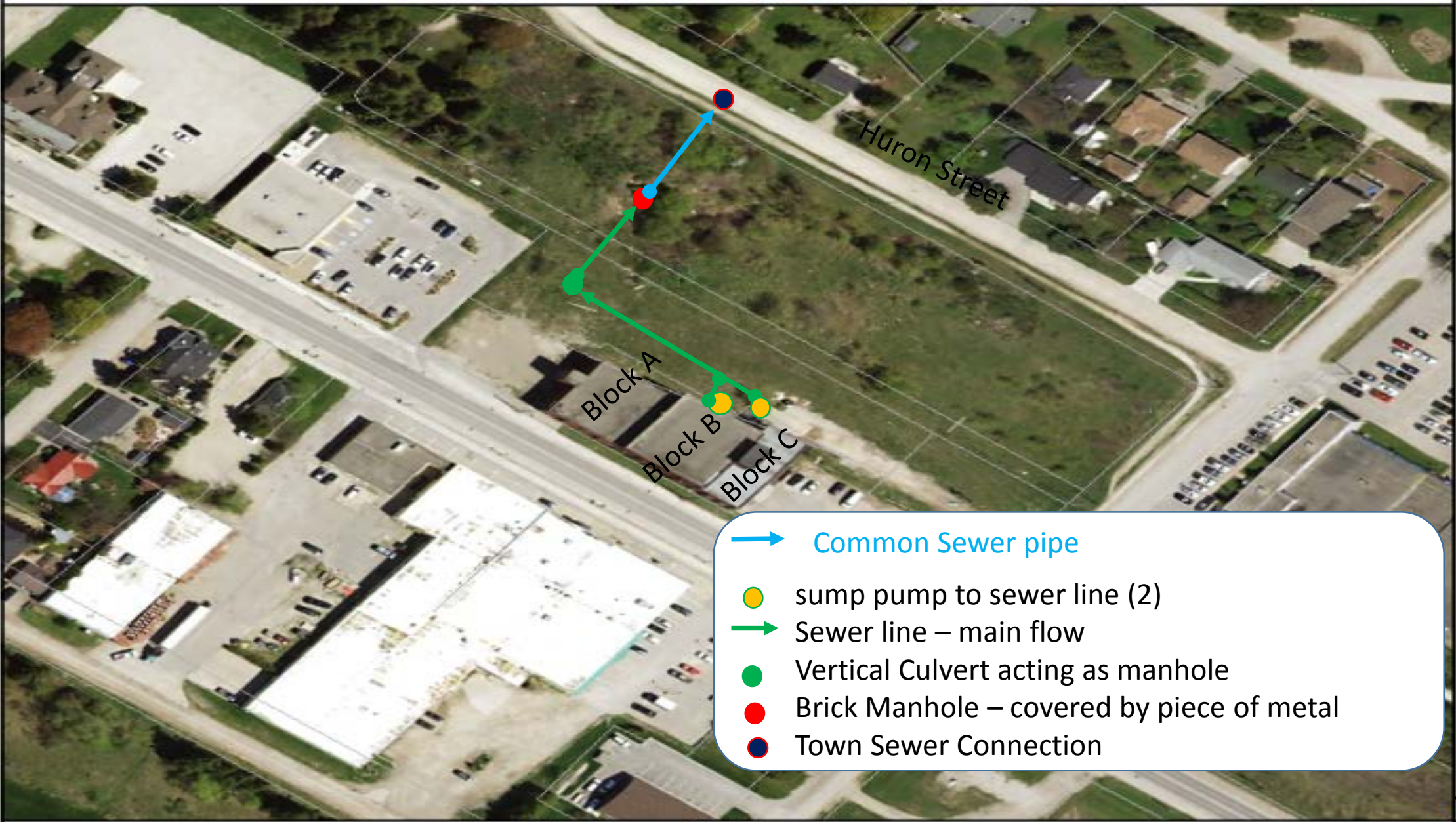


# Revised Expansion Plan

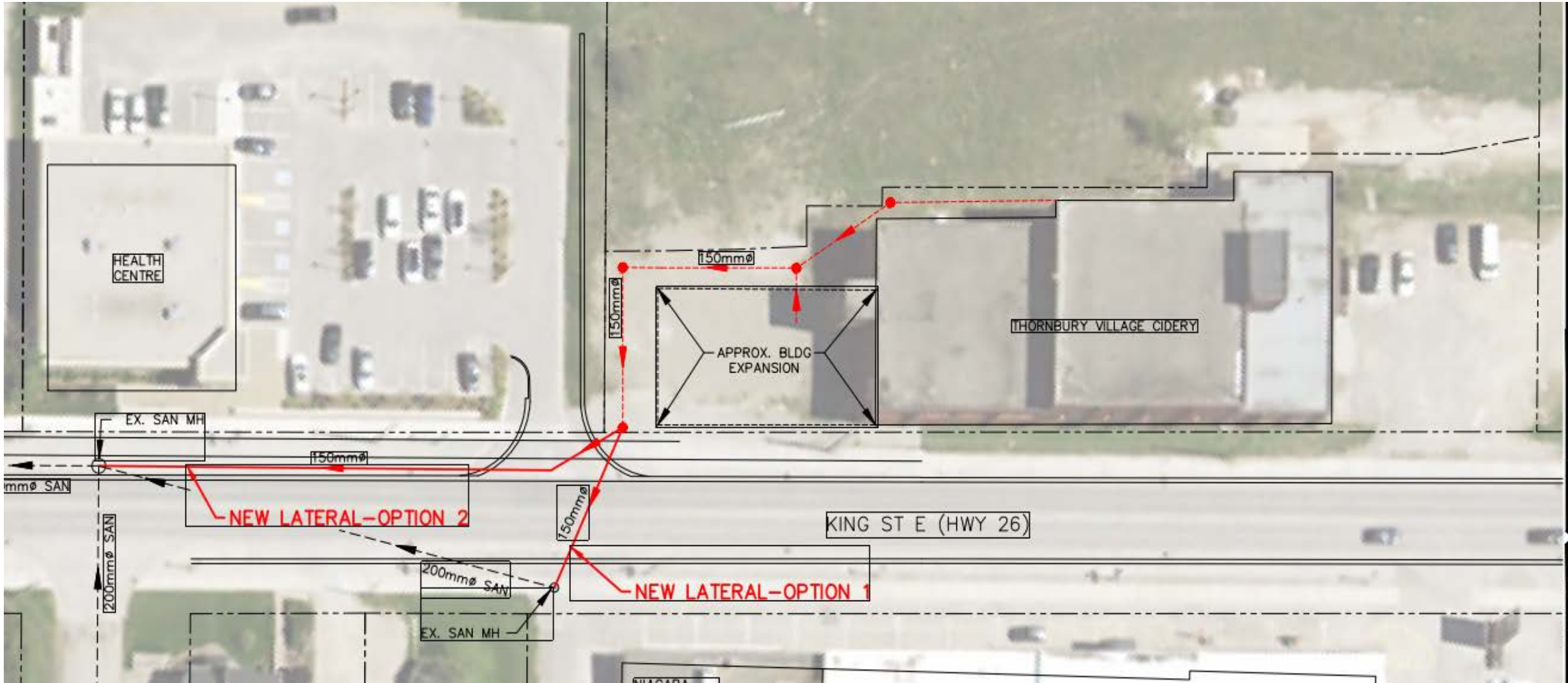


- 4700 sq ft addition to house our brewery operation
- Elevator moved to the inside of the building
- Faster timeline for approval as we only require a minor variance

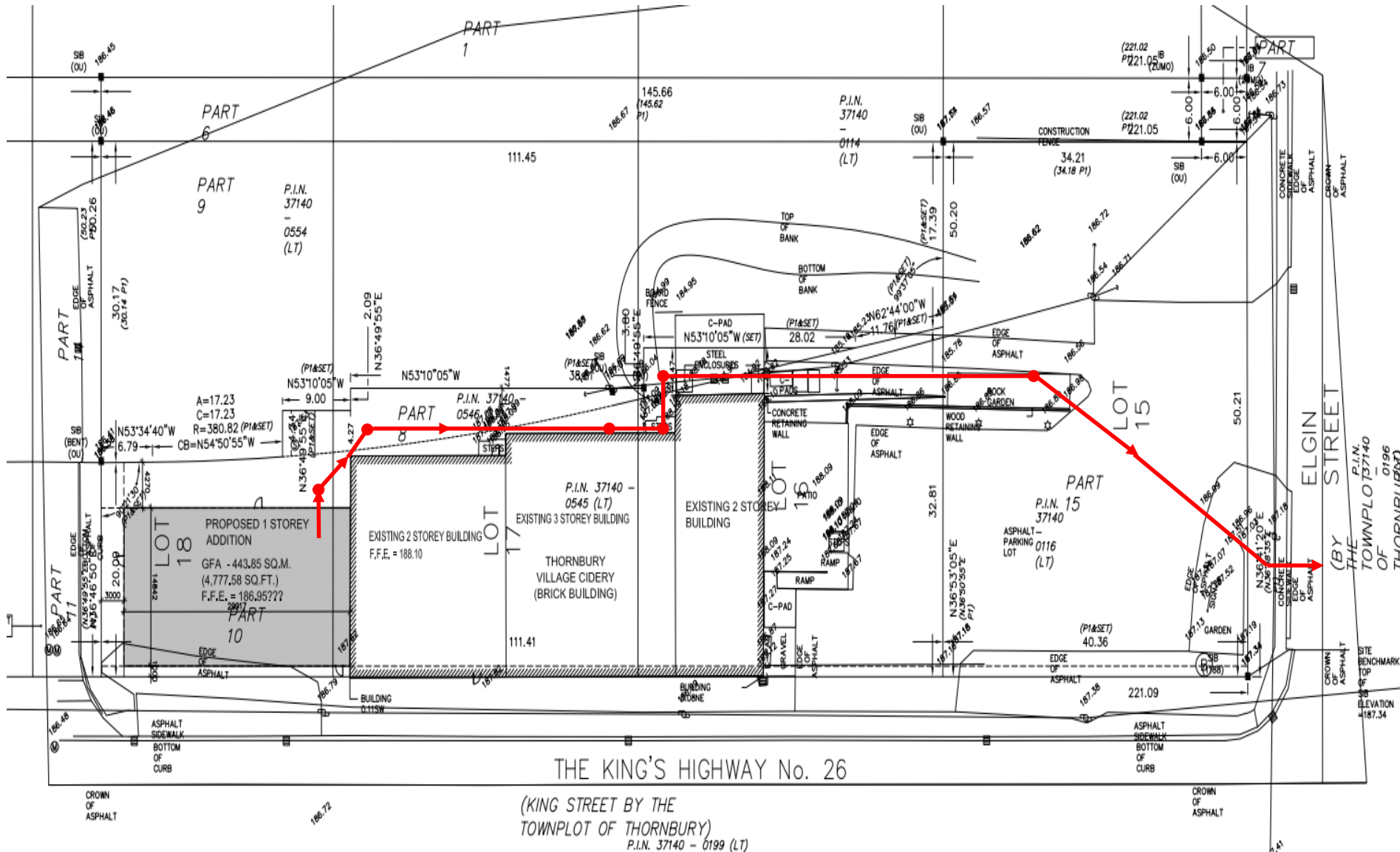
# Current Effluent Process



# Future Effluent Process- Our Preferred Option



# Elgin Street Connection- Not an option for us



- Very complex option
- Cost prohibitive
- Effluent discharge line would have to go through multiple elevation points
- The room to install this option is in question given the lack of space we have on the North side of the building
- Multiple pits and pumps are required to send effluent to Elgin road
- Option 1 or 2 are the best options for helping to control the concentrations of our effluent discharge
- Effluent Pipe crosses from one lot through another

## Our Sewer Connection Challenge

- There is no public sewer connection to the building on our property even though we front onto Highway 26; yet we pay our monthly bill as if we have one
- The property owner to the North of us could proceed with his own development plans at any time
- Our preference is to see the Town provide a 6” diameter sewer connection (lateral) from the existing sanitary manhole on the south side of Highway 26 to the south west corner of our property, or to the sanitary manhole just south of the Medical Center building.



## Our Request to the Town...

### *Sewer Connection:*

- Direct staff to engage in meaningful and positive negotiations with us to install a 6” sanitary service lateral on Highway 26 at west end of property as soon as possible.
- While we feel it is not our cost responsibility to install the sewer lateral on the highway property, we would contribute a nominal amount (up to \$5,000) to Blue Mountains to have this service installed.
- Our property would be fully available on the north side of the Highway 26 to facilitate the directional drill machine as required

## Bylaw 5.12 – Billing of High Strength sewage

- We fully recognize that our effluent does not meet the Municipal Sewer Use bylaw- in particular the low pH and high concentration of BOD. This is typical for our industry
- We have in place an interim solution to control pH and we are working with the town authorities to ensure we are meeting the pH bylaw requirement
- The maximum BOD concentration allowed under the bylaw is 300 mg/l. The BOD concentration of our wastewater ranges significantly from approximately 300 mg/l to 5,000 mg/l. However, it should be noted that our effluent flow per day is relatively small such that the actual BOD “load” (in kilograms of BOD per day) is relatively small.

# Bylaw 5.12 – Billing of High Strength sewage

**Table 1**  
 Town of Thornbury  
 Water Pollution Control Plant  
 2016/2017 Annual Report Review

May 30, 2019

18-038

No.	Parameter	2016	2017
1.	Rated Day Capacity	3,580 m <sup>3</sup> /d	3,580 m <sup>3</sup> /d
2.	Average Flow in Year / % Capacity	2,335 m <sup>3</sup> /d (65%)	2,773 m <sup>3</sup> /d (77%)
3.	Thornbury Cidery Estimated Flow (with new brewery-see Table 2) / % Capacity	14 m <sup>3</sup> /d (0.39%)	14 m <sup>3</sup> /d (0.39%)
4.	BOD Rated Capacity*	537 kg/d*	537 kg/d*
5.	Actual BOD Load / % of BOD Capacity	94 kg/d (18%)	228 kg/d (42%)
6.	Cidery BOD Load @ 3,000 mg/l and 6.2 m <sup>3</sup> /d / % Capacity (no brewery)	18.6 kg/d (3.5%)	18.6 kg/d (3.5%)
7.	Cidery BOD Load @ 3,000 mg/l and Brewery BOD Load @5,000 mg/l at 14 m <sup>3</sup> /d / % Capacity (with brewery)	57.6 kg/d (10.7%)	57.6 kg/d (10.7%)
8.	BOD Effluent Objective/Actual BOD in Effluent	5 mg/l / 2.8 mg/l	5 mg/l / 2.5 mg/l

- Our consultant estimates our future wastewater flow, with the brewery added, will be 14 m<sup>3</sup>/d which is only 0.39% of the WPCP capacity (3,580 m<sup>3</sup>/d). The average WPCP flow now is only ± 2,500 m<sup>3</sup>/d. Our flow impact is therefore negligible.
- For BOD loadings, our consultant indicates our total BOD load will be approximately 57.6 kg/d. This compares to the WPCP BOD load capacity of 537 kg/day. However, the WPCP annual report indicates the plant is only currently running at 20% to 40% BOD load capacity. Therefore, our extra BOD load should be acceptable.

## Bylaw 5.12 – Billing of High Strength sewage

- Bylaw 5.12 outlines the calculation for penalties that could occur if the concentration exceeds 300 mg/L
- However, the rates have not been established
- We were informed by the Blue Mountains staff that they are revising this bylaw
- As you can imagine, as a local business poised to make a major expansion in downtown Thornbury, we are concerned that our wastewater costs could rise dramatically and without warning in the future. Unpredictable, increasing costs for wastewater treatment are therefore a serious concern.

## Our Request to the Town...

### Bylaw 5.12:

- Allow our consultant to continue negotiations with your staff to develop a Sewer Surcharge Agreement for BOD that is fair when compared to other municipalities
- We are willing to pay a fair price to discharge excess BOD to the sewer system up to a maximum daily cap that respects the capacity of the Thornbury wastewater plant (WPCP) for all of the Town's current and future wastewater treatment requirements.

## Timing and Next Steps...

- Submit our application for minor variance by June 19th
- Application approval by July
- Break ground in August which would give us time to relocate the operations in December/January
- We are finalizing the engineering for the elevator and will be applying for a building permit in June

# Thank You

We look forward to a long lasting partnership with the Town of Thornbury!

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