



**Exhibit 7**  
**Fire Dept. Letter**



Peninsula Township Fire Department  
14247 Center Rd.  
Traverse City, Michigan 49686  
PH: 231-223-4443  
[firechief@peninsulatownship.com](mailto:firechief@peninsulatownship.com)



May 7, 2019

Re: Bowers Harbor Vineyards

Proposed Projects

Dear Board,

I have received from planner Randy drawings of proposed projects for Bowers Harbor Vineyards. All proposed projects will be required to be reviewed by the fire department using the International Fire Code (IFC) (2015). The owners will need to submit sealed drawings for each project for review. Below is a list of items that the owner will have to comply with prior to receiving a certificate of occupancy after projects are completed.

**Proposed 20x65 addition to tasting room:**

- Comply with all IFC code requirements for a business occupancy: egress, emergency exits, emergency lighting, fire extinguishers, fire separation, use of proper rated fire material as stated in the code and a determined fire lane with signage. Compliance with all other IFC codes as it relates to the proposed occupancy type.
- Fire department review of complete set of sealed plans prior to start of work to assure complete compliance with the fire code.
- Occupancy load to be recalculated and posted once work is complete.

**Proposed addition to the pavilion:**

- Comply with all IFC code requirements for an assembly occupancy: egress, emergency exits, emergency lighting, fire extinguishers, fire separation, use of proper rated fire material as stated in the code and all other IFC codes related to building use.
- Fire department review of complete set of sealed plans prior to start of work to assure complete compliance with the fire code.
- Occupancy load to be recalculated and posted once work is complete.

**Proposed new shuttle bus parking:**

- 503.2.1- The access road shall be a minimum of 20 feet wide.
- 503.2.3- The access road shall be constructed to support the weight of fire apparatus.
- 503.2.4- The turning radius will be determined by the fire department; this will entail the fire department taking apparatus to the location and assuring the apparatus can make turns easily without stopping and backing up.



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June 19, 2018

Christina Dereen,

On June 19, 2018 the fire department calculated an occupancy load for Bowers Harbor Vineyards according to the International Fire Code guidelines. The main building has an occupancy of 62 people, the patio is set at 36 and the pavilion 50. Occupancy signs were delivered to the vineyard and are to be posted in each appropriate area. If you have any questions, feel free to contact me.

Sincerely,

Fire Chief Fred Gilstorff



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14247 Center Rd.  
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- Signage shall be posted to show the proper direction of travel as to limit the chance of a vehicle obstructing the path of an emergency vehicle to the location.
- Place "NO PARKING" signs on the section of drive which leads to the winery process facility Between the main drive and the proposed shuttle bus parking.
- It is recommended that the existing circular drive leading to the tasting room be widened by at least 3 feet. The current situation creates a very narrow access for emergency vehicles.

**Proposed Sparkling Wine Facility (New):**

- Comply with all IFC code requirements for the occupancy: fire department access, egress, emergency exits, emergency lighting, fire extinguishers, fire separation, use of proper rated fire material as stated in the code, storage and use of chemicals and compliance with all related IFC codes.
- Fire department review of complete set of sealed plans prior to start of work to assure complete compliance with the fire code. A final inspection when work is complete will be completed by the fire department.

**Proposed Gazebo:**

- Primary concern for the proposed Gazebo is access for the fire department vehicles. The same rules apply in this situation that apply to the bus shuttle parking. The fire department shall have access within 150 feet of the structure. Fire extinguishers will need to be placed properly.

If you have any further questions, please feel free to contact me.

Sincerely,

Fire Chief Fred Gilstorff

# **Exhibit 8**

## **Lighting**

## Pathway Lighting

### Features

Product Type	Deck, Step, or Rail Light
Dry, Damp or Wet Location Listed	Wet
Fixture Finish	Black
Number of Lights	1
Replaceable Bulb Included	Yes
Bulb Type	Incandescent
Bulb Base	Bi Pin
Wattage	7 Watts
Fixture Material	Metal
Fixture Material Details	Stamped Aluminum
Dusk to Dawn	Yes
Dimmable	No
Voltage	12 Volts
Country of Manufacture	China
Transformer Required	Yes
Transformer Included	No
Color Temperature	5000 Kelvin
Light Range	6 Square Feet
Bulb Shape	T5
Compatible Transformer Part Number	GL33120
Freestanding	No
Ground Spike Included	No
Hardware Finish	Black
Pre-Wired	Yes
Fade Resistant	Yes

Heat Resistant	Yes
Impact Resistant	Yes
Mildew Resistant	Yes
Rust Resistant	Yes
UV Resistant	Yes
Warp Resistant	Yes
Weather Resistant	Yes
Weather Resistant Details	Weather resistant finish
Shade Included	Yes
Shade Material	Metal
Light Direction	Ambient
<b>Assembly</b>	
Assembly Required	Yes
Additional Parts Required	Yes
Parts Needed	Low voltage transformer
<b>Warranty</b>	
Product Warranty	1 year





# **Exhibit 9**

## **Grape Tonnage**



Winery-Chateau Special User Permit Application  
Peninsula Township

**Capacity for Guest Activity Use per Ordinance – not to exceed 111 guests**  
Based on Peninsula Township grapes

Name	Property Tax ID	Address	Acreage	Varietal	Tonnage
Linda & Daniel Dohm	11-110-032-00	16006 Center Rd	7	Riesling	9.757
Dale & Lynn Boersema	11-110-031-00	16095 Smokey Hollow Rd	11	Chard, Riesling, Pinot Grigio	22.18
Linnander/Topp	11-111-007-65	16842 Smokey Hollow Rd	1	Pinot Blanc	0
Michael & Elizabeth Wells	11-115-001-00	125966 Smokey Hollow Rd	7	Pinot Grigio	0
Rob & Lois Manigold	11-104-001-00	2876 Old Mission Rd	8	Chard, Gewurz	14.37
Jeff & Kelsie Manigold	11-234-018-55	3117 Old Mission Rd	4	Dornfelder	9.74
Cummings Vineyard LLC (Chris Fifarek)	11-128-023-00	13101 Center Rd	24	Chard, Ries, Pinot Noir	8.25
Urtel Family Trust	11-004-001-01	12120 Center Rd	3	Ries, Pinot Grigio	11.14
Tom & Claudine Petzold	11-235-045-05	4300 Happy Hour Ln	2	Ries, Chard	5.7
JTC Holdings LLC (Vince Johnson)	11-235-039-00	4401 Happy Hour Ln	3	Chard, Blaufrankisch	2.93
Island View Orchards LLC (Lyons)	11-133-009-00	2211 Island View Rd	4	Pinot Grigio	0
			74		84.067
		84.067 / 1.25 = 67 guests			

**Crop Calculations**

Based on 45.77 acres (3 Bowers Harbor Vineyards parcel combined)

Area	Acres in Production 2019	Acres in Future Planting	Total	Percent
Estate grapes	14.75	0.6		
Maples- syrup wine	10.5			
Cold air drainage	8			
Fruit trees - 2020 season		0.4		
	33.25	1	34.25	75%

**Exhibit 10**  
**Health Department**



# GRAND TRAVERSE COUNTY ENVIRONMENTAL HEALTH WELL & SEPTIC STATUS FORM - \$25

*linda@bowersharbor.com*

DEMOLITION    REMODEL    ADDITION    HOME REPLACEMENT    \_\_\_\_\_

Property Address: *2896 Bowers Harbor Rd.*

Property Tax ID: *28-11-121-077-10*      Township: *Peninsula*

Owner Name: *Linda Stegenga*      Owner Phone: *(231) 218-1171*

Owner Address: *same as above*

Contractor's Name: *tentative: Fournier Construction*      Contractor Phone: \_\_\_\_\_

Contractor's Address: \_\_\_\_\_

Please include a brief summary of the proposed changes to the property. For residential, please include current bedrooms, proposed bedrooms and whether or not the property has/will have a garbage disposal. For commercial, please state number of bathrooms, employees, and max customers/day.

*Commercial - Wine Tasting facility*  
*Proposed 2 new bathrooms w/ 3 toilets each*  
*1 handicap bathroom w/ 1 toilet & 1 sink*  
*Maximum of 15 employees/day during busy season*

*Linda Stegenga*  
Signature of Owner/Contractor

*5-8-09*  
Date

# Grand Traverse County Environmental Health WELL & SEPTIC STATUS FORM

(TO BE COMPLETED BY SANITARIAN)

- EXISTING PERMIT AVAILABLE PERMIT # 36878 DATE OF ISSUE: 6/29/15
- EXISTING PERMIT NOT AVAILABLE

- Well shall be properly plugged according to Part 127 of Act 368, P.A. 1978, as amended. Abandoned well plugging record shall be submitted to the Health Department. A new well may be required.
- Septic tank(s) and any other tank(s) associated with the wastewater system shall be pumped by a licensed septage hauler, crushed, and filled or removed. A new wastewater system may be required.
- Existing well meets current well construction code requirements and is approved for use as an:
  - Private Residential Well
  - Irrigation Well
  - Public Well

circle type: TYPE II TYPE III
- Existing septic system meets current design requirements for proposed use and meets all isolation requirements. Tank(s) Size(s): 2 x 1250 gal, 2000 gal Drainbed: 24' x 63'  
Existing septic system will serve:
  - Residential home with \_\_\_\_\_ bedrooms Garbage Disposal: YES NO
  - Commercial facility with design daily flow of 900 gal/day pump chamber
  - Other use with design daily flow of \_\_\_\_\_ gal/day
- Existing septic system does not meet current design requirements, but is considered "grand-fathered" for proposed use.

Comments:

Well is to be reclassified as a Type II well; this will require quarterly bacteria and annual nitrate sampling.

*Carl [Signature]*  
Signature of Health Department Representative

5/10/19  
Date

<b>OFFICE USE ONLY</b>		
Receipt Date: <u>5/8/19</u>	Receipt #: <u>47902</u>	Initials: <u>jm</u>

# **Exhibit 11**

## **Cold Air Drainage**

Agrivine, Inc.  
Jennifer Bramer  
13130 Center Road  
Traverse City, MI 49686

April 25, 2019

Old Mission Peninsula Township  
Zoning Board Members  
13235 Center Road  
Traverse City, MI 49686

As the vineyard managers for Bowers Harbor Vineyards and Winery we are writing to voice our concern regarding the township zoning boards request that additional vineyard acreage be planted in an area of their farm that has been intentionally not planted due to the topography of the site. This area that has been used for cold air drainage is the lowest site on their farm and also, in our opinion, is a cold air sink for a large part of Old Mission Peninsula. It has been our observation that during cold events (frosts or freezes) cold air (which is heavier than the warm air aloft) from the Northern part of Old Mission Peninsula, around Old Mission Road, flows South down Peninsula Drive and disperses to the West (towards West Bay) settling around Pyatt Lake and flowing down to Bowers Harbor Road and out to West Bay around Bowers Harbor. We feel that it would be not only financially detrimental but also an impairment to our wine region to have another vineyard planted on an inappropriate site. If vines were to be planted here they would likely never come to fruition and most would likely die. Therefore we would not recommend that vines, or a frost sensitive crop of any sort be planted on this site.

Sincerely,



Jennifer Bramer

Agrivine, Inc.

Kristy,

Here would be one explanation:

The wine grape varieties (*vitis vinifera*) planted at BHV are cold sensitive, both for low temperatures in winter months and frost events in the spring following bud break. This means that significant damage can occur to the vines and fruiting buds at these times due to cold events. Damage equates directly to economic loss. Thus it is imperative to limit or mitigate against cold damage when planting new vines. Cold air gathers and moves similar to a liquid when there is limited to no wind present. The coldest events usually occur under low-to-no wind conditions. Because cold air is heavier than warm air, the coldest air settles at or near the lowest terrain present. For example, if there is a hill sloping down to a flat field and then sloping further to a low basin area, the lowest basin area would build up the coldest air temperature conditions. The hill and downward-sloping side of the hill would be warmest and the field in between sharing some warm and some cold, depending upon the ground condition in the field leading to the low basin. Ideally, one would plant vines on the hill, the slope and some of the flat field but not in or around the low basin, which we call a frost sink. Cold air drainage into the lowest area where no vines are planted is a valuable part of the vineyard risk-management design feature.

Hopefully, this is useful. Please let me know if you need more clarification. The others on this email are welcome to make improvements and corrections, of course. This text is not based on any professional, expertise, but on practical knowledge in vineyard practices use around the world for the *vinifera* varieties.

VR

Tom Petzold

Ten Hands Vineyards

Old Mission Peninsula



**April 24, 2019**

**To Peninsula Township**

**We own a vineyard on the east side of Center Road south of Carrol Road in Peninsula Township (parcel #11-004-015-10). The vineyard has three separate plots of wine grapes. Regarding the issue of cold air drainage. In our case we have a low spot in the middle of the vineyard between the two largest vineyard plots. While this low spot is not suitable to plant wine grapes, it provides a very necessary function for the entire vineyard. This natural feature allows the cold air to collect and flow through this low spot thus protecting grapes from cold damage. This is especially important in the spring to protect the tender bud shoots from frost after bud break. I consider this low-lying area to be a very important component of the entire vineyard.**

**Feel free to contact me if you have any questions.**

**Sincerely,**

**William MacDonald**

**MacDonald Vineyards**

**(734) 730-0516**

**Exhibit 12**  
**BHV/Park Prop. Line Pics**



**Start: Picture #1**

Looking across Bowers Harbor Rd along property line toward the south. The park is on the right, winery on the left.

Note that the fence/tree line directly in front is the property line.



**Picture #2**

Looking south along property line close to tennis courts, park on right side of tree line and winery left of fence/tree line.

Note park walking path on right.





**Picture #3**

Looking west across property line from winery toward park tennis courts.

Note property stake in foreground.



**Picture #4**

Looking east from park tennis courts toward winery. Fence notes property line.

Note park walk path in foreground.



**Picture #5**

Looking south toward winery road bend on winery (east) side of property line.

Note road bends left (east) toward winery main entrance and drive.

Note fence / trees on right along property line.

Note winery structure in background left.

Note park walk path is seen across fence on right.





**Picture #6**

Looking back north toward Bowers Harbor Rd. on winery side (east) of property line.

The house in the middle distance sits on Bowers Harbor Rd.

Note the winery road running parallel to property line. This road turns east toward the main entrance of the winery.

On right side of picture can also be seen cultivated vines.





**Picture #10**

Looking west along winery trail, park on right winery on left.

Note for position, white park building structure in south central park area is just right across property line.

Note park walk path on right in background with tree line and white sign marking property line.



**Picture #11**

Position is southwest corner of park, looking east along property line. Winery on right, park on left.

Note park walk path on left and park bench in left immediate foreground.





**Picture #7**

Looking north along park path toward Bowers Harbor Rd. west of property line.

Position is just north of the walk path bend in southeast corner of park.

Note again fence / tree line on right along property line.



**Picture #8**

Looking north toward  
Bowers Harbor Rd.  
along park walk path,  
west of property line.

Note tree / fence line  
on right along property  
line.

Winery dirt road can be  
faintly seen across  
fence in background.





**Picture #9**

Looking north across property line from winery (south) toward park.

Note tree line in foreground along property line.

Note park playground in background past property line.

# **Exhibit 13 Parking Management and Calcs.**

## Parking Management

### Operations:

Two (2) parking attendants will be stationed onsite prior to Events. Attendants are equipped with 2-way radios to coordinate parking.

- One (1) located near the entrance on Bowers Harbor Vineyard property.
  - This parking attendant will:
    - Direct and instruct incoming traffic to applicable parking areas
      - Shuttle bus routes
      - Handicap parking
      - Guest parking
      - Overflow parking
  - One (1) located at circle drive near tasting room This parking attendant will:
    - Handle incoming guests to applicable parking areas
    - Direct to overflow parking area as needed
- Parking areas on site include:
  - Handicap spaces
  - General parking
  - Shuttle bus parking
  - Long vehicle (i.e. Suburban) spaces
  - Overflow grass parking
  - Farm road parking for employees and guests
- Wine tasting hours and Event times will be limited to minimal overlap. It is in the best interest of Bowers Harbor Vineyard staff and guests to separate tasting hours and events in order to provide a pleasant guest experience by offering parking, attention and service.
- if parking is at full capacity, vehicles and busses are requested to return at specific time.
- Parking instructions and rules are provided to Bus, Van and Tour Operators prior and during the Season. Most group tours are scheduled in advance in order to accommodate them and prevent parking overload situations during Wine Tasting Hours.

### Use of cold air drainage area for overflow parking:

Cold air drainage area has been noted as essential for growing production in the region. These areas allow for the collection of cold air (frost) during sensitive budding and harvesting season. It prevents damage to vegetation such as fruit trees and vines allowing for crop production on farmland.

In fact, MSU Extension notes: "Fruit sites should have large air storage areas within a half-mile or at least allow a general airflow to a storage area within one mile." (*Mark Longstroth, Michigan State University Extension, March 16, 2012*)

Bowers Harbor Vineyard has an area defined as cold air drainage onsite. This area can be utilized for another use, such as parking. Parking is needed for the business operation and the cold air drainage area is available for those times when the demand for event parking requires it. The benefit of this "pocket" becomes two-fold: promoting healthy fruit crops and vineyards AND offering parking for guest attendees.



**PARKING NEEDS FOR EXISTING BUILDINGS AND ACTIVITIES**

Buildings				Required Parking Per Ordinance (1 per 150 Sq. Ft)	Fire Code Occupancy (People - Seated)	Implied Parking Needs Based on Fire Code Seated (1 space per 2.5 people in Public Space)
Size	Size	Sq. Ft.				
Existing Tasting Room	30.0	65.0	1950	13	62	25
Tasting Room Patio/Trellis	19.2	30.0	575	4	36	14
<b>SubTotal</b>						
Existing Pavillion	18.33	46.5	1950	13	50	20
Guests By Bus (30%)						-18
<b>SubTotal</b>						
People						
Employees	15	1 per person			15	
People						
Events	60	.4 per person			24	
<b>PARKING NEED</b>				<b>39</b>		<b>80</b>

**PARKING NEEDS FOR EXISTING AND PROPOSED BUILDINGS AND ACTIVITIES**

Buildings				Required Parking Per Ordinance (1 per 150 Sq. Ft)	Fire Code Occupancy (People - Seated)	Implied Parking Needs Based on Fire Code Seated (1 space per 2.5 people in Public Space)
Size	Size	Sq. Ft.				
Existing Tasting Room	30.0	65.0	1950	13	62	25
Tasting Room Patio/Trellis	19.2	30.0	575.0	4	36	14
Tasting Room Addition	20.0	65.0	1300	9	0	0
<b>SubTotal</b>						
Existing Pavillion	18.33	46.5	852	6	50	20
Pavillion Addition	15	30	465	3	30	12
<b>SubTotal</b>						
Deck	16	16	256		27	11
Guests By Bus (30%)						-25
<b>SubTotal</b>						
People						
Employees	20	1 per person			20	
People						
Events	111	.4 per person			44	
<b>PARKING NEED</b>				<b>64</b>		<b>122</b>

**PARKING PROVIDED FOR EXISTING AND PROPOSED NEEDS**

Dedicated spaces		86
Bus (Van, coach, tour bus)		8
Overflow		127
		<b>221</b>

This assumes the Winery Tasting Room areas and an Event attended by full capacity is occurring simultaneously.