

March 29, 2024

22-155

Stephen Puleo Town Planner Town of Windham 8 School Road Windham, ME 04062

#### Subject: 868 Route 302, Mixed Use Site Plan Application Response to Comment Letter

Dear Stephen,

On behalf of 868 302, LLC, Terradyn Consultants, LLC is pleased to submit responses to staff comments for the Site Plan application for 868 Route 302 project. The information enclosed was prepared in response to comments from the staff review comments provided on March 15, 2024.

#### **Comment Responses**

The following response to comments are from the information provided. The original comments are in *Italics*:

#### Comments from Stephen Puleo, Town Planner, Dated March 15, 2024:

1. The Board cannot amend Article 4, zoning district standards. The parking spaces located in front of the building and the 100' Stream Protection Shoreland Zoning District are existing legal non-conformities.

Comment Response: Comment acknowledged.

2. Missing applicant agent authorization form.

**Comment Response:** The Agent Authorization form is attached to this letter.

3. The major site plan application is incomplete; we need applicant information.

**Comment Response:** Additional applicant information has been provided.

4. Missing parking count for private warehouse use by 868, 302, LLC, the applicant and owner of the property.

**Comment Response:** No parking is intended for private warehouse use, only occasional loading and unloading of materials.

5. Please obtain the Fire Chief's comments regarding the changes to the site to ensure life safety standards are being met. Confirm with the Fire Chief that a fire suppression system and the gated access to the site.

**Comment Response:** Comment acknowledged. The Fire Chief has indicated that he has no issue with the proposed layout with the exception of some of the parallel parking spaces in the rear, we have adjusted the plan accordingly.

6. Missing Financial and technical capacity information for the applicant, 868, 302, LLC, and consultants.

**Comment Response:** This section has been updated in the updated Standards Compliance narrative.

7. The HHE-200 permit is missing, which is a completeness requirement. Staff does not obtain this information from other departments or agencies.

**Comment Response:** A copy of the HHE-200 permit is attached to this letter

8. Missing site lighting plan.

**Comment Response:** A photometric plan is attached to this letter.

9. The Planning Board cannot provide waivers to C-1 District Standards in 120-410F

**Comment Response:** comment acknowledged. This waiver request has been removed.

10. Please clarify: the parking analysis states that Waxwing Bakery does not provide a lunch menu, but the executive summary states they do provide lunch. If that is true, how does it affect parking demand and traffic generation?

**Comment Response:** The parking and loading requirements have been updated in the attached standards compliance narrative.

11. Please have Waxwing Bakery explain how often and at what times the wholesale bakery makes deliveries.

**Comment Response:** Deliveries to wholesale customers will be made two times per week using a small van.

12. Please show the distribution of traffic generated by bakery use at Route 302's Whites Bridge and Anglers Road intersections. This is for the North Windham Route 302 traffic impact fee; see 120-1200 for more details.

**Comment Response:** The proposed bakery will produce a total of 51 Am Peak Hour Trips. Based on MaineDOT's Traffic Count Data, 34 Trips will be distributed to the White Bridge Road and Anglers Road intersection

13. The Planning Board Signature block is missing, as are the approval conditions and approved waivers.

**Comment Response:** Planning Board signature block and approval conditions have been added to the plans.

14. Staff were unable to obtain third-party traffic engineer, fire department, and town attorney reviews. As soon as they become available, the staff will give them to the applicant.

Comment Response: Comment acknowledged

#### **Town Engineer:**

1. The proposed project is a redevelopment of an existing developed property with a substantial amount of existing impervious area. Overall the proposed design increases the impervious area by about 1,400 sf based on information provided in the Stormwater Management Report. A bioretention cell is proposed adjacent to the parking area between the building and Route 302 to treat stormwater in this area. The proposed parking area at the rear of the property replaces a current gravel-surfaced area with a paved surface. All the drainage from the front entrance and along the steep access drive on the side of the building flows to the rear parking area, which is within 30-ft of the wetlands that border Outlet Brook. Within ½-mile, Outlet Brook flows into the Sebago Lake Basin. No stormwater treatment is proposed for this area that is in very close proximity to a protected resource. I believe that some type of treatment should be provided to treat runoff from this area.

**Comment Response:** There is a grade break near the handicap parking stall, runoff from this area is split towards the proposed bioretention area and the access drive to the rear of the site. There is limited space to install BMP measures in this area, the proposed bioretention area at the front of the lot has been designed to treat more than 2 times the newly created impervious area. A small ditch is proposed along the edge of the parking area to act similar to a level spreader and collect any sediment runoff from the gravel parking area and to help spread flows evenly to help prevent channeling along the slopes.

The site is an existing developed site since the 1980. The proposed improvements to the site result in approximately 1,400 SF of new impervious area. As such, the applicant is

required to treat at a minimum 1,400 SF of impervious area to offset the newly created impervious area. The proposed rain garden has been designed to treat 3,737 which is more than two times greater than the required amount of treatment. The rain garden was placed to treat stormwater runoff generated by the parking lot near Roosevelt Trail as this is the most used parking location and is located mostly within the Shoreland Protection.

2. Please provide a plan or mark up of an existing plan to clarify what is assumed to be existing and proposed impervious surface. The watershed plan should also indicate drainage flow direction.

**Comment Response:** A plan showing areas impervious both existing and proposed is included within attachment 11. Drainage flow directions have been added to the watershed plans.

3. The proposed bioretention cell does not appear to have any provisions for overflow during a heavy rainfall event that exceeds the capacity required for water quality treatment. This needs to be added or else overflow may result in damage to the cell and surrounding area.

Comment Response: A beehive outlet control structure has been provided.

**4.** At the end of the front parking area between Rte. 302 and the building, the grade slopes steeply down to Outlet Brook. The plan should include provide details on stabilization of this slope to prevent erosion during and after construction.

**Comment Response:** Additional slope stabilization has been provided along this slope area. The only disturbance near the sloped area will be for the installation of the bioretention cell and its outlet. No parking will be within approximately 20 feet from the top of the slope. The slope has been existing in its current condition for many years, no new loads are proposed along top of the slope. A side slope riprap detail has been provided In the plan set and a note to contact the engineer should any stabilization concerns arise.

#### Traffic/Parking:

1. The two parallel parking spaces at the rear of the building block the walkway, which I believe is intended as an emergency exit, and a garage. These parking spaces appear to qualify as legitimate spaces with respect to access and safety and should probably be removed or relocated.

**Comment Response:** The parking area in the back of the property has been adjusted to remove parallel parking stalls in this location. One employee parking space remains in front of the garage area. The parking area in front of the garage was utilized during the false alarm mentioned by the Fire Chiefs email and did not impede their response as shown in the photos he provided.

2. The vehicle turnaround shown in the rear parking area appears to be blocked by the parking spaces provided in that area therefore will not be effective at times cars are parked there.

**Comment Response:** The parking area in the back of the property has been adjusted, there is ample space for vehicles to turn around in this location.

3. The report says that there is an unpaved back entrance to the property on the south side that connects to Trails End Road, which connects into Route 302 via a stopped-controlled intersection. Clarify what is meant by a "stopped controlled intersection". There doesn't appear to be any controls on that entrance to Rte. 302.

**Comment Response:** The traffic report has been updated to reflect the added gate at the rear or the 868 property to prevent traffic from exiting to Trails End. Although no stop sign exists at Trails End Road it is implied that is a stop-controlled intersection.

#### Water:

1. It appears that the proposed site development has not yet received an "ability to serve" response/confirmation from the Portland Water District to indicate that the existing water supply to the site is sufficient to serve the proposed uses. This will be needed before approval of the application.

**Comment Response:** Portland Water District has indicated that the existing 1" domestic service should be able to handle the water demand at the site. The existing 5/8-inch meter will need to be upgraded to a 1-inch meter. Additional correspondence with PWD is attached to this letter.

#### Fire Chief:

1. We need a minimum of 16-ft wide fire lane next to the building, please show access and provide Fire Lane signage and pavement markings.

**Comment Response:** The proposed access is 18 feet wide, no parking fire lane signage will be placed near the loading dock and walkway along the rear of the building.

2. Please provide the slope of the one-way fire lane next to the building.

**Comment Response:** The access drive is proposed to be 2-way and has a slope of between 10-11%.

Comments from Mark Arienti, P.E., Town Engineer, Dated March 28, 2024 Responses from Draft Comments responses supplied on March 27, 2024.

- 1. Town Engineer Comment #1 Followup:
  - a. Is there an outlet to the ditch that is proposed along the edge of the parking area at the rear of the building? The revised plan that was submitted makes it look like a depressed settling area.
  - b. It would be helpful if some spot grades could be added to parking lot area to better define the grade break and also to ensure that drainage does not flow onto Roosevelt Trail.

**Comment Response:** Additional spot grades have been added. The area along the rear of the gravel parking is intended to be a 6" depressed area to aid in the collection of any sediment runoff from the adjacent parking area. It is to be maintained and cleaned out regularly

- 2. Town Engineer Comment #2 Followup:
  - a. No Further comment.

**Comment Response:** The proposed access is 18 feet wide, no parking fire lane signage will be placed near the loading dock and walkway along the rear of the building.

- 3. Town Engineer Comment #3 Followup:
  - a. I do not see any detail for beehive overflow structure in the submitted material.

**Comment Response:** Beehive grate outlet control is shown on Rain Garden Detail on C-4.0 and grate detail on sheet C-4.1.

Town Engineer Comment #4 Followup:
 a. I did not see any plans indicating additional slope stabilization.

**Comment Response:** Slope stabilization details are added to C-3.1 and additional details on C-4.0 and C-4.1.

- 5. Town Engineer Traffic/parking Comments:
  - a. No further comment

**Comment Response:** The proposed access is 18 feet wide, no parking fire lane signage will be placed near the loading dock and walkway along the rear of the building.

- 6. Town Engineer Water Comments:
  - a. No further comment.

### CLOSURE

We trust that the above responses and attached materials address the comments. Please contact me directly with any additional questions or concerns.

Sincerely,

**TERRADYN CONSULTANTS, LLC** 

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Craig Sweet, P.E.



March 27, 2024

22-155.1

Stephen Puleo Town Planner Town of Windham 8 School Road Windham, ME 04062

#### Subject: 868 Route 302, Mixed Use Site Plan Application Response to Traffic Comments Letter

Dear Stephen,

On behalf of 868 302, LLC, Terradyn Consultants, LLC is pleased to submit responses to traffic review comments by Randy Dunton, P.E., PTOE, for the Site Plan application for 868 Route 302 project. The information enclosed was prepared in response to comments from the Traffic Engineer provided on March 22, 2024.

#### **Comment Responses**

The following response to comments are from the information provided. The original comments are in *Italics*:

#### Comments from Randy Dunton, P.E, PTOE, Project Manager Dated March 22, 2024:

1. The Traffic Assessment uses MaineDOT AADT information to evaluate their impact on Route 302 via volume/capacity ratios. The AADT is the average traffic volumes for the corridor, and does not reflect peak summer conditions, which is typically the time period evaluated for development projects.

**Comment Response:** The AADT and capacity of the corridor is given, but hourly data collected by MaineDOT short duration count stations was used to determine Volume to Capacity Ratio. This data was collected on Thursday September 22, 2022 for a 24-hour period in both directions. These counts are within the 3-year counting window and are therefore still valid.

Considering group mean factors to adjust September counts to the appropriate seasonal volumes increases hourly traffic volumes slightly but does not significantly impact the ability of Route 302 to absorb the trips generated by the proposed development.

Portland 565 Congress Street, Suite 201 Portland, ME 04101

Auburn 95 Main Street, 2<sup>nd</sup> Floor Auburn, ME 04210 2. The trip generation is generally reasonable; however, we do not concur that the market wholesale, flooring, and marijuana uses are negligible. We suggests that these uses carry a nominal trip generation such as employees arriving or departing. The reason to include is not for capacity evaluation purposes, but for Impact Fee calculations.

**Comment Response:** Trip Generation for the purpose of Impact Fee Calculation was revisited.

A nominal trip generation of 1 trip per use, for a total of 3 trips, will be used for the purposes of Impact Fee calculations for the project development market wholesale, flooring and marijuana uses. This is based on the size of the proposed uses and information provided by the client regarding the operations plan for each use such as deliveries, number of employees and arrival and departure times.

3. We concur that this project would not require a MaineDOT TMP.

#### Comment Response: Comment acknowledged.

4. We concur that we would not expect the project to create capacity or operational issues on Route 302.

Comment Response: Comment acknowledged.

5. We concur that there are no reported high crash locations in the immediate area.

Comment Response: Comment acknowledged.

6. The Traffic Assessment does not identify what the sight distance requirements are and what is available.

**Comment Response:** Site Distance requirements are identified under the Existing Site Conditions section on page 1: "The posted speed limit is 30 mph, which requires a sight distance of 250' based MaineDOT's Highway Driveway and Entrance Rules<sup>1</sup>."

The proposed project development egress/ingress is an existing site entrance already in use by a neighboring development and the Yolked farm restaurant. It is also free of vegetation, signage and utilities that could potentially block site distance. Utility Poles within the vicinity are offset roughly 10' from the edge of travel way. This results in ample site distance with well over 500'+, in each direction based on the geometry of the road and observations in the field.

7. The Traffic Assessment does not calculate the "North Route 302 Road Improvements Impact Fee"

<sup>&</sup>lt;sup>1</sup> https://www.maine.gov/mdot/traffic/docs/accessmgmt/229c299dec2013.pdf

**Comment Response:** The proposed bakery will produce a total of 51 Am Peak Hour Trips. Based on MaineDOT's Traffic Count Data, 34 Trips will be distributed to the White Bridge Road and Anglers Road intersection. This was based on MaineDOT Traffic Count directional distribution data for the AM Peak Hour on Thursday September 22<sup>nd</sup>, 2022.

However, trips impacting the intersection will be increased to 37 to account for the project development Market Wholesale, Flooring and Marijuana uses based on comments through this review.

### CLOSURE

We trust that the above responses and attached materials address the comments. Please contact me directly with any additional questions or concerns.

#### Sincerely, TERRADYN CONSULTANTS, LLC

Matthew Pelletier, P.E.

**Revised Application Package** 



March 26, 2024

Project #22-155

Stephen Puleo, Planner Town of Windham 8 School Road Windham, ME 04062

## Subject: 868 Route 302, Mixed Use Site Plan Application Site Plan Submission

Dear Stephen:

On behalf of 868 302, LLC, attached is a Site Plan and supporting information for a proposed change of use to the existing 868 Route 302 building. The following narrative includes information on the existing project site and the proposed development.

#### **EXISTING PROJECT SITE**

The property is approximately 1.52 acres in size and is shown as Lot 50-E on the Town of Windham Tax Map #71. The property is located within the C-1 (Commercial 1) District and Stream Protection District. The existing site has frontage on Route 302 (Roosevelt Trail) and access to Trails End Road via easement. Water service is supplied by Portland Water District, and a new septic system was installed in early 2023.

The property is developed and was previously utilized by a flooring sales company. In 2020, the applicant purchased the property and did renovations to the existing building, converting a portion of the building to a restaurant for Yolked Farm to Table and another portion of the building to light manufacturing use in the basement level. The change of use to those uses was permitted via staff review in late 2022 to early 2023. The change of use involved the construction of a new septic system at the rear of the building and a slight reconfiguration of the existing parking lot on the property.

The property is located within the Sebago Lake Watershed and generally drains to the north and west of the property.

Pineland 41 Campus Drive, Suite 301 New Gloucester, ME 04260 Portland 565 Congress Street, Suite 201 Portland, ME 04101 Auburn 95 Main Street, 2<sup>nd</sup> Floor Auburn, ME 04210

#### PROPOSED PROJECT

The applicant is proposing to finalize the conversion of the remainder of the building on-site to add the proposed waxwing bakery which will be both a wholesale and retail bakery operations and convert the remaining space to storage to support his flooring business. The previous staff-level site plan application largely kept the site the same as it was with the previous flooring retail use. Yolked Farm to Table restaurant was comparable in terms of traffic generation and parking on site. The additional proposed uses at the property require additional modifications to the site's layout. The proposed changes to the site have been done to utilize as much of the existing infrastructure to the maximum extent practicable and bring the site more into conformance with current regulations.

Key proposed changes to the site are outlined below:

- There are 4 existing parking spaces that are located within the MDOT Right-of-Way that are proposed to be relocated.
- An additional 5-lot parking lot is proposed along the rear of the property.
- Existing entrance proposed to be narrowed to 24 feet.
- Approximately 1,400 square feet of new impervious is proposed as part of the development, which is proposed to be treated by a landscaped rain garden bioretention area.

We are requesting the following waivers as part of the final site plan application package:

- 120-812.C.d: The applicant is requesting a waiver from the requirements of 30% of 90degree parking to be 10' x 20' parking spaces. The applicant is attempting to maximize the number of parking stalls associated with the proposed project and limit the amount of new impervious areas created beyond what currently exists at the site to the maximum extent possible. The applicant wishes to avoid a leased use on the neighboring property to meet the parking requirements as it is felt keeping parking on the applicant's property would reduce any possible conflicts should any of the properties change hands in the future.
- 120-812.C.b Parking: We are requesting a waiver from parking spaces, access drive, and impervious surfaces being located at least five feet from the side lot line. The applicant has made efforts to keep all additional parking space within his property to avoid any leases or easements that would encumber the neighboring properties. Due to the existing conditions of the site and to minimize disturbance to the maximum extent possible, the parking spaces could not be pulled more than 5 feet from the property line.

#### CLOSURE

We respectfully request to be added to the Planning Board's next available meeting agenda so we may present the Site Plan application to the Board. In the interim, if you have any questions or require additional information, please contact me.

Sincerely, TERRADYN CONSULTANTS LLC

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Craig Sweet, P.E. Project Engineer

Attachments:

- 1. Application forms
- 2. Deeds & Easements
- 3. Standards Compliance Narrative
- 4. Legal Opinion on Easements
- 5. Stormwater Report
- 6. Utility Correspondence
- 7. Financial Capacity
- 8. Traffic Assessment
- 9. Wetland & Stream Delineation
- 10. Building Plans & Cut Sheets
- 11. Site Aerials
- 12. Photometric Plan
- 13. HHE-200 Permit

# ATTACHMENT 1 APPLICATION



			MA.	IOF	R SITE F	PL/	AN I	REV	<b>IEW</b>	APPLIC	ATION			
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DRODER	TV	Parcel Information:	Map(s):		71		Lot(s)	:	50-E	Zoning District(s):	C-1, SP	Size of the Parcel in	he I SF:	66,211
DESCRIPTION		Total Disturban Physical Address:	ce. >1Ac 868 Route	302	Y 🖌 1	N	Buildin	g SF:		Watershed:	Sebago Lake	opment:	27,00	0 SF total Develop
		A Michael Lewis Name of the Business: 868 302, LLC Business: 1020 River Road Windham, Mailing 1020												
PROPERTY OWNER'S INFORMATION		Phone: Fax or Cell:	2017-831-2312					Mailing Address:	1020 River Road Windham, ME 04062					
		Email:	mfc868@gmail.com								1			
APPLIC	ANT'S	Name:	ame: Name of Business:											
INFORMATION		Phone								Mailing				
(IF DIFFE FROM O	WNER)	Fax or Cell								Address:				
		Email:									Townsdam Com	oultonto		
		Name:	Craig Swe	et, P	.E.					Name of Business:	Terradyn Con	Sunants	, LLC	
APPLIC	ANT'S	Phone:	207-370-2	776						Mailing	41 Campus D New Glouces	rive, Sui ter, ME (	te 301 )4260	
INFORM	ATION	Fax or Cell:				4-				Autress.				
		Email:	Craig@ter	rady	nconsultar	nts.e	com							
	Existing L	and Use <i>(Use</i>	e extra pap over letter	er, ıf i	necessary):									
<b>PROJECT INFORMATION</b>	Provide a Please sec Provide a please sec	a narrative de e attached co a narrative de e attached co	escription o over letter	f the	Proposed F	ons	ject <i>(L</i>	Jse ex	tra papel	r, if necessary	۷): e, flood plain, ı	non-con	formai	nce, etc.):



#### MAJOR SITE PLAN REVIEW APPLICATION REQUIREMENTS

Section 120-811 of the Land Use Ordinance

The submission shall contain five (5) copies of the following information, including full plan sets. Along with one (1) electronic version of the entire submission, unless waiver of a submission requirement is granted, and one (1) complete plan set.					nic
The Major Plan document/map:         A) Plan size:       24" X 36"         B) Plan Scale:       No greater 1":100'         C) Title block:       Applicant's name, project no         • Name of the preparer of plans with professional informatio         • Parcel's tax map identification (map and lot) and street add	ame, and ac n ress, if availa	ldress	<ul> <li>Complete application submission deadline: three (3) wee the desired Planning Board meeting.         <ul> <li>Five copies of the application and plans</li> <li>Application Payment and Review Escrow</li> </ul> </li> <li>A pre-submission meeting with the Town staff is required</li> <li>Contact information:         <ul> <li>Windham Planning Department</li> <li>(207) 894-5960, ext</li> <li>Steve Puleo, Town Planner</li> <li>sipuleo@windhamr Amanda Lessard, Planning Director</li> </ul> </li> </ul>	ks (21-days) I. 2 <u>maine.us</u> <u>maine.us</u>	) before
APPLICANT/PLANNER	'S CHE	CKLI	ST FOR MAJOR SITE PLAN REV	<b>EW</b>	
SUBMITTALS THAT THE TOWN PLANNER DEEMS SUFF	BOARD RE	ACKING EVIEW.	IT IS THE RESPONSIBILITY OF THE APPLICANT TO P UNDERSTANDING OF THE PROJECT.	RESENT A	<u>CLEAR</u>
The following checklist includes items general development by the Town of Windham's LAND USE OR <u>120-811, 120-812, 120-813 &amp;</u> 120-814. Due to project applicant is required to provide a complete and accurreports, and supporting documentation (as listed in the second se	lly requir DINANCE, S is specifics, rate set of the checklist	ed for Sections the plans, below).			
Column #1.			Column #2.		
1. Final Plan -Major Site Plan: Submission Requirements     A. Completed Major Site Plan Application form	Applicant	Staff	Plan Requirements – Existing Conditions (Continued):           vii.         Zoning classification(s), including overlay and/or subdistricts, of the property and the location of zoning district boundaries if the property is located in 2 or more districts or abuts a different district	Applicant	Staff
B. Evidence of Payment of application & escrow fees			viii. Bearings and lengths of all property lines of the property to be developed, and the stamp of the surveyor that performed the survey		
C. Written information – submitted in a bounded and tabbed in	report		<ul> <li>Existing topography of the site at 2-foot contour intervals.</li> </ul>		
1. A narrative describing the proposed use or activity.			x. Location and size of any existing sewer and water mains, culverts and drains, on-site sewage disposal systems, wells, underground tanks or installations, and power and telephone lines and poles on the property and on abutting streets or land that may serve the development.		
<ol> <li>Name, address, &amp; phone number of record owner, and applicant if different (see Agent Autorotation form).</li> </ol>			xi. Location, names, and present widths of existing public and/or private streets and rights-of-way within or adjacent to the proposed development.		
3. Names and addresses of all abutting property owners			xii. Location, dimensions, and ground floor elevation of all existing buildings.		
<ol> <li>Documentation demonstrating right, title, or interest in the property</li> </ol>			xiii. Location and dimensions of existing driveways, parking and loading areas, walkways, and sidewalks on or adjacent to the site.		
<ol> <li>Copies of existing proposed covenants or deed restrictions.</li> </ol>			xiv. Location of intersecting roads or driveways within 200 feet of the site.		
<ol> <li>Copies of existing or proposed easements on the property.</li> </ol>			xv. Location of the following		
<ol> <li>Name, registration number, and seal of the licensed professional who prepared the plan, if applicable.</li> </ol>			a. Open drainage courses		
<ol> <li>Evidence of applicant's technical capability to carry out the project.</li> </ol>			b. Wetlands c. Stone walls		
<ol> <li>Assessment of the adequacy of any existing sewer and water mains, culverts and drains, on-site sewage disposal systems, wells, underground tanks or installations, and power and telephone lines and poles on the property.</li> </ol>			d. Graveyards		



Continued from Column #1. (Page 2)			Continued from Column #2. (Page 2)		
		e	. Fences	Z	D
		f.	Stands of trees or treeline, and	Z	
10. Estimated demands for water and sewage disposal.		g	Other important or unique natural areas and site features, including but not limited to, floodplains, deer wintering areas, significant wildlife habitats, fisheries, scenic areas, habitat for rare and endangered plants and animals, unique natural communities and natural areas, sand and gravel aquifers, and historic and/or archaeological resources.		
<ol> <li>Provisions for handling all solid wastes, including hazardous and special wastes.</li> </ol>	Z	xvi.	Direction of existing surface water drainage across the site		
12. Detail sheets of proposed light fixtures.	$\mathbf{\Sigma}$	vvii	Location front view dimensions & lighting of		p
<ol> <li>Listing of proposed trees or shrubs to be used for landscaping</li> </ol>			exsiting signs.	4	
<ol> <li>Estimate weekday AM and PM and Saturday peak hours and daily traffic to be generated by the project.</li> </ol>		xviii.	Location & dimensions of existing easements that encumber or benefit the site.		
15. Description of important or unique natural areas and site features, including floodplains, deer wintering areas, significant wildlife habitats, fisheries, scenic areas, habitat for rare and endangered plants and		xix.	Location of the nearest fire hydrant, dry hydrant, or other water supply.		
16. If the project requires a stormwater permit from		E. Plai	n Requirements - Proposed Development Activity		
MaineDEP or if the Planning Board or if the Staff Review Committee determines that such information is required, submit the following.		 i.	Location and dimensions of all provisions for water supply and wastewater disposal, and evidence of their adequacy for the proposed use, including soils test pit data if on-site sewage disposal is proposed		
a. stormwater calculations.	$\checkmark$	ii.	Grading plan showing the proposed topography of the site at 2-foot contour intervals		
b. erosion and sedimentation control measures.	Z	iii.	The direction of proposed surface water drainage across the site and from the site, with an assessment of impacts on downstream properties.		
<li>c. water quality and/or phosphorous export management provisions.</li>		iv.	Location and proposed screening of any on-site collection or storage facilities		
17. If public water or sewerage will be utilized, provide a statement from the utility district regarding the adequacy of water supply in terms of quantity and pressure for both domestic and fire flows, and the capacity of the sewer system to accommodate additional wastewater.		v.	Location, dimensions, and materials to be used in the construction of proposed driveways, parking, and loading areas, and walkways, and any changes in traffic flow onto or off-site		
18. Financial Capacity		vi.	Proposed landscaping and buffering	$\mathbf{N}$	
<ul> <li>Estimated costs of development and itemize estimated major expenses.</li> </ul>		vii.	Location, dimensions, and ground floor elevation of all buildings or expansions		
ii. Financing (submit one of the following)		viii.	Location, front view, materials, and dimensions of proposed signs together with a method for securing sign		
a. Letter of commitment to fund		ix.	Location and type of exterior lighting. Photometric plan to demonstrate the coverage area of all lighting may be required by the Planning Board.		
b. Self-financing		х.	Location of all utilities, including fire protection systems	3	
1. Annual corporate report		xi.	Approval block: Provide space on the plan drawing for the following words, "Approved: Town of Windham Planning Board" along with space for signatures and date		D
2. Bank Statement		2. M	lajor Final Site Plan Requirements as Exhibits to the A	pplication	
c. Other		a.	Narrative and/or plan describing how the proposed development plan relates to the sketch plan.		
1. Cash equity commitment of 20% of the total cost of development		b.	Stormwater drainage and erosion control program shows:		
2. Financial plan for remaining financing.			<ol> <li>The existing and proposed method of handling stormwater runoff</li> </ol>	$\checkmark$	



Continued from Column #1. (Page 3)		Continued from Column #2. (Page 3)	
<ol> <li>Letter from institution indicating intent to finance.</li> </ol>		<ol> <li>The direction of the flow of the runoff, through the use of arrows and a description of the type of flow (e.g., sheet flow, concentrated flow, etc.)</li> </ol>	
<ul> <li>iii. If a registered corporation a Certificate of Good</li> <li>Standing from:</li> </ul>		<ol> <li>Location, elevation, and size of all catch basins, dry wells, drainage ditches, swales, retention basins, and storm sewers</li> </ol>	
- Secretary of State, or		4. Engineering calculations were used to determine drainage requirements based on the 25-year, 24-hour storm frequency.	
- the statement signed by a corporate officer		5. Methods of minimizing erosion and controlling sedimentation during and after construction.	
19. Technical Capacity (address both).		c. A groundwater impact analysis prepared by a groundwater hydrologist for projects involving on- site water supply or sewage disposal facilities with a capacity of 2,000 gallons or more per day	
i. Prior experience relating to developments in the Town.		<ul> <li>Name, registration number, and seal of the Maine</li> <li>Licensed Professional Architect, Engineer, Surveyor,</li> <li>Landscape Architect, and/or similar professional</li> <li>who prepared the plan.</li> </ul>	
<li>Personnel resumes or documents showing experience and qualification of development designers</li>		<ul> <li>A utility plan showing, in addition to provisions for water supply and wastewater disposal, the location and nature of electrical, telephone, cable TV, and any other utility services to be installed on the site.</li> </ul>	
D. Plan Requirements – Existing Conditions		f. A planting schedule keyed to the site plan indicating	
i. Location Map adequate to locate project within the municipality		other vegetation to be planted on the site, as well as information of provisions that will be made to retain and protect existing trees, shrubs, and other vegetation.	
<ul> <li>Vicinity Plan. Drawn to a scale of not over 400 feet to the inch, and showing area within 250 feet of the property line, and shall show the following:</li> </ul>			
<ol> <li>Approximate location of all property lines and acreage of the parcel(s).</li> </ol>		(GIS format)	
<ul> <li>Locations, widths, and names of existing, filed, or proposed streets, easements, or building footprints.</li> </ul>			
c. Location and designations of any public spaces.		<ul> <li>A traffic impact study if the project expansion will generate 50 or more trips during the AM or PM peak hour, or if required by the Planning Board)</li> </ul>	
<ul> <li>Outline of the proposed site plan, together with its street system and an indication of the future probable street system of the remaining portion of the tract.</li> </ul>			
<li>iii. North Arrow identifying Grid North; Magnetic North with the declination between Grid and Magnetic; and whether Magnetic or Grid bearings were used.</li>			
<ul> <li>iv. Location of all required building setbacks, yards, and buffers.</li> </ul>			
<ul> <li>Boundaries of all contiguous property under the total or partial control of the owner or applicant.</li> </ul>			
<ul> <li>Tax map and lot number of the parcel(s) on which the project is located</li> </ul>		PDF\Electronic Submission.	

The undersigned hereby makes an application to the Town of Windham for approval of the proposed project and declares the foregoing to be fire and accurate to the best of his/her knowledge.

2/20/24

PLEASE TYPE OR PRINT NAME

**Michael Lewis** 

APPLCANT OR AGENT'S SIGNATURE

#### TOWN OF WINDHAM SITE PLAN APPLICATION

#### Performance Standards Waiver Request Form (Section 808 – Site Plan Review, Waivers)

For each waiver request from the Submission Requirements found in Section 811 and Performance Standards detailed in Section 812 of the Town of Windham Land Use Ordinance, please submit a separate copy of this form for all waivers.

 Project Name: 868 Route 302

 Tax Map:
 71

 Lot(s):
 50-E

### Waivers are requested from the following Performance and Design Standards (Add forms as necessary):

Ordinance Section	Standard	Mark which waiver this form is for
120-812.C.b	Parking Setback	
120-812Cd	30% of parking as 10'x 20'	

a. Describe how a waiver from the standard indicated above will improve the ability of the project to take the property's predevelopment natural features into consideration. Natural features include, but are not limited to, topography, location of water bodies, location of unique or valuable natural resources, relation to abutting properties or land uses. Attach a separate sheet if necessary.

Please see attached Cover Leter

Ordinance Section: \_\_\_\_\_

#### b. Will the waiver have an impact on any of the following criteria?

	Yes	No
Water or air pollution		
Light pollution or glare		
Water supply		
Soil erosion		
Traffic congestion or safety		
Pedestrian safety or access		
Supply of parking		
Sewage disposal capacity		
Solid waste disposal capacity		
Scenic or natural beauty, aesthetics, historic sites, or rare or irreplaceable natural areas		
Flooding or drainage issues on abutting properties		
The Town's ability to provide the subdivision with public safety services (if subdivision)		

If granting the waiver will result in an impact on any of the criteria above, please provide more detail below.

n/a



Town of Windham Planning Department: 8 School Road Windham, Maine 04062 Tel: (207) 894-5960 ext. 2 Fax: (207) 892-1916 www.windhammaine.us

		AGENT AUTHO	ORIZATIO	N				
APPLICANT/ OWNER	Name	Michael Lewis, 868 302 LLC						
PROPERTY	Physical	868 302, Windham			Мар	71		
DESCRIPTION	Address				Lot	50-E		
	Name	Craig Sweet, P.E. Terradyn Consultants, LLC						
APPLICANT'S	Phone	(207) 370-2776		41 Campus Driv New Glouceste	ve, Suite r, ME 04	e 301 4260		
INFORMATION	Fax/Cell		Business Name & Mailing Address					
	Email	craig@terradynconsultants.com						

Said agent(s) may represent me/us before Windham Town officers and the Windham Planning Board to expedite and complete the approval of the proposed development for this parcel.

APPLICANT SIGNATURE

Michael Lewis

PLEASE TYPE OR PRINT NAME HERE

CO-APPLICANT SIGNATURE

PLEASE TYPE OR PRINT NAME HERE

rias Suis

APPLICANT'S AGENT SIGNATURE

Craig Sweet

PLEASE TYPE OR PRINT NAME HERE

03/27/2024

DATE

DATE

03/2720224

DATE

## ATTACHMENT 2

DEEDS & EASEMENTS





#### BODK6870PAGE 160

#### 34235

of Gray, County of Cumberland and State of Maine with marranty rournauts, maximum the land in Windham County of Cumberland and State of Maine

A certain lot or parcel of land with the buildings theron more particularly bounded and described as follows:

Beginning at a point on the westerly sideline of U.S. Route 302, marking the southeasterly corner of land now or formerly of Marilyn Thompson, in Windham, in the County of Cumberland and State of Maine; thence running southerly along said Route 302 two hundred twenty-five (225') feet, more or less, to an iron; thence running westerly perpendicular to said Route 302 and passing between two existing buildings now on the land of Charles A. Dorr, a distance of five hundred ninety-five (595') feet, more or less, to the easterly sideline of the Portland Pipeline line right-of-way; thence northerly along said Portland Pipeline to the southerly boundary of said Thompson land six hundred seventy (670') feet, more or less, to the point of beginning.

Also granting and reserving reciprocal easements for vehicle parking and for foot traffic to pass and repass over the existing land of said Charles A. Dorr. These easements are to be limited in their exercise by either lot owner so as not to interfere unreasonably with the rights of the other lot owners. Additionally, the grantor and grantee are prohibited from erecting any fence or other barrier along the common property line which would impede traffic flow between the parcels.

Also subject to utility easements of record.

Being the same premises conveyed to Leon M. Foster by Charles A. Dorr by warranty deed dated July 13, 1983 and recorded in the Cumberland County Registry of Deeds in Book 6311, Page 53.

¥	itness my Brian ZOba	hand and scal t	his 16th	n day M. FOSTI	of Augu	ist l
The	State of M	aine Cu	mberland	\$\$.	August	16,
	Then personally app	eared the above nar	ned Leon M.	Foster		
ECEIV	ED					

#### EASEMENT DEED

KNOW ALL PERSONS BY THESE PRESENTS that ROBERT M. BABB, JR. and CARLA J. BABB, whose mailing address is 512 Gray Road, Windham, Maine 04062 (hereinafter "Grantor") in consideration of One Dollar and other good and valuable consideration, the receipt of which is hereby acknowledged, paid by 868 302, LLC, a Maine limited liability company whose mailing address is 34 Arundel rd, Raymond, Maine 04071 (hereinafter "Grantee"), does hereby GIVE, GRANT, BARGAIN, SELL and CONVEY unto the said Grantee, its successors and assigns forever, the perpetual right and easement for the following described purposes across the portion of land of the Grantor as depicted on Exhibit A (the "Easement Area"), which easement shall be appurtenant to and run with the adjoining land of Grantee, its successors and assigns, as described in a deed recorded in the Cumberland County Registry of Deeds in Book 37323, Page 167. The Easement Area consists of a portion of Grantor's property as described in a deed recorded in the Cumberland County registry of Deeds in Book 21507, Page 333.

Septic System. The perpetual right and easement to install, repair, inspect, 1. operate, maintain, and remove a septic system and/or tank and leach field or drainage disposal, and necessary appurtenances to conveying and transmitting sewerage and wastewater, together with the right at all times to make connection with all of said facilities under and across the Easement Area to the adjoining land of the Grantee. This grant of easement, however, is subject to the condition that this easement shall terminate if the septic system needs to be replaced, if said land ceases to be used as a part of a leach field or drainage disposal area, or in the event that Grantee's adjoining land shall be served by a municipal, governmental, or other private sewer system.

2. Access Right of Way: The perpetual right and easement to pass and repass on foot, at any and all times, together with the right to enter from time to time within said Easement Area to install, repair, inspect, operate, maintain and remove the septic system, and appurtenances.

Obligations of Grantee: Grantee, heirs and assigns, as further consideration 3. for the granting of this easement, agree as follows:

- To grade and seed or sod the Easement Area upon completion of any construction, a) maintenance, or repair of the septic system and/or tank and leach field or drainage disposal area, and to maintain said Easement Area in an attractive condition;
- To shield any pipes or other obstructions visible on the Easement Area from view, b) by appropriate plantings;
- At such times as the easement terminates, and upon request of Grantor, to remove c) the septic system and/or tank and leach field or drainage disposal area and

obstruction visible on the Easement Area and to restore the Easement Area to its previous landscaped condition;

- d) To indemnify and defend Grantor against any liability claims related to the installation, operation, maintenance, or removal of the septic system and/or tank and leach field or drainage disposal area; and
- e) To properly maintain the septic system and/or tank and leach field or drainage disposal area and landscaping at all times, and to promptly correct any malfunction in said system.

TO HAVE AND TO HOLD, the aforegranted rights and easements, with all the privileges and appurtenances thereof to the said Grantee, its successors and assigns, to its and their use and behoof forever. And it does covenant with the said Grantee, its successors and assigns, that Grantor is lawfully seized in fee of the premises; that they are free of all encumbrances; that it has good right to sell and convey said easement to the said Grantee to hold as aforesaid; and that it and its successors and assigns shall and will warrant and defend the same to the said Grantee, its successors and assigns, forever against the lawful claims and demands of all persons.

IN WITNESS WHEREOF, Robert M. Babb, Jr. and Carla J. Babb have caused this instrument to be<sub>(</sub>signed and sealed this <u>day of October</u>, 2022.

Witness:

STATE OF MAINE COUNTY OF CUMBERLAND, ss. October **/Q** 2022

Personally appeared the above named Robert M. Babb, Jr. and Carla J. Babb, and acknowledged the foregoing to be their free act and deed.

Before me,

Robert M. Babb

Carla J. Babb

Notary Public/Attorney-at-Law Printed Name: DAWN H. WALKER

Exprised - 4/25 (26

<u>EXHIBIT A</u>



To whom it may concern at the Town of Windham Maine:

The owner of Hairs Gone Wild Gives will encourage shared parking between: 868 Roosevelt Trail Windham ME, 04062 and: 866 Roosevelt Trail Windham ME, 04062.

The MBall In 10/10/22 Echo menor in the above named Robert M. Babby for Jaun Walker Rotary Public Expire 17/25/26





#### LEGEND: IRON PIPE FOUND 0 PLAN OF PROPERTY State of Maine, Cumberland ss. Registry of Deeds IRON PIPE SET Received February 12 1991 ut 9 h opro. A.M and recorded in Plan Book 189 Page 16 (5/8" REPAR - SURVEY INC CAP IN RLS SBG) WINDHAM, MAINE I CERTIFY THAT THIS SURVEY CONFORMS TO UTILITY POLE FOR THE STANDARDS OF THE MAINE BOARD Attest: OF REGISTRATION FOR LAND SURVEYORS HYDRANT FOR A GTANDARD BOUNDARY SURVEY THE ESTATE OF CHARLES A. DORR CATEGORY I CONDITION I EXCEPTIONS: (1) NO WRITTEN REPORT SURVEY, INC. SURVEY BY: 121 NO DESCRIPTION PREDARED ROBERT N. No. WINDHAM, MAINE (3) IP'S LOCATED BUT NOT FARTHING IDENTIFIED JANUARY 1991 SCALE: 1" 30' 2. C. S. 586 ROBERT N. FARTHING

#### EASEMENT DEED

KNOW ALL PERSONS BY THESE PRESENTS that ROBERT M. BABB, JR. and CARLA J. BABB, whose mailing address is 512 Gray Road, Windham, Maine 04062 (hereinafter "Grantor") in consideration of One Dollar and other good and valuable consideration, the receipt of which is hereby acknowledged, paid by 868 302, LLC, a Maine limited liability company whose mailing address is 34 Arundel rd, Raymond, Maine 04071 (hereinafter "Grantee"), does hereby GIVE, GRANT, BARGAIN, SELL and CONVEY unto the said Grantee, its successors and assigns forever, the perpetual right and easement for the following described purposes across the portion of land of the Grantor as depicted on Exhibit A (the "Easement Area"), which easement shall be appurtenant to and run with the adjoining land of Grantee, its successors and assigns, as described in a deed recorded in the Cumberland County Registry of Deeds in Book 37323, Page 167. The Easement Area consists of a portion of Grantor's property as described in a deed recorded in the Cumberland County registry of Deeds in Book 21507, Page 333.

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- To shield any pipes or other obstructions visible on the Easement Area from view, b) by appropriate plantings;
- At such times as the easement terminates, and upon request of Grantor, to remove c) the septic system and/or tank and leach field or drainage disposal area and

obstruction visible on the Easement Area and to restore the Easement Area to its previous landscaped condition;

- d) To indemnify and defend Grantor against any liability claims related to the installation, operation, maintenance, or removal of the septic system and/or tank and leach field or drainage disposal area; and
- e) To properly maintain the septic system and/or tank and leach field or drainage disposal area and landscaping at all times, and to promptly correct any malfunction in said system.

TO HAVE AND TO HOLD, the aforegranted rights and easements, with all the privileges and appurtenances thereof to the said Grantee, its successors and assigns, to its and their use and behoof forever. And it does covenant with the said Grantee, its successors and assigns, that Grantor is lawfully seized in fee of the premises; that they are free of all encumbrances; that it has good right to sell and convey said easement to the said Grantee to hold as aforesaid; and that it and its successors and assigns shall and will warrant and defend the same to the said Grantee, its successors and assigns, forever against the lawful claims and demands of all persons.

IN WITNESS WHEREOF, Robert M. Babb, Jr. and Carla J. Babb have caused this instrument to be<sub>(</sub>signed and sealed this <u>day of October</u>, 2022.

Witness:

STATE OF MAINE COUNTY OF CUMBERLAND, ss. October **/Q** 2022

Personally appeared the above named Robert M. Babb, Jr. and Carla J. Babb, and acknowledged the foregoing to be their free act and deed.

Before me,

Robert M. Babb

Carla J. Babb

Notary Public/Attorney-at-Law Printed Name: DAWN H. WALKER

Exprised - 4/25 (26

<u>EXHIBIT A</u>



To whom it may concern at the Town of Windham Maine:

The owner of Hairs Gone Wild Gives will encourage shared parking between: 868 Roosevelt Trail Windham ME, 04062 and: 866 Roosevelt Trail Windham ME, 04062.

The MBall In 10/10/22 Echo menor in the above named Robert M. Babby for Jaun Walker Rotary Public Expire 17/25/26
DLN: 1002040116385

### WARRANTY DEED

KNOW ALL PERSONS BY THESE PRESENTS, that, **537 FOREST AVENUE**, L.L.C., a Maine limited liability company with its principal place of business in Bradenton, Florida, for consideration paid, grant to **868 302**, LLC, whose mailing address is 1020 River Road, Windham, Maine 04062, with WARRANTY COVENANTS, the premises situated on or about 868 Roosevelt Trail, Town of Windham, County of Cumberland and State of Maine, described on the Exhibit A attached hereto and made a part hereof.

Being the same premises conveyed to the within Grantor 537 Forest Avenue, L.L.C., by Deed of DASA, Inc., dated July 26, 2005, recorded in the Cumberland County Registry of Deeds in Book 22948, Page 196. Reference is also made to corrective deed of near date to be recorded herewith. 537 Forest Avenue, L.L.C. is a dissolved Maine limited liability company, and the Member/Managers have executed this deed in accordance with Title 31 M.R.S.A. Section 1597.

**IN WITNESS WHEREOF,** the said Leon Foster, Manager/Member of 537 Forest Avenue, L.L.C., has signed and sealed this instrument on October  $\frac{15^{11}}{2020}$ .

ETicka A. Pagan Cruz

537 Hørest Avenue, L.L.C.

eon Foster, Its Manager/Member

STATE OF FLORIDA COUNTY OF Manatee

October  $\underline{5}^{\text{th}}$ , 2020

Then personally appeared Leon Foster, Manager/Member of 537Forest Avenue, L.L.C., and acknowledged the foregoing instrument to be his free act and deed and the free act and deed of said limited liability company.

Before me Notary Public State of Florida Ericka A Pagán Cruz My Commission GG 246726 Expires 08/08/2022 Notá

### DOC :67226 BK:37323 PG:168 RECEIVED - RECORDED, CUMBERLAND COUNTY REGISTER OF DEEDS 10/20/2020, 12:41:35P Register of Deeds Nancy A. Lane E-RECORDED

### EXHIBIT A

A Certain lot or parcel of land with the buildings thereon located in Windham, Cumberland County, and State of Maine, more particularly bounded and described as follows:

Beginning at a wood hub set on the westerly sideline of U.S. Route 302 a.k.a. Roosevelt Trail in Windham at the southeasterly comer of land now or formerly of Marilyn Thompson;

Thence S 01° 36' 49" E along said Route 302 a distance of two hundred twenty-five (225) feet to a "P-K" nail set in pavement;

Thence S89° 41'30" W along land now or formerly of the Estate of Charles A. Dorr a distance of six hundred seventeen and forty-eight (617.48) feet to a capped iron at the sideline of the Portland Pipeline Corporation easement;

Thence N15° 31'46" W along said Portland Pipeline Corporation easement a distance of fifty-eight and eighty hundredths (58.80) feet to a capped iron set;

Thence N 74° 41'33" E along land now or formerly of Marilyn Thompson to the point of beginning.

Containing 2.03 acres, more or less.

Based on a plan entitled "Plan of Property in Windham, Maine, for the Estate of Charles A. Dorr" by Survey, Inc. dated January, 1991 and recorded in the Cumberland County Registry of Deeds in Plan Book 189, Page 16.

Also Conveying and subject to cross easements for vehicular and pedestrian traffic in common with others over the existing parking areas and driveways in front of buildings shown on said Plan and land now of said Stanley Hanson described in deed recorded in the Cumberland County Registry of Deeds in Book 6870, Page 160.

Also conveying a twenty-five foot easement for purposes of foot and vehicle traffic in common with others; the easterly sideline of said easement is one hundred forty-three feet westerly of and parallel to the westerly sideline of U.S. Route 302.

Also conveying a right-of-way in common with others over Basin View Road.

EXCEPTED OUT, HOWEVER, FROM THE ABOVE DESCRIBED PARCEL, a certain lot or parcel of land situated off the northerly side of Trails End Road (f/k/a Basin View Road) in the Town of Windham, Cumberland County, State of Maine as further described in a Warranty Deed from Stanley F. Hanson, Jr. (a/k/a Stanley F. Hanson) to Timothy A. Dorr dated February 22, 2001 and recorded in said Registry in Book 16054, Page 32. Said excepted-out parcel is 22,481 square feet, more or less.

Subject to utility easements of record.

### ATTACHMENT 3 STANDARDS COMPLIANCE NARRATIVE



March 2024

Project# 21-155.1

### COMPLIANCE WITH THE TOWN OF WINDHAM ZONING AND LAND USE CODE 868 ROUTE 302, WINDHAM, Maine

### Site Plan- General Review Standard:

The following information describes how the project conforms to the applicable performance standards and criteria of Section 812. Section numbers below are the same as listed in Section 812:

### A. Utilization of the Site

Compared to the former use, the Conversion will utilize existing developed portions of the property and will have no additional impact.

### B. Vehicular Traffic

The proposed project will be narrowing the existing entrance off of Route 302 to 24' to define traffic flow better, an 18 foot wide access drive to the rear of the property is proposed for vehicular traffic to enter and exit the overflow parking lot in the rear of the building. A gate is proposed to prevent vehicles from exiting via an easement over the rear of the neighboring properties to Trails End Road. A Knox box will be provided for emergency vehicles that need to exit the property.

Please see the attached traffic memo for additional information addressing this section.

### C. Parking and Loading Requirements.

862, 864, 866 and 868 Roosevelt Trail all benefit from a shared parking easement for parking in front of the buildings, any parking to the rear of the buildings would not be included within that easement, a legal description from Archipelago Law is attached to this letter.

The parking areas have been adjusted slightly since the sketch plan submission to remove any additional parking within the neighboring lot over the existing septic area as originally

Portland 565 Congress Street, Suite 201 Portland, ME 04101

Auburn 95 Main Street, 2<sup>nd</sup> Floor Auburn, ME 04210 proposed. The applicant is proposing to move the existing 4 parking spaces that currently exist within the Maine DOT Right-of-Way and relocate 2 of them along the front of the existing building in line with the existing parking spaces. An additional 5 parking spaces have been added along the rear of the building for a net gain of 3 parking spaces on the 868 property. Parking spaces located in the rear of the building are primarily intended for the use of employees, but customers will not be prohibited from using 3 of the 5 spaces.

As previously requested, due to the nature of the shared parking along the front of the building, we have provided a breakdown of parking for the shared parking. Parking requirements are based on numbers utilized in neighboring towns, as there are no numbers detailed in the Town of Windham's ordinance.

- Yolked Farm to Table was permitted with 59 seats using a calculation of 1 parking space per every 3 seats for a total of 20 spaces.
- The marijuana manufacturing use was permitted with one space.
- Waxwing Bakery will operate 20 seat cafe requiring 7 spaces.

Additional estimated breakdowns of the neighboring properties is described below:

- Hair Gone Wild: An estimated number of parking spaces required for the hair salon would be 1 space per 250 sf, the building is approximately 1,000 sf. The exact floor area of the salon portion of the building is not known at this time, and we have used the square footage of the entire building. Using 1 space per 250 sf, the salon would require 4 parking spaces.
- Windham Star nails: Similar to Hair Gone Wild, Star nails is approximately 1,500 sf and using 1 space per 250 sf would require 6 spaces.
- Kelly Sebago Diner: There are approximately 48-50 seats, which would require 17 parking spaces.

All of the uses would require a maximum of 55 spaces if they were all operating at the same time. A breakdown summary of spaces per business is below:

- Yolked Farm to Table: 20 spaces
- Waxwing: 7 spaces
- Manufacturing: 1 space
- Hairs Gone Wild: 4 spaces
- Star Nails: 6 spaces
- Kelly Sebago Diner: 17 Spaces

The business currently/will operate with the following hours:

- Waxwing's will be open Wednesday through Sunday 7am to 2pm
- Yolked Farm to Table: Tuesday through Thursday 12pm to 8 pm and Saturday 12pm to 9 pm

- Hairs Gone Wild: Tuesday through Friday 9am to 7pm and Saturday 9am to 2pm.
- Star Nails: Monday through Wednesday and Saturday 9am to 6pm, Thursday & Friday 9am to 6:30pm , & Sunday 10am to 9pm
- Kelly Sebago Diner: Monday through Saturday 7am to 2pm, Sunday 7am to 1pm.

As shown above, the businesses that currently operate on the all of the properties require a total of 48 parking spaces, which currently exists. However, it is important to note that the parking loading would be if all businesses operate at one time at their design customer demand which is not the case for the buildings at this location. The Hair and Nail salons operate all day, and their parking loading would be assumed to be consistent throughout the day. Kelly Sebago Dinner and Yolked Farm to Table for the majority have opposite operation hours, The proposed Waxwing Bakery would primarily operate with the same hours as Kelly Sebago Dinner.

Yolked Farm to Table opens at 12pm but their business does not typically pick up until around 4 pm, as they primarily cater to the dinner services and do not offer a lunch menu. Waxwing Bakery's café area will primarily cater to breakfast customers and will be experiencing fewer customers towards the lunch hours. Waxwing will offer a limited made to order sandwich menu for lunch, they primarily cater to quick service retail with online-ordering, takeout and limited indoor seating. As such the parking required during the lunch time hours is expected to be lowest for each of the restaurant uses at the 868 Roosevelt Trail building. There is expected to be very limited overlap between the two business on the 868 Roosevelt Trail property. Any overlap of customers would be adequately handled by the additional parking spaces at the rear of the 868 property which would be for that properties exclusive use.

As mentioned above, the neighboring properties all benefit from a cross easement for shared parking along the fronts of the buildings. All of the businesses described above with the exception of Waxwing Bakery are existing operating uses. The uses at 868 Roosevelt Trail will operate at largely separate times. A net increase of 3 spaces will be provided on the 868 property for these hours.

D. Pedestrian Traffic

The site will provide for safe pedestrian movement; patrons who park in front of the building by Route 302 will be able to access the building via the entrances along the front of the building. Patrons who park at the rear of the building will be able to access both restaurants via a door at the lower level. The parking areas are being redeveloped to better define travel ways which will improve pedestrian safety. A crosswalk had been provided between 866 and 868 Roosevelt Trail for added safety.

#### E. Stormwater Management

Please see the attached stormwater management report.

### F. Erosion Control

An erosion control plan is included in the plan set.

### G. Water Supply Provisions

Water will be supplied by the existing Portland Water District service line to the property. Please see the attached email correspondence with Portland Water District; fixture counts have been submitted, and once received, the ability to serve letter will be forwarded.

### H. Sewage Disposal Provisions

Sewage disposal for the facility will be provided by septic system installed in 2023. A copy of the wastewater disposal system application (including the HHE-200 Form) for the facility has been previously submitted.

I. <u>Utilities</u>

The facility will utilize existing utility services to the property. The existing overhead utilities have been relocated underground during the previous improvements to the building; an updated survey was conducted between the sketch plan and the final.

J. Groundwater Protection

There will be no change to groundwater quality with the Conversion of the site.

### K. <u>Water Quality Protection</u>

Conversion of the site will not result in any increased impact on water quality.

### L. Hazardous, Special, and Radioactive Materials

Not applicable

### M. Shoreland Relationship

A portion of the existing building and developed area is located within the Stream Protection District (SP). Areas within the SP zone are not to be expanded beyond the existing developed area of the site. The proposed bioretention area has been proposed within the upper parking lot area to help mitigate stormwater runoff within the stream protection area; it has been sized for more than 2 times the increase in impervious area proposed to be created.

### N. Technical and Financial Capacity

The applicant has provided a bank statement demonstrating adequate financial capacity to complete the site work portion of the proposed improvements. Waxwing Bakery will be paying for interior improvements for their bakery; please see the attached financial capacity letter from Norway Savings Bank.

The applicant has previously completed the renovation of the Yolked Farm to Table and Canneutic, LLC, at the property and has been involved in construction his whole life.

The Applicant has assembled a highly qualified team of professionals to plan, permit and develop construction documents for the project. The team services will be provided by the following companies:

Civil Engineer	Craig Sweet, P.E. Terradyn Consultants, LLC 41 Campus Drive, Suite 301 New Gloucester, ME 04260 (207) 926-5111
Surveyor	Jim Courbron, P.L.S. Terradyn Consultants, LLC 95 Main Street, 2 <sup>nd</sup> Floor Auburn, ME 04210 (207) 926-5111
Wetland Scientist and Soil Scientist	Erik Lema Basswood Environmental LLC 32 Brentwood Road Cape Elizabeth, Maine 04107 (207) 518-8442
Traffic Assessment	Matthew Pelletier, P.E. Terradyn Consultants, LLC 565 Congress Street, Suite 201 Portland, ME 04100 (207) 926-5111
Legal	Tom Federle, Principal Archipelago One Dana Street Portland, ME 04101 (207) 558-0102

CONSULTANT TEAM

The team of consultants retained by the Developer has expertise and experience in the design of similar projects. Resumes of key personnel for the development team can be provided upon request.

### O. Solid Waste Management

Solid waste will be picked up by a private hauler and disposed of at a licensed disposal facility. The dumpster location is shown on the attached plan set.

### P. Historical and Archaeological Resources

The proposed conversion of the existing building have no impact on Historical and Archaeological resources, all proposed improvements are located within the existing developed area of the property.

### Q. Floodplain Management

A portion of the subject parcel is located within Zone A according to the Federal Insurance Rate Map 2301890015B, However the location of the development is outside of the Zone A flood areas. Copies of the LOMA are attached with the insurance map

#### R. Exterior Lighting

Exterior lighting will be provided to allow for safe use during operating hours. New lighting fixtures will have no off-site impacts as compared to the former use. New lighting fixtures are proposed to be building mounted and are shown on the site plan drawings, cut sheets with photometrics of the lights are attached.

S. Noise

Conversion of the facility is not anticipated to generate a significant change in noise levels compared to the former use.

T. Storage of Materials

The proposed dumpster will be located at the rear of the building and will be screened from view by abutting properties.

#### Commercial District Design Standards:

The following information describes how the project conforms to the applicable performance standards and criteria of Section 813. Section numbers below are the same as listed in Section 813:

- A. Architecture/Building:
  - 1. Building Style

The building as it exists today was updated through permits with Code Enforcement after the staff-level change of use. As part of the proposed application the applicant is proposing to finish the siding along the remainder of the building to match the siding completed in front of the building. Photos of the existing building are attached to this letter. The building is not a national franchise prototype or stylized to perform advertising.

2. Materials

As mentioned above, the applicant has worked with Code Enforcement for updates to ensure that they met the standards of the Town of Windham. The existing rotting siding was replaced with 8" clapboard siding, and all entrances and windows have been framed out. No awnings or canopies are proposed as part of the project.

#### 3. <u>Color</u>

The existing siding color is not proposed to be changed as part of the proposed change of use; as mentioned above, the applicant has worked with Code Enforcement to replace the old rotting clapboard siding with the 8" siding on the building today. The façade is low-reflectance and of character with neighboring buildings. Color is shown on the attached elevations.

#### 4. Roofline

The existing building features pitched roofs at 5/12 and is comprised of composite asphalt shingles. No changes to the building roof are proposed as part of this application. Mechanical equipment exists on the side and the rear of the building.

#### 5. Façade

Building facades match neighboring properties to the maximum extent practicable. No vending machines or ATMs are proposed on the site. Windows and doors are trimmed to create a frame around the openings.

a. The square footage of the façade is 662.5 SF with a window square footage of 365.25, which results in 55% transparent openings, greater than the required 40%.

#### 6. Building style Coordination

The building is existing, no phasing is proposed. No nonhabitual freestanding structures are proposed.

#### 7. Entrance

The existing building is under 20,000 square feet. Customer entrances are clearly defined and visible.

#### 8. Architectural Details

The detailing and trim are proportional to the scale of the entire building. Detailing and trim can be seen in the attached elevations.

Building floor plans with elevations, siding and lightning cut sheets of what are currently installed at the property are attached to this letter.

### B. Site/parking:

### 2. Internal Traffic Flow

Interconnected Parking lots: The mixed used building will utilize the existing shared parking along Roosevelt trail between the 4 properties. A crosswalk has been provided between 868 and 866 Roosevelt Trail properties.

### 5. Screening, parking

The abutter to the north of the property is the only residential neighboring property and is naturally screened by the forested wetland area. The southern property abutter is a commercial property that benefits from

### 6. <u>Screening utilities and service areas</u>

the utility connections are located along the northern side of the building adjacent to a forested wetland area and are screened from Roosevelt trail. The service areas of the building are located at the rear of the building and not visible from Roosevelt Trail.

### 8. Low-impact design stormwater

The stormwater proposed for the development is a rain garden along the property frontage, it will collect and treat stormwater runoff from the majority of the upper parking lot area which currently exists withing the shoreland protection district and is untreated area.

### C. Landscaping/Lighting:

1. Lighting/photometric plan

Existing building lighting along the front of the building is soffit mounted, there are approximately 12 lights spaced out, there are no additional lights proposed along the front of the building.

2. Lighting Coordinated with Architecture

Lighting features are soffit mounted to best coordinate with the architecture of the building. They do not create glare or distraction from Roosevelt Trail.

### 3. Lighting Coordinated with Landscaping

The proposed landscaping will not interfere with lighting. Lighting is building mounted, and the proposed landscaping within the rain garden is located along the front property line.

### 4. Existing Trees Preserved

The existing site is developed, and no additional trees are proposed to be removed as part of the change of use.

#### 5. Snow Storage areas designated

Snow storage areas have been designated on the site plans. Snow is proposed to be stored at the rear of the property beyond the proposed gravel parking area, outside of wetland areas.

### D. Bicycle/Pedestrian:

1. Internal Walkway:

No public sidewalks exist along the western side of Roosevelt Trail, a crosswalk has been provided in the location of the ADA ramp for the 868 Roosevelt trail building to connect to the 866 parking lot.

2. Links to community:

As above, a stripped crosswalk area between 868 and 866 Roosevelt Trail has been provided for pedestrian traffic between the properties.

3. Outdoor activity area

This section is not applicable.

4. Sidewalks

No sidewalks are proposed along Route 302. It is our understanding that Maine DOT is working on streetscape project along this section of Route 302 that would be adding sidewalks in the near future. The applicant will pay the impact fee if required.

5. Crosswalks

As no sidewalks are proposed as part of the change of use, this section is not applicable.

6. Bicycle parking/racks

A bicycle parking rack is provided and is show on the site plan drawings.

### ATTACHMENT 4 LEAGAL OPINION ON EASEMENTS

Law • Science • Policy

# Archipelago

Thomas B. Federle Principal tfederle@archipelagona.com 1 Dana Street Portland, Maine 04101 (207) 558-0102

February 20, 2024

Stephen Puleo, Planner Town of Windham, Planning Department 8 School Road Windham, ME 04062

### Re: 868 302, LLC Site Plan Review Legal Opinion Regarding Cross Easements (862-868 Roosevelt Trail)

Dear Mr. Puleo:

We represent Mike Lewis and 868 302, LLC in its site plan application pending before the Town of Windham Planning Board. It is our pleasure to share with you our Legal Opinion regarding certain cross easements affecting three properties on U.S. Route 302 ("Roosevelt Trail") in Windham. This opinion is provided in response to your request in the context of the Town's review of a site plan application." *See* Town Planner January 2, 2024 Planning Board Memo for Sketch Plan Review (§ 120-812B(3)). For ease of reference, I will refer to Mr. Lewis's property at 868 Roosevelt Trail as the "Lewis Property;" and will refer to the property at 866 Roosevelt Trail as the "Babb Property;" and will refer to the property at 862-864 Roosevelt Trail as the "Sebago Diner Property."

### I. The Reciprocal Easement Rights Granted to the Lewis Property, the Babb Property, and the Sebago Diner Property Are Limited To Shared Parking Rights In Front Of The Existing Buildings Only.

As recently as 1983, the Lewis Property, the Babb Property, and the Sebago Diner Property were all owned in common by Charles Dorr. See Dorr deed in the Cumberland County Registry of Deeds at Book 2820; Page 143 ("CCRD 2820/143").

In 1983, Dorr created the Lewis Property by deed to Leon Foster that included the building that existed on the property (CCRD 6311/53). This deed included the right for Foster to access the back of his building over an existing roadway over the remaining land of Dorr but, by its terms, this right of way expired when Foster ceased operating a retail carpet business on the property. The deed also created reciprocal easements for parking and for foot traffic.

In 1985, Foster conveyed the Lewis Property to Stanley Hanson (CCRD 6870/160). This deed no longer contained the right of way that Foster received to access the back of his building as that right was limited to Foster's use of the building as a retail carpert store. The deed did contain the same reciprocal grant of parking rights that was in the deed to Foster.

In 1991, Dorr conveyed to Hanson the Babb Property (CCRD 9486/1). At this time, Hanson owned both the Lewis Property and the Babb Property. **The property configuration is shown on a 1991 Plan** 

### ARCHIPELAGO

of Property (the "Plan of Property" is attached). The deed from Dorr to Hanson included a 25' right of way that is 143' westerly of, and parallel to, Roosevelt Trail. This right of way is depicted on the Plan of Property. This 25' right of way does not extend onto or burden the Lewis Property. The deed from Dorr to Hanson creating the Babb Property also contains the following easement language:

"conveying and subject to cross easements for vehicular and pedestrian traffic in common with others over the existing parking areas and driveways in front of buildings shown on [the Plan of Property] and land now of Stanley Hanson described in [CCRD 6870/160."

Also in 1991, Dorr sold its remaining land (the Sebago Diner Property) to Donald and Janice Miller in a deed (CCRD 9463/2521) containing the exact same grant of reciprocal easement as that above. Thus, through these deeds, the Babb Property (owned by Hanson), the Lewis Property (owned by Hanson) and the Sebago Diner Property (owned by Miller) were made subject to, and are benefitted by, cross easements allowing for parking (and access to and from the parking) in front of the buildings shown on the Plan of Property."

The deeds into the current owners of the Sebago Diner Property, the Babb Property and the Lewis Property carry forward this specific grant of cross easement rights. It is clear from the plain language of the easement grant that the parking and travel rights of the three properties is limited to the parking area *in front of* the existing buildings only. None of the three property owners, by virtue of this cross easement, have any right to park on each others property *behind* the buildings. And none of the property owners, by virtue of the cross easement have any right to travel over the property of others to access the back of their buildings.

In the event that the Town of Windham, through its site plan approval process, removes some of the parking in front of the Lewis Property, Lewis is not obligated by the reciprocal easements to provide new parking for the Babb Property or Sebago Dining Property. If the Windham Land Use Ordinance specifically requires additional parking for the Lewis Property and Lewis provides that parking behind his building, neither Babb nor Sebago Diner would obtain rights to that parking. Any such private rights to parking would need to be granted by Lewis as the current reciprocal rights are limited to the front of the buildings.

### II. Behind The Buildings, Lewis Has a Right of Way For Travel Over the Babb and Sebago Diner Properties; Babb and Sebago Diner Do Not Have a Right of Way For Travel Over the Lewis Property.

The deeds into Babb and Sebago Dining reference the Plan of Property which shows the 25' right of way that is is 143' westerly of, and parallel to, Roosevelt Trail. The Plan of Property shows that the 25' right of way ends at, and does not travel over, the Lewis Property. Moreover, the Babb and Sebago Diner deeds establish that their properties have the benefit of that right of way but are also *subject to* that right of way. The Lewis deed, on the other hand, is given the benefit of traveling over that right of way, but *is not subject to* that right of way (which could only be the case since the right of way runs over the Babb and Sebago Diner Properties but not over the Lewis Property. Thus, by virtue of various conveyances and rights granted, Lewis has a right of travel behind the buildings over the Babb and Sebago Diner Properties but they do not have a right of travel behind the buildings over the Lewis Property. Finally, no parking rights are associated with the 25' right of way that runs behind the buildings.

### ARCHIPELAGO

#### III. Conclusion.

The Lewis Property is benefitted by reciprocal easement rights that allows it, and its customers, to park in front of its existing building and in front of the buildings on the Babb and Sebago Diner properties. Similarly, the Sebago Diner and Babb Properties share parking rights in front of the building on the Lewis Property. This form of shared parking is an efficient use of parking space and is an effective way to utilitze private parking lots and minimize the need for additional surface parking.

The Lewis Property has travel rights over the Babb and Sebago Diner properties over a 25' right of way located behind the buildings on the Babb and Sebago Diner properties. Neither Babb nor Sebago Diner have any travel rights over the Lewis Property other than the right of accessing the parking in front of the buildings from Roosevelt Trail.

Sincerely

Thomas B. Federle

CC: 868 302, LLC Craig Sweet, Terradyne

### ATTACHMENT 5

STORMWATER REPORT



207.926.5111 info@terradynconsultants.com www.terradynconsultants.com

### 868 Roosevelt Trail WINDHAM, MAINE

## STORMWATER MANAGEMENT REPORT

### PREPARED FOR:

868 302, LLC 1020 RIVER ROAD WINDHAM, MAINE 04062

### PREPARED BY:

TERRADYN CONSULTANTS LLC 41 CAMPUS DRIVE, SUITE 301 NEW GLOUCESTER, MAINE 04260

February 2024

Pineland 41 Campus Drive, Suite 301 New Gloucester, ME 04260 Portland 565 Congress Street, Suite 201 Portland, ME 04101 Auburn 95 Main Street, 2<sup>nd</sup> Floor Auburn, ME 04210

### Introduction

The following Stormwater Management Plan has been prepared for the proposed 868 Route 302 multi-use conversion project to evaluate stormwater runoff and erosion control for the proposed project.

### Site Calculations

Total Property Area	1.52 Ac (+/-)
Total Impervious Area	0.41 Ac
Total Developed Area	0.61 Ac

### Existing Project Site

The property is approximately 1.52 acres in size and is shown as Lot 50-E on the Town of Windham Tax Map #71. The property is located within the C-1 (Commercial 1) District, where the proposed uses are permitted. The existing site has frontage on Route 302 (Roosevelt Trail) and access to Trails End Road via easement. Water service is supplied by Portland Water District, and a new septic system was installed in early 2023.

The property is developed and was previously utilized by a flooring sales company. In 2020, the applicant purchased the property and did renovations to the existing building, converting a portion of the building to a restaurant for Yolked Farm to Table and another portion of the building to light manufacturing use in the basement level. The change of use to those uses was permitted via staff review in late 2022 to early 2023. The change of use involved the construction of a new septic system at the rear of the building and a slight reconfiguration of the existing parking lot on the property.

The property is located within the Sebago Lake Watershed and generally drains to the north and west of the property.

A portion of the subject parcel is located within Zone A according to the Federal Insurance Rate Map 2301890015B, However the location of the development is outside of the Zone A flood areas. Copies of the LOMA are attached with the insurance map.

### Proposed Project

The proposed project is the conversion of the remainder of the existing structure at 868 Roosevelt Trail. The conversion requires some of the parking areas to be relocated and slightly expanded upon on the site

A structural Best Management Practice (BMP) has been designed to collect, store, and treat runoff from onsite impervious areas prior to discharged from the site. Runoff from the developed areas of the site will be directed through a bioretention area, to then be discharged on site. All on site areas drain to Sebago Lake.

### **Basic Standards**

•

A site specific Erosion & Sedimentation Control Plan has been developed for the project. Means and methods to control erosion and sedimentation during and after construction are detailed in the erosion control plan narrative and construction details, which are included directly on the project drawings for ease of reference during construction.

Requirements for inspection and maintenance of the stormwater management system are provided in the stormwater management system inspection and maintenance plan located in Appendix 2.

Housekeeping requirements are included in the Erosion & Sediment Control Narrative located on the project drawings.

### Water Quality (BMP Standard)

The project site has been in operation since the mid-1980's, and the proposed reconfigured parking area is largely within areas of existing impervious and developed areas. The existing property currently has approximately 16,022 sf of impervious area and the proposed development will have approximately 17,714 sf of impervious. This is an increase of approximately 1,400 sf. The proposed stormwater bio-retention area has been sized to treat 3,737 sf of the impervious area, which is more than double the new impervious area proposed by the project.

A rain garden with an underdrain will be installed adjacent to the upper parking lot area as this will likely be the most used lot and provide the best area for treatment. Approximately 4,250 sf of area will drain to the rain garden. The runoff will be stored in a 6" ponding area and filtered through the soil media before collecting in an underdrain and discharging into the Rip Rap channel adjacent to Rout 302.

Rain Garden Sizing:		
Tributary Area	SF	
Landscaped Area	500	
Impervious Area	3737	
Total Area	4,237	
Minimum Surface Area = impervious	= 3% x landscaped + 7% x	
Required Min. SA	277	
Maximum SA	2000	
Provided SA	280	
Treatment Volume = 0.4	" x landscaped + 1.0" x im	pervious
Required CPV	328	
Provided CPV	1506	

Housekeeping and Maintenance & Inspection guidelines are attached to this report.

### Stormwater Quantity Control

As part of best engineering practices, the proposed development has been designed to minimize stormwater runoff from the site in excess of the natural pre-development conditions. A hydrologic analysis of pre-development and post-development conditions was conducted based upon the methodology contained in the USDA Soil Conservation Service's Technical Releases No. 22 and 55 (SCS TR-20 and TR-55). For Cumberland County SE (N Windham Area), Maine a 24-hour SCS Type III Storm distribution was used for the analysis using the following storm frequencies and rainfall amounts, per Maine DEP Chapter 500:

Storm Event	24-Hour Rainfall
2–Year Storm	3.1 inches
10–Year Storm	4.6 inches
25–Year Storm	5.8 inches

Runoff curve numbers, time of concentration, and travel time data were established based on methods outlined in the USDA TR-55 manual.

A minimum time of concentration of 6 minutes and a maximum sheet flow distance of 150 linear feet was used in the models.

### **Pre-Development Conditions**

The pre-development HydroCAD model includes one (1) subcatchment and one (1) study point. Stormwater runoff from the project site ultimately drains to Sebago Lake, stormwater runoff from the site flows primarily through the existing large wetland to along the site into Outlet Brook which flows into Sebago Lake, below is a summary of the study point:

Study Point SP1 – located within the large wetland on the property.

A Pre-Development Watershed Map, showing sub-watershed boundaries, time of concentration flow paths, and Study Points is provided in Appendix 5. The Pre-development HydroCAD model is attached in Appendix 3.

Existing condition peak rates of runoff at the Study Points are as follows:

Pre-Development Peak Rates of Runoff (cfs)										
	2-Year	10-Year	25-Year							
SP1	0.60	1.37	2.06							

The pre-development peak rates of runoff are a baseline used for comparison to the postdevelopment condition.

### Post-Development Conditions

The proposed post-development HydroCAD model includes two (2) subcatchment and one (1) study point. The study point remains the same from the pre-development model. A Post-development Watershed Map showing sub-watershed boundaries, time of concentration flow paths, and Study Points is provided in Appendix 5. The Post-development HydroCAD model is attached in Appendix 4.

Post-development peak rates of runoff at the Study Points are as follows:

Post-Development Peak Rates of Runoff (cfs)									
	2-Year	10-Year	25-Year						
SP1	0.59	1.27	1.88						

### Stormwater Analysis

The results of the pre-development and post-development models were analyzed at the defined Study Points described above. The direct comparison of the pre-development and post-development conditions at the Study Points are as follows:

Peak Runoff Flow Rates Comparison									
Storm Event	Pre-Development (cfs) Post-Development (cfs)								
	Study Point SP1								
2-Year	0.60	0.59							
10-Year	1.37	1.27							
25-Year	2.06	1.88							

The peak rate of runoff will decrease or remain the same in the 2, 10 & 25-year storm events.

### <u>Summary</u>

Based upon the results of this evaluation, the proposed stormwater design is not expected to cause flooding, erosion, or other significant adverse effects downstream of the site.

### **Appendices**

- 1 Existing Conditions Figures
- 2 Housekeeping & Maintenance
- 3 Pre-Development HydroCAD Model
- 4 Post-Development HydroCAD Model
- 5 Watershed Maps

### APPENDIX 1

### **HOUSKEEPING & MAINTENANCE**



Pineland Cumberland Hall 41 Campus Drive, Suite 101 New Gloucester, ME 04260

#### Portland

565 Congress Street, Suite 201 Portland, ME 04101

### 868 Route 302 WINDHAM, MAINE EROSION & SEDIMENTATION CONTROL INSPECTION & MAINTENANCE PLAN CONSTRUCTION PHASE

Project Owner/Developer:	868 302, LLC 1020 River Road Windham, Maine 04062 (207) 831-2312
Responsible Party:	Owner or General Contractor TBD
Prepared By:	Terradyn Consultants, LLC 565 Congress Street, Suite 201 Portland, ME 04101 (207) 926-5111

### **INTRODUCTION:**

Anyone who conducts or directs an activity that involves exposing, filling or displacing soil or other earthen materials must take appropriate measures to prevent erosion and the loss of sediment beyond the project site or into a sensitive resource.

Erosion and sediment control measures should be in place before the activity begins and should remain functional until the site is permanently stabilized. All measures should remain effective until all areas are permanently stabilized. Any disturbed area should be regularly inspected until the site is fully stabilized with either 90% grass cover or a permanent impervious surface such as pavement.

The following information describes the Inspection, Maintenance and Documentation necessary <u>during construction</u> to comply with the State of Maine Stormwater Management Law.

### INSPECTION

Inspect disturbed and impervious areas, erosion control measures, materials storage areas that are exposed to precipitation, and locations where vehicles enter or exit the site. Inspect these areas at least once a week as well as before and within 24 hours after a storm event (rainfall),

and prior to completing permanent stabilization measures. For the purposes of this plan, a storm event is rainfall greater than 0.5 inches in a 24 hour period.

The person conducting inspections shall have knowledge of erosion and sedimentation practices, stormwater management, and the standards and conditions of all local, state and federal permits for the project.

### MAINTENANCE AND CORRECTIVE ACTION

If best management practices (BMPs) need to be repaired, the repair work should be initiated upon discovery of the problem but no later than the end of the next workday. If additional BMPs or significant repair of BMPs are necessary, implementation must be completed within 7 calendar days and prior to any storm event (rainfall). All measures must be maintained in effective operating condition until areas are permanently stabilized.

### DOCUMENTATION

Keep a log (report) summarizing the inspections and any corrective actions taken. The log must include the name(s) and qualifications of the person making the inspections, the date(s) of the inspections, and major observations about the operation and maintenance of erosion and sedimentation controls, materials storage areas, and vehicles access points to the parcel. Major observations must include BMPs that need maintenance, BMPs that failed to operate as designed or proved inadequate for a particular location, and location(s) where additional BMPs are needed. For each BMP requiring maintenance, BMP needing replacement, and location needing additional BMPs, note in the log the corrective action taken and when it was taken.

The log attached at the end of this plan is from the *Maine Erosion and Sediment Control Best Management Practices (BMPs) Manual for Designers and Engineers (May 2016).* The log may be used or adapted for this project.

Documentation must be retained for a minimum of three years after permanent stabilization has been achieved on the site and must be made accessible to the Maine Department of Environmental Protection upon request.

### REFERENCES

Approved Drawings: C-3.0 Grading, Drainage & Erosion Control Plan C-4.0 & 4.1 Details

Maine Erosion and Sediment Control Best Management Practices (BMPs) Manual for Designers and Engineers (May 2016), Maine Department of Environmental Protection

*Maine Erosion and Sediment Control Practices Field Guide for Contractors*, Maine Department of Environmental Protection



Pineland Cumberland Hall 41 Campus Drive, Suite 101 New Gloucester, ME 04260

#### Portland

565 Congress Street, Suite 201 Portland, ME 04101

### 868 Route 302 WINDHAM, MAINE STORMWATER MANAGEMENT SYSTEM INSPECTION & MAINTENANCE PLAN

Project Owner/Developer:	868 302, LLC 1020 River Road Windham, Maine 04062 (207) 831-2312
Responsible Party:	Owner
Prepared By:	Terradyn Consultants, LLC 565 Congress Street, Suite 201 Portland, ME 04101 (207) 926-5111

### **INTRODUCTION:**

Regular inspection and maintenance of the entire stormwater management system is crucial to the long-term effectiveness of the system. The responsible party must provide regular inspection and maintenance of all permanent erosion control measures and stormwater management structures, establish any contract services required to implement the program, and keep records and a maintenance log book of inspection and maintenance activities. At a minimum, the inspection and maintenance activities outlined herein should be performed at the recommended intervals.

All measures must be maintained in effective operating condition. A person with knowledge of erosion and sedimentation practices, stormwater management, and the standards and conditions of all local, state and federal permits for the project shall conduct the inspections. The following areas, facilities, and measures must be inspected and identified deficiencies must be corrected.

### **INSPECTION TASKS**

1. Inspect **vegetated areas**, particularly slopes and embankments, early in the growing season or after heavy rains to identify active or potential erosion problems. Replant bare areas or areas with sparse growth. Where rill erosion is evident, armor the area with an appropriate lining or divert the erosive flows to on-site areas able to withstand the concentrated flows.

- 2. Inspect ditches, swales and other open stormwater channels in the spring, in late fall, and after heavy rains to remove any obstructions to flow, remove accumulated sediments and debris, to control vegetated growth that could obstruct flow, and to repair any erosion of the ditch lining. Vegetated ditches must be mowed at least annually or otherwise maintained to control the growth of woody vegetation and maintain flow capacity. Any woody vegetation growing through riprap linings must also be removed. Repair any slumping side slopes as soon as practicable. If the ditch has a riprap lining, replace riprap on areas where any underlying filter fabric or underdrain gravel is showing through the stone or where stones have dislodged. The channel must receive adequate routine maintenance to maintain capacity and prevent or correct any erosion of the channel's bottom or sideslopes.
- 3. Inspect **culverts** in the spring, in late fall, and after heavy rains to remove any obstructions to flow; remove accumulated sediments and debris at the inlet, at the outlet, and within the conduit; and to repair any erosion damage at the culvert's inlet and outlet.
- 4. Inspect and clean out catch basins. Clean-out must include the removal and legal disposal of any accumulated sediments and debris at the bottom of the basin, at any inlet grates, at any inflow channels to the basin, and at any pipes between basins. If the basin outlet is designed to trap floatable materials, then remove the floating debris and any floating oils (using oil-absorptive pads).
- 5. Inspect **Bioretention area** semi-annually and following major storm events. Debris and sediment buildup shall be removed from the forebay and basin as needed. Mowing of grassed basin can occur semi-annually to a height of no less than 6-inches. Any bare area or erosion rills shall be repaired with new filter media or sandy loam then seeded and mulched. Maintaining good grass cover will minimize clogging with fine sediments and if ponding exceeds 48 hours, the top of the filter bed must be rototilled to reestablish the soil's filtration capacity.

### DOCUMENTATION

Keep a log (report) summarizing inspections, maintenance, and any corrective actions taken. The log must include the date on which each inspection or maintenance task was performed, a description of the inspection findings or maintenance completed, and the name of the inspector or maintenance personnel performing the task. If a maintenance task requires the clean-out of any sediments or debris, indicate where the sediment and debris was disposed after removal. The log must be made accessible to Department of Environmental Protection staff and a copy provided to the Department upon request. The permittee shall retain a copy of the log for a period of at least five years from the completion of permanent stabilization.

The log attached at the end of this plan is from the *Maine Erosion and Sediment Control Best Management Practices (BMPs) Manual for Designers and Engineers (May 2016).* The log may be used or adapted for this project.

**ATTACHMENTS:** Stormwater Management Facilities Inspection & Maintenance Log

Stormwater Management Facilities Inspection & Maintenance Log 868 Route 302									
General Information	on:								
Inspected by:			Date:	Weather:					
Reason for Inspection	n: (Regular li	nspection)	(Major Rain Event)						
В	MP		Conditions Observed						
1. Vegetated Areas									
2. Ditches, Swales, 0	Open Chann	els							
3. Culverts									
4. Catch Basins									
5. Bioretention Area									
A. Vegetation	n cover								
B. Drainage									
C. Sediment	buildup								
		Deta	ailed Repair Notes:						
ВМР Туре	Date	Descripti	on of Repairs & Sedime	ent Disposal					

Notes:

- 1. If a maintenance task requires the clean-out of any sediments or debris, indicate where the sediment and debris was disposed after removal. A copy of this log shall be retained for a period of at least five years from the completion of permanent stabilization. The log must be made accessible to Department of Environmental Protection staff and a copy provided to the Department upon request.
- 2. After five years a recertification inspection is required by Maine DEP.

### APPENDIX 2

### PRE-DEVELOPMENT HYDROCAD MODEL



### Summary for Subcatchment 20: WS-1

Runoff = 0.60 cfs @ 12.10 hrs, Volume= 0.047 af, Depth= 0.92"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs Type III 24-hr 2 yr Rainfall=3.10"

	A	rea	(sf)	)	CN	1	De	esc	ript	ion																	
*		15,	451		98	3	bu	iildi	ng	and	l pai	rkin	g														
		11,	217	7	39	)	>7	′5%	Ğ	ras	s co	ver,	Go	od,	HS	G A	4										
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### Summary for Link SP1: SP-1

Inflow Are	ea =	0.612 ac, 5	57.94% Impervious,	Inflow Depth = (	).92" for 2 yr even	t
Inflow	=	0.60 cfs @	12.10 hrs, Volume	e= 0.047 a	f	
Primary	=	0.60 cfs @	12.10 hrs, Volume	e= 0.047 a	f, Atten= 0%, Lag=	0.0 min

Primary outflow = Inflow, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs



### Link SP1: SP-1

### Summary for Subcatchment 20: WS-1

Runoff = 1.37 cfs @ 12.10 hrs, Volume= 0.101 af, Depth= 1.97"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs Type III 24-hr 10 yr Rainfall=4.60"



### Summary for Link SP1: SP-1

Inflow A	rea =	0.612 ac, 57.94% Impervious, Inflow	Depth = $1.97"$	for 10 yr event
Inflow	=	1.37 cfs @ 12.10 hrs, Volume=	0.101 af	
Primary	=	1.37 cfs @_ 12.10 hrs, Volume=	0.101 af, Atte	en= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs



### Link SP1: SP-1

### Summary for Subcatchment 20: WS-1

Runoff = 2.06 cfs @ 12.09 hrs, Volume= 0.149 af, Depth= 2.92"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs Type III 24-hr 25 yr Rainfall=5.80"

	A	rea	(sf)	C	N:	D	esc	ript	ion																		
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		26,6	68	-	73	W	/eig	hte	d A	vera	age																
		11,2	217			42	2.06	5%	Per	viou	ıs A	rea															
		15,4	151			57	7.94	1%	Imp	ervi	ous	Are	ea														
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#### Summary for Link SP1: SP-1

Inflow Are	ea =	0.612 ac, 5	57.94% Impervious,	Inflow Depth = $2.9$	92" for 25 yr event
Inflow	=	2.06 cfs @	12.09 hrs, Volume	e 0.149 af	
Primary	=	2.06 cfs @	12.09 hrs, Volume	e= 0.149 af,	Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs



#### Link SP1: SP-1

# APPENDIX 3

# POST-DEVELOPMENT HYDROCAD MODEL



#### Area Listing (all nodes)

Area	CN	Description
(acres)		(subcatchment-numbers)
0.086	98	(WS-2)
0.207	39	>75% Grass cover, Good, HSG A (WS-1, WS-2)
0.319	98	Building and Pavement (WS-1)
0.612	78	TOTAL AREA

#### Soil Listing (all nodes)

Area	Soil	Subcatchment
(acres)	Group	Numbers
0.207	HSG A	WS-1, WS-2
0.000	HSG B	
0.000	HSG C	
0.000	HSG D	
0.405	Other	WS-1, WS-2
0.612		TOTAL AREA

#### Ground Covers (all nodes)

 HSG-A (acres)	HSG-B (acres)	HSG-C (acres)	HSG-D (acres)	Other (acres)	Total (acres)	Ground Cover	Subcatchment Numbers
 0.000	0.000	0.000	0.000	0.086	0.086		WS-2
0.207	0.000	0.000	0.000	0.000	0.207	>75% Grass cover, Good	WS-1, WS-2
0.000	0.000	0.000	0.000	0.319	0.319	Building and Pavement	WS-1
0.207	0.000	0.000	0.000	0.405	0.612	TOTAL AREA	

POST Development	
Prepared by {enter your company name here}	Printed 4/1/2024
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Line#	Node	In-Invert	Out-Invert	Length	Slope	n	Diam/Width	Height	Inside-Fill
	Number	(feet)	(feet)	(feet)	(ft/ft)		(inches)	(inches)	(inches)
1	1P	304.00	303.94	121.0	0.0005	0.010	4.0	0.0	0.0

POST Development	Type III 24-hr 2 yr	Rainfall=3.10"
Prepared by {enter your company name	here} Pr	rinted 4/1/2024
HydroCAD® 10.00-26 s/n 11267 © 2020 Hydro	CAD Software Solutions LLC	Page 6
Time span=0.00 Runoff by SCS TR Reach routing by Dyn-Stor-Ind	-48.00 hrs, dt=0.05 hrs, 961 points -20 method, UH=SCS, Weighted-CN method - Pond routing by Dyn-Stor-Ind metho	d
Subcatchment WS-1: WS-1	Runoff Area=22,702 sf 61.23% Impervious Run Tc=6.0 min CN=75 Runoff=0	noff Depth=1.03" 0.59 cfs 0.045 af
Subcatchment WS-2: WS-2	Runoff Area=3,937 sf 94.92% Impervious Rur Tc=6.0 min CN=95 Runoff=0	noff Depth=2.55" 0.25 cfs 0.019 af
Pond 1P: Bioretention	Peak Elev=304.09' Storage=706 cf Inflow=0 Outflow=0	.25 cfs 0.019 af .01 cfs 0.004 af
Link SP-1: SP-1	Inflow=0 Primary=0	0.59 cfs 0.049 af 0.59 cfs 0.049 af
Total Runoff Area = 0.612 a	c Runoff Volume = 0.064 af Average Runof 33.79% Pervious = 0.207 ac  66.21% Impervi	f Depth = 1.25" ious = 0.405 ac

#### Summary for Subcatchment WS-1: WS-1

Runoff = 0.59 cfs @ 12.10 hrs, Volume= 0.045 af, Depth= 1.03"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs Type III 24-hr 2 yr Rainfall=3.10"

	Area (sf)	) Cl	N C	)escri	iptior	ו															
*	13,900	) 9	8 E	Buildir	ng ar	nd Pa	vem	ent													
	8,802	2 3	9 >	75%	Gras	SS CO	ver,	Goo	bd, ⊢	SG	A										
	22,702	2 7	75 Weighted Average																		
	8,802	<u>'</u>	3	8.77% 1 720	% Pe % Im	erviou ponvi	s Ar	ea Aro	~												
	13,900	,	0	1.25	/0 1111	pervi	Jus		a												
Tc	Lengt	h S	lope	Velo	ocity	Ca	paci	ty	Des	cript	ion										
(min)	(fee	t)	(ft/ft)	(ft/	sec)		(cf	s)													
6.0									Dire	ct E	ntry	,									
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								Time	(hou	rs)											

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0 2

CN=95

#### Summary for Subcatchment WS-2: WS-2

Runoff = 0.25 cfs @ 12.09 hrs, Volume= 0.019 af, Depth= 2.55"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs Type III 24-hr 2 yr Rainfall=3.10"

	Area (sf)	CN	Description								
*	3,737	98									
	200 39 >75% Grass cover, Good, HSG A										
	3,937	95	Weighted A	verage							
	200		5.08% Perv	vious Area							
	3,737		94.92% Imp	pervious Ar	ea						
То	c Length	Slope	e Velocity	Capacity	Description						
(min	) (feet)	(ft/ft	) (ft/sec)	(cfs)							
6.0	)				Direct Entry	',					
	Subcatchmont WS-2: WS-2										
				Hudro							
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										Runoff	
0.2	26-1		0.25 cfs					111 <b>^</b> / 1			
0.2	24						гуре	24-			
0.2	22					2 yr	Rainfa	II=3.10	0"		
0	.2				F	Runoff	Area=	3,937	sf		
0.1	8				Run	off Vo	lume=	).019	af		
.0 <b>(g)</b>	6					Runo	ff Dent	h=2 5	5''		
≥ 0.′	4										
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4 6 8 10 12 14 16 18 20 22 24 26 28 30 32 34 36 38 40 42 44 46 48

Time (hours)

#### Summary for Pond 1P: Bioretention

Inflow Area	=	0.090 ac, 9	4.92% Impe	rvious, Inflow D	epth = 2.55'	'for2yr∉	event
Inflow	=	0.25 cfs @	12.09 hrs, 1	Volume=	0.019 af		
Outflow	=	0.01 cfs @	16.97 hrs, '	Volume=	0.004 af, A	tten= 98%,	Lag= 293.0 min
Primary	=	0.01 cfs @	16.97 hrs, '	Volume=	0.004 af		-

Routing by Dyn-Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs Peak Elev= 304.09' @ 16.97 hrs Surf.Area= 1,600 sf Storage= 706 cf

Plug-Flow detention time= 661.4 min calculated for 0.004 af (22% of inflow) Center-of-Mass det. time= 478.9 min (1,260.9 - 782.0)

Volume	Inve	ert Avai	I.Storage	Storage Descrip	Storage Description						
#1	302.9	99'	2,534 cf	Custom Stage	Data (Prismatic)	Listed below (Recalc)					
		~ ~ ^ ^			0 01						
Elevatio	n	Surf.Area	voias	Inc.Store	Cum.Store						
(fee	et)	(sq-ft)	(%)	(cubic-feet)	(cubic-feet)						
302.9	9	1,600	0.0	0	0						
303.0	0	1,600	40.0	6	6						
305.4	9	1,600	40.0	1,594	1,600						
305.5	50	1,600	100.0	16	1,616						
306.0	)1	2,000	100.0	918	2,534						
Devies	Deutine			lat Daviasa							
Device	Routing	IN	vert Out	let Devices							
#1	Primary	304	.00' <b>4.0</b> '	' Round Culvert							
			L=	121.0' CPP, proje	ecting, no headw	/all, Ke= 0.900					
			Inle	t / Outlet Invert= 3	304.00' / 303.94'	S= 0.0005 '/' Cc= 0.900					
			n=	0.010 PVC, smoo	oth interior, Flow	Area= 0.09 sf					
#2	Device 1	303	.94' <b>1.0</b> '	Vert. Orifice/Gra	ate C= 0.600						
#3	Primary	306	.00' <b>6.0</b> '	Horiz. Orifice/G	rate C= 0.600	Limited to weir flow at low heads					
Primary	OutFlow	Max=0.01	cfs @ 16	.97 hrs HW=304.	09' TW=0.00' (	Dynamic Tailwater)					

**1=Culvert** (Barrel Controls 0.01 cfs @ 0.45 fps) **2=Orifice/Grate** (Passes 0.01 cfs of 0.01 cfs potential flow)

-3=Orifice/Grate (Controls 0.00 cfs)



#### **Pond 1P: Bioretention**

#### Summary for Link SP-1: SP-1

Inflow Area	a =	0.612 ac, 6	6.21% Impe	ervious, Infle	ow Depth >	0.96"	for 2 yr event	
Inflow	=	0.59 cfs @	12.10 hrs,	Volume=	0.049	af		
Primary	=	0.59 cfs @	12.10 hrs,	Volume=	0.049 a	af, Atter	n= 0%, Lag= 0.	0 min

Primary outflow = Inflow, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs



#### Link SP-1: SP-1

POST Development	Type III 24-hr 10 yr Rainfall=4.60"
Prepared by {enter your company name h	nere} Printed 4/1/2024
HydroCAD® 10.00-26 s/n 11267 © 2020 Hydro	CAD Software Solutions LLC Page 12
Time span=0.00- Runoff by SCS TR- Reach routing by Dyn-Stor-Ind	48.00 hrs, dt=0.05 hrs, 961 points 20 method, UH=SCS, Weighted-CN method - Pond routing by Dyn-Stor-Ind method
Subcatchment WS-1: WS-1	Runoff Area=22,702 sf 61.23% Impervious Runoff Depth=2.13" Tc=6.0 min CN=75 Runoff=1.27 cfs 0.092 af
Subcatchment WS-2: WS-2	Runoff Area=3,937 sf 94.92% Impervious Runoff Depth=4.02" Tc=6.0 min CN=95 Runoff=0.38 cfs 0.030 af
Pond 1P: Bioretention	Peak Elev=304.45' Storage=933 cf Inflow=0.38 cfs 0.030 af Outflow=0.02 cfs 0.015 af
Link SP-1: SP-1	Inflow=1.27 cfs 0.108 af Primary=1.27 cfs 0.108 af
Total Runoff Area = 0.612 a	c Runoff Volume = 0.123 af Average Runoff Depth = 2.41" 33.79% Pervious = 0.207 ac 66.21% Impervious = 0.405 ac

#### Summary for Subcatchment WS-1: WS-1

Runoff = 1.27 cfs @ 12.10 hrs, Volume= 0.092 af, Depth= 2.13"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs Type III 24-hr 10 yr Rainfall=4.60"

ŀ	Area (	sf)	С	N	De	escr	iptio	n																
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	8,8	802	3	39	>7	75%	Ğra	ss c	ove	r, G	ood,	HS	G A											
	22 7	02	7	75	W	eiał	nted	Ave	rad	e	,													
	8.8	102		Ũ	38	377	% P	ervio	DUS	- Area	a													
	13,9	000			61	23	% In	nner	vioi	is Ai	ea													
	10,0				0.	.20	/0 111	ipoi	100	10 7 1	ou													
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#### Summary for Subcatchment WS-2: WS-2

Runoff = 0.38 cfs @ 12.09 hrs, Volume= 0.030 af, Depth= 4.02"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs Type III 24-hr 10 yr Rainfall=4.60"

	Area (sf)	CN	Description						
*	3.737	98	-						
	200	39	>75% Gras	s cover, Go	ood, HSG A				
	3.937	95	Weighted A	verage	,				
	200		5.08% Perv	vious Area					
	3.737		94.92% Imr	pervious Ar	ea				
	-, -		1						
-	Tc Lengtl	h Slope	e Velocity	Capacity	Descriptio	n			
(mi	in) (feet	:) (ft/ft	) (ft/sec)	(cfs)					
6	3.0				Direct Ent	ry,			
				<b>•</b> • • • • •		o 14/0 o			
				Subcatch	nment WS	-2: WS-2			
				Hydro	ograph				
	0.42		0.38 cfc						Runoff
(	0.38						Type III	24.hr	
	0.36								
(	0.34					10 yr	Rainfall=	4.60"	
	0.32					Runof	f Δroa=3 Q	137 ef	
	0.3					Nulloi		JOT 31	
	0.26				Ru	noff Vo	olume=0.0	)30 af	
(st	0.24					Runo	ff Donth=	1 02"	
2	0.22		<b>/</b>			ixuno	u Debu-	· <b>4.0</b> 2	
μ Εlο	0.2						Tc=6.	0 min	
	0.16						C	N-95	
	0.14						<u> </u>	N-35	
(	0.12								
	0.1								
(	0.08								

8 10 12 14 16 18 20 22 24 26 28 30 32 34 36 38 40 42 44 46 48 Time (hours)

#### Summary for Pond 1P: Bioretention

Inflow Area	=	0.090 ac, 9	4.92% Impervious,	Inflow Depth =	4.02" fo	or 10 yr event
Inflow	=	0.38 cfs @	12.09 hrs, Volume	e= 0.030	af	
Outflow	=	0.02 cfs @	14.65 hrs, Volume	e= 0.015	af, Atten=	= 95%, Lag= 154.0 min
Primary	=	0.02 cfs @	14.65 hrs, Volume	e= 0.015	af	

Routing by Dyn-Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs Peak Elev= 304.45' @ 14.65 hrs Surf.Area= 1,600 sf Storage= 933 cf

Plug-Flow detention time= 456.4 min calculated for 0.015 af (50% of inflow) Center-of-Mass det. time= 338.7 min (1,109.1 - 770.5)

Volume	Inve	ert Avai	I.Storage	Storage Descrip	otion	
#1	302.9	99'	2,534 cf	Custom Stage I	Data (Prismatic)	Listed below (Recalc)
Elevatio	on	Surf.Area	Voids	Inc.Store	Cum.Store	
(166	et)	(sq-tt)	(%)	(CUDIC-TEET)	(CUDIC-TEET)	
302.9	99	1,600	0.0	0	0	
303.0	00	1,600	40.0	6	6	
305.4	19	1,600	40.0	1,594	1,600	
305.5	50	1,600	100.0	 16	1,616	
306.0	01	2,000	100.0	918	2,534	
Device	Routing	In	vert Out	let Devices		
#1	Primarv	304	.00' 4.0'	' Round Culvert		
	, <b>,</b>		L= '	121.0' CPP. proje	ecting, no headw	all, Ke= 0.900
			_ Inle	t / Outlet Invert= 3	304 00' / 303 94'	S = 0.0005 '' Cc= 0.900
			n= (	0.010  PVC  smooth	oth interior Flow	Area= $0.09$ sf
#2	Device 1	303	94' <b>1 0'</b>	Vert Orifice/Gra	C = 0.600	
#3	Primary	306	.00' <b>60'</b>	Horiz Orifice/G	C = 0.600	l imited to weir flow at low heads
#0	i innai y	000	<b>U.U</b>			
Primary	OutFlow	Max=0.02	cfs @ 14.	65 hrs HW=304.4	45' TW=0.00' (	Dynamic Tailwater)

**1=Culvert** (Passes 0.02 cfs of 0.09 cfs potential flow) **2=Orifice/Grate** (Orifice Controls 0.02 cfs @ 3.22 fps)

-3=Orifice/Grate (Controls 0.00 cfs)



#### **Pond 1P: Bioretention**

#### Summary for Link SP-1: SP-1

Inflow Area	a =	0.612 ac, 6	6.21% Impervi	ious, Inflow De	pth = 2.11"	for 10 yr event
Inflow	=	1.27 cfs @	12.10 hrs, Vo	olume=	0.108 af	
Primary	=	1.27 cfs @	12.10 hrs, Vo	olume=	0.108 af, Atte	en= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs



#### Link SP-1: SP-1

POST Development	Type III 24-hr 25 yr Rainfall=5.80"
Prepared by {enter your company name	nere} Printed 4/1/2024
HydroCAD® 10.00-26 s/n 11267 © 2020 Hydro	CAD Software Solutions LLC Page 18
Time span=0.00 Runoff by SCS TR Reach routing by Dyn-Stor-Ind	48.00 hrs, dt=0.05 hrs, 961 points 20 method, UH=SCS, Weighted-CN method - Pond routing by Dyn-Stor-Ind method
Subcatchment WS-1: WS-1	Runoff Area=22,702 sf 61.23% Impervious Runoff Depth=3.11" Tc=6.0 min CN=75 Runoff=1.86 cfs 0.135 af
Subcatchment WS-2: WS-2	Runoff Area=3,937 sf 94.92% Impervious Runoff Depth=5.21" Tc=6.0 min CN=95 Runoff=0.49 cfs 0.039 af
Pond 1P: Bioretention	Peak Elev=304.85' Storage=1,190 cf Inflow=0.49 cfs 0.039 af Outflow=0.02 cfs 0.024 af
Link SP-1: SP-1	Inflow=1.88 cfs 0.159 af Primary=1.88 cfs 0.159 af
Total Runoff Area = 0.612 a	c Runoff Volume = 0.174 af Average Runoff Depth = 3.42" 33.79% Pervious = 0.207 ac 66.21% Impervious = 0.405 ac

#### Summary for Subcatchment WS-1: WS-1

Runoff = 1.86 cfs @ 12.09 hrs, Volume= 0.135 af, Depth= 3.11"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs Type III 24-hr 25 yr Rainfall=5.80"

Area (sf)	CN Description		
* 13,900	98 Building and Pavement		
8,802	39 >75% Grass cover, Goo	od, HSG A	
22,702	75 Weighted Average		
8,802	38.77% Pervious Area		
13,900	61.23% Impervious Area	а	
Tc Length	Slope Velocity Capacity [	Description	
(min) (feet)	(ft/ft) (ft/sec) (cfs)		
6.0	[	Direct Entry,	
	Subcatchn	nent WS-1: WS-1	
	Hydrogr	raph	
2-			Runoff
		Type III 24-hr	
-			
_		25 yr Rainfall=5.80"	
		Runoff Area=22 702 sf	
-			
		Runoff Volume=0.135 af	
cts)		Runoff Depth=3 11"	
≥ ≥ 1-			
<u>e</u>		1c=6.0 min	
-		CN=75	
-			
-			
-			
0 2 4	6 8 10 12 14 16 18 20 22 2 Time (	24 26 28 30 32 34 36 38 40 42 44 46 48 (hours)	

0.15<sup>-</sup> 0.1<sup>-</sup>

0.05

0

Ó

2 4

#### Summary for Subcatchment WS-2: WS-2

Runoff = 0.49 cfs @ 12.09 hrs, Volume= 0.039 af, Depth= 5.21"

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs Type III 24-hr 25 yr Rainfall=5.80"

Ar	ea (sf)	CN E	Description									
*	3,737	98	750/ 0									
	200	39 >	-75% Gras	s cover, Go	od, HSG A	1						
	3,937	95 V	Veighted A	verage								
	200	5	.08% Perv	ious Area								
	3,737	ç	4.92% Imp	pervious Are	ea							
Тс	Length	Slope	Velocity	Capacity	Descriptio	on						
(min)	(feet)	(ft/ft)	(ft/sec)	(cfs)								
6.0					Direct En	try,						
				Subaatak	mont M/S	5 D. M/	ດ່າ					
				Subcalci		<b>)-</b> 2. VV	3-2					
				Hydro	graph					1		-
-												Runoff
0.5			0.49 cfs					Tv	no	11 2/	1_hr	
0 45-								_	he			
						25	yr	Rai	nta	II=5.	.80''	
0.4	[					Run	off	Are	ea=3	3,93	7 sf	
0.35					Rı	unoff	Vo	lum	e=(	).03	9 af	
<b>Cts</b> 0.3						Ru	not	ff Do	eptl	n=5.	.21"	
<b>8</b> 0.25								-	Г <b>с</b> =	<b>6.0</b> I	min	
0.2										CN	=95	

6 8 10 12 14 16 18 20 22 24 26 28 30 32 34 36 38 40 42 44 46 48

Time (hours)

#### Summary for Pond 1P: Bioretention

Inflow Area	=	0.090 ac, 9	4.92% Impervious	s, Inflow De	epth = 5.21	" for 25 yr	event
Inflow	=	0.49 cfs @	12.09 hrs, Volun	ne=	0.039 af		
Outflow	=	0.02 cfs @	14.33 hrs, Volun	ne=	0.024 af, A	Atten= 95%,	Lag= 134.6 min
Primary	=	0.02 cfs @	14.33 hrs, Volun	ne=	0.024 af		-

Routing by Dyn-Stor-Ind method, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs Peak Elev= 304.85' @ 14.33 hrs Surf.Area= 1,600 sf Storage= 1,190 cf

Plug-Flow detention time= 487.7 min calculated for 0.024 af (62% of inflow) Center-of-Mass det. time= 385.8 min (1,150.3 - 764.5)

Volume	Invert	Avai	.Storag	<ul> <li>Storage Descrip</li> </ul>	otion	
#1	302.99'		2,534 c	f Custom Stage	Data (Prismatic)	Listed below (Recalc)
Elevatio	n Su	rf.Area	Voids	Inc.Store	Cum.Store	
(Tee	t)	(sq-tt)	(%)	(cubic-teet)	(cubic-feet)	
302.9	9	1,600	0.0	0	0	
303.0	0	1,600	40.0	6	6	
305.4	9	1,600	40.0	1,594	1,600	
305.5	0	1,600	100.0	16	1,616	
306.0	1	2,000	100.0	918	2,534	
Device	Routing	Inv	vert O	utlet Devices		
#1	Primary	304	.00' <b>4.</b> L= In n=	<b>0" Round Culvert</b> = 121.0' CPP, proj let / Outlet Invert= 3 = 0.010 PVC, smoo	ecting, no headw 304.00' / 303.94' oth interior, Flow	vall, Ke= 0.900 S= 0.0005 '/' Cc= 0.900 v Area= 0.09 sf
#2	Device 1	303	.94' <b>1.</b>	0" Vert. Orifice/Gra	ate C= 0.600	
#3	Primary	306	.00' <b>6</b> .	0" Horiz. Orifice/G	rate C= 0.600	Limited to weir flow at low heads
Primary 1=Cu 2= 3=Ori	OutFlow M lvert (Passe Orifice/Grat fice/Grate (	ax=0.02 es 0.02 c <b>e</b> (Orific Controls	cfs @ 1 fs of 0.1 e Contro s 0.00 cf	4.33 hrs HW=304. 6 cfs potential flow ols 0.02 cfs @ 4.44 s)	85' TW=0.00' ( ) fps)	Dynamic Tailwater)



#### **Pond 1P: Bioretention**

#### Summary for Link SP-1: SP-1

Inflow Area	a =	0.612 ac, 6	6.21% Impe	ervious,	Inflow Depth =	3.1	3" for 25	yr event
Inflow	=	1.88 cfs @	12.09 hrs,	Volume=	= 0.159	af		
Primary	=	1.88 cfs @	12.09 hrs,	Volume=	= 0.159	af,	Atten= 0%,	Lag= 0.0 min

Primary outflow = Inflow, Time Span= 0.00-48.00 hrs, dt= 0.05 hrs



#### Link SP-1: SP-1

APPENDIX 4

WATERSHED MAPS









# ATTACHMENT 6 UTILITY CORRESPONDENCE

### Fwd: 525429-868 Roosevelt Trail, WI - Change of Use Approval

Michael Lewis <mfc868@gmail.com>

Fri 3/15/2024 5:58 PM

To:Craig Sweet <craig@terradynconsultants.com>

#### 2 attachments (142 KB)

525429-Change of Use - Fee Submittal Form.pdf; Linedin\_3a2597ae-b197-4488-b0b0-8b9f3d581365.png;

------ Forwarded message ------From: **AMaP MEANS** <<u>means@pwd.org</u>> Date: Fri, Mar 8, 2024, 1:41 PM Subject: 525429-868 Roosevelt Trail, WI - Change of Use Approval To: <u>mfc868@gmail.com</u> <<u>mfc868@gmail.com</u>>

Hello Mr. Lewis,

Based on the information provided, the existing **1-inch domestic service** should be able to handle the water demand at the site. As part of this approval, you will need to upgrade your existing *5/8-inch meter* to a **1-inch meter**. If you experience any water supply or pressure issues, please contact Portland Water District (PWD) to increase the service size to the building.

As part of this approval, and in accordance with PWD's Cross Connection Control Program, an approved **Testable Double Check Valve Assembly backflow prevention device** must be installed on the service line directly after the meter/after the sprinkler riser prior to service activation. Please refer to the PWD website for more information on cross-connection control policies.

The next step would be for you to pay the meter upgrade and backflow testing fee of **\$128.15** (check only). You are welcome to either mail in payment for the fee(s), or drop it off in the lockbox outside our Portland office at 225 Douglass Street. The fastest way for PWD to receive your payment would be delivering it to our Portland office. If you choose to mail the fee(s) in, please mail to the following address:

Portland Water District

**ATTN: MEANS Group** 

#### PO Box 3553

#### Portland, ME 04104-3553

Please make sure to include a copy of the attached Change of Use Fee Submittal Form with your payment.

Once payment has been received and your plumber has prepared the piping for the meter (**1-inch** meter horn/resetter or approved straight pipe configuration) and a **Testable Double Check Valve Assembly backflow preventer**, you may contact Customer Service at 207-761-8310 to schedule your meter installation.

#### **PLEASE NOTE:** The following conditions apply to your project:

1. As part of this approval, the Owner has confirmed their understanding that The Portland Water District acknowledges all occupants of a multi-unit building as customers of the District. As such, all tenants of the building must be able to access the water meter. The method of access to the meter by the tenants is at the discretion of the owner of the building, provided that the tenants can freely access the meter in accordance with the Portland Water District Terms & Conditions.

Please feel free to reach out if you have any questions.

Thanks,

Bobby





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Please consider the environment before printing this email

# ATTACHMENT 7 FINANCIAL CAPACITY

## **COST ESTIMATE WORKSHEET**

\_\_\_\_

#### OWNER/APPLICANT: 868 302 LLC

#### PROJECT NAME: 868 Route 302 Mixed Use Development

	ITEM	UNIT	QUANTITY	UNIT COST	TOTAL
1	Clearing and Grubbing	Acre			\$0.00
2	Erosion/Sediment Control	Lump Sum	1	\$1,000.00	\$1,000.00
3	Site Stabilization	Lump Sum		\$2,000.00	\$0.00
4	Ledge Removal	Cubic Yard	0	\$0.00	\$0.00
5	Sanitary Sewer				
	Septic System	Lump Sum	0		\$0.00
6	Water Main				
	4" D.I. water service	Linear Foot	0	\$50.00	\$0.00
	4" Gate valve	Each	0	\$1,100.00	\$0.00
	4" x 30" service saddle	Each	0	\$2,000.00	\$0.00
7	Electric				
	Conduit/Wiring	Linear Foot	0	\$10.00	\$0.00
8	Storm Drainage				
	Pipe/Culvert	Linear Foot	70	\$30.00	\$2,100.00
	Catch Basin	Each	0		\$0.00
9	Stormwater Management				
	Roof Drain Filter Strip	Linear Foot	0		
	Rain Garden	Each	1	\$10,000.00	\$10,000.00
10	Excavate and Grade Subgrade	Cubic Yard		\$7.00	\$0.00
11	Roadways				
	Subbase Gravel	Cubic Yard	0	\$0.00	\$0.00
	Base/Finish Gravel	Cubic Yard	0	\$0.00	\$0.00
	Base Paving	Ton	0	\$0.00	\$0.00
	Finish Paving	Ton	0	\$0.00	\$0.00
	Geotextile Fabric	Ton			\$0.00
12	Sidewalks				
	Base/Finish Gravel	Cubic Yard		\$27.00	\$0.00
	Concrete	Square Yard		\$30.00	\$0.00
13	Parking Lots/Other Areas				
	Subbase Gravel	Cubic Yard	75	\$50.00	\$3,750.00
	Base/Finish Gravel	Cubic Yard	50	\$40.00	\$2,000.00
	Base Paving	Ton	96	\$100.00	\$9,600.00
	Finish Paving	Ton	48	\$100.00	\$4,800.00
15	Curbing	Linear Foot	25	\$12.00	\$300.00
17	Pavement Striping	Lump Sum	1	\$1,000.00	\$1,000.00
20	Loam and Seed	Cubic Yard	50	\$8.00	\$400.00
21	Riprap	Cubic Yard			\$0.00
22	Landscaping	Lump Sum	1	\$2,500.00	\$2,500.00
23	Street Lights	Each	0		\$0.00
24	Site Lighting	Each	4	\$600.00	\$2,400.00
25	Monuments/Iron Pipes	Lump Sum			\$0.00
26	Clean Up	Lump Sum			\$0.00
27	As Builts	Lump Sum			\$0.00
28	Signs	Each	1	\$200.00	\$200.00
29	Other				\$0.00

## **COST ESTIMATE WORKSHEET**

#### FOR OFFICE USE ONLY

EROSION CONTROL/SITE STABILIZATION BOND (IF APPLICABLE): PERFORMANCE GUARANTEE REQUIRED:

Name:

Signature: Date:

#### NOTES

1. THE OPINION OF PROBABLE CONSTRUCTION COST IS BASED UPON THE PERMITTING PLANS FOR BLUE ROCK INDUSTRIES DATED FEBRUARY 5, 2020, PREPARED BY TERRADYN CONSULTANTS, LLC. THIS ESTIMATE IS IN NO WAY, IMPLIED OR EXPRESSED OTHERWISE, A WARRANTEE THAT THE PROJECT CAN BE CONSTRUCTED FOR THE ABOVE COSTS. THIS ESTIMATE IS INTENDED TO BE USED AS A SITE WORK ALLOWANCE FOR PERFORMANCE GUARANTEE PURPOSES ONLY. IT DOES NOT INCLUDE COST ASSOCIATED WITH THE BUILDING CONSTRUCTION, ENGINEERING DESIGN FEES, LAND ACQUISITION, LEGAL FEES, PERMITING FEES, TESTING SERVICES OR CONSTRUCTION PHASE SERVICES.



Corporate Name Search

**Information Summary** 

Subscriber activity report

This record contains information from the CEC database and is accurate as of: Tue Feb 20 2024 12:20:23. Please print or save for your records.

Legal Name	Charter Number	Filing Type	Status			
868 302, LLC	20212172DC	LIMITED LIABILITY COMPANY	GOOD STANDING			
Filing Date	Expiration Date	Jurisdiction				
09/18/2020	N/A	MAINE				
Other Names		(A=Assumed ; F=Former)				
NONE						
Principal Home Office Address						
Physical		Mailing				
868 ROOSEVE	LT TRAIL	34 ARUNDEL ROAD				
WINDHAM, M	E 04062	RAYMOND, ME 04071				
Clerk/Registe	red Agent					
Physical		Mailing				
JEFFREY B HE 10 FREE STRE	RBERT ET	JEFFREY B HERBERT P.O. BOX 4510				
PORTLAND, M	IE 04101	PORTLAND, ME 04112-4510				

New Search

#### Click on a link to obtain additional information.

List of Filings

View list of filings

#### Obtain additional information:

Certificate of Existence (Good Standing) (more info)

Short Form withoutLong Form withamendmentsamendments
You will need Adobe Acrobat version 3.0 or higher in order to view PDF files. If you encounter problems, visit the <u>troubleshooting page.</u>

If you encounter technical difficulties while using these services, please contact the <u>Webmaster</u>. If you are unable to find the information you need through the resources provided on this web site, please contact the Division of Corporations, UCC & Commissions Reporting and Information Section at 207-624-7752 or <u>e-mail</u>.

© Department of the Secretary of State

inBUSINESS FREE CHECKING 4111

Reporting Institution: 0





February 14, 2024

Re: 868 Roosevelt Trail, Windham, ME

To Whom It May Concern;

This letter is to verify for you that Andrew Hager and Hannah Buoye approached Norway Savings Bank to discuss the potential project/buildout for their future Bakery to be located at 868 Roosevelt Trail, property owned by Michael Lewis.

I have reviewed the project with Andrew and Hannah along with their finances and have committed to finance the project which includes the build-out for the new bakery. I consider Andrew and Hannah financially capable to complete this project.

I hope this letter meets your needs and expectations at this stage, but should you require any additional information please don't hesitate to call me at 207-222-1519.

Sincerely,

Brian Desjardins Regional Vice President, Commercial Lending Norway Savings Bank, Windham, ME

# ATTACHMENT 8 TRAFFIC ASSESSMENT



# **Traffic Assessment Memo** Bakery and Warehouse Storage 868 Route 302 Windham, Maine

The following Traffic Assessment Memo was prepared for 868 302, LLC to determine the impact on traffic operation and safety from a proposed redevelopment project located at 868 Route 302 in Windham. The applicant is proposing to redevelop a portion of an existing building into a new Wholesale bakery with retail/dining service (Waxwing Bakery) and warehouse storage. The bakery will utilize existing floor space occupied by the previous retail use and operate mainly as a wholesale kitchen for local clients with limited retail, sit-down dining and take-away. The basement will be utilized as warehouse storage for a small flooring business, and a small marijuana facility will operate in the back of the building. An existing restaurant, Yolked Farm to Table, currently occupies the other half of the building and will remain. Site improvements such as additional parking infrastructure, entrance improvements, a deck on the north side of the building, additional landscaping, and pedestrian upgrades are proposed as part of the site plan.

An updated traffic assessment has been requested by the Town of Windham based on the change of use. Per Town Ordinance Performance Standards and Approval Criteria 120-812.B the surrounding roadway infrastructure should have adequate capacity to handle addition traffic generated by the development, and access to and from the site should be safe and convenient. Per the ordinance and at the request of the Town of Windham staff, this Traffic Assessment memo has been prepared by Terradyn Consultants to address traffic congestion and safety concerns related to the development.

# **Existing Site Conditions**

The 1.52-acre site is located at 868 Route 302 Windham, Maine and includes a roughly 4,600 square foot building previously occupied by a furniture/mattress/carpet store with parking and site amenities. A portion of the building is currently occupied by the Yolked Farm to Table Restaurant, with light manufacturing in the basement, which opened within the last year with the other half of the building unoccupied.

There are two existing curb cuts that access the site on the west side of Route 302. The north entrance is 40' wide and provides direct access to the site. The south entrance is also 40' wide and provides access to the abutting property with a shared parking area and driving lane. There is also an unpaved back entrance to the property on the south side that connects to Trails End Road, which connects into Route 302 via a stopped controlled intersection. The posted speed limit is 30 mph, which requires a sight distance of 250' based MaineDOT's Highway Driveway and Entrance Rules<sup>1</sup>. There is ample site distance along Route 302 in each direction based on MaineDOT criteria and field observations.

**Portland** 565 Congress Street, Suite 201 Portland, ME 04101

Auburn 95 Main Street, 2<sup>nd</sup> Floor Auburn, ME 04210

<sup>&</sup>lt;sup>1</sup> https://www.maine.gov/mdot/traffic/docs/accessmgmt/229c299dec2013.pdf

Route 302 is an important commuter and vacation corridor that provides direct access to Portland and points south from Western Maine and the lakes region to the north including communities surrounding Sebago Lake, Norway, Bridgton, and others. The road itself is a 5-lane principal arterial with two lanes in each direction and a middle dual turn lane to access businesses, commercial properties, shopping malls and residential streets on either side of the corridor. On the east side of the road, abutting the property, there is a 4-ft shoulder, curb with no sidewalk, and a grass esplanade separating the road from the parking area. Across the street from the property, there is a 4-ft shoulder with curb and a sidewalk. The two closest signalized intersections to the property include the intersection of Route 302, Whites Bridge Road, and Anglers Road, located 1500' to the north and the intersection of Route 302 and Franklin Drive, located 1700' to the south.

A Site Location map is provided in Attachment 1.

# **Existing Traffic Conditions**

According to MaineDOT's Public Mapviewer<sup>2</sup>, The Annual Average Daily Traffic (AADT) for Route 302 in the vicinity of the site is 23,820 with a total hourly capacity of 3,800 vehicles per hour. Hourly Traffic Data is available on MaineDOT's Interactive Traffic Data Map<sup>3</sup> for certain road segments for full or partial days based on permanent count stations and short-term duration counts. Below is a graph of the latest 24-hour hourly traffic volume data available, from Thursday, September 22<sup>nd</sup>, 2022, between Whites Bridge Road and Trails End Road:



The data shows clear directional morning and afternoon peaks, with peak morning commuter traffic heading south towards Portland between 7 am and 8 am and afternoon peak commuter traffic heading north away from Portland between 4 pm and 5 pm. There is also a slight peak midday for northbound traffic. The table below illustrates the peak periods and corresponding traffic volumes and volume to capacity (V/C) ratio which is used to help determine how well the roadway is operating based on the capacity of the road:

<sup>&</sup>lt;sup>2</sup> https://www.maine.gov/mdot/mapviewer/

<sup>&</sup>lt;sup>3</sup> https://mainedottrafficdata.drakewell.com/publicmultinodemap.asp

Time Period	Time	NB Vol.	NB Capacity	NB V/C Ratio	SB Vol.	SB Capacity	SB V/C Ratio	Total Vol.	Total Capacity	Total V/C Ratio
AM Peak	7:00 AM – 8:00 AM	522		0.27	1040		0.55	1562		0.41
Mid-Day Peak	12:00 PM - 1:00 PM	966	1900	0.51	834	1900	0.44	1830	3800	0.48
PM Peak	4:00 PM – 5:00 PM	1370		0.72	842		0.44	2212		0.58

Overall, there is a steady increase in traffic throughout the day from morning to afternoon with peaks for morning and afternoon commutes and lunch time. The highest V/C ratio occurs northbound during the PM Peak Hour, and lowest V/C ratio occurs northbound during the AM Peak Hour. This data is important when considering the proposed development's hours of operations and generated trips effect on the network.

In January 2022, the Town of Windham approved the final report of a Transportation Planning and Feasibility Study, "North Windham Moves: Regional Mobility, Local Access", which analyzed safety, mobility and accessibility along Route 302 between White Bridge Road and River Road. The overall conclusion of the study was that traffic and safety operations have declined and will continue to decline in the future as the area continues to grow and develop. The proposed project is located at the north end of the study area. It is important that the project aligns with the Town's future goals and does not negatively impact traffic operations and safety. However, the study found that most of the negative impacts to traffic and safety operations occur south of the Route 302 and Franklin Drive intersection, which is south of the proposed project. Further investigation of capacity and safety will be addressed in later sections of this report.

### **Proposed Site Conditions**

Waxwing Bakery will occupy 1,324 square feet within the existing building footprint as a wholesale bakery with limited retail, dine-in and take-away service. The Waxwing retail/dining portion will operate Wednesday through Sunday from 7:00 am to 2:00 pm. Perishable Ingredients for the wholesale and restaurant operations will be picked up at local farms by an employee in the morning 3 times a week and nonperishable goods will be delivered to the bakery once every three 3 weeks. Deliveries to wholesale customers will be made two times per week using a small van.

The existing 60-seat Yolked Farm to Table Restaurant will remain and continue to operate from noon to 8:00 pm Tuesday through Thursday and noon to 9:00 pm Friday and Saturday.

Warehouse storage in the basement along with a marijuana manufacturing operation in an attached building in the back is also proposed as part of the site plan.

Site improvements as part of the proposed plan to meet MaineDOT and Town requirements include:

1. Site parking along MaineDOT's right of way will be relocated and additional parking will be provided to accommodate the new uses on the site.

2. The existing site entrance will continue to be used and reduced to 24' wide to improve safety conditions and meet MaineDOT entrance requirements. The site frontage along MaineDOT Right of way will be re-vegetated to create a landscaped buffer.

## **Traffic Movement Permit**

Based on rules set forth by MaineDOT's Traffic Engineering Division, a Traffic Movement Permit (TMP) is required if a development produces 100 or more total trips in the AM, PM or Saturday Peak Hour. This is to ensure that any new development does not result in unacceptable traffic operations, access, and safety for all modes of transportation. This assessment was developed following TMP methodology to determine if the 100-trip threshold is met. This includes incorporating Grandfathered Trips, which are previously permitted or unpermitted trips that have been generated by the development for more than 10 years, into the assessment. This means two things:

- 1. Trip credits will be given to the previous use that has occurred over the past 10 years.
- 2. Any use built within the last 10 years is not grandfathered in and needs to be included in the trip generation calculations.

In the case of this project, the Yolked Farm restaurant was built within the 10-year window and is included in the trip generation calculations to determine if the combination of uses triggers the 100-trip threshold. This also means that the previous use, a furniture/mattress/carpet store will provide trip credits to the overall trip generation.

### **Trip Generation**

Traffic generated by a development is typically estimated using the Institute of Transportation Engineers (ITE) Trip Generation Manual, which takes peer gathered data to estimate vehicle trips based on the type and size of the development.

The restaurant/retail portion of Waxwing falls under Land Use Code (LUC) 936 - Coffee/Donut Shop without Drive-Through Window. The wholesale portion of Waxwing falls under LUC 860, Wholesale Market. Based on discussions with the client and information from their business plan, the bakery will operate on a 60% wholesale, 40% restaurant/retail model with a larger kitchen area to handle the wholesale orders. Therefore, the available 1324 square foot area can be reasonably split 60/40 to reflect the different proposed uses. This leaves 530 square feet for LUC 936 and 800 square feet for LUC 860. A copy of the business plan is provided in Attachment 2.

Yolked Farm to Table Restaurant falls under LUC 931: Fine Dining Restaurant, based on the establishment's status as a stand-alone, farm-to-table restaurant and hours of operation.

The previous furniture/mattress/carpet store falls under LUC 890 – Furniture Store and is estimated to be roughly 4,000 square feet based on measurements of the outer building in Google Earth. Trips produced but the furniture store will be credited to reduce the overall trip generation.

Trips for the small marijuana manufacturing facility in the back and the basement storage for light commercial usage are negligible and not considered in the Trip Generation calculations.

Below are the estimates for Weekday AM Peak and PM Peak as well as Saturday Peak Hour (typically mid-day).

Independent		Quantity	AM Peak Hour			ur	PM Peak Hour			Saturday Peak Hour				
	Variable (IV)	Quantity	In	Out	Total	Rate	In	Out	Total	Rate	In	Out	Total	Rate
936*	Per 1000 Sq. Ft. GFA	530 Sq. Ft.	26	25	51	96.4	0	0	0	33	15	15	30	56.5
860**	Per 1000 Sq. Ft. GFA	800 Sq. Ft.	0	0	0	0.55	1	0	1	1.76		NO	DATA	
931**	Per Seat	59 Seats	0	0	0	0.15	10	7	17	0.29	12	8	20	0.33
890	Per 1000 Sq. Ft. GFA	4,000 Sq. Ft.	-1	-1	-2	0.52	-1	-2	-3	0.7	-2	-2	-4	1.1
	Total		25	24	49	-	10	5	15	-	25	21	46	-

\*No operating hours during the PM Peak.

\*\*No operating hours during the AM Peak.

Trip Generation graphs are provided in Attachment 3.

For LUC 936, there are 51 trips in the AM Peak Hour with 26 entering and 25 exiting and a total of 30 trips in the Saturday Peak Hour with 15 entering and 15 exiting. There are no PM Peak Hour trips because Waxwing's hours of operation fall between 7:00 am and 2:00 pm, and the PM peak hour starts at 4:00 pm on this stretch of Route 302. This will prevent additional trips being added to the network during what is generally the heaviest volume of the day.

For LUC 860, there is only 1 trip entering in the PM Peak Hour. Typically, wholesale markets are large storage and distribution centers with greater than 100,000 square feet based on data available through ITE. Since the wholesale market portion of the bakery is only 800 square feet serving local businesses, trip data may not accurately reflect this situation. Based on operations details provided by the client, the number of trips predicted by ITE is appropriate for the wholesale portion of the Bakery.

For LUC 931, there are 17 trips in the PM Peak Hour with 10 entering and 7 exiting and a total of 20 trips in the Saturday Peak Hour with 12 entering and 8 exiting. There are no AM Peak Hour trips based on Yolked Farms hours of operation.

For LUC 890, there is a net reduction in total trips of 2, 3 and 4 in the AM, PM, and Saturday Peak Hour, respectively.

Overall, there are anticipated 49 total trips in the AM Peak Hour, 15 total trips in the PM Peak Hour, and 46 total trips in the Saturday Peak Hour. These trips do not meet MaineDOT thresholds, and therefore do not require a TMP permit.

#### Note on Pass-By Trips:

Pass-by trips are trips within a network that stop at commercial or retail developments along the intended route and then continue to their original destination. These are not new trips as defined

by the ITE Trip Generation Manual but rather existing trips already on the road. This results in a net reduction of through trips that would normally pass by a development but instead stop to access retail or commercial amenities. In the ITE Trip Generation Manual, Pass-by trip percentage is calculated for certain uses, including but not limited to fast food restaurants, coffee shops, gas stations, shopping malls and others. In the case of Waxwing Bakery, which falls under LUC 936, there is no pass-by data for this use as pass-by trips typically apply to coffee shops or other restaurants with a drive-through. While there is no drive-thru proposed for this establishment, it is reasonable to assume that there would be pass-by trip potential, especially as more commuters become familiar with the new bakery. In this traffic assessment, it is assumed that no pass-by trips occur, which is the more conservative approach. However, it's important to understand that there is potential for pass-by trips, which would reduce the through volume on Route 302, improving traffic conditions along the main road.

### **Traffic Operations**

The effect of trips generated by the proposed development and added to Route 302 is important when assessing traffic operations of the roadway. The AM, PM and Saturday Peak hour trips were compared to the existing volumes and volume to capacity ratios to determine if the roadway can handle the additional volume.

#### AM Peak Hour

The AM peak hour produces the most trips with all the trip generation coming from Waxwing Bakery since the Yolked Farm to Table Restaurant is not open during the morning peak hour. This is also when Route 302 has the least amount of traffic with a volume of 1562 vehicles, 522 traveling northbound and 1040 traveling southbound. The 49 trips added in the AM peak hour is considered a minor increase, but with two through lanes in each direction and an overall V/C ratio of 0.41, 0.27 northbound and 0.55 southbound, there is plenty of capacity to absorb the traffic. The additional trips will not negatively impact traffic operations along Route 302.

#### PM Peak Hour

The PM peak hour produces the least number of trips with nearly all the trip generation coming from the Yolked Farm to Table restaurant since Waxwing Bakery is not open during the afternoon peak hour. The Wholesale portion of the bakery only produces one trip in the PM peak hour, which is supported by the delivery operation plan provided by the client, and thus will have little impact. The PM peak hour produces the most traffic along Route 302 with a total volume of 2212 vehicles, 1370 vehicles traveling northbound and 842 vehicles traveling southbound. While the volume to capacity ratio is higher than the AM peak at 0.58, 0.72 northbound and 0.44 southbound, there are only 15 total trips produced in the PM peak hour which will not negatively impact traffic operations along Route 302.

#### Saturday Peak Hour

The Saturday peak hour produces a similar number of trips as the AM Peak Hour with overlap from Waxwing Bakery and the Yolk Farm to Table Restaurant in the midday peak hour. While there is no data available for the Saturday peak hour, it is reasonable to assume that the Saturday volumes are generally less than the commuter hour volumes during the week. This assumption is also supported by the recently completed "North Windham Moves: Regional Mobility, Local Access" transportation study, which only looked at AM and PM peak hour volumes. Overall, the 46 total trips are not expected to negatively impact traffic operations along Route 302.

# Safety

Crash history, including High Crash Locations (HCL), was reviewed along Route 302 in the vicinity of the development between Outlet Brook and Trails End Road. The Maine Department of Transportation defines an HCL as a location that has had 8 or more crashes and a Critical Rate Factor (CRF) greater than 1 in a 3-year period. The CRF is a statistical measurement that compares crash rates to similar locations in the state of Maine. After review of crash data accessed via the MaineDOT Public Map Viewer<sup>4</sup>, there are no existing HCL's in the vicinity of the development. There was a total of 10 recorded crashes in the last 10 years in the vicinity of the driveway:

- 7 Rear-End Sideswipe crashes:
  - o 6 resulted in Property Damage only, 1 resulted in a Possible Injury.
  - 2 occurred in 2014 (including the possible injury crash), 1 occurred in 2015, 3 occurred in 2017 and 1 occurred in 2019.
- 2 Went Off the Road crashes:
  - Both resulted in Property Damage only.
  - 1 occurred in 2014 and the other occurred in 2019.
- 1 Intersection Movement crash:
  - The crash resulted in a suspected minor injury and occurred in 2014.

The last crash in the proximity of the development occurred in 2019 and none of the crashes occurred directly at the driveway. The possible injury crash and the suspected minor injury crash occurred just north of the driveway. A map of the crashes close to the project site can be found in Attachment 4.

While vehicles turning left in and out of the development will have a harder time due to crossing multiple lanes of traffic, there is a middle dual turn lane to help vehicles enter/exit the development and gaps created by the signalized intersections will help create openings.

Based on a review of available crash data, there are no safety concerns related to the development. Vehicles that enter and exit the site will see improved safety conditions with a reduced driveway curb cut and significant sight distance in both directions.

### Conclusion

Based on the review of available traffic and crash data, and the overall site improvements such as reducing curb cut width and redesigned parking, the following can be concluded from the proposed project:

- 1. Trips generated in the AM, PM and Saturday Peak hour do not trigger a MaineDOT TMP permit application. Trips generated by the marijuana facility, storage for light commercial use in the basement and Waxwings wholesale operation produce a negligible number of trips.
- 2. Less than 50 total trips are generated in the AM PM and Saturday peak hour with the most trips generated during the AM, when traffic along Route 302 is the lowest, and the least trips generated during the PM, when traffic along Route 302 is the highest.

<sup>&</sup>lt;sup>4</sup> https://www.maine.gov/mdot/mapviewer/

- 3. There is enough available capacity along Route 302 to handle the additional trips generated by the development.
- 4. There are no current HCL's, or accidents recorded in the last 5-years along Route 302 at or near the development driveway.
- 5. Vehicles that need to enter or exit of the development have plenty of sight distance and a middle duel turn lane to help facilitate left hand turns. The signalized intersection north and south of the development will also help meter traffic to create gaps for vehicles to safely enter or exit the development.
- 6. Curb cut width reduction and parking improvements will improve flow and safety conditions at the development driveway.

Overall, there are no anticipated negative traffic operation and safety impacts along Route 302 due to the addition of Waxwing Bakery and existing Yoked Farm Restaurant.

#### Prepared by: TERRADYN CONSULTANTS LLC

Matthew Pelletier, P.E. Design Engineer

#### **Attachments**

- 1 Project Site Figure
- 2 Waxwing Bakery Business Plan
- 3 ITE Trip Generation Graphs
- 4 10-Year Crash Figure



# Attachment 1

Project Site Figure



PROJECT: 868 ROUTE 302, LLC. MIXED USE WINDHAM MAINE

PREPARED FOR: 868 302, LLC. 1020 RIVER ROAD WINDHAM, MAINE 04062



ADDRESS: 41 CAMPUS DRIVE, SUITE 301 NEW GLOUCESTER, ME 04260 PHONE: (207) 926-5111 WEB SITE: www.terradynconsultants.com Civil Engineering | Land Surveying | Geomatics Stormwater Design | Land Planning | Environmental Permitting

	and the second second
PROJECT NO.	SHEET
22-155	1
DATE	•
2/20/2024	OF
SCALE	1
1" = 500'	•
2/20/2024 SCALE 1" = 500'	of 1

# Attachment 2

Waxwing Bakery Business Plan

Waxwing Bakery Executive Summary January 17, 2024



## Prepared by Hannah Buoye & Billy Hager

#### 1. Executive Summary

Waxwing Bakery is a wholesale bakery with limited retail on premises. The production of the bakery will focus on artisan breads, laminated pastries, sandwiches and salads sold to local businesses in the Windham, Sebago and Greater Portland area. Limited dine-in and take-away services will be offered for onsite retail. We will stand out from other bakeries in the Windham area by producing all of our products in house with quality, local ingredients. With over 15 years of food service experience apiece, Hannah Buoye and Billy Hager have run kitchens and bakeries in the San Francisco Bay Area and locally in Portland, Maine. We bring management expertise from fine dining to fast casual concepts and our personal desire to open a business that will serve locally sourced, sustainable and nourishing food.

#### Waxwing Values & Goals

- a. The bakery will focus on sustainability and conscientious business practices in our day to day operations and in relation to our environment.
- b. We are locally minded in building a community around our bakery and locally focused in supporting vendors, farmers and other businesses in our immediate area
- c. We aim to create a positive work environment that provides health care, competitive wages, employee incentives, internship programs and job training for those interested in working in the food service industry.

#### A. Company Overview

#### 1. Bakery concept

Waxwing Bakery, located at 868 Roosevelt Trail, Windham ME, is a wholesale bakery focused on breads and laminated pastries (such as croissants and danishes) with a limited breakfast and lunch menu consisting of sandwiches and salads. Wholesale bread and pastry orders will be delivered to local businesses and institutions such as nearby restaurants and universities. Waxwing will also offer seasonal accounts supplying local farm stands and markets.

The in-house menu will focus on breakfast and lunch with limited dine in and take out options. Offering food both as "grab and go" or "made to order" with a check average of \$10-\$20. Beverage offerings will include locally roasted coffee, thoughtfully sourced teas and a small selection of soft drinks and juices.

The hours of operations will span early morning to early afternoon, five days a week with wholesale deliveries occurring on a weekly or daily basis.

Whether you are a restaurant looking to source burger buns, a cafe in need of croissants or an individual stopping in to grab a coffee and breakfast sandwich on your way to work, Waxwing's goal is to meet all these needs with healthy, fresh, and quality-focused bread and pastries.

Waxwing Bakery intends to utilize the high quality products Maine and New England have to offer. In doing so, the bakery will expand local access and knowledge of the wealth and abundance around us and provide support for other locally owned businesses such as Bumbleroot Organic Farm in Windham and Maine-based flour millers, Maine Grains.

#### 2. Service Model

While the majority of Waxwing Bakery's business (~60%) will come from wholesale accounts, the production facility will provide quick service retail with online-ordering, take out and limited indoor seating options.

#### 3. Sample Menu

Bread

Country Loaf \$8 Anadama/Seeded/Cran Walnut \$9-10 Milkbread sandwich loaf \$12 / Burger Buns \$4 ea Baguette \$5 Challah \$10

**Breakfast Pastries** 

Traditional Croissant \$4 Twice Baked Croissant \$5 Seasonal Savory Croissant \$5-6 Seasonal Sweet Croissant \$5-6 Sausage Roll \$7 Scone \$4-\$5 Muffin \$4 Quick Bread \$3 slice/ \$20 whole Blueberry Buckle \$6 for a slice / \$48 for a ¼ sheet

Breakfast Sandwich \$5-\$8

Baked Goods

Brownies \$ 3

Cookies \$2-4

Seasonal Layer Cake slice \$6-8 / whole \$36-\$50

Sandwiches

Made to Order:

Jersey Italian \$15

Veggie \$12

Hot Sandwich \$14-16

Porchetta /Corned Beef/ Turkey

Grab and Go \$10:

Ham & Cheese/ Tuna Salad/ Muffaletta

Salads \$14-\$16 Grain Based salad Seasonal Greens

**Beverages** 

Coffee- drip & espresso drinks Tea- green/black/herbal Juices & sodas

#### 5. Management Team & Legal Structure

Waxwing Bakery will be owned and operated by Ditch Brook Inc., an S corp whose sole proprietors and shareholders are Hannah Buoye and Billy Hager.

Billy and Hannah have over 25 years of food service experience between them from selling scones at a farmer's market and delivering smoked brisket to catering events, to respectively managing one of Portland, Maine's busiest bakeries – Tandem Coffee and Bakery– and newest upscale seafood dining options – Helm Oyster Bar and Bistro. Both are versed in restaurant and bakery operations from financial analysis and personnel management, to menu development and execution. Their skills extend beyond their abilities to cook and bake to creating Profit and Loss statements, hiring and training personnel, and executing a variety of menu formats, food styles and products.

Hannah Buoye has experience in both restaurants and bakeries, most recently as the kitchen manager at Tandem Coffee and Bakery in Portland, ME. She has been a baker and pastry cook, a pastry chef managing multiple restaurant locations in the San Francisco Bay Area, and a consultant to locations overseas in Japan. After moving to Maine four years ago, she stepped into the role as Kitchen Manager at Tandem, increasing the efficiency and volume of daily bakery operations, managing financial costs and assisting in developing and executing the bakery's nationally recognized and locally prized menu.

Billy Hager has been working in restaurants for over 15 years, most recently as the Executive Chef and Managing Partner of Homestead in Oakland, CA and the Executive Chef and Manager at Helm Oyster Bar and Bistro in Portland, Maine. Billy knew from an early age that cooking was his career of choice and graduated from the California Culinary Academy in 2008. With over 11 years of management experience in both small, locally-owned restaurants and large San Francisco Seafood establishments, Billy has done everything from washing dishes to being a managing partner. After moving to Maine, Billy has found himself running the daily operations in addition to developing and executing the menu at Helm Oyster Bar and Bistro. He has worked hard to develop relationships with local produce vendors and sustainably focused seafood farmers to offer guests a unique array of Maine's marine bounty. He is responsible for financials, Human Resources, private events and running the kitchen.

# Attachment 3

ITE Trip Generation Graphs

Wholesa (8	ale Market 60)
Vehicle Trip Ends vs: On a:	1000 Sq. Ft. GFA Weekday, Peak Hour of Adjacent Street Traffic, One Hour Between 7 and 9 a.m.
Setting/Location:	General Urban/Suburban
Number of Studies:	1
Avg. 1000 Sq. Ft. GFA:	115
Directional Distribution:	67% entering, 33% exiting

#### Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
0.55	0.55 - 0.55	*

#### **Data Plot and Equation**

Caution – Small Sample Size



Trip Gen Manual, 11th Edition

Wholesale Market (860)					
Vehicle Trip Ends vs: On a:	1000 Sq. Ft. GFA Weekday, Peak Hour of Adjacent Street Traffic, One Hour Between 4 and 6 p.m.				
Setting/Location:	General Urban/Suburban				
Number of Studies: Avg. 1000 Sq. Ft. GFA: Directional Distribution:	2 115 53% entering, 47% exiting				

#### Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
1.76	1.73 - 1.78	*

#### **Data Plot and Equation**

Caution – Small Sample Size



Trip Gen Manual, 11th Edition

(931)						
	Vehicle Trip Ends vs: On a:	Seats Saturday, Pea	ak Hour of Generator			
	<b>Setting/Location:</b> Number of Studies: Avg. Num. of Seats: Directional Distribution:	<b>General Urba</b> 7 325 59% entering,	n/Suburban 41% exiting			
Vehicle Trip Gener	ation per Seat					
Average Rate	Range of	f Rates	Standard Deviation			
0.33	0.16 - (	0.50	0.11			



Trip Gen Manual, 11th Edition

Furnitu (8	<b>Ire Store</b> 90)
Vehicle Trip Ends vs: On a:	1000 Sq. Ft. GFA Weekday, AM Peak Hour of Generator
Setting/Location:	General Urban/Suburban
Number of Studies:	26
Avg. 1000 Sq. Ft. GFA:	43
Directional Distribution:	62% entering, 38% exiting

Average Rate	Range of Rates	Standard Deviation
0.52	0.10 - 1.24	0.29



Trip Gen Manual, 11th Edition

Furniture Store (890)					
Vehicle Trip Ends vs: On a:	1000 Sq. Ft. GFA Weekday, PM Peak Hour of Generator				
Setting/Location:	General Urban/Suburban				
Number of Studies:	26				
Avg. 1000 Sq. Ft. GFA:	45				
Directional Distribution:	51% entering, 49% exiting				

Average Rate	Range of Rates	Standard Deviation
0.70	0.11 - 1.78	0.37



Trip Gen Manual, 11th Edition

Furniture Store (890)		
Vehicle Trip Ends vs: 1000 Sq. Ft. GFA On a: Saturday, Peak Hour of Generator		
Setting/Location:	General Urban/Suburban	
Number of Studies:	16	
Avg. 1000 Sq. Ft. GFA:	66	
Directional Distribution:	54% entering, 46% exiting	
Vehicle Trip Generation per 1000 Sq. Ft	. GFA	

Average Rate	Range of Rates	Standard Deviation
1.10	0.36 - 2.79	0.50



Trip Gen Manual, 11th Edition

Fine Dining Restaurant (931)		
Vehicle Trip Ends vs: Seats On a: Weekday, AM Peak Hour of Generator		
Setting/Location: General Urban/Suburban Number of Studies: 9 Avg. Num. of Seats: 278 Directional Distribution: 69% entering 31% exiting		

Average Rate	Range of Rates	Standard Deviation
0.15	0.04 - 0.34	0.10



Trip Gen Manual, 11th Edition

Fine Dining Restaurant (931)		
Vehicle Trip Ends vs: Seats On a: Weekday, PM Peak Hour of Generator		
Setting/Location:	General Urban/Suburban	
Number of Studies:	10	
Avg. Num. of Seats:	272	
Directional Distribution:	59% entering, 41% exiting	
Vehicle Trip Generation per Seat		

Average Rate	Range of Rates	Standard Deviation
0.29	0.18 - 0.44	0.09



Trip Gen Manual, 11th Edition

# Coffee/Donut Shop without Drive-Through Window (936)

Vehicle Trip Ends vs: On a:	1000 Sq. Ft. GFA Weekday, AM Peak Hour of Generator
Setting/Location:	General Urban/Suburban
Number of Studies:	23
Avg. 1000 Sq. Ft. GFA:	2
Directional Distribution:	51% entering, 49% exiting

#### Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
96.43	50.00 - 255.48	42.32

#### **Data Plot and Equation**



Trip Gen Manual, 11th Edition

# Coffee/Donut Shop without Drive-Through Window (936)

Vehicle Trip Ends vs: On a:	1000 Sq. Ft. GFA Weekday, PM Peak Hour of Generator
Setting/Location:	General Urban/Suburban
Number of Studies:	15
Avg. 1000 Sq. Ft. GFA:	2
Directional Distribution:	50% entering, 50% exiting
Vahiela Trip Constation per 1000 Sa Et	GEA

#### Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
32.99	15.50 - 74.84	13.20

#### **Data Plot and Equation**



Trip Gen Manual, 11th Edition

# Coffee/Donut Shop without Drive-Through Window (936)

Vehicle Trip Ends vs: 1000 Sq. Ft. GFA On a: Saturday, Peak Hour of Generator

Setting/Location:	General Urban/Suburban
Number of Studies:	7
Avg. 1000 Sq. Ft. GFA:	2
Directional Distribution:	49% entering, 51% exiting

#### Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
56.50	33.93 - 117.42	26.55

#### **Data Plot and Equation**



Trip Gen Manual, 11th Edition

# Attachment 4

10-Year Crash Figure

# **10 YEAR CRASH HISTORY**



The Maine Department of Transportation provides this publication for information only. Reliance upon this information is at user risk. It is subject to revision and may be incomplete depending upon changing conditions. The Department assumes no liability if injuries or damages result from this information. This map is not intended to support emergency dispatch.

**0.03 Miles** 1 inch = 0.03 miles

Date: 2/5/2024 Time: 9:34:16 AM

# ATTACHMENT 9 WETLAND & STREAM DELINEATION



January 24, 2024

Mr. Craig Sweet, P.E. Terradyn Consultants, LLC 41 Campus Drive, Suite 101 New Gloucester, ME 04260

Re: Natural Resources Survey – 868 Roosevelt Trail, Windham, Maine.

Mr. Sweet,

The following is the summary of a wetland delineation performed on January 5<sup>th</sup>, 2024 on an approximately 1.5-acre parcel at address 868 Roosevelt Trail (ME-302) in Windham, Maine. The parcel is identified as Lot 50-E on Windham Tax Map 71. It is currently partially developed, with several buildings and an expansive parking area. Basswood Environmental LLC (Basswood) surveyed the site to determine the boundary of protected natural resources present. Erik Lema, owner and principal scientist at Basswood Environmental, Inc. (Basswood) conducted the survey in support of the proposed project. This included a wetland and stream verification and off-season vernal pool survey. Spatial data collected by Basswood has been submitted to Terradyn for inclusion onto site plans.

#### Methods

The standard three-parameter approach was used for verifying and delineating jurisdictional wetlands, as detailed in the U.S. Army Corps of Engineers' *Regional Supplement to the Corps of Engineers Wetland delineation Manual: Northcentral and Northeast Region*  $(V2.0)^1$ . This approach uses a combination of wetland vegetation, soils and hydrology to determine the boundary of a wetland that is under the regulatory jurisdiction of the U.S. Army Corps of Engineers (ACOE), the Maine Department of Environmental Protection (DEP), and possibly the municipality under local ordinances. In addition, the survey area was also examined for the presence of jurisdictional streams and other protected natural resources, such as vernal pools, that may affect the proposed project.

#### **Site Description**

The site is in an urbanized area along Roosevelt Trail (Maine Route 302), a major thoroughfare between Windham and the City of Portland. It has most recently been the location of a commercial market. The site is paved along the road frontage, and extends into a gravel lot in the rear and south of the buildings. A steep slope at the rear of the site extends around the north side to the road, and appears to have been filled in the past to expand the buildable area of the site. An obvious wetland area is at the toe of the slope, and extends indefinitely north and east off-site.

<sup>&</sup>lt;sup>1</sup> U.S. Army Corps of Engineers. 2011. Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Northcentral and Northeast Region (Version 2.0), ed. J. S. Wakeley, R. W. Lichvar, C. V. Noble, and J. F. Berkowitz.ERDC/EL TR-12-1. Vicksburg, MS: U.S. Army Engineer Research and Development Center.



#### Results

A single, large wetland area was located during the survey. This wetland is forested, dominated by an overstory of red maple (*Acer rubrum*), with an understory ranging from sparse highbush blueberry (*Vaccinium corymbosum*), to saturated areas dominated by fringed sedge (*Carex crinita*), bluejoint (*Calamagrostis canadensis*), and cinnamon fern (*Osmundastrum cinnamomeum*). The wetland is also infested by many invasive species, such as multiflora rose (*Rosa multiflora*), Morrow's honeysuckle (*Lonicera morrowii*), and Asian bittersweet (*Celastrus orbiculatus*) along the margins. Disturbance is evident at the toe of the slope from the existing parking area, as well as from Roosevelt Trail and the adjacent property to the north.

A culvert under Roosevelt Trail provides significant hydrology to the wetland. The single stream that was identified on site originates at this culvert and quickly dissipates within the wetland. An area of standing water north of the existing development appears to have been artificially impounded by an earthen berm. The outlet of this open water is located on the property to the north of the subject parcel and was not delineated during the survey.

The presence of potential vernal pools was evaluated. The standing water portion of the wetland adjacent to the road, receiving flow from the stream/culvert, is of sufficient depth to be considered potential vernal pool habitat.

#### **Regulatory Considerations**

Several factors influence the regulatory requirements of a potential project on this site. Under Chapter 310 of the Maine Natural Resources Protection Act (NRPA)<sup>2</sup>, the stream on site is subject to a 75-foot setback to disturbance. This setback can be reduced to as little as 25-feet with a simple Permit-by-Rule (PBR) type NRPA permit. Encroachment within this 25-foot setback typically requires an Individual Permit, which can be significantly more involved and require compensation fees and additional surveys. A Tier-waiver may be obtained from DEP to waive these requirements down to a lower permit, however this is at the discretion of DEP. Getting this waiver is significantly more likely if any proposed development is to remain within the existing disturbed areas.

The wetlands outside of the 25-foot stream setback do not meet NRPA criteria for designation as Wetlands of Special Significance (WOSS). As such, these wetland areas can be impacted up to 4,300 square-feet without the need for a NPRA permit as long as applicable setbacks to the streams are maintained, and no other wetland impacts have been previously identified on-site by DEP. Impacts of up to 15,000 square-feet can be made with a relatively simple Tier-1 type permit, however the U.S. Army Corps has recently reduced the area eligible to be impacted without compensation fees to 5,000 square-feet, and should be taken into consideration when planning the potential project impacts. Additional information would be necessary in this scenario, such as a functional assessment and paired Corps data plots.

The potential vernal pool was assessed outside of the vernal pool survey window, typically April-May, depending on seasonal factors. Utilization of the pool by obligate vernal pool species, according to Maine Department of Inland Fisheries and Wildlife (IF&W) guidelines, could therefore not be determined. However, the likelihood of the pool being of unnatural origin precludes the possibility of this pool being

<sup>&</sup>lt;sup>2</sup> State of Maine, Department of Environmental Protection, Natural Resources Protection Act Statute, 38 M.R.S.A. §480-A to 480-HH, DEPLW284-W2010, Revised August 12, 2011.


designated as "Significant Wildlife Habitat" under Chapter 335 of NRPA. An official determination of this can only be provided by IF&W. If the proposed project is not anticipating disturbance or development of lands that are currently undeveloped, any designation of this pool is unlikely to have any bearing on the project.

If there is additional detail or clarity that Basswood can provide regarding the above report, please do not hesitate to contact Erik Lema at 207-518-8442 or by email at <u>erik@basswoodenv.com</u>.

Best regards,

fi I ame

Erik Lema, Owner/Principal Basswood Environmental LLC

Attachment: Site Resource Photos



Figure 1: Central portion of wetland area





Figure 2: Toeslope to wetland. Note rubble



Figure 3: Stream into wetland area





Figure 4: Stream dissipating into wetland and open water area (background). Earthen berm visible in central portion of photo.

## ATTACHMENT 10 BUILDING PLANS AND CUT SHEETS

## PRODUCT SPECIFICATIONS

## 6 in LED Slim Color Changing Retrofit Kit



## ADVANTAGES

- 65 Watt Equivalent
- 50,000 Hours of Continuous Use
- 5 Year Warranty
- All-in-one design No can needed for installation
- Trim design with recessed inner edge
- Dimming to 10% Without Buzzing or Flickering
- IC Rated for Direct Contact with Insulation
- 90 CRI Provides High Color Quality
- Adjust Color of Light with Integrated Switch-Warm White (2700K), Soft White (3000K), Neutral White (3500K), Bright White (4000K), Daylight (5000K)

 21001
3000K
3500K
4000K
5000K

•US Patents - 10,091,855, 10,462,871, 10,492,262

## DIMMER LIST

Dimmer Brand	Model #
	DVCL-153PR-WH
	CTCL-153PDH-WH
Lutron	TGCL-153PH-WH
	MACL-153MH-WH
	P-PKG1W-WH-R
	R62-06674-P0W
Leviton	R12-06672-1LW
	R50-IPL06-10M
Eaton	SAL06P-W-K

## APPLICATIONS

Suitable for Damp Location

SPECIFICATIONS	
Model Number	53807101
SKU	1003532174
OSMID	306179204
Power	15 W
AC Voltage, Frequency	120V, 60 Hz
Color Temp (nom.)	2700K/ 3000K/ 3500K/ 4000K/ 5000K
Operation Temp	-13°F ~ 113°F
CRI	90
Lumen Output (min.)	900 lm
Dimming	YES
Lifetime Rating	L70/50000Hrs
Efficacy	60 lm/watt

53807101

SKU# 1003532174

PACKAGING	
Weight (±0.5 lb)	1.24 lbs
Size (L x W x H) (±0.1 in)	7.01in x 7.01in x 1.31in
Box Dimensions	7.91in x 4.33in x 7.91in
Gross Weight	1.54 lbs
UPC	849489003566



## INCLUDED IN BOX

- •LED Downlight (1)
- Remote Junction Box(1)
- Hole Template (1)

## NEW CONSTRUCTION RETROFIT MOUNT



Contact Information 1-877-527-0313 · WWW.HOMEDEPOT.COM



## 38 SERIES BRUSHED SMOOTH OR CEDAR TEXTURE PREFINISHED LAP JOINT SIDING

LOUISIANA-PACIFIC CORPORATION PERIODICALLY UPDATES AND REVISES ITS PRODUCT INFORMATION AND APPLICATION INSTRUCTIONS. WARRANTY REMEDIES ARE NOT AVAILABLE IF THESE APPLICATION INSTRUCTIONS ARE NOT FOLLOWED. THE INFORMATION IN THIS DOCUMENT IS SUBJECT TO CHANGE WITHOUT NOTICE.

FIND ALL LP® SMARTSIDE® PRODUCT LITERATURE AT LPCORP.COM/SMARTSIDE

LP<sup>®</sup> SmartSide<sup>®</sup> ExpertFinish<sup>®</sup> Trim and Siding is covered under the LP<sup>®</sup> SmartSide<sup>®</sup> Prorated 50-Year and 15-Year Limited Warranty. Refer to the warranty, which is available online, for complete terms and conditions. Product must be transported, stored, handled, installed, finished, and maintained in accordance with all published application, finishing, and maintenance instructions and technical notes and bulletins (collectively, "Instructions") in effect at the time of installation.

Failure to follow such Instructions will make the Limited Warranty inapplicable as to the products affected by such failure. No modification or exception to these Instructions and no non-published recommendations are valid unless issued in writing on a project-specific basis by LP's Director of Technology prior to application. Always check and comply with local building codes. Where conflicts occur among the Instructions, applicable codes or referenced standards, the designer of record, or an authority having jurisdiction, the most restrictive requirement shall apply. Regardless of sheathing type or configuration of wall assembly components, LP's liability for the performance of the product is limited as expressly provided in the Limited Warranty.

WARNING: Drilling, sawing, sanding or machining wood products can expose you to wood dust, a substance known to the State of California to cause cancer. Avoid inhaling wood dust or use a dust mask or other safeguards for personal protection. For more information go to <u>P65Warnings.ca.gov/wood-dust.</u>

#### **PRODUCT LEGEND**

- A LP<sup>®</sup> SmartSide<sup>®</sup> Lap Siding
- B LP<sup>®</sup> SmartSide<sup>®</sup> Panel Siding
- C LP<sup>®</sup> SmartSide<sup>®</sup> Vertical Siding
- D LP® SmartSide® Cedar Shake
- E LP<sup>®</sup> SmartSide<sup>®</sup> Trim & Fascia
- E LP<sup>®</sup> SmartSide<sup>®</sup> Soffit
- G LP<sup>®</sup> SmartSide<sup>®</sup> ExpertFinish<sup>®</sup> Lap Joint Siding
- LP<sup>®</sup> SmartSide<sup>®</sup> Accessories
- LP<sup>®</sup> SmartSide<sup>®</sup> Nickel Gap Siding



## **G**ENERAL INFORMATION

#### HANDLING

- Handle prefinished LP SmartSide ExpertFinish lap siding with extreme care during storage and application.
  - When unpackaging siding, cut the clear shrink-wrap the full-length of siding to avoid dragging and scuffing of the painted surface.
  - If siding is restacked after removing clear shrink-wrap, make sure to keep slip between painted surface and back of the siding.



## STORAGE

- Store off the ground well supported, on a flat well-drained surface. If delivered without a pallet, additional support may be required to provide a minimum 2 inch (51 mm) clearance of Prefinished siding from the ground.
- Store Prefinished siding under a roof or separate waterproof covering until the siding is installed on the structure. **The** clear shrink-wrap is perforated and does not provid protection from water intrusion.
  - Protect the Prefinished siding at the end of each installation day by moving siding back under a roof or reapply a waterproof covering.
- Do not install if any type of residue is detected on the surface. Follow Residue Removal Guidelines in Technical Bulletin #053.

## **GENERAL INFORMATION (CONT'D.)**

## BEFORE YOU BEGIN

- At the time of manufacture, siding meets or exceeds the performance standards set forth in ICC-ES AC321 and has achieved recognition under PR-N124, ESR-1301, CCMC 11826-L, FL#9109 and HUD-MR-1318d. For copies of product approvals go online at <a href="https://lpcorp.com/product-literature">https://lpcorp.com/product-literature</a> or call LP Customer Support at 888-820-0325.
- Where siding butts window trim, door casings, butt joints, etc. leave a 3/16 inch (5 mm) gap and seal.
   Larger gap is required when siding is adjacent to stucco, brick, cultured stone, mortar, etc. (Figure 7a)
- Min. 6 inch (152 mm) clearance must be maintained between siding and finish grade (ground cover). [Min. 200 mm (8 inch) clearance must be maintained between cladding and finish ground when installing cladding in Canada in accordance with NBC, Section 9.27.2.4.(1) or local building code requirements.]
- Siding applied adjacent to surfaces such as porches, patios, balconies, or walking surfaces (including porch columns) must have a clearance of at least 1 inch (25 mm) above horizontal surface.
  - Clearance may be reduced to 3/8 inch (10 mm) for:
    - Porches, patios, balconies, or walking surfaces that slope away from the structure or the surface provides gaps that allow water to flow through so that it cannot accumulate, and is covered by a roof, not an eave or overhang; or
    - Porch columns with walking surfaces that slope away from the structure or the surface provides gaps that allow water to flow through so that it cannot accumulate.
- All wood substrate directly exposed to the weather must be sealed to prevent moisture intrusion and water build up.
  - Seal ALL exposed cuts of siding and trim. Field spray applied coatings on cuts are not recommended.
  - Sealing can be accomplished by applying a paint or sealant according to the manufacturer's requirements.
- See Alternate Fastening Options starting on page 8 for attaching lap to wood structural panel sheathing, SIP assemblies, steel studs, or ICF. Lap siding installed vertically can be found on pages 8, 9 and 10.

#### TRIM

- Use a min. 540 Series trim so the lap siding does not extend beyond the face of the trim.
  - If trim is installed over lap, a thinner 440 or 190 Series trim may be used.
- Lap siding is not designed to be used as trim.
  - Exception: lap joint siding may be used as fascia. Shiplap must be removed to full panel thickness. (Figure 4b)
- See page 10 for PREFERRED and ALTERNATE details for Outside and Inside Corner Trim. (Figure 10e, 10f, 10g, 10h)

### FLASHING

- All openings must be properly sealed or flashed in a manner that prevents moisture intrusion or buildup.
- · Flashing shall be metal or another durable material that will last for not less than 50 years.
- Install step flashing at roof-to-wall intersections with a min. 4 inch (102 mm) upper leg. (Figure 2a, 2b)
- All other flashing must have a min. 4 inch (102 mm) upper leg.
  Add 4 inch (102 mm) wide adhesive flashing when upper leg is less than 4 inches (102 mm).
- Properly integrate flashing with WRB. Use WRB or flashing tape to maintain counterflashing principle.

## **ROOF TO WALL INTERSECTION**

• Maintain 1 inch (25 mm) clearance between siding and roofing, or trim and roofing. [Min. 50 mm (2 inch) clearance at intersection with roof line must be maintained between roof surface and cladding when installing cladding in Canada in accordance with the NBC, Section 9.27.2.4.(2) or local building code requirements.]



– Min. 3/16" (5 mm) gap – 4" (102 mm) step flashing

1" (25 mm) min. clearance from roofing [*Min.* 50 mm (2") clearance from roofing]

Roofing Option - Siding Figure 2a



- Z-flashing above trim

Min. 3/8" (10 mm) gap

Note: paint bottom edge of cut siding or trim

Roofing Option - Trim Figure 2b

2

## **Application Instructions**

## FLASHING (CONT'D.)

## **KICK-OUT FLASHING**

- · Install kick-out flashing at roof eave-to-wall intersections to direct water into gutter.
- DO NOT extend siding or trim into kick-out flashing or gutter.
- · Maintain 1 inch (25 mm) clearance between the end of the gutter and the adjoining wall to allow for proper maintenance of the siding.

## MOISTURE

- Moisture and vapor control are critical elements of proper housing design.
  - Check your local building code for requirements for handling moisture and water vapor in your area.
  - Do not apply engineered wood siding to a structure having excessive moisture conditions such as drying concrete, plaster or wet blown cellulose insulation.
    - If such conditions exist, building should be well ventilated to allow to dry prior to siding application.
  - When using wet blown cellulose insulation it must not be in direct contact with the siding, and it must be allowed to dry a min. of 24 hours or longer if specified by the insulation manufacturer.
- · Siding must not be installed on green or crooked studs.
- · Do not apply siding over rain-soaked or buckled sheathing.

## WATER-RESISTIVE BARRIER (WRB)

- A properly installed WRB is required behind siding, unless exempt by building code.
- LP assumes no liability for water penetration or any other issues associated with the WRB.

## **FASTENING INSTRUCTIONS**

## **STUD SPACING OPTIONS**

- Siding may be attached direct to studs spaced max. 16 inches (406 mm) o.c.
- Siding may be attached directly to wood structural panel sheathing, min. 7/16 Performance Category, with studs spaced a max. 24 inches (610 mm) o.c.

## INSTALLATION

- Begin by nailing a starter strip 3/8 inch (10 mm) thick x 1-1/2 inches (38 mm) wide, flush with bottom edge of sill plate.
  - Starter strip serves two purposes
    - Provides separation of siding from CMU or poured concrete foundation. (Figures 6b, 6c, 6d)
    - Provides proper angle to first course of siding.
  - Exception: starter strip may be omitted if separation from concrete is maintained. Separation can also be achieved by ensuring WRB is placed behind siding.
- Install siding blind-nailed, place nail a min. of 3/4 inch (19 mm) from the top edge.
  - Refer to Figure 4a for fastener placement at butt joints.
  - Overlap successive courses of lap a min. 1 inch (25 mm).
  - Shim siding at studs as needed to avoid drawing siding against uneven walls.
  - Nails will be exposed on siding located immediately below window sills, fascia boards, or horizontal trim and shall be spaced a max. 8 inch (203 mm) o.c. (Figure 10d)
- Use a min. 0.092 inch shank diameter, hot-dip galvanized nail (ASTM A153) or equivalent; capable of preventing rust, stain and deterioration under normal outdoor environmental conditions for a period of no less than 50 years. Penetrate studs or combination of WSP sheathing and studs a min. of 1-1/2 inches (38 mm).
  - A larger 0.113 inch shank diameter nail may be required depending on the wind pressure, wind speed and wind exposure category limitations in PR-N124 or ESR-1301. Penetrate studs or combination of WSP sheathing and studs a min. of 2 inches (51 mm).
- Install bottom side of shiplap first. (See Figures 4a, 8a)
  - Avoid sliding or forcing bottom shiplap into place, if top shiplap has been installed first.
- Nail from the center of the siding toward the ends, or from one end to the other end. NEVER nail from the ends of the siding toward the middle.

З



**Figure 3a** 

Kick-out flashing -

Do not run siding

or trim inside of kick-out flashing

## **FASTENING INSTRUCTIONS (CONT'D.)**

- Shiplap must be removed to full panel thickness and caulked at window, door and vertical trim intersection. (Figure 4b)
  - Backer rod recommended at 3/16 inch (5 mm) gap.
- · Painting all exposed nail heads is recommended.
- Do not overdrive nails.
  - Nail head should seat snug to face of siding, but not countersunk which is considered overdriven.
  - Blind nails: only correction required would be re-nailing when countersunk more than 1/8 inch.
  - Face nails: will occur immediately below window sills, soffit, freize boards and horizontal trim. Corrections detailed below. (Figure 4a)







## BUTT JOINTS

- Butt joints must occur over studs. (Figure 4b) - Exception: sheathing only applications. (Figure 8a)
- Stagger butt joints a min. of 16 inches (406 mm).
  - Stacking or stair-stepping butt joints is not recommended as it may cause an undesireable appearance.
- · LP® SmartSide® ExpertFinish® Prefinished Lap Joint Siding is designed with a shiplap butt joint which elimates the need for sealant/caulk. Do not caulk butt joint.

top

## • Provide a min. 3/16 inch (5 mm) gap at butt joint. (Figure 4c)

- Use spacing tool like SIMPLESIDER® (Figure 4d) or rafter square (Figure 4e) to acheive proper gaping.
  - Rafter square thickness varies between manufacturers.
  - Confirm spacing tool is a min. 3/16 inch (5 mm) in thickenss before using.
- Gapping will allow for linear expansion of siding.



## **Application Instructions**

## FASTENING OPTIONS OVER FOAM PLASTIC SHEATHING (RIGID FOAM INSULATION)

· Lap siding may be installed directly over foam sheathing.

## FOAM PLASTIC SHEATHING ≤ 1 INCH (25 MM)

 Increase nail length to ensure a min. 1-1/2 inch (38 mm) penetration into studs, or combination of studs and WSP sheathing (Figure 5a), or WSP sheathing only attachment. (Figure 5b)



## FOAM PLASTIC SHEATHING > 1 INCH (25 MM)

- Siding attachment: Refer to IRC Chapter 7, Wall Covering for prescriptive siding attachments over foam sheathing up to 4 inches (102 mm) thick, direct to wood or steel studs for support of siding weight only. **Does NOT include wind loads.** 
  - Refer to Table 703.15.1 for min. fastening requirements over foam sheathing to wood studs.
  - Refer to Table 703.16.1 for min. fastening requirements over foam sheathing to steel studs.
- Fastener placement:
  - Nail spacing depends on siding attachment method; Direct to Stud or wood structural panel (WSP) sheathing attachment, and
  - Wind load limitations in PR-N124 or ESR-1301.
- · LP assumes no liability for loss or damage associated with fastening requirements of the applicable code.

## FURRING OVER FOAM PLASTIC SHEATHING

- Use a min. 3/4 inch (19 mm) thick x 3-1/2 inch (89 mm) wide Southern Pine furring strip with a specific gravity  $\geq 0.55$ .
  - 38 Series lap siding may be attached to furring spaced a max. 16 inches (400 mm) o.c.
     Depending on wind load limitations in PR-N124 or ESR-1301.
- Furring attachment direct to wood or steel studs:
  - Refer to IRC Chapter 7 on Wall Covering for prescriptive furring attachment over foam sheathing up to 4 inches (102 mm) thick.
    - Refer to Table 703.15.2 furring min. fastening requirements over foam sheathing to wood studs.
    - Refer to Table 703.16.2 furring min. fastening requirements over foam sheathing into steel studs.
- Siding attachment to furring: (Figures 5c)
  - Use a min. 0.120 inch diameter **ring shank**, hot-dip galvanized nail (ASTM A153) or equivalent.
    - Nail length must be long enough to penetrate min. 1/2 inch (13 mm) into furring.
    - Place nail 3/4 inch (19 mm) from top edge of siding.
    - Increase min. overlap to 1-1/8 inch (29 mm).
    - Blind nail two fasteners per furring strip (four nails at butt joints). (Figure 5d)



Additional Fastening Options  $\leq 1$  inch (25 mm)

## EXTERIOR GYPSUM SHEATHING

- · Siding may be installed over exterior gypsum sheathing, according to the following:
  - Adequate bracing of the wall is provided in accordance with the local building code.
  - Nail length must be increased to ensure a min. 1-1/2 inch (38 mm) penetration into wood studs, or combination of WSP sheathing and wood studs.

## EXISTING WOOD SIDING OR WOOD COMPOSITE SIDING

- Siding may be installed over existing wood or wood composite siding, if the existing siding does not affect the ability to correctly install siding.
  - A properly installed WRB is required between the existing siding and the new siding.
  - A uniform surface behind siding is required to avoid contouring of siding.
    - Do not install over existing siding that is not flat or uniform.
  - Min. nail penetration and max. stud spacing must not be compromised.
  - Ensure wall assembly meets structural requirements specified in building code and by local code authority.
  - Repair any areas of the existing siding that are not structurally sound, not installed correctly, or exhibit signs of decay.

## Additional Fastening Options (Cont'd.)

## CONCRETE MASONRY UNIT (CMU) OR POURED CONCRETE

- · Non-Compressible Drainable Housewrap (NCDH) is required behind siding installed over CMU or poured concrete walls.
  - Refer to <u>Technical Bulletin #031</u> for definition of NCDH.
  - Attach NCDH to wall per manufacturer's instructions or use a min. 3/8 inch (10 mm) stub nail.
  - Properly tape and/or seal wall penetrations in accordance with the NCDH manufacturer's instructions.
- Siding attachment: Use fasteners suitable for CMU or poured concrete walls as specified by the fastener manufacturer.
  - Use a fastener with a min. allowable withdrawal capacity and fastener head pull-through capacity of 62 lbf/nail (276 Nf/nail) or greater, based on load duration factor of 1.6.
  - Min. shank diameter = 0.140 inch (3.6 mm).
  - Min. length = 1.25 inches (32 mm).
- Commonly used concrete fasteners include, but not limited to Aerosmith<sup>®</sup> Power- Pin<sup>™</sup> 5323HPG PT2000 plating, head diameter 0.300 inch (7.6 mm) x shank diameter 0.145 inch (3.7 mm) x length 1.25 inches (32 mm), smooth shank.
- Fastener placement:
  - Install blind-nailed a max. 10 inches (254 mm) o.c. with fastener placed 3/8 inch (10 mm) from either end, a min. 3/4 inch (19 mm) from the top edge of the board.
    - Immediately below window sills, frieze boards and horizontal trim nails will be exposed every 10 inches (254 mm) o.c.
    - Overlap siding a min. 1 inch (25 mm).



## FIRE-RATING

## CAL FIRE WUI

- California Building Code, Chapter 7A [SFM] Materials and Construction Methods for Exterior Wildfire Exposure compliance can be achieved using LP<sup>®</sup> SmartSide<sup>®</sup> lap siding installed as described in:
  - CAL FIRE BML# 8140-2027:0001 over 1/2" (13 mm) standard gypsum wallboard applied behind lap on exterior side of framing; or
  - CAL FIRE BML# 8140-2027:0005 atop LP® FlameBlock® sheathing.

## FIRE-RATED WALL ASSEMBLY

- LP SmartSide lap siding may be installed over the exterior portion of a 1-hour fire-resistive exterior wall assembly, including assemblies using gypsum wallboard listed in the Gypsum Association Fire Resistance Design Manual.
- For information on fire-rated wall assemblies: <a href="https://lpcorp.com/products/panels-sheathing/fire-rated-osb-sheathing/assemblies">https://lpcorp.com/products/panels-sheathing/fire-rated-osb-sheathing/assemblies</a>

## **OVERLAP, CLEARANCE & NAIL PLACEMENT**



Figure 6b

Siding - Direct to Stud w/WSP Attachme Figure 6c

#### Siding or Trim Adjacent to Stucco/Masonry · Where siding is installed adjacent to stucco, brick, cultured stone, mortar, etc. Do not install LP<sup>®</sup> SmartSide<sup>®</sup> - Leave a 3/8 inch (10 mm) gap and caulk. trim as brick sill - Backer rod may be required by caulking manufacturer. Sheathing Siding (if required) Min. 3/8" (10 mm) gap with sloped Z-flashing Stucco, brick, cultured stone, 3/8" (10 mm) mortar, etc. gap, backer rod and caulk **Plan View Section View** Section View **Figure 7b** Figure 7c Figure 7a

## FINISHING INSTRUCTIONS

- When sealant is required, use a high-quality, non-hardening, paintable sealant meeting ASTM C920, minimum Class 25.
   Follow sealant manufacturer's instructions for application.
- Paint all exposed surfaces, including all drip edges or where water will hang. For best results, use a high-quality 100% acrylic exterior paint specially formulated for use on wood and engineered wood substrates; oil paint is acceptable.
  - DO NOT USE stain or vinyl-based paint.
  - Apply paint as soon as possible or within 180 days.
  - Follow paint manufacturer's instructions for application.
  - Follow LP's Care & Maintenance Instructions.

## **BRUSHED SMOOTH Lap Siding:**

- · Either flat, satin or semi-gloss coatings can be applied to brushed smooth finish lap siding.
  - Each offers different appearance & maintenance benefits.

## **CEDAR TEXTURE Lap Siding:**

- For best results use semi-gloss finish.
- · Touch up any damage to finish that may occur during application
- Apply touch up paint to cover scratches less than 1 inch (25 mm) in length and less than 1/16 inch (2 mm) wide, exposed nail heads and small nicks.
- Do not apply touch up paint to spots greater than 3/4 inch (19 mm) in diameter.
- Touch up paint should be used sparingly.
  - Apply touch up paint only when air, siding and paint temperature are above 50°F.
  - Store touch up paint between 40°F and 100°F.
  - Shake touch up paint for 90 seconds before every use.
  - Do not use touch up paint if you suspect it has frozen.
  - Do not apply touch up paint to wet siding.
  - Avoid touch up painting when condensation likely to form.
  - Avoid touch up painting when precipitation is possible.
- The touch up paint is air dried, while the factory applied coating is cured using ovens. For this reason, the touch up paint will have some minor differences initially and after time. Minimizing the use of touch up paint is the best approach to help ensure these minor differences are less noticeable.
- Use the appropriate applicator provided in the LP  $\ensuremath{\mathbb{R}}$  SmartSide  $\ensuremath{\mathbb{R}}$  ExpertFinish  $\ensuremath{\mathbb{R}}$  Touch-Up Kit.
  - Nail Head Paint Applicator (Figure 7d)
  - Cut End Paint Applicator (Figure 7e)
- For additional touch-up paint, please call 888-820-0325.





Figure 7e

## **ALTERNATE FASTENING OPTIONS**

## WOOD STRUCTURAL PANEL (WSP) SHEATHING OR SIP ASSEMBLIES

- WSP wall sheathing must be a min. 7/16 Category with APA Trademark that contains the consensus Standard DOC PS 2.
- Siding may be nailed to SIP or WSP sheathing. (Figure 8a)
  - Min. 0.092 inch diameter ring shank, hot-dip galvanized nail (ASTM A153) or equivalent.
    - Nail length must be long enough to fully penetrate sheathing by at least 1/4 inch (6 mm). (Figure 8b, 8c)
    - Ensure that the ring shanks of the nail fully engage the wood structural panel sheathing.
  - Space fasteners depending on the wind pressure, wind speed and wind exposure category limitations in PR-N124, Table 4a or 4b; or ESR-1301, Table 4a or 4b.

## STEEL STUD FRAMING ASSEMBLIES

- · Siding must be fastened with:
  - Min. #8 stainless steel or equivalent, self-drilling tapered head screw.
  - Min. of 5 threads beyond the combined thickness of the siding and steel stud framing. (Figures 8d, 8e)
- Min. steel stud thickness of 0.032 inch (8 mm) or 20 gauge.
- Min. withdrawal value of steel stud must be 50 lbs. (23 kg).
  Refer to steel stud manufacturer's evaluation report.

## **INSULATED CONCRETE FORMS (ICF) ASSEMBLIES**

- Web flange must be wide enough to accommodate fastener spacing requirement at butt joint. (Figures 8a)
- Siding must be fastened with:
  - Min. #8 stainless steel or equivalent, self-drilling tapered head screw.
  - Min. penetration of 3/8 inch (10 mm) beyond thickness of the nailing flange.
- Larger screws may be required by ICF Manufacturer based on the following min. withdrawal requirements.
  - Min. withdrawal value of ICF nailing flange must be 50 lbs. (23 kg) with max. 12 inches (305 mm) o.c. spacing.

## LAP SIDING INSTALLED VERTICALLY

- Siding must be installed in a sheathing only attachment method over min. 7/16 Category WSP sheathing with an APA Trademark that contains the consensus Standard DOC PS 2.
  - Exception: can be installed over LP<sup>®</sup> FlameBlock<sup>®</sup> Fire-Rated OSB Sheathing.
- The edges of lap siding installed vertically must be spaced a min. of 3/16 inch (5 mm) from each other. (Figures 10a, 10b)
- Due to expected plate shrinkage, each vertical application of battens or lap siding is not to span beyond one floor to ceiling distance, or one floor to top of gable distance. (Figures 9b, 9c)
   Exception: residing existing structures.
- Siding may be applied over an entangled mat WRB. Ensure mat is rigid enough to receive siding to avoid a wavy or inconsistent appearance.
  - Exception: lap siding installed horizontally is not approved for use over entangled mat products.
- Remove shiplap to full panel thickness at top and bottom of wall. (See Figures 8f, 8g)



## ALTERNATE FASTENING OPTIONS (CONT'D.)

- DO NOT bridge floors with lap installed vertically or battens. (Figures 9c)
  - Create a horizontal joint between floors.
  - Joint must be flashed with sloped Z-flashing, which would require removal of shiplap edge. (Figures 9a)
- Siding nail requirements:
  - Use a min. 0.092 inch diameter ring shank, hot-dip galvanized nail (ASTM A153) or equivalent.
  - Nail shall be long enough to fully penetrate WSP sheathing by at least 1/4 inch (6 mm). Ensure that the ring shanks of the nail fully engage the WSP sheathing.
    - **Caution:** nail length should be chosen to reduce possible damage to wiring or utilities in wall.
  - Place nails 3/8 inch (10 mm) from ends and edges.
  - Nail spacing for lap siding installed vertically or lap over lap:
    - Place with two nails at both ends, with additional nails spaced a max. of 6 inches (152 mm) o.c. along alternating edges (Figure 9d)
- Batten nail requirements:
  - Use a min. 0.092 inch diameter **ring shank**, hot-dip galvanized nail (ASTM A153) or equivalent.
    - Ring Shank nails provide superior resistance to nail pull-through. In Hurricane-Prone Regions or locations where negative wind loads are a concern, ring shank nails should be used.
    - Finish nails may be used in other locations with the following cautions: Do not overdrive or counter sink the fastener, nail snug with the surface of batten.
  - Place nails 3/8 inch (10 mm) from ends and edges.
  - Nail Spacing for Battens: Place two nails at both ends, with additional nails spaced a max. 12 inches (309 mm) o.c. along alternating edges the length of batten. (Figure 9e)
    - Exception: for battens 1-1/2 inches (38 mm) wide or less, one nail is required at each end with additional nails spaced a max. 24 inches (305 mm) o.c. along alternating edges. (Figure 9f)
  - Batten may be a min. 1/2 inch (13 mm) x 1-1/2 inch (38 mm) wide.
    - Caution: when selecting batten less than 2-1/2 inches (64 mm) wide, it may be difficult for batten to conceal nail heads.
    - Visible nail heads that are not covered by battens are an aesthetic issue and not covered under Limited Warranty.
  - Detachment of batten is not covered by the LP SmartSide limited warranty whether ring shank or finish nails are used.











## WOOD FRAMED WALL ASSEMBLIES - EXAMPLES





\* WRB location in wall assembly may vary depending on climate zone or other factors.

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## LP® SmartSide® ExpertFinish® Lap Siding

**Application Tips** 

IMPC provi to fol appli	<b>DRTANT</b> Always refer to the complete application instructions for the product you are installing. The application tips ded below are not intended to replace such instructions. Application instructions can be found at <u>LPCorp.com</u> . Failure low the full application instructions could cause personal injury or property damage, affect system performance, void any cable warranty and/or violate applicable building codes.
Exerc impo	cise safe practices at all times while handling and using this product. Refer to the relevant Safety Data Sheet (SDS) for rtant information on the safe handling and use of this product. These can be found at <u>LPCorp.com</u> .
	<ul> <li>Lap siding may be attached Direct to Studs or Direct to Wood Structural Panel (WSP) Sheathing:</li> <li>Direct to Stud - nails must penetrate structural framing, or combination of WSPs and structural framing min. 1-1/2" (38 mm), some installations may require 2" (51 mm) penetration see PR-N124 or ERS-1301</li> <li>Direct to WSP Sheathing - nails must be long enough to penetrate beyond WSP by 1/4" (6 mm)</li> </ul>
	Stud spacing – see application instructions for spacing from 16" (406 mm) o.c. to 24" (610 mm) o.c.
	See application instructions for alternative nailing options for: SIP, steel studs, ICF's and lap siding installed vertically.
	<ul> <li>Nail size:         <ul> <li>Direct to Stud - a min. 0.092" shank diameter hot-dip galvanized (ASTM A153) nail may be used, some installations may require a larger 0.113" shank diameter depending on wind pressure, wind speed and wind exposure limitations in PR-N124 or ESR-1301</li> <li>Direct to WSP Sheathing - a min. 0.092" shank diameter hot-dip galvanized (ASTM A153) ring shank nail</li> </ul> </li> </ul>
	Nail placement – 3/8" (10 mm) from siding end and edges and a min. of 3/4" (19 mm) down from top edge of siding
	<ul> <li>Nail spacing:</li> <li>Direct to Stud – one nail every 16" (406 mm) o.c.</li> <li>Direct to WSP Sheathing – nailing pattern varies from 8" (203 mm) o.c. to 12" (305 mm) o.c. depending on the wind pressure, wind speed and wind exposure limitations in PR-N124 or ESR-1301</li> </ul>
	Overlap – min. of 1" (25 mm), siding shall not project beyond the face of trim
	Do not overdrive nails - nail head should seat snug to the face of siding, if overdriven - see Application Instructions
	Caulk – use a high-quality, non-hardening, paintable exterior sealant meeting ASTM C920, min. Class 25
	Seal all exposed substrate – sealing can be accomplished by applying a paint or caulk
	<ul> <li>Provide a min. 3/16 inch (5 mm) gap at butt joint.</li> <li>Use spacing tool like SIMPLESIDER<sup>®</sup> or rafter square to acheive proper gaping.</li> </ul>
	Siding clearance at finish grade (ground cover) – min. 6" (152 mm) [Min. 200 mm (8 inch) clearance must be maintained between cladding and finish ground when installing cladding in Canada.
	Siding clearance adjacent to surfaces such as porches, patios, or porch columns, etc. – min. 1" (25 mm): • May be reduced to 3/8" (10 mm) – see Application Instructions
	Siding must not be in direct contact with CMU, poured concrete, brick, cultured stone, stucco, mortar, etc.
	<ul> <li>Flashing is required above all windows, doors and horizontal trim per manufacturer's instructions:</li> <li>Flashing shall be metal or another durable material that will last for not less than 50 years</li> <li>Provide 3/8" (10 mm) gap above any drip cap flashing, do not caulk gap</li> </ul>
	The piece of lap siding below a windowsill or frieze board will require face-nailing - see Application Instructions
	Siding over foam plastic sheathing adds complexity to siding installation – see Application Instructions
	For Limitations of Use – see Application Instructions, Technical Notes, Technical Bulletins and NSA Bulletins
	See Application Instructions for Storage and Handling guidelines

## RATIO WALL OUTDOOR LUMINAIRE



HUBBELL<sup>®</sup> Outdoor Lighting



HUBBELL Lighting

## RATIO WALL AND FAMILY

Hubbell Outdoor Lighting's Ratio family has been expanded to include two new wall products in addition to the existing three area luminaires and four flood luminaires. The expansive Ratio family contains a variety of outputs allowing you to customize your lighting design to meet application requirements.

With a new spin on a classic rectilinear form, Ratio Wall brings a traditional luminaire aesthetic into the next generation of wall packs from Hubbell Outdoor Lighting. Ratio Wall features a dense optical array which provides reduced pixelation and increased visual comfort without compromising performance. It is designed for sustained, long-term performance with advanced thermal management, an elegantly simple heat sink and industry leading surge protection.

Size	RWL1	RWL2
Lumens	1,000–5,000	6,000–19,500
Watts	10–45	45–155
LPW	136	148
ССТ	3K, 4K, 5K	3K, 4K, 5K
Distributions	III, IV	II, III, IV
IP Rating	IP65	IP65
Legacy Equivalence	42W–175W	175W-400W



# RATIOWALL

The Ratio Wall takes the contemporary form introduced with the Ratio Area and Ratio Flood products and adapts it into a complementary wall form. This versatile luminaire blends sleek lines and low glare optics with superior performance and a plethora of controls and emergency options. In addition to the standard product, a back box accessory as well as an integral back box option allow added versatility for mounting flexibility and added space for more options.

## INSTALLATION

Ratio W all was designed with mounting flexibility in mind. Between the standard housing, the back box accessory, and the integral back box this luminaire makes installation easy.



Ratio's unique optical design combines visual uniformity with the precise distribution of the Micro Strike Optics

This outstanding optic control simplifies layouts and installations, energy consumption, lowers installation costs and improves visual acuity

Several integral controls and battery options are offered in the standard housing without needing the addition of the integral back box





## RATIO WALL - PERFORMANCE

## IES COMPARISON

The Ratio Wall is available with three distinct distribution patterns to illuminate a variety of applications. Featuring Micro Strike Optics which maximizes target zone illumination with minimal losses at the house-side, reducing light trespass. In the illustration below, the Ratio Wall luminaires illuminate the building perimeter and contribute substantial illumination to the parking area and drive lanes adjacent to the building.

	Ratio RWL1	Ratio RWL2
Wattage	45W	155W
Lumen Output	5,700 Lumens	19,000 Lumens
Distribution	III	IV Wide
Minimum FC	0.5FC	0.5FC
Max/Min	7:1	8:1
Fixture Spacing	75ft	100ft
Fixture Throw	28ft	50ft
Mounting Height	15ft	25ft

RWL2 Type IV - 100ft



## RATIO INTEGRATED CONTROLS

The control solutions outlined below help save energy, extend luminaire life and allow customizable solutions. Sensors control light output based on area utilization and are used for energy savings and local code compliance.

## STANDALONE CONTROLS FUNCTIONALITY

## **Occupancy Sensor**

- Individual fixture control
- Dims product when space is not occupied



## Photocontrol

- Individual fixture control
- Turns fixture on when sun sets

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# INTEGRATED CONTROLS

Hubbell Controls Solutions' NX Distributed Intelligence<sup>™</sup> platform delivers a lighting control solution capable of seamlessly connecting exterior and interior applications.

- Standalone or networked fixture control
- Astronomical time schedules
- BACnet building networking
- Connects with indoor wired, wireless or hybrid networks
- Wireless setup via controlHUBB app
- Occupancy Sensor option dims product when space is not occupied





## 7-Pin Receptacle

- Compatible with 3-pin, 5-pin or 7-pin photocontrols
- Turns fixture on when sun sets, off when sun rises
- Wireless networked solution
- For use with a variety of control platforms
- \*Additional accessories required.

## RATIO WALL ORDERING INFORMATION

#### STOCK ORDERING EXAMPLE: RWL-48L-25-4K-3

CATALOG DESCRIPTION	LUMENS	WATTAGE	LED COUNT	CCT/CRI	VOLTAGE	DISTRIBUTION	FINISH
RWL-48L-25-4K-3	3500lm	25	48L	4000K/70CRI	120-277V	Type III	Dark Bronze Textured
RWL-48L-25-4K-4W	3500lm	25	48L	4000K/70CRI	120-277V	Type IV Wide	Dark Bronze Textured
RWL-48L-45-4K-3	5500lm	45	48L	4000K/70CRI	120-277V	Type III	Dark Bronze Textured
RWL-48L-45-4K-4W	5500lm	45	48L	4000K/70CRI	120-277V	Type IV Wide	Dark Bronze Textured

## **ORDERING INFORMATION** ORDERING EXAMPLE: RWL1-48L-10-3K7-3-UNV-BLT-E



Heater Option<sup>7</sup>

2DR Dual Driver<sup>6</sup>

2PF Dual Power Feed<sup>6</sup>



## ACCESSORIES - Order Separately

Catalog Number	Description
WP-BB-XXX	Accessory for conduit entry <sup>1</sup>
Notes:	

1 Replace "XXX" with color option

Catalog Number Description





RWL1 with



264mm 279mm



7-Pin Receptacle<sup>6</sup>

Remote control programmable line voltage sensor<sup>3</sup>

Remote control programmable line voltage sensor<sup>3</sup>

SCP-8F

7PR

SCP-20F

Control Options

**Back Box Accessory** 





ARCHITECTURAL AREA LIGHTING

**BEACON PRODUCTS** 

COLUMBIA LIGHTING

COMPASS

DUAL-LITE

HUBBELL CONTROL SOLUTIONS

HUBBELL OUTDOOR LIGHTING

KIM LIGHTING

KURT VERSEN

LITECONTROL

PRESCOLITE



701 Millennium Blvd. Greenville, SC 29607 Tel 864.678.1000 www.hubbelloutdoor.com

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## **Trim & Mouldings** WARRANTY INFORMATION

WELCOME TO TRIM THAT DIFFERENTIATES



## Thank you for choosing Royal<sup>®</sup> Trimboard and Trim & Mouldings

Your Royal<sup>®</sup> Trimboard and Trim & Mouldings make a beautiful statement about your home, and so does the warranty that backs them up. We offer one of the best warranty programs in the industry.

## **Limited Lifetime Warranty**

Royal Trimboard, Trim & Mouldings Products

### Effective Date:

This Warranty is in effect for all Products installed after 01/01/2020

#### Terms:

Subject to the terms and conditions of this Limited Lifetime Warranty (this "Warranty"), Westlake Royal Building Products (herein "Westlake Royal") warrants to the Homeowner that its Trimboard, Trim and Mouldings Products ("Products") are free from manufacturing defects in material and workmanship if installed according to our installation instructions, and will not rot, peel, flake, corrode, blister, split, chip, or fade unevenly when exposed evenly. Please see Warranty limitation for Prefinished Trim Products below.

This Warranty is not transferable. Westlake Royal reserves the right to discontinue, modify or otherwise alter any of its Products, including color, without prior notice.

This Warranty is made exclusively and specifically to the person(s) who both owns and continuously resides in the home on which the Products are installed (herein "Homeowner") if that person is the original purchaser of Westlake Royal's Product(s) covered under this Warranty. This Warranty is also made to a Homeowner who purchases a newly constructed residence on which the Product is installed directly from the builder.

Where Westlake Royal's Product(s) are installed on a structure (i) not occupied exclusively by the Homeowner (including his or her immediate family), (ii) used for income producing purposes, or (iii) used in a public or semi-public application, such as (but not limited to) a condominium, apartment building, house of worship, school, medical facility, senior living facility, government building, hotel, etc., then this Warranty is made solely to the original owner of the structure ("Commercial Owner") and is not transferable. The term of the Commercial Owner's Warranty is 50 years, prorated below

If Westlake Royal determines, at its sole discretion, that its Product(s) have a manufacturing defect covered under the Terms of this Warranty, Westlake Royal will, at its option, either (1) refund the purchase price of the material or (2) replace any Product it determines has a manufacturing defect. In the event of replacement, the Warranty applicable to the original Product(s) shall apply to the replaced Product and will extend for the balance of the original term of the Warranty period. In any event, no labor charges shall be reimbursed. These remedies are the sole remedies for any defect in the Product.

## Transferability:

This Warranty is not transferable.

## **Commercial Owner Pro-Ration Schedule:**

Commercial Owners shall have a pro-rated Warranty per the coverage chart below:

Number of years after installation	Covered on a prorated basis
Up to 10	100%
10-19	80%
20-29	60%
30-39	40%
40-50	20%

#### Limitations:

- Westlake Royal's Warranty does not provide protection against any damage caused by events including, but not limited to:
- Misuse, negligence or improper installation
- Failure to provide reasonable maintenance to prevent accumulation of dirt, mildew, staining materials, pollution, exposure to chemical Products or incompatible cleaners
- Improper handling, transportation, storage or maintenance prior to or during installation
- Alterations like applying incompatible coatings, stains or varnishes (see technical information for compatible coatings if any)
- Normal Weathering (as defined below) due to exposure to the elements
- Non-Factory-painted finishes or coatings applied to the Products by anyone. Failure to adhere to Westlake Royal's recommended guidelines for application of painted surfaces may void this Warranty.
- Distortion, twisting, cupping, shrinkage or other deformation of the Product that is any color darker than an L value of 56 where 100 is White and 0 is black (i.e. L<56)
- Defects in the wall structure (materials or construction) on which Westlake Royal's Products are installed that cause failure, such as movement, cracking or settling of the wall, foundation or building
- Deformation caused by high heat sources, including, but not limited to, grills, fire pits, foil sheathing, low e-glass windows and low e-glass doors
- · Damage caused by animals or insects
- Impact of foreign objects, hail, lightning, fire, hurricane, tornadoes, or other Acts of God
- Vandalism, intentional damage, riot or insurrection

Normal Weathering is defined as exposure to ultraviolet sun light and extremes of weather and atmosphere that will cause any colored or painted surface to fade, darken, chalk or acquire a surface accumulation of dirt or stains. The severity of these conditions depends on air quality, the geographic location of the property and other local conditions over which Westlake Royal has no control. Westlake Royal shall determine, at its sole discretion, whether the Product is suffering from normal weathering (which is not covered by this Warranty). Product(s) must have been exposed to the same weathering conditions and not partially covered by other materials, such as shutters, awnings, porticos or other materials.

THIS WARRANTY IS GIVEN IN LIEU OF ALL OTHER WARRANTIES, LIABILITIES OR OBLIGATIONS OF WESTLAKE ROYAL, EITHER EXPRESSED OR IMPLIED, INCLUDING ANY IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, ALL OF WHICH ARE HEREBY EXPRESSLY DISCLAIMED. WESTLAKE ROYAL SHALL IN NO EVENT BE LIABLE FOR CONSEQUENTIAL, INCIDENTAL OR SPECIAL DAMAGES OF ANY KIND. YOUR EXCLUSIVE REMEDY SHALL BE ENFORCEMENT OF THIS WARRANTY UPON THE TERMS AND CONDITIONS HEREIN CONTAINED. NO REPRESENTATIVE OF WESTLAKE ROYAL OR ITS DISTRIBUTORS OR DEALERS IS AUTHORIZED TO MAKE ANY CHANGES OR MODIFICATIONS TO THIS WARRANTY.

Some States do not allow limitations on how long an implied Warranty lasts, so the foregoing limitation may not apply to you. Some States do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to you.

## Warranty Registration:

We recommend you to register your product, by visiting: www.RBPWarranty.com

The registration process is fast and easy. You will need to provide: name, address, date of installation, and the original proof of purchase for the product.

## Warranty Claim:

To make a warranty claim on your product, please visit: www.RBPWarranty.com

If you have already registered your product, please log in using your same user ID and password. If you have not registered your product, you will need to create an account to file your claim.

Within 30 days of identifying a defect, the claimant shall be required to provide a written description with pictures demonstrating the claimed manufacturing defect. In some cases, an actual sample of the defective product may need to be removed at the owners expense for analysis. Westlake Royal will analyze the provided materials and information to determine the validity of the claim.

For inquiries regarding registration or claims, please e-mail: RBPCustomerCare@westlake.com

### Use and Care:

Your Westlake Royal Product is a low maintenance Product. Please refer to our Use and Care brochure for the best way to keep your Westlake Royal Product looking great. This Warranty gives you specific legal rights, and you may also have other rights which vary from State to State.

## **Limited 25-Year Warranty**

Prefinished Trim

#### **Effective Date:**

This Warranty is in effect for the Kynar Aquatec<sup>®</sup> finish coating on your Prefinished Trim by Royal<sup>®</sup> Products installed after 8/1/2015 ("Products").

#### Terms:

Westlake Royal warrants that the Kynar Aquatec<sup>®</sup> finish coating will weather normally (defined below) and will not peel, crack, or chip for 25 years from the original date of installation, see proration schedule below. The Kynar Aquatec<sup>®</sup> Warranty is not transferable. Should Westlake Royal determine that damage to the finish coating is covered by this Warranty, Westlake Royal will provide replacement coating and Westlake Royal's maximum liability for coating labor shall not exceed \$1 per square foot, prorated.

## Kynar Aquatec<sup>®</sup> Proration Schedule

Number of years after installation	Covered on a prorated basis
Up to 2	100%
2-5	90%
6-10	80%
11-15	60%
16-20	40%
21-25	20%

This Warranty is made exclusively and specifically to the original purchaser of the Prefinished Trim by Royal® Products bearing the Kynar Aquatec® finish coating. It is also provided to a person who purchases directly from the builder (who purchased Prefinished Trim by Royal® Products bearing the Kynar Aquatec® finish coating) a newly constructed residence on which Prefinished Trim by Royal® Products bearing the Kynar Aquatec® finish coating are installed.

### Hail Coverage:

Hail damage is excluded from Warranty coverage. Any hail damage to your Westlake Royal Product(s) should be claimed against any applicable homeowner's insurance. Nevertheless, if hail damage is not covered by applicable homeowner's insurance it can be claimed upon application for Warranty coverage and the payment of \$50 (Fifty US Dollars) for Warranty servicing. This hail coverage shall only cover replacement material costs and never any labor to replace damaged pieces of Product. Proof of insurance required.

THIS WARRANTY IS GIVEN IN LIEU OF ALL OTHER WARRANTIES, LIABILITIES OR OBLIGATIONS OF WESTLAKE ROYAL, EITHER EXPRESSED OR IMPLIED, EXCEPT THAT THE DURATION OF ANY IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE LIMITED IN TIME TO THE DURATION OF THIS WARRANTY. WESTLAKE ROYAL SHALL IN NO EVENT BE LIABLE FOR CONSEQUENTIAL OR INCIDENTAL OR SPECIAL DAMAGES OF ANY KIND. YOUR EXCLUSIVE REMEDY SHALL BE ENFORCEMENT OF THIS WARRANTY UPON THE TERMS AND CONDITIONS HEREIN CONTAINED. NO REPRESENTATIVE OF WESTLAKE ROYAL OR ITS DISTRIBUTORS OR DEALERS IS AUTHORIZED TO MAKE ANY CHANGE OR MODIFICATION TO THIS WARRANTY.

### Limitations:

Westlake Royal's Warranties cover only the manufacturing defects identified above and do not provide protection against any damage caused by other factors including but not limited to:

- Normal weathering (as defined below)
- Uneven exposure to sunlight
- Misuse or negligence

- Failure to provide reasonable maintenance to prevent accumulation of dirt, mildew, staining materials, pollution, exposure to chemical Products or incompatible cleaners
- Alterations like applying incompatible coatings, stains or varnishes (see technical information for compatible coatings if any)
- · Improper handling or storage
- Defects in the wall structure (materials or construction) on which Westlake Royal's Products are installed which cause failure, such as movement, cracking or settling of the wall, foundation or building
- Deformation caused by high heat sources including but not limited to grills, fire pits, foil sheathing, low e-glass windows and low e-glass doors.
- · Damage caused by animals or insects
- Impact of foreign objects, hail, lightning, fire, hurricane, tornadoes, or other Acts of God
- · Vandalism, intentional damage, riot or insurrection

Normal Weathering is defined as even exposure to ultraviolet sunlight and extremes of weather and atmosphere which will cause any colored or painted surface to fade, darken, chalk or acquire a surface accumulation of dirt or stains. The severity of these conditions depends on air quality, the geographic location of the property and other local conditions over which Westlake Royal has no control. Westlake Royal shall determine whether the siding is suffering from normal weathering (which is not covered by Warranty). Product is weathering abnormally if it evidences a change in color of more than the requisite Hunter Units as calculated according to ASTM D2244, as outlined in the chart herein. Product(s) must have been exposed to the same weathering conditions and not partially covered by other materials such as shutters, awnings, porticos, or other materials.

Uneven exposure to sunlight is not covered under the terms of this Warranty.

#### Warranty Registration:

We recommend you to register your product, by visiting: www.RBPWarranty.com

The registration process is fast and easy. You will need to provide: name, address, date of installation, and the original proof of purchase for the product.

### Warranty Claim:

To make a warranty claim on your product, please visit: www.RBPWarranty.com

If you have already registered your product, please log in using your same user ID and password. If you have not registered your product, you will need to create an account to file your claim.

Within 30 days of identifying a defect, the claimant shall be required to provide a written description with pictures demonstrating the claimed manufacturing defect. In some cases, an actual sample of the defective product may need to be removed at the owners expense for analysis. Westlake Royal will analyze the provided materials and information to determine the validity of the claim.

For inquiries regarding registration or claims, please e-mail: RBPCustomerCare@westlake.com

## Use and Care:

Your Westlake Royal Product is a low maintenance Product. Please refer to our Use and Care brochure for the best way to keep your Westlake Royal Product looking great.

Some States do not allow limitations on how long an implied Warranty lasts, so the foregoing limitation may not apply to you.

Some States do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to you.





Giving everyone the products, tools and technology to transform spaces into anything they want. This is our mission. And it's Boundless™.



SIDING & ACCESSORIES TRIM & MOULDINGS ROOFING STONE WINDOWS OUTDOOR LIVING





Royal® Trim & Mouldings RoyalTrimMoulding.com | 855-769-258 Item # 96962 | RTM81003 11/22

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ALL DIMENSIONS WILL BE VERIFIED IN THE FIELD PRIOR TO WORK BEING DONE.

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REPORTED HARD LIST. NON STRATED - (PERFAMILUAT: EAN) - (PERFAMIL	REPORT DIALTO LAR: - NON STRATTCD - PREVENTIONED WITCH NA 2 (PSTAURANT RAR) 2 (PSTAURANT RAR) 2 (PSTAURANT RAR) 2 (PSTAURANT RAR) 3 03.3 INSMESS (COLEMAL TO FILM LESS AND CARACTESS 2 (PSTAURANT RAR) 3 03.3 INSMESS (COLEMAL TO FILM LESS AND CARACTESS 4 (PST T TO 50 3 2 (PSTAURANT RAR) 3 0.4 - 70 FT 100 FT 100 2 501 - 75 FT 100 - 201 COLEMAL TO END AND FT TALK LESS AND CARACTESS 4 (PST T TO 50 10 CT TALK LESS AND CARACTESS 4 (PST T TO 50 10 CT TALK LESS AND CARACTESS AND CARACTESS 3 (PST A) (PST T TO 50 10 CT TALK LESS AND CARACTESS AND CARACTESS THANK TO TAKE LESS AND CARACTESS THANK TO TAKE LESS AND CARACTESS AND CARACTE	XISTING: MERCANTILE			NO.	3000
A HERM PRODUCTS) 30.2 3 2 HERM PRODUCTS) 30.2 3 3 HERM PRODUCTS) 30.2	LINEAR PRODUCTS INTO TAKEN AND SAFETY BY OWNERS DIGITIZED TO AN A COMMON PLANE AREA - 11:500 (IMPTED BY A-2) TODOR 21 TO	PROPOSED MIXED USE - NON-SEPARATED			STATE O	F MAINE
LIGHTERS (INTERING) BALI LIGHTERS (INTERING) BALING LIGHTERS (INTERNE) BALING LIGHTERS (INT	The number of the set	-1 (HEIVIP PRODUCTS) A-2 (RESTAURANT - BAR)	305.2 303.3			
LIUWABLE HEIGHT: 50 FT T T504.3 LIUWABLE HEIGHT: 50 FT T T504.4 LIUWABLE ARE STORES AROUT GRADE: 7 T T604.4 LIUWABLE HEIGHT: 500 LIWTE DE X 2) T 506.2 ARE. COMMON PATH OF TRAVEL 1010.1.2.1 COCUPACY COLOR 50 XTI ACCESS TAVELUSTANCE TO 20 SOUSS CAN SWING AGAINST PATH OF TRAVEL 1010.1.2.1 COCUPACY COLOR 50 XTI ACCESS TAVELUSTANCE TO 20 SUBJECT AND TO A ACCESSING WINDUITE TO 1104.1 LICESSIBLE PARKING OS UNFORM PUMBING CODE TABLE 422.1 COCUPACY COLOR 50 FT TO 100 FT ARIE 422.1 COCUPACY OLICY STRANCE TO 20 FT T00.2.6.1 T00.1.2.5 COLOR ACCESSING SOUSS 120 FC 100 FT ARIE 54.00 CHARSIS ITS NETT: 1082 SF / 00 = 73 PFOPLE T00.1.12 AND STRANCE TO BE ACCESSING WINDUITE TO 1104.1 LICESSIBLE PARKING OS UNFORM PUMBING CODE TABLE 422.1 COCUPACY OLICY STRANCE TO TABLE 54.00 CHARSIS ITS NETT: 1082 SF / 00 = 73 PFOPLE T00.1.2 STURE (COMMON PATH OF TRAVEL 20 LICES AND TO TABLES AND CHARSIS ITS NETT: 1082 SF / 00 = 73 PFOPLE T00.1.2 AND TABLE 51 LIW WINDIFFLA (COCUPACY - CHAPTER K0 COUPANITH OF TRAVEL 50 SF IT T00.2.6.1 T00.1.2 AND TABLE 50 STRACE TOR 50 FT T00.2.6.1 T00.1.2 AND TABLE 50 STRACE TOR 50 FT T00.2.6.1 T00.1.2 AND TABLE 50 STRACE TOR 50 FT T31.2.7 T00.1.1 TRAVE DISTANCE TOR 50 FT T32.5.1 WINDERS TOR TRAVE AS A B IN ENT ACCESS S13.3.3.7 EVER DISTANCE TOR TOR 50 FT T32.5.1 WINDERS TOR TRAVE AS A B IN ENT ACCESS S13.3.3.7 EVER DISTANCE TOR 50 FT T32.5.1 WIND	ILIOWABIE HIGHT: SOFT TO SUBJECT	USINESS (KITCHEN)	304.1			
LIDWALE TRONES ADDATE ADDATE ADDATES ADDATE ADDATES AD	LEWAGE STORES AGOVE GRAPE 2 TORA 4 TOWAGE VERSION OF A CONTAINED TO TRAVEL FOR SPACES WITH ONLY ONE EXT 24 6F - 37 FT 1000412 AT 24 7F - 37 FT 100042 AT 27 FT 100042 AT 20 FT 100042	LLOWABLE HEIGHT: 50 FT	T504.3			
LIDWARE AREA - 1.500 (LIMPED BY A-2) TORE 2 ALCOMMON PAID OF TRAVEL OR SPACES WHI ONLY DIVE FOR 2 & F. 75 FT T 1006.2.1 - 100 FT (01 - 30) - 75 FT (01 - 30) ODD CAN SWIKE GARNEST PATH OF TRAVEL 100 FT (01 - 30) - 75 FT (01 - 30) ODD CAN SWIKE GARNEST PATH OF TRAVEL 1010 1.2.1 - COCUPANCY LOAD - 50 ATT ACCESS TRAVE INSTANCE T 1017.2 2, 8, M - 20 FT WHEN ENTANCE ID ESTACES 2, 8, M - 20 FT WHEN ENTANCE ID ESTACES DIS UNIVORM PLUMBING CODE - TABLE 422.1 CCUPANCY LOAD - 50 ATT ACCESS TRAVE ID DESTACES DIS UNIVORM PLUMBING CODE - TABLE 422.1 CCUPANCY LOAD - 50 ATT ACCESS TRAVE ID DESTACES DIS UNIVORM PLUMBING CODE - TABLE 422.1 CCUPANCY LOAD - 50 STACE DIS UNIVORM PLUMBING CODE - TABLE 422.1 CCUPANCY LOAD - 50 STACE DIS UNIVORM PLUMBING CODE - TABLE 422.1 CCUPANCY LOAD - 50 STACE TO 001.2 DIS UNIVORM PLUMBING CODE - TABLE 422.1 CCUPANCY LOAD - 50 STACE TO 001.2 DIS UNIVORM PLUMBING CODE - TABLE 422.1 CCUPANCY LOAD - 50 STACE TO 001.2 DIS UNIVORM PLUMBING CODE - TABLE 422.1 CCUPANCY LOAD - 50 STACE TO 001.2 DIS UNIVORM PLUMBING CODE - TABLE 422.1 CCUPANCY LOAD - 50 STACE TO 001.2 DIS UNIVORM PLUMBING CODE - TABLE 422.1 CCUPANCY LOAD - 50 STACE TO 001.2 DIS UNIVORM PLUMBING CODE - TABLE 422.1 CCUPANCY LOAD - 50 STACE TO 001.2 DIS UNIVORM PLUMBING CODE - TABLE 422.1 TO 001.2 DIS UNIVEL - 100 STACE - 300 FT TO 1.2 DIS UNIVEL - 100 STACE - 300 FT TO 2.5.1 DIS UNIVEL - 100 STACE - 300 FT TO 2.5.2 DIS UNIVEL - 100 STACE - 300 FT TO 2.5.2 DIS UNIVEL - 100 STACE - 300 FT TO 2.5.2 DIS UNIVEL - 300 FT TO 3.4 DIS UNIVEL DIS NOCE - 50 FT TO 2.5.	LICOMARK MEAN-11,500 (LIMITED BY A2) TOBA 2 WAS COMMON PARTING TRANSPORTED BY SAVED BY THOME ONE BY TO THE SAVED BY THE S	LLOWABLE STORIES ABOVE GRADE: 2	T504.4			
As - U-MANNEL DEFINITION OF UNITED AND UNIT UNIT UNIT UNIT UNIT UNIT UNIT UNIT	As C-COMPACY LOAD TO TRAVEL ON PACES WITHOUT ONE UNE EAST 347 - 75 TT (IDE > 30) OBSC CAN SWIG AGAINST PATH OF TRAVEL 10101.2.1 OCCUPANCY LOAD - 50 UT ACCESS TRAVEL RUSTANCE 2, 5M - 230 TT TOO TL CASS TRAVEL RUSTANCE CESSIBLE PARKING CODE - TABLE 422 I CCUPANCY LOAD - 52 TOO TL CASS TRAVEL RUSTANCE CESSIBLE PARKING CODE - TABLE 422 I CCUPANCY LOAD - 52 PEOPLE - 16 MEN, 45 WOMEN SEGMEV UNCONSTRAINED (TABLES AND CHARSE) (IS NET): 1082 SF / 60 - 73 PEOPLE TOO L12 CCUPANCY LOAD - 52 PEOPLE - 16 MEN, 45 WOMEN SEGMEV UNCONSTRAINED (TABLES AND CHARSE) (IS NET): 1082 SF / 60 - 73 PEOPLE TOO L12 CCUPANCY LOAD - 52 PEOPLE - 16 MEN, 45 WOMEN SEGMEV UNCONSTRAINED (TABLES AND CHARSE) (IS NET): 1082 SF / 60 - 73 PEOPLE TOO L12 CCUPANCY LOAD - 52 PEOPLE TEN LIVEN J200 GROSSI: 957, J 100 - 13 PEOPLE TTOO L22 DUSTTAIL LOC COMPACY - CHAPTER 40 CCUPANCY LOAD FACTOR - 20 SFPC TOTAL TRAVEL DISTANCE FOR SPACE WITH OWE EXT < 100 IT 40.2.3.1 TRAVEL DISTANC - COMPACY - CHAPTER 80 CCUPANCY LOAD FACTOR - 30 SFPC TOTAL TRAVEL DISTANCE FOR SPACE WITH OWE EXT < 100 IT 40.2.3.1 TERIOR PHONE MER FORD 40.3.3 EN REJAMINE REPORD 40.3.3 EN REJAMINE REPORD 40.3.4.1 ENTROUGHENES NOT REQ'D 40.3.4.1 ENTROUGHENES NOT REQ'D 40.3.4.1	LLOWABLE AREA - 11,500 (LIMITED BY A-2)	T506.2			
LIDOFT (0.4.30) - 75 FT (0.1.30) DORS CM SWING AGAINST PAR O TRAVEL 1010.1.2.1 COURANCY LOAD - 50 TH ACCESS TRAVEL DISTANCE TO TARVEL 1010.1.2.1 CCUPANCY LOAD - 51 PEOPLE - 450 EN, 45 WOMEN ISO UNFORM PLUNARING CODE - TARLE 422.1 CCUPANCY LOAD - 51 PEOPLE - 450 EN, 45 WOMEN SUS UNFORM PLUNARING CODE - TARLE 422.1 CCUPANCY LOAD - 51 PEOPLE - 450 EN, 45 WOMEN USO UNFORM PLUNARING CODE - TARLE 422.1 CCUPANCY LOAD - 51 PEOPLE - 450 EN, 45 WOMEN SUS UNFORM PLUNARING CODE - TARLE 422.1 CCUPANCY LOAD - 51 PEOPLE - 450 EN, 51 WOMEN USO UNFORM PLUNARING CODE - TARLE 422.1 CCUPANCY LOAD - 51 PEOPLE - 450 EN, 51 WOMEN USO WIND REST - 1276 / 100 - 13 PEOPLE TOUBLE 1, 14W WIND WATH OF TRAVEL < 50 FT TO - 52.5 F (50 - 73 PEOPLE TOUBLE 1, 14W WIND WATH OF TRAVEL < 50 FT TO - 13 PEOPLE TOUBLE 1, 14W WIND WATH OF TRAVEL < 50 FT TO - 100 SFP T7.3.1.2 TENDOR FINISHES A & B & C 40.3.3.2 WIND WATH OF TRAVEL < 50 FT TO - 23.4.1 TENDOR FINISHES A & B & C 40.3.3.2 WIND WATH OF TRAVEL < 50 FT TO - 38.2.5.3.1 WIND WATH OF TRAVEL < 50 FT 73.1.2 TARLE 4.0.4.4M RECCO WIND WATH OF TRAVEL < 50 FT 73.1.2 TRAVEL DISTANCE - COMPTER 38 CCUPANT LOAD FACTOR - 100 SFP TO - 38.2.5.3.1 WIND WATH OF TRAVEL < 50 FT 18.2.5.3.1 WIND WATH OF TRAVEL < 50 FT 18.2.5.3.1 WIND WATH OF TRAVEL < 75 FT 38.2.5.3.1 WIND WATH OF TRAVEL < 75 FT 38.2.5.3.1 WIND WATH OF TRAVEL < 75 FT 22.5.1 WAND WATH OF TRAVEL < 75 FT 22.5.1 WAND WATH OF TRAVEL < 20 FT 12.2.5.1 WAND WATH OF TRAVEL < 20 FT 12.2.5.1 WIND WALL & CELING A & B & B C 12.3.8 WIND WALL & CELING A & B & C 12.3.8 WIND WALL & CELING A & B & C 12.3.8 WIND WALL & CELING A & B & C 12.3.8 WIND WALL & CELING A & B & C 12.3.8 WIND WALL & CELING A & CA & B & C 12.3.8 WIND WALL OF TRAVEL < 20 FT 12.2.5.1 WIND WALL & CELING A & B & C 12.3.8 WIND WALL WALL & CELING A & B & C 12.3.8 WIND WALL WALL & CELING A & B & C 1	1:00 Tr (D1 < 30) - 75 Tr (D1 > 30)       100.0.1.2.1         0:005 CAN SWING ACARIST PART OF TRAVEL       101.0.1.2.1         0:005 CAN SWING ACARIST PART OF TRAVEL       100.0.1.2.1         0:005 CAN SWING ACARIST PART OF TRAVEL       100.1.2.1         0:005 CAN SWING ACARIST PART ARE OF TABLE 422.1       100.1.2.1         0:005 CAN SWING ACARIST PART ARE OF TABLE 422.1       100.1.2.1         0:005 CAN SWING ACARIST PART ARE OF TABLE 422.1       100.1.2.1         0:005 CAN SWING ACARIST PART ARE OF TABLE 422.1       100.1.2.1         0:005 CAN SWING ACARIST PART ARE OF TABLE 422.1       100.1.2.1         0:005 CAN SWING ACARIST PART ARE OF TABLE 422.1       100.1.2.1         0:005 CAN SWING ACARIST PART ARE OF TABLE 422.1       100.1.2.1         0:005 FARSET TABLE AND ACARIST AND ACARIST ARE OF TABLE 422.1	2 & F - 75 FT	T1006.2.1			
DOIS CAN SAVING AGAINST PATH OF TRAVEL 1020.12.1 OCCUPANCY LOAD > 50 TALEXCESS TRAVEL DISTANCE IN THE OF TRAVEL 1027.2 2, 8, M-20 FT AND NUTRICE TO BE ACCESSIBLE W ROUTE TO 104.1 CESSIBLE PARKING TIS UNIFORM PLUMBING CODE - TABLE 422.1 CUPANCY LOAD > 30 FOTO - TABLE 422.1 CUPANCY LOAD > 50 FOTO - 13 PEOPLE TOUTINEL (100 GROSS): 1276 / 100 - 13 PEOPLE TOUTINEL (100 FOR COT T TAD.2.5.1 MMON PATH OF TRAVEL < 20 FT TO 12.2.6.1 EARLS WEED STANCE SON FT TO 22.6.1 EARLS WEED STANCE SON FT TO 22.6.1 TABLE 24.33 WE DISTANCE CONSTRACE WITH ONE EXIT < 100 FT 38.2.2.3.1 WINDER MERCYD 40.3.5. W ASSEMILY OCCUPANCY - CHAPTER 18 TUDAL TRAVEL DISTANCE SON FT 38.2.5.3.1 WASSEMILY OCCUPANCY - CHAPTER 12 TUPANCI UNSTRUCT SON FT 38.2.5.3.1 WASSEMILY OCCUPANCY - CHAPTER 12 WASSEMILY UNCUSARUE < 200 FT 122.6.1 WASSEMILY OCCUPANCY - CHAPTER 12 WASSEMILY UNCUSARUE < 200 FT 122.6.1 WASSEMILY OCCUPANCY - CHAPTER 12 WASSEMILY UNCUSARUE < 200 FT 122.6.1 WASSEMILY OCCUPANCY - CHAPTER 12 WASSEMILY UNCUSARUE & 200 FT 122.6.1 WASSEMILY UNCUSARUE & 200 FT 122.6.1 WASSEMILY OCCUPANCY - CHAPTER 12 WASSEMILY OCCUPANCY - CHAPTER 12 WA	DORS CAN SWING AGAINST THE OF TRAVEL 1010.1.2.1 OCCUPANCY LODA S TO TACKESS TRAVEL DISTANCE TO TOTAL CONSTRUCTION STATUSE A, M. * 200 FT AND REVTANCE TO BE ACCESSIBLE W ROUTE TO 1104.1 CCESSIBLE PARKING TAL EXCESS TRAVEL DISTANCE TO BE ACCESSIBLE W ROUTE TO 1104.1 CCESSIBLE PARKING TAL EXCESS TRAVEL DISTANCE TO BE ACCESSIBLE W ROUTE TO 1104.1 CCESSIBLE PARKING TAL EXCESS TRAVEL DISTANCE TO BE ACCESSIBLE W ROUTE TO 1104.1 CCESSIBLE PARKING TAL EXCESSION PLUMMENT CONST. 1256 / 50 - 73 PEOPLE TAUDAL2 DUSTRIAL (COURS): 1276 / 100 - 13 POPUE TOTAL2 DUSTRIAL (COURS): 05 / 200 - 5 PEOPLE CURRED (MOST RESTRICTIVE A-2 USED) EN-1 TOLET, 1 LAV TAL TRAVEL DISTANCE FOR SPACE WITH ONE EXT < 100 FT 102.5.1 TAL TRAVEL DISTANCE FOR SPACE WITH ONE EXT < 100 FT 102.5.1 TAL TRAVEL DISTANCE FOR SPACE WITH ONE EXT < 100 FT 102.5.1 TAL TRAVEL DISTANCE FOR SPACE WITH ONE EXT < 100 FT 102.5.2 TAL TRAVEL DISTANCE FOR SPACE WITH ONE EXT < 100 FT 102.5.3 THE DARM RECTO 103.5.3 WE USINESS OCCUPANCY - CHAPTER 38 CUPANT LOAD FACTOR - 100 SFP T7.3.1.2 TAL TRAVEL DISTANCE FOR SPACE WITH ONE EXT < 100 FT 102.5.3 WE USINESS OCCUPANCY - CHAPTER 188 CUPANT LOAD FACTOR - 100 SFP T7.3.1.2 TAL TRAVEL DISTANCE FOR SPACE WITH ONE EXT < 100 FT 102.5.2.3 MINON PATH OF TRAVEL < 25 FT 102.5.2.3 MINON PATH OF TRAVEL < 25 FT 104.5.3 WE USINESS OCCUPANCY - CHAPTER 188 CUPANT LOAD FACTOR - 15 SFPP T7.3.1.2 TAL TRAVEL DISTANCE < 400 FT 122.5.5.1 MINON PATH OF TRAVEL < 25 FT 122.5.5.1 MINON PATH OF TRAVEL < 25 FT 122.5.5.1 MINON PATH OF TRAVEL < 25 FT 122.5.1 MINON PATH OF TRAVEL < 25 FT 122.5.1 MINON PATH OF TRAVEL < 25 FT 122.5.1 MINON PATH OF TRAVEL < 25 FT 123.4.4 REGINC UIGHTING RECDD 123.4 THE DARMING RECDD 123.4 THE DARM MISCON ALL & CILING A & B & C 110-11-23 THE TRAVEL DISTANCE TON THE STORE TON THE STORE THE TONE FOR TON THE STORE TONE TRAVEL STORE TONE TRAVEL STORE TONE TRAVEL STORE TONE TONE TONE TONE TONE TONE TONE TON	- 100 FT (OL < 30) - 75 FT (OL > 30)				
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THE ADVISOR OF CONTROL OF TABLE 422.1 CICENSUIC PARKING IS UNFORM PLUMBING CODE - TABLE 422.1 CICENSUIC PARKING IS UNFORM PLUMBING CODE - TABLE 422.1 CICENSUIC CUCANCY COLVERS AND CHARSS (1S NET): 1082 SF / 60 = 73 PEOPLE TIODAL 2 DUSTRIAL (100 GROSS): 1276 / 100 = 13 PEOPLE CICHNE JOOG GROSS): 05 / 200 = 5 PEOPLE ICHEN JOOG GROSS): 05 / 200 = 5 PEOPLE CICHNE JOOG GROSS (100 - 100 SFPP TI 2012.5 DUSTRIAL (200 GROSS): 05 / 200 = 5 PEOPLE CICHNE JOC GROSS (100 - 100 SFPP TI 2012.5 DUSTRIAL COCUPANCY - CHAPTER 40 DESTINAL OCCUPANCY - CHAPTER 40 DESTINAL OCCUPANCY - CHAPTER 38 CILIPANT LOAD FACTOR - 100 SFPP TI 202.5 THEROR FINISHES AS & 8 & C CILIPANT LOAD FACTOR - 100 SFPP TI 202.5 DISTRIAL OCCUPANCY - CHAPTER 38 CILIPANT LOAD FACTOR - 100 SFPP TI 202.5 WISINESS OCCUPANCY - CHAPTER 38 CILIPANT LOAD FACTOR - 100 SFPP TI 31.2 THE TRONE THORE FINISHES AS & 8 & C CILIPANT LOAD FACTOR - 100 SFPP TI 31.2 THE TRONE THORE FOR SPACE WITH ONE EXIT < 100 FT 82.2.5.1 BACK CILIPANTED TENDER THORE FINISHES AS & 8 & C CILIPANT LOAD FACTOR - 100 SFPP TI 31.2 THE TRONE THORE FOR SPACE WITH ONE EXIT < 100 FT 82.2.5.1 BACK CILIPANTED TENDER THORE TRONE FOR SPACE WITH ONE EXIT < 100 FT 82.2.5.1 BACK CILIPANTED TENDER THORE TO TROLE OF SFFT TI 22.5.3 WASKINGTOR COD FT BACK CILIPANTED BACK CILIPANTED TENDER THORE TRONE FOR SPACE WITH ONE EXIT = 100 FT 82.5.2.1 BACK CILIPANTED TENDER THORE TRONE FOR SPACE WITH ONE EXIT = 100 FT 82.5.2.1 BACK CILIPANTED SCALE: AS NOTED BACK CILIPANE SCALE: AS NOTED TENDER THORE TRONE FOR SPACE WITH ONE EXIT = 100 FT BACK CILIPANTED SCALE AS NOTED SCALE: AS NOTED TENDER THORE AND AS AS & 8 & C TI 22.5.1 BACK CILIPANE SCALE: AS NOTED SCALE: AS NOTED SCALE: AS NOTED SCALE: AS NOTED TI 20.6.1 BACK CILIPANE SCALE: AS NOTED SCALE: AS NOTED SCALE: AS NOTED SCALE: AS NOTED SCA	A MARK AND ALL ACCESSIBLE VARUUTE TO 1104.1 CESSIBLE PARKING IS UNFORM PLUMENING CODE - TABLE 422.1 CECRANCY LOAD STPORT - 64 MTN, 45 WOMTN SEMBLE VARKING CODE - TABLE 422.1 CLUCARVY LOAD STRANED (TABLE 422.1 CLUCARVY LOAD STRANET FOR STRACE WITH ONE EXT < 100 FT 40.2.5.1 DUSTRIAL OCCUPANCY - CHAPTER 40 CLUCARVY LOAD STRANET FOR STRACE WITH ONE EXT < 100 FT 40.2.5.1 DIMMON PATH OF TRAVEL < S0 FT TO 10.2.5.1 DIMMON PATH OF TRAVEL S0 FT TO 2.5.1 DIMMON PATH OF TRAV	UCCUPANCY LOAD < 50	T1017 2		<b>1</b>	
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CECESSIBLE PARKING  SSE UNFORM PLUMBING CODE - TABLE 422.1 CCUPARVU (LOAD: 51 PEOPLE - 46 MEN, 45 WOMKIN  SSEMBLY UNCONSTRAINED (TABLES AND CHAIRS) (15 NET): 1082 SF / 60 = 73 PEOPLE  TID04.12  DUSTRIAL (100 GROSS): 1276 / 100 = 13 PEOPLE  SQUIRED (MOST RESTRICTIVE A-2 USED)  EN L 1 TOUELT, 1 LW  SMEN - 2 TOLETS, 1 LW  FPA 101, 2018  DUSTRIAL OCCUPANCY - CHAPTER 40 CCUPANT LOAD FACTOR - 100 SFP  T7.3.1.2  TAL TARVEL DISTANCE FOR SPACE WITH ONE EXT < 100 FT  T40.2.6.1  TERIOR FINISHES A & B & C  MONON PATH OF TRAVEL - 50 FT  T40.2.5.1  SMERINCY UNCHTING REQD  A0.3.4.1  TERIOR FINISHES A & B & C  DEVINAUMON PATH OF TRAVEL - 50 FT  T40.2.5.1  SMERINCY UNCHTING REQD  A0.3.4.1  TERIOR FINISHES A & B & C  DEVINAUMON PATH OF TRAVEL - 50 FT  S8.2.5.3.1  SMERINCY UNCHTING REQD  S8.3.5  EN BUSINESS OCCUPANCY - CHAPTER 12  CCUPANT LOAD FACTOR - 10 SFPP  T7.3.1.2  TAL TARVE DISTANCE FOR SPACE WITH ONE EXT < 100 FT  B3.2.4.3  SCALE: AS NOTED  T1-01-23  TERIOR FINISHES WALL & CEUING A & B & A & C  SCALE: AS NOTED  SCALE: AS NOTED  SCALE: AS NOTED  SCALE: AS NOTED  T1-122  SCALE: AS NOTED  SC	CECESSIBLE PARKING  DISTRIAL LOW BING CODE - TABLE 422.1 CCUPANT (JGA): 31 PEOPLE TOOL 1.2  DISTRIAL LOO GROSS): 2076 / 100 = 13 PEOPLE TOOL 1.2  TURNEL DISTRIAL (JGO GROSS): 2076 / 100 = 13 PEOPLE TOOL 1.2  DISTRIAL LOO GROSS): 2076 / 100 = 13 PEOPLE TOOL 1.2  TURNEL DISTRIAL COLOPANCY - CHAPTER 40 CUPANT LOB FACTOR - 100 SFPP TT3.1.2  TAUTRAVEL DISTANCE 708 SPACE WITH ONE EXIT < 100.2.5.1  WANDON PATH OF TRAVEL < 30 FT T00.2.5.1  TRAVEL DISTANCE 400 SPACE WITH ONE EXIT < 100.2.5.1  ARRGINCY LIGHTING RECOD 40.3.5  EXAULD DISTRIAL COLOPANCY - CHAPTER 40 CUPANT LOB FACTOR - 100 SFPP TT3.1.2  TAUTRAVEL DISTANCE 700 SPACE WITH ONE EXIT < 100.2.5.1  ARRGINCY LIGHTING RECOD 40.3.5  EXAULD DISTANCE 700 SPACE WITH ONE EXIT < 30.3.1  RE EXTINGUISHERS NOT RECID 40.3.5  EXAULD DISTANCE 700 SPACE WITH ONE EXIT < 30.3.1  RE EXTINGUISHERS NOT RECID 30.3.1  RE EXTINGUISHERS NOT RECID 30.3.1  RE EXTINGUISHERS NOT RECID 30.3.2  EXAULD DISTANCE 70.5 FFP TT3.1.2  CUPANT LOB FACTOR - 100 SFPP TT3.1.2  EXAULD DISTANCE 700 SPACE WITH ONE EXIT < 200 FT 30.2.6.3  REALMAN RECD 30.3.2  EXAULD DISTANCE 700 SPACE WITH ONE EXIT < 200 FT 32.2.6.1  REALMAN RECD 33.3.2  CUPANT LOB FACTOR - 105 SFPP TT3.1.2  CUPANT LOB FACTOR - 105 SFP TT3.1.2  CUPANT LOB FACTOR - 105 SFPP TT3.1.2  CUPANT LOB FACTOR - 105 SFPP TT3.1.2  CUPANT LOB FACTOR - 105 SFPP TT3.1.2  CUPANT LOB FACTOR - 105 SFP TT3.1.2  CUPANT LOB FACTOR - 105 SFP TT3.1.2  CUPANT LOB FACTOR - 105 SFP TT3.1.2  CUPANT LOB FACTOR	AIN ENTRANCE TO BE ACCESSIBLE W ROUTE TO	1104.1			I
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CODE REVIEW

SCALE: NTS

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SCALE: 1/4"=1'-0"

2



![](_page_178_Figure_0.jpeg)

IBC 2015, IEBC 2015 CONSTRUCTION TYPE: 5A NOT SPRINKLERED 9,200 SF LEVEL 2 ALTERATION EXISTING: MERCANTILE PROPOSED MIXED USE - NON-SEPARATED F-1 (HEMP PRODUCTS) A-2 (RESTAURANT - BAR) BUSINESS (KITCHEN) ALLOWABLE HEIGHT: 50 FT ALLOWABLE HEIGHT: 50 FT ALLOWABLE STORIES ABOVE GRADE: 2 ALLOWABLE AREA - 11,500 (LIMITED BY A-2) MAX. COMMON PATH OF TRAVEL FOR SPACES WITH ON A-2 & F - 75 FT	306.2 303.3 304.1 T504.3 T504.4 T506.2 LY ONE EXIT T1006.2.1		ARCHITECTURE & CONSULTING	ARCHITECTURE - BUILDING ENVELOPE DESIGN Consulting, Investigation and Commissioning - Windham, ME <b>207-807-6661</b>
B - 100 FT (OL < 30) - 75 FT (OL > 30) DOORS CAN SWING AGAINST PATH OF TRAVEL IF OCCUPANCY LOAD < 50 EXIT ACCESS TRAVEL DISTANCE A-2, B, M - 200 FT MAIN ENTRANCE TO BE ACCESSIBLE W ROUTE TO ACCESSIBLE PARKING 2015 UNIFORM PLUMBING CODE - TABLE 422.1	1010.1.2.1 T1017.2 1104.1		CHINSED AF	P. ASS 00
ASSEMBLY UNCONSTRAINED (TABLES AND CHAIRS) (15 N T1004.1.2 INDUSTRIAL (100 GROSS): 1276 / 100 = 13 PEOPLE KITCHENS (200 GROSS): 905 / 200 = 5 PEOPLE REQUIRED (MOST RESTRICTIVE A-2 USED) MEN - 1 TOILET, 1 LAV WOMEN - 2 TOILETS, 1 LAV NFPA 101, 2018 INDUSTRIAL OCCUPANCY - CHAPTER 40 OCCUPANT LOAD FACTOR - 100 SFPP TOTAL TRAVEL DISTANCE FOR SPACE WITH ONE EXIT < 10 DEAD END CORRIDOR < 50 FT COMMON PATH OF TRAVEL < 50 FT TRAVEL DISTANCE < 300 FT MEANS OF EGRESS ILLUMINATED EMERGENCY LIGHTING REQ'D INTERIOR FINISHES A & B & C FIRE ALARM REQ'D FIRE EXTINGUISHERS NOT REQ'D NEW BUSINESS OCCUPANCY - CHAPTER 38 OCCUPANT LOAD FACTOR - 100 SFPP TOTAL TRAVEL DISTANCE FOR SPACE WITH ONE EXIT < 10 DEAD END CORRIDOR < 50 FT COMMON PATH OF TRAVEL < 75 FT TRAVEL DISTANCE 300 FT EMERGENCY LIGHTING REQ'D INTERIOR FINISHES WALL & CEILING A & B IN EXIT ACCESS A & B & C IN ALL OTHER AREAS NO FIRE ALARM REQ'D FIRE EXTINGUISHERS NOT REQ'D INTERIOR FINISHES WALL & CEILING A & B IN EXIT ACCESS A & B & C IN ALL OTHER AREAS NO FIRE ALARM REQ'D FIRE EXTINGUISHERS NOT REQ'D INTERIOR FINISHES WALL & CEILING A & B IN EXIT ACCESS A & B & C IN ALL OTHER AREAS NO FIRE ALARM REQ'D FIRE EXTINGUISHERS NOT REQ'D NEW ASSEMBLY OCCUPANCY - CHAPTER 12 OCCUPANT LOAD FACTOR - 15 SFPP DEAD END AISLES < 20 FT COMMON PATH OF TRAVEL < 75 FT TRAVEL DISTANCE < 200 FT EMERGENCY LIGHTING REQ'D INTERIOR FINISHES WALL & CEILING A & B & C	NET): 1082 SF / 60 = 73 PEOPLE T7.3.1.2 40.2.4.3 T40.2.5.1 T40.2.5.1 T40.2.5.1 T40.2.9.1 40.2.9.1 40.2.9.1 40.2.9.1 40.3.3.2 40.3.4.1 40.3.5 T7.3.1.2 38.2.4.3 38.2.5.2.1 38.2.5.3.1 38.2.5.3.1 38.2.6.3 38.2.9.1 5 38.3.3.2.1 38.3.3.2.2 38.3.3.2.1 38.3.3.2.1 38.3.3.2.2 38.3.3.2.1 38.3.3.2.2 38.3.3.2.1 38.3.3.2.2 38.3.3.2.1 38.3.3.2.2 38.3.3.2.1 38.3.3.2.2 38.3.3.2.1 38.3.3.2.2 38.3.3.2.1 38.3.3.2.2 38.3.3.2.1 38.3.3.2.2 38.3.3.2.1 38.3.3.2.2 38.3.3.2.1 38.3.3.2.2 38.3.3.2.1 38.3.3.2.2 38.3.3.2.1 38.3.3.2.2 38.3.3.2.1 38.3.3.2.2 38.3.3.2.1 38.3.3.2.2 38.3.3.2.1 38.3.3.2.2 38.3.3.2.1 38.3.3.2.2 38.3.3.2.1 38.3.3.2.2 38.3.3.2.1 38.3.3.2.2 38.3.3.2.1 38.3.3.2.2 38.3.3.2.1 38.3.3.2 38.3.3.2 38.3.3.2 38.3.3.2 38.3.3.2 38.3.3.2 38.3.3.2 38.3.3 38.3.3 38.3.3 38.3 39.3 39.3 39.3 30.3 30.3 30.3 30.3 30.3 30.3 30.3 30.3 30.3 30.3 30.3 30.3 30.	AND PERMITTING	REVISIONS     BGB ROOSEVELT TRAIL       33/01/2024 DRAWING SHEET A1.2A & S1 WAXWING     868 ROOSEVELT TRAIL       3AKERY ADDED TO FRONT OF SET     WINDHAM, MAINE 04062	
CARBON MONOXIDE DETECTION 12.3.4.4.1 FIRE EXTINGUISHERS REQ'D 12.3.1 NOTE: FIRE ALARM SYSTEM AND SAFETY BY OWNERS ENGINEER.		FOR CONSTRUCTION	NALE: VALUE	
CODE REVIEW				

SCALE: 1/4"=1'-0"

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SCALE: NTS

2

![](_page_179_Figure_0.jpeg)


## EGRESS DOOR AND STAIR CALCULATIONS:

UPPER FLOOR YOL	KED RESTAURANT 101:							
SPACE KITCHEN BAR BAR BACK DINNING ROOM	SQUARE FOOTAGE 834SF WITH EQUIPMENT 97SF 40SF 900SF	OCCUPANT LOAD 200 5 200 15	OCCUPANTS 4 19 1 60	STAIR IN INCHES AT .3 1 6 1 18	DOORS IN INCHES 1 4 1 12			
UPPER FLOOR VACANT SPACE 102 (MERCANTILE)								
TOTAL SPACE	1412	60	24	7	5			
TOTAL			108 PEOPLE	32" REQUIRED 48" STAIR PROVIDED	22 INCHES DIVIDE 3 DOORS AT 36" F 4TH 36" DOOR			
LOWER FLOOR:								
SPACE MAC'S SPACE	SQUARE FOOTAGE 1196SF	OCCUPANT LOAD 100 (INDUSTRIAL)	OCCUPANTS 12	STAIR IN INCHES AT .3 4	DOORS IN INCHES			
TOTAL			12 PEOPLE	MINIMUM SIZES REQUIRED				

EXIT ILLUMINATED EXIST SIGN



ADDED TO THE PLAN





2 HOUR FLOOR CEILING: UL L511 1" PLYWOOD SUB FLOOR 2X10 16" O.C. 2 LAYER <sup>§</sup>" TYPE X MUD TAPE AND FINISH WITH RESILIENT CHANNEL BETWEEN

1 LAYER  $\frac{5}{8}$ " TYPE X MUD TAPE AND FINISH 2X OR 2X6 STUD WALL 16" O.C.

1 LAYER <sup>5</sup>8" TYPE X MUD TAPE AND FINISH

1 HOUR WALL: U314

1 HOUR INDICATED BY RED DASHED LINE

2 HOUR INDICATED BY RED DASHED DOT DOT LINE

ADDED TO THE PLAN



## LOWER LEVEL LIFE SAFETY PLAN

ALL DIMENSIONS WILL BE VERIFIED IN THE FIELD PRIOR TO WORK BEING DONE.

## EGRESS DOOR AND STAIR CALCULATIONS:

UPPER FLOOR YOL	KED RESTAURANT 101:							
SPACE KITCHEN BAR BAR BACK DINNING ROOM	SQUARE FOOTAGE 834SF WITH EQUIPMENT 97SF 40SF 900SF	OCCUPANT LOAD 200 5 200 15	OCCUPANTS 4 19 1 60	STAIR IN INCHES AT .3 1 6 1 18	DOORS IN I 1 4 1 12			
UPPER FLOOR VACANT SPACE 102 (MERCANTILE)								
TOTAL SPACE	1412	60	24	7	5			
TOTAL			108 PEOPLE	32" REQUIRED 48" STAIR PROVIDED	22 INCHES 3 DOORS A 4TH 36" DO			
LOWER FLOOR:								
SPACE MAC'S SPACE	SQUARE FOOTAGE 1196SF	OCCUPANT LOAD 100 (INDUSTRIAL)	OCCUPANTS 12	STAIR IN INCHES AT .3 4	DOORS IN I 2			
TOTAL			12 PEOPLE	MINIMUM SIZES REQUIRED				

## EXIT ILLUMINATED EXIST SIGN

- S SMOKE DETECTOR (AS DESIGNED BY FIRE ENGINEER)
- EMERGENCY LIGHTING
- FE FIRE EXTINGUISHER



## UPPER LEVEL LIFE SAFETY PLAN

ALL DIMENSIONS WILL BE VERIFIED IN THE FIELD PRIOR TO WORK BEING DONE.



DOOF	SCHEDULE:		
1	NEW	3'0"X6'-8"	OUT SWING STOREFRONT DOOR AND FRAME FULL LIGHT GLASS WITH CLOSURE AND GASKET
2	EXISTING	6'-0"X6'-8"	OUT SWING STOREFRONT DOUBLE DOOR AND FRAME FULL LIGHT GLASS WITH CLOSURE AND GASKET
3	EXISTING	6'-0"X6'-8"	OUT SWING STOREFRONT DOUBLE DOOR AND FRAME FULL LIGHT GLASS WITH CLOSURE AND GASKET
4	NEW	3'-0"X6'-8"	SOLID CORE WOOD DOOR AND FRAME WITH LEVER HARDWARE
5	NEW	3'-0"X6'-8"	SOLID CORE WOOD DOOR AND FRAME WITH LEVER HARDWARE PRIVACY LOCK
6	NEW	3'-0"X6'-8"	SOLID CORE WOOD DOOR AND FRAME WITH LEVER HARDWARE
7	NEW	3'-0"X6'-8"	SOLID CORE WOOD DOOR AND FRAME WITH LEVER HARDWARE
8	NEW	3'-0"X6'-8"	45 MIN RATED DOOR AND FRAME WITH PANIC HARDWARE, GASKET AND CLOSURE
9	NEW	3'-0"X6'-8"	STEEL EXTERIOR DOOR WITH CLOSURE GASKET AND LEVER HARDWARE - EXTERIOR SECURITY LOCK
10	NEW	3'-0"X6'-8"	45 MIN RATED DOOR AND FRAME WITH PANIC HARDWARE, GASKET AND CLOSURE
11	NEW	3'-0"X6'-8"	STEEL EXTERIOR DOOR WITH CLOSURE GASKET AND PANIC HARDWARE - EXTERIOR SECURITY LOCK
12	NEW	3'-0"X6'-8"	45 MIN RATED DOOR AND FRAME WITH LEVER HARDWARE, GASKET AND CLOSURE
13	NEW	3'-0"X6'-8"	45 MIN RATED DOOR AND FRAME WITH LEVER HARDWARE, GASKET AND CLOSURE
14	NEW	3'-0"X6'-8"	45 MIN RATED DOOR AND FRAME WITH LEVER HARDWARE, GASKET AND CLOSURE
15	NEW	3'-0"X6'-8"	SOLID CORE WOOD DOOR AND FRAME WITH LEVER HARDWARE
16	NEW	3'-0"X6'-8"	SOLID CORE WOOD DOOR AND FRAME WITH LEVER HARDWARE

SOLID CORE WOOD DOOR AND FRAME WITH LEVER HARDWARE

SOLID CORE WOOD DOOR AND FRAME WITH LEVER HARDWARE

SOLID CORE WOOD DOOR AND FRAME WITH LEVER HARDWARE

SOLID CORE WOOD DOOR AND FRAME WITH LEVER HARDWARE

SOLID CORE WOOD DOOR AND FRAME WITH LEVER HARDWARE

SOLID CORE WOOD DOOR AND FRAME WITH LEVER HARDWARE

3'-0"X6'-8" STEEL EXTERIOR DOOR WITH CLOSURE GASKET AND PANIC HARDWARE - EXTERIOR SECURITY LOCK

3'-0"X6'-8" SOLID CORE WOOD DOOR AND FRAME WITH LEVER HARDWARE

3'-0"X6'-8" SOLID CORE WOOD DOOR AND FRAME WITH LEVER HARDWARE

DOOR SCHEDULE

0

L

ALL DIMENSIONS WILL BE VERIFIED IN THE FIELD PRIOR TO WORK BEING DONE.

17

NEW

18 NEW

19 NEW

20 NEW

21 NEW

22 NEW

23 NEW

24 NEW

25 NEW

3'-0"X6'-8"

3'-0"X6'-8"

3'-0"X6'-8"

3'-0"X6'-8"

3'-0"X6'-8"

3'-0"X6'-8"

1 2 3 4			Ű	В	L	I	G	п	I	J	n	L	IVI	N
2 3 4		Electrical Specs	oulet/Hard wire	Breaker	width	depth	hight	volts	amps	water cold	water hot	drain	vent	btu's
3														
4	31	Beverage Cooler under bar (Advantco on Webstaurant)	0		72 3/4	24 7/16	35 3/8	115	2					
	30	Keg Cooler (Advantco on Webstaurant)	0		90 1/4	27 3/4	35 5/8	115	2.4			yes		
5	32	Mixer Station (have it)			72	29	38			yes	yes	yes		
6	19	prepsink stainless table			36	24	32							
7	23	Pizza Prep (North American)	0		44	33	40.7	Watts 280	4.2					
8	25	Pizza Prep (North American)	0		44	33	40.7	Watts 280	4.2					
9		Chef Base (North American)	0		60	32	26.5	Watts 280	4.2					
10		Chef Base (we have)			60	30	25							
11	1	convection oven bakers pride	0		39	42	40	115	3.5					60,000
12	1	convection oven bakers pride	0		39	42	32	115	3.5					60,000
13	16	Hobart Slicer	0		14	30	14	115	5.8					
14		Bunn Drip Coffee maker and hot water	0		10	26	18	120	11.4	yes				
15		Dish washer Hobart under counter	Н		24	24	34	208/240	50	-	yes	yes		
16	9	Dish Washer Jackson Convayor	H/D		60			208-3ph	6.7		yes	yes		
17		Phase converter for jackson	H	30				208/240	30					
18 u	under 11	booster heater Hatco C-9	Н		13	20 3/4	19 3/4	208v	43.3					
19	9	Dish counter								yes	yes	yes	yes	
20	22	soda tower			24	12	72			-		-		
21	2	Fryer main street 40 lb			15.5	30.4	47 1/8							90,000
22	3	Fryer main street 40 lb			15.5	30.4	47 1/8							90,000
23	4	Fryer main street 40 lb			15.5	30.4	47 1/8							90,000
24	17	Ice Machine Hoshizaki	Н		30 3/16	32.5	68	115	8.4	yes		yes		
25	8	Rinnai 11gph cu199in	0		14.6	22.5	33 6/7	120		yes			yes/wa II	199,000
26	6	Grill charbroiler			36	27.5	15							105,000
27	5	Grill flat top 24			24	30.5	16 7/8							60,000
28	7	Range 2 burner			12	30.5	16 7/8							50,000
29	7	Range 4 burner			24	30.5	16 7/8							100,000
30	21	Hobart Mixer	Н		20	30	36	115	8.2					
31 a	above 24	hatco heat lamps	Н		36	6	2 1/2	120	6.7					
32 a	above 24	hatco heat lamps	Н		36	6	2 1/2	120	6.7					
33 <sup>r</sup>	roof	Hood exost Fan roof 1/2 HP motor	H/D					115	5.6				yes/ro of	
34 <sup>r</sup>	roof	Hood exost Fan roof 1/2 HP motor	H/D					115	5.6				yes/ro of	
35 <sup>r</sup>	roof	Make up air Fan roof						230	10				yes/ro of	
36 r	roof	Hood exost fan Dish 1/10 HP motor						115	3					
37		Heat pump Daikin 24,000 btu	H/D		39	10 3/8	12	208/230	20			yes/cor	ר ר	

# **KITCHEN PLAN AND LEGEND 101**

ALL DIMENSIONS WILL BE VERIFIED IN THE FIELD PRIOR TO WORK BEING DONE.









# ATTACHMENT 11 SITE AERIALS

Outlet Brook

### Legend

- 868 Roosevelt Trail
   Hairs Gone Wild
- Hairs Gone Wild
   Sherwin-Williams Paint Store

N

100 ft

Yolked Farm to Table

Yolked Farm to Table

# 368 Roosevelt Trail

Google Earth

Image © 2024 Maine GeoLibrary

Hairs Gone Wild

Kelley's Sebago Diner

302

Outlet Brook

Yolked Farm to Table

# 868 Roosevelt Trail

Hairs Gone Wild

## 302

Kelley's Sebago Diner

Trails End Rd

Google Earth

Legend

- 📍 868 Roosevelt Trail
- Hairs Gone Wild
- Sherwin-Williams Paint Store
- Volked Farm to Table

200 ft

Charen Po

# GENERAL NOTES:

- 1. THE RECORD OWNER OF THE PARCEL IS 868 302 LLC BY DEED RECORDED IN THE CUMBERLAND COUNTY REGISTRY OF DEEDS IN BOOK 37323 PAGE 167.
- 2. THE PROPERTY IS SHOWN AS LOT 50-E ON THE TOWN OF WINDHAM TAX MAP 71 AND IS LOCATED IN COMMERCIAL 1 & SHORLAND ZONING DISTRICTS.
- 3. THE TOTAL AREA OF PARCEL=1.52 AC.

# DIMENSIONAL STANDARDS:

MIN. LOT SIZE:	NONE
STREET FRONTAGE:	100 FT. MIN.
FRONT SETBACK: BUILDING PRINCIPAL:	ON ROUTE 302: 10 FT. TO 20 FT. ALL OTHER STREETS: 0 FT. TO 20 FT.
BUILDING ACCESSORY: DWELLING, TWO FAMILY:	PRINCIPAL BUILDING SETBACK PLUS 20' MIN. ROUTE 35, 115 AND 302: 300 FT.
SIDE SETBACK:	6 FT. MIN.
REAR SETBACK:	6 FT. MIN.
BUILDING HEIGHT:	75 FT MAX.
NET RESIDENTIAL DENSITY:	NONE.

TIMOTHY A. DORR 27534/94 TM 71 LOT 50-1

# RAIN GARDEN PLAN LIST

KEY	COMMON & BOTANICAL NAME	SIZE	ROOTS	QTY.	NOTES
AA	SUMMERSWEET CLETHRA ALNIFOLA	#3	CONT.	13	
BB	WILD GERANIUM GREANIUM MACULATUM		CONT.	6	
сс	CARDINAL FLOWER LOBELIA CARDINALIS		CONT.	20	

USE MAINE DEP "EROSION CONTROL MIX" ON ENTIRE PLANTED AREA 4" DEEP.



# ATTACHMENT 12 PHOTOMETRIC PLAN



LABEL	LIGHT FIXTURE
А	RATIO
В	SOFFIT

0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	$\begin{array}{cccccccccccccccccccccccccccccccccccc$		HIA HIA HIA → PRO HIII HIIII HIIII HIIII HIIII DATE: 3/04	CRAIG SWEE No. 150 CRAIG SWEE No. 150 CRAIG SWEE No. 150 CRAIG SWEE	П	
0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0	$\begin{array}{c} 0,0 \\$				ADDRESS: 41 CAMPUS DRIVE, SUITE 301 NEW GLOUCESTER, ME 04260 NEW GLOUCESTER, ME 04260		Diameter       WEB SILE:       WEB SILE:         Diameter       www.terradynconsultants.com       1       3/04/2024       FINAL SITE PLAN SUBMITTAL         Diameter       Civil Engineering   Land Surveying   Geomatics       1       3/04/2024       FINAL SITE PLAN SUBMITTAL	Z Stormwater Design   Land Planning   Environmental Permitting NO. DATE REVISIONS
E MANUFACTUF	WINDHAM         STANDARD         MAX ILLUMINATION AT LOT LINE         LIGHT FIXTURE         RER         MANUFACTURERS ID	LIGHTING ST REQURIED VALUE 0.5 FC TABLE LUMENS NUMBER OF LIGHTS	ANDARDS         PROVIDED VALUE         0.1 FC         MOUNTING         MOUNTING         HEIGHT         LOCATION		2, LLC. MIXED USE	C PLAN		
BEACON COMMERCIA ELECTRIC REPARED USING DE ACTOR FOR LED IS D LIGHTING FIXTURE	RWL1-48L-10-3K7-4W (3) AL ledbulb_65w_e27_a19_900_fr-ie s ESIGN MASTER PHOTOMETRICS S 0.90 ES ARE MODELED	1,000 2 900 12	8' WALL 8' SOFFIT		PROJECT: 868 ROUTE 30, 868 ROOSEVELT TRAIL, W		CLIENT: 868 302, LLC. 1020 RIVER ROAD	WINDHAM, MAINE 04062
			(IN FEET) 1 INCH = 20 FT.	40	SCALE: JOB NO: SHEET:		$\frac{\frac{2}{20}}{202}}{\frac{1}{22}}$	<u>24</u> 20' 55 <b>2</b>

# ATTACHMENT 12 HHE-200 PERMIT

#### JOHN M. RIORDAN, P.E.

**Consulting Engineer** 

March 19, 2024

Michael Lewis 868 Roosevelt Trail Windham, Maine 04062

RE: Wastewater Disposal System Design – Evaluation of Capacity

Dear Michael:

As you have requested, I have evaluated the capacity of the wastewater disposal system that I designed for you in collaboration with James G. Mancini, Site Evaluator as described by the attached HHE-200 form dated 11/1/2022. This system services your commercial development that is located at 868 Roosevelt Trail, Windham, Maine. The design reflects the original buildout consideration of the renovated building to house several businesses. As noted, the design flow is calculated to be 1980 gpd requiring a disposal field using a minimum of 103 4'x8' concrete chambers. The system was actually constructed with 105 chambers.

The initial expectation was that the building would include an 83-seat restaurant, a take-out pizzeria, and a warehouse area. The subsurface disposal system was constructed and made operational in early 2023. The actual buildout of the structure has resulted in a restaurant with a smaller seat capacity, space for a marijuana packaging business, and warehouse space. The original interest in a take-out pizzeria business did not materialize and has been replaced by a proposed bakery with limited in-store seating.

I have calculated the wastewater load to be generated by the revised business uses and have compared it with the capacity of the subsurface wastewater disposal system as constructed. See attached Capacity of Existing Subsurface Disposal System spreadsheet. As noted, the revised business uses are projected to have a wastewater flow of 1776 gpd using the standard design flow allocations per the State of Maine Subsurface Wastewater Design Rules, effective September 23, 2023, using an additional allocation of 10 gpd per seat for the Bakery's limited service. As such, the revised business uses require only 91 4'x8' concrete chambers, or 14 less than actually installed. Therefore, the existing disposal system will be more than adequate for the imposed load.

65 Fox Hill Lane Saco, Maine 04072 207-671-7601 jriordan@maine.rr.com Michael Lewis March 19, 2024 Page 2 of 2

I will be pleased to address any questions or concerns that you or the Town may have.

Sincerely,

orda

John M. Riordan, P.E.

Attachments: HHE-200 dated 11/1/2022 Capacity Evaluation Spreadsheet, dated 3/18/2024



# \* REVISION ATTACHEDX

SUBSURFACE WASTEWATER DISPOSAL S	Maine Dept, Health & Human Services Div. Environmental Health, 11SHS (207) 287-2070 Fax: (207) 287-4172
PROPERTY LOCATION	>> CAUTION: LPI APPROVAL REQUIRED <<
City, Town, or Plantation //////DHAM	Town/City WINDHAM Permit # 22-0918
Street or Road Way ROGEVELA TR	Date Permit Issued 11 101 Fee: \$ 330 Double Fee Charged []
Subdivision, Lot #	Local Plumbing Inspector Signature
	Fee: \$ <u>1375</u> state min fee \$ <u>72</u> Locally adopted fee
LEWIS, MIGLAEL Autoant	The Subauriace Wastewater Disposal System shall not be installed until a
Mailing Address 34 ARUITELTO-	Permit is issued by the Local Plumbing Inspector. The Permit shall
Owner/Applicant Rovinnon, ME. OYON	with this application and the Maine Subsurface Wastewater Dispated 2 day
Daytime Tel. # \$3/23(2)	DEP Municipal Tax Map # Lot # E
OWNER OR APPLICANT STATEMENT I state and acknowledge that the information submitted is correct to the best of my knowledge and understand that any falsification is reason for the Department and on local Plumbing Ingrector to deny a Permit.	\$\Phi\$15 \$\Phi\$       CAUTION: INSPECTION REQUIRED         I have inspected the installation authorized above and found it to be in compliance         with the Subsurface Wastewater Disposal Rules Application.         (1st) date approved
Simplify of Owner of Annlineat	
vignerente of Owner or Adhireast Date	ERMIT INFORMATION
First Time System C. Replacement System 2. First Time System 2. First Time System 2. First Time System Variance 3. No Rule Variance <sup>11</sup> EA2 2. First Time System Variance 3. No Rule Variance <sup>11</sup> EA2 3. First Time System Variance	SEADURED     M     SPOSAL SYSTEM COMPONENTS       SEADURED     Complete Non-engineered System       Seadure     Primitive System (graywater & alt. toilet)       Seadure     Statemative Toilet, specify:
6, State & Local Plumbing	Inspector Approval 4. Non-engineered Treatment Tank (only)
Year installed: KC-LIT- 3. Replacement System Van	ance 5, Holding Tank, gellons
a. Local Plumbing Inspect	or Approval 7. Separated Laundry System
0 ≥25% Expansion	8. Complete Engineered System (2000,gpd or more)
4. Experimental System 4. Minimum Lot Size Variance	9. Engineered Treatment Tank (only)
5. Seasonal Conversion 5. Seasonal Conversion Pen	mit 10, Engineered Disposel Field (ank)
SIZE OF PROPERTY DISPOSAL SYSTEM TO	D SERVE (12) Miscellaneous Components & RAM Cur dia et ca
88,555 GO.FT. 1. Single Family Dwelling Uni 2. Multiple Family Dwelling, N	it, No. of Bedrooms:
SHORELAND ZONING CONTERING CONTERING	1. Drilled Well 2. Dug Well 3. Private TT 20
Ves Not Current Lise Seasonal Ve	APublic 5 Other
JACK A 1980 AND DESIGN DETAILS	(SYSTEM LAVOUT SHOMALON DACE 2)
	(OTOTELIN EATOURSHOWN ON PAGE 3)
Concrete ILI SE KIES a Regular ISTO EACH b. Low Profile Plastic ILI ST	a SIZE GARBAGE DISPOSAL UNIT rench 1. No 2. Yes 3 Maybe GAERA SIZE GARBAGE DISPOSAL UNIT Tench 1. No 2. Yes 3 Maybe GAERA SIZE GARBAGE DISPOSAL UNIT TESSIGN FLOW Z544-2-12 BASED ON: TS4 a multi-compartment tank LTEBIe 4A (dwelling unit(s))
CAPACITY: 4-5,00 GAL 4. Other	Cincrease in tank capacity
SOIL DATA & DESIGN CLASS DISPOSAL FIELD SIZIN	In, ft. DiFilter on Tank Outlet PIZZA TAKE OUT
PROFILE CONDITION	I al Baning
SIB (1) Hedium-26 sr # / and	WAREHOUSE W/2 WARERS N ST
at Observation Hole # TP1. 2 Maritum - Lama 3.9 cn /	t/opd 3 Regulard
Depth 7 440	Specify mile for appleared surfaces Lat. 43 d 50 m40 of a
of Most Limiting Soil Factor	and DOSE gallone Lon. TO d Zo m SO s
4, Extra Large-5,0 sq. 117	gpu bose: gailons if g.p.s, state margin of error: 70
GISTEL SITEE	ALUATOR STATEMENT
that the proposed system in according to the Dist	Maine Submittee Medawate Size that the data reported are accurate and
unat the proposed system is in compliance with the State of	i vidane oudsurrace vvastewater Disposal Rules (10-144A CMR 241).
Tames too 11/aucul	VAL 7022
Site Evaluator Signature	SE# Date
JAMES G. TRANKINI	697-9499
Site Evaluator Name Printed	Telephone Number E-mail Address
Note : Changes to or deviations from the design should be	confirmed with the Site Evaluator. Page 1 of 3
MULTIPLYING FACTOR: 108-Z	00% TANK CAPACITY (0.2), - IN SERVIS (0.1); 1203

Department of Human Services SUBSURFACE WASTEWATER DISPOSAL SYSTEM APPLICATION Division of Health Engineering (207) 287-5072 Fax: (207) 287-3165 Owner's Name Street, Road, Subdivision own. City, Plantation **ELFAI** ft, or as shown STTE LOCATION PLAN. Scale 1"= PLAN (map from Maine Atlas. recompended) SUN SOIL DESCRIPTION AND CLASSIFICATION (Location of Observation Holes Shown Above) Test Pit 🔲 Boring Observation Hole Boring D Test Pit 叼 Observation Hole " Depth of Urganio Horizon Above Mineral Soil " Depth of Organic Horizon Above Mineral Soil "lexiance Color Wintimg Consistency Molling Color Comsistency 'J'oxhiro ð 'n Soil Surface (trailes) eyta Below Minatal Soli Fuckos (meires) X WIT : 8 1:30 40 â đ٢ 6Ö 50 C Cround Water C Restrictive Layer ] Ground Water ] Restrictive Layer Lizzishiji Frotor Limiting Slope Ĵ Soll Classification. Soil Classification Slogp Hadlor G ] Bedrock ;PitDepfb: 吆 Canifilan BL Printe TWAT with Condition 9:nilo





والمساجعة والمستادية فالمقصصة المحجج والمقصصة والمحجود والمستحج والمستحج

Basis of Design for First Time Subsurface Disposal System

Prepared by: John Riordan Date: . 6/10/2022 Reference: State of Maine Subsurface Wastewater Disposal Rules, Eff Date 8/3/2015 (MSWDR)

Design Considerations for System Components

Design Flow

Calculation of flow per seat:

Proposed restaurant seats

83 seats

Allocated flow per seaf to be used for design

20.0 Gallons per seat

Design Flow

.

Mastewater flow estimate for restaurant capacity

per user or  $\operatorname{unit}_{12}$  Table 4C  $\operatorname{unit}_{12}$  Table 4C Table 4C  $\operatorname{unit}_{12}$  Table 4C  $\operatorname{unit}_{12}$  Table 4C  $\operatorname{unit}_{12}$  Table 4C  $\operatorname{unit}_{12}$  Table 4

× 1,380 GPD (< 2,000 GPV)

72

1880 GED X 163 MUCION = ZAA CO 200 UERCHOUSE + TOURIE MUCION (EX 100) 2014 AND UERCHOUSE + TOURIE (AT 100) - 1212 OD MINIM

W/OULSEN No vec

NW 20 Lat

Sepic Tank Sizing

200% 3<sub>,</sub>960 galloris Minimum capacity200% of design flow Liquid capacity requirements of septic tanks

Of Design flow:

1,980 GPD

1500 gallons Arch

Zabel Effluent fillers will be installed on discharge from all septic tanks

3' Septic Tank's

Greese Trap sizing

830	(1 *-	1,660	3,000 gallons
Number of meals per day (fotal flow per day/2 gal per meal)	Storage capacity fractor Dish washing fractor	Grease tark capacity	Grease trap tapacity to be provided

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14 th. 182

# \* REVISION TO 22-0998\*

SUBSURFACE WAS	TEWATER DISPOSAL S	(STEM APPLICATION	0555 Maine Dept, Health & Human Service Div. Environmental Health, 11943	ts
PROPERT	Y LOCATION	>> CAUTION: LDI ADDE	(207) 287-2070 Fax: (207) 287-4172	
or Plantation	ALLANIA .	Town/City	OVAL REQUIRED <<	, 
Street or Road 91097	PINSEVENTR.	Date Permit Issued Fee: \$	Permit # Double Fee Charoed [ ]	
Subdivision, Lot #		a the second sec	i Di VA	
OWNERADDLIC		Local Plumbing Inspector Signature	the file the second sec	1
Name (last, first, MI)		Copy: []Owner [] Town [] s	\$Locally adopted fee	
Mailing Address Du	Applicant Applicant	The Subsurface Wastewater Disposal S	System shall not be installed unsite	-
of · J4 A	RUNDEL KD.	Parmit is issued by the Local Plumbing	hspector. The Parmit shall	
Owner/Applicant RAL/M	OND, ME. 04071	with this application and the Maine Subs	the disposal system in accordance	
Daytime Tel. # 931 -	-23/2	/ Muhicipal Tax Map #	Lot#	-
OWNER OR APPLICA I state and acknowledge that the Inform my knowledge and understand that an and/ocknew Plumbing Inspector to de-	NT STATEMENT nation submitted is correct to the best of Y Masheedon is reason for the Department my a power	<u>CAUTION: INSPECTION</u> I have inspected the installation authorized with the Subsurface Wastewater Disposal	4 REQUIRED tabova and found it to be in compliance Rules Andicalion	-
6 62 3	7.14		(ist) vale approved	
Signature of Owner o	IT Applicant Date	In at Ebanhlan Josepeder Sinyai	Urp /2001-1-1-	· ·
TYPE OF ADDILCATION	PE	MIT INFORMATION	12001 Hale apployed	-
1. First Time System	INN Rula Variance	EQUIRES DISPOSI	AL SYSTEM COMPONENTS	+-
2 Replacement System	2, First Time System Variance	2. Primitiv	að Non-engineered System 9 System (gravweier & alt, tolien	
*Type replaced: <u>VVIC </u>	a. Local Plumbing Inspector	approval 3. Alternat	live Tollet, specify:	1
Year Installed: 1706-1977	3. Replacement System Variar	e 5. Holding	Tank, gallons	
a) <25% Expansion	B. Local Plumbing Inspactor B. State & Local Plumbing In	peroval 6. Non-en Dector Anormal 7. Separat	gineered Disposal Field (only)	
4. Experimental System	4 Minimum Lot Size Variance	8: Comple	the Engineered System (2000, ppd or more)	
5, Seasonal Conversion	5, Seasonal Conversion Permi	t Eighe	ered Treatment Tank (only) ered Disbosal Field (only)	
SIZE OF PROPERTY	DISPOSAL SYSTEM TO	ERVE (2) Minim	alment, specify:	
M. SX 67	1. Single Family Dwelling Unit, 2. Multiple Family Dwelling Unit,	o, of Bedrooms:	aneous Componants 3 con GAV. GREA	SETTAP.
ABUTTING OF ACRES	GOther: EAT PLACE, TA	FOOT WASPHOLD	DP WATER SUPPLY	
Yet No.	(specify)	D' GEL EXTRACTICALE	I 2. Dug Well 3. Private	
the hard the stand	DESIGN DETAILS IN	ADDING Undeveloped (4)Public &	5. Other	
TREATMENT TANK 2	DISPOSAL FIELD TYPE 8	DIZE CAPPACE DIDDOAL WITH	3}	
1. Concrete IN SE X TESO	LiStone Bed 2. Stone, Tren	CENT 1. No 2. Yes (3) Maybe	MARY DESIGN FLOW X 0,3 5	2544 MIN
b. Low Profile W/ Fri, TERE	Alcluster array of Licear	AC Tir Yes or Maybe, specify one below:	gations per day CSEt	ATTACKED
a other: <u>H - ZO</u>	b. regular load (d)H-20 lo	a. molti-compartment tenk	1. Table 4A (dwelling unit(s))	, ,
CAPACITY: 40 GAL	4. Other:		2. Table 4C(other facilities)	WE PER DAL
SOU DATA & DESIDA CI ASS	SIZE: 10/ 40 sq. ty lir	ft. (d.)Filler on Tank Outlet	122A TAKKOUTO	1
PROFILE CONDITION .	UISPOSAL FIELD SIZING	EFFLUENT/ELECTOR PUMP	LAREHOUSE .	
516	(1. Medium-2.6 sq. %L / apd	Chlot Required "ELCVATE 10	30 OLL EXTRACTION CLUANIN	6)0
at Observation Hole # 77	2. Medium-Large 3.3 sq. f.t/	od 3. Required	LATITUDE AND LONGITUDE	
of Most Limiting Seil Factor	3. Large-4,1 sq. ft. / gpd	Specify only for engineered systems;	at 13 d 50 m 400 k	
Primore encounty over 1 adeal	4. Extra Large-5.0 sq. ft. / gp	DOSE; gaßons ·	f g.p.s, state margin of error,	
G/8/22	ŚITE EVA	UATOR STATEMENT		
certify that on <u>+ 12/13/27</u>	(date) I completed a site ev	luation on this property and state that the	data reported are accurate and	
hat the proposed system is in	compliance with the State of M	ne Subsurface Wasjewater Disposal Rule	es (10-144A CMR 241).	
7 Jan 2 Ste	Meinzia	JULU	18,202	
	Signature	SE#	Pate	
- AMEG (&	th anciell	12-14-4K UI	y ~1, 2006	
· , Site Evaluator (	Name Printed"	Telephone Number	E-mail Address	1
lote : Changes to or deviations	s from the design should be con	imed with the Site Evaluator.	Paga 1 of 3	
<u></u>	and the second	n (*	HHE-200 Rev.11/2013	







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	ĸ	(	28 1880 (FT - 1011 88 C - 100 (FT - 1011) 88 C - 100 (FT - 1011)	- - - -
Basis of Design For First Time Subsurface Disposal System         Prepared by:       John Riordan         Prepared by:       John Riordan         Date:       Sri0/2002         Reference:       State of Maine Subsurface Wastawater Disposal Rules, Eff Date 9/3/2015 (MSWDR)         Design Considerations for System Components       Design Considerations for System Components	Calculation of flow per seat. Proposed restaurant seats	Allocated flow per seat to be used for design 20.0 Gallons per seat <u>Mastewater flow estimate for restaurant capacity</u> per user or per user or this 40	$\begin{bmatrix} 1020 & Festivation see as \\ Total restaurant employees \\ Pizza Takeout \\ Warefroutse + Tup & XTTation div. \\ Warefroutse + Tup & XTTation div. \\ Warefroutse + Tup & XTTation div. \\ Total Plow \\ Total Plow \\ Total Plow \\ Function (Tactor - Z4F4 CF) \\ Foo where the sector - Foo where the sector as (effertunis) (for the sector - Foo where the sector as (effertunis) (for the sector - Foo where - Foo wher$	18, 202 Danes frances mount

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Sepic Task Sizing

Liquid capacity requirements of septic tarks

Minimum capacity200% of design flow

Z: Septic Tarks

ZODO gallons FAC

Zabel Effluent fillers will be installed on discharge from all septic tanks

24 • A Grease Trap sking

1,660 3,000 galions Number of meals per day (total flow per day/2 gal per meal) Storage capacity factor Dish washing factor Grease tank capacity Grease trap capacity to be provided

830

S.E. 124-1 2022 trady 21 2022

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1,980 GPD

Of Design flow:

200% 3,960 gallions

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#### EASEMENT DEED

KNOW ALL PERSONS BY THESE PRESENTS that ROBERT M. BABB, JR. and CARLA J. BABB, whose mailing address is 512 Gray Road, Windham, Maine 04062 (hereinafter "Grantor") in consideration of One Dollar and other good and valuable consideration, the receipt of which is hereby acknowledged, paid by 868 302, LLC, a Maine limited liability company whose mailing address is 34 Arundel rd, Raymond, Maine 04071 (hereinafter "Grantee"), does hereby GIVE, GRANT, BARGAIN, SELL and CONVEY unto the said Grantee, its successors and assigns forever, the perpetual right and casement for the following described purposes across the portion of land of the Grantor as depicted on Exhibit A (the "Easement Area"), which easement shall be appurtenant to and run with the adjoining land of Grantee, its successors and assigns, as described in a deed recorded in the Cumberland County Registry of Deeds in Book 37323, Page 167. The Easement Area consists of a portion of Grantor's property as described in a deed recorded in the Cumberland County registry of Deeds in Book 21507, Page 333.

Septic System. The perpetual right and easement to install, repair. inspect. 1. operate, maintain, and remove a septic system and/or tank and leach field or drainage disposal. and necessary appurtenances to conveying and transmitting sewerage and wastewater, together with the right at all times to make connection with all of said facilities under and across the Easement Area to the adjoining land of the Grantee. This grant of easement, however, is subject to the condition that this easement shall terminate if the septic system needs to be replaced, if said land ceases to be used as a part of a leach field or drainage disposal area, or in the event that Grantee's adjoining land shall be served by a municipal, governmental, or other private sewer system.

Access Right of Way: The perpetual right and easement to pass and repass on 2. foot, at any and all times, together with the right to enter from time to time within said Easement Area to install, repair, inspect, operate, maintain and remove the septic system, and appurtenances.

Obligations of Grantee: Grantee, basheirs and assigns, as further consideration 3. for the granting of this easement, agree as follows:

- To grade and seed or sod the Easement Area upon completion of any construction, **a**) maintenance, or repair of the septic system and/or tank and leach field or drainage disposal area, and to maintain said Easement Area in an attractive condition;
- To shield any pipes or other obstructions visible on the Easement Area from view, b) by appropriate plantings;
- At such times as the easement terminates, and upon request of Grantor, to remove ¢) the septic system and/or tank and leach field or drainage disposal area and

obstruction visible on the Easement Area and to restore the Easement Area to its previous landscaped condition;

- d) To indemnify and defend Grantor against any liability claims related to the installation, operation, maintenance, or removal of the septic system and/or tank and leach field or drainage disposal area; and
- e) To properly maintain the septic system and/or tank and leach field or drainage disposal area and landscaping at all times, and to promptly correct any malfunction in said system.

TO HAVE AND TO HOLD, the aforegranted rights and easements, with all the privileges and appurtenances thereof to the said Grantee, its successors and assigns, to its and their use and behoof forever. And it does covenant with the said Grantee, its successors and assigns, that Grantor is lawfully seized in fee of the premises; that they are free of all encumbrances; that it has good right to sell and convey said easement to the said Grantee to hold as aforesaid; and that it and its successors and assigns shall and will warrant and defend the same to the said Grantee, its successors and assigns, forever against the lawful claims and demands of all persons.

IN WITNESS WHEREOF, Robert M. Babb, Jr. and Carla J. Babb have caused this instrument to be signed and sealed this \_\_\_\_\_ day of October, 2022.

Witness:

#### STATE OF MAINE COUNTY OF CUMBERLAND, ss.

11 L M

Robert M. Babb

Carla J. Babb

October 10 2022

Personally appeared the above named Robert M. Babb, Jr. and Carla J. Babb, and acknowledged the foregoing to be their free act and deed.

Before me,

Notary Public/Attorney-at-Law Printed Name: Dawn H.WALKER

Exprise - 7/25 (24

## EXHIBIT A

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#### Town of Windham

8 School Rd Windham, ME 04062 (207) 894-5960 Voice (207) 892-1916 Fax

#### CONTRACTOR

(Owner as Contractor) Same As Applicant Windham, ME 04062-0000 (207) 000-0000 Phone

#### OWNER

Michael Lewis 34 Arundel Rd Raymond, ME 04071 ph. (207) 831-2312

#### AVAILABLE INSPECTIONS

- Horizon Inspection (required)
- Septic Field Final (required)
- Septic Tank (required)

#### COMMERCIAL - SSWW Issue Date: November 8, 2022

PROJECT DESCRIPTION: Subsurface Waste Water Disposal System (proposed restaurant use with 83 Seats)

### PROJECT # CSSW-22-0998

#### (207) 777-1708 Inspections

LOCATION 868 Roosevelt Trl. Windham, ME 04062

LEGAL none Blk 50 Lot E

INFORMATION		
Мар	71	
Parcel ID	071050E 000	
SSWW Permit	Permit Received - Pr	oceed
Zoning District	C-1	
FEES		TOTAL = \$ 590.00
SSWW - Town Surcharge		\$ 25.00
SSWW - Treatment Tank (Non Eng) - State		\$ 75.00
SSWW - Treatment Tank	(Non Eng) - Town	\$ 225.00
SSWW - Non Engineered	System - State	\$ 62.50
SSWW - Non Engineered Surcharge	System -	\$ 15.00
SSWW - Non Engineered	System - Town	\$ 187.50
PAYMENTS		TOTAL = \$ 590.00
(Owner as Contractor) ( O Check on 11/08/2022 Note: 123	wner)	(\$590.00)

#### NOTICES

All work must be done in compliance with the 2009 International Building Code.
 A copy of the signed permit and approved plans must be on site at all times.
 The project address must be clearly posted at the job site.

ISSUED BY



11/08/2022

Issuer's Signature

Date

## NOTES

#### Plan Review

Vacant Building: This permits approved the install of the proposed HHE-200 SSWDS only; additional reviews, permits and approvals are required for the proposed uses of the building.

### Appendix C Onsite Wastewater Disposal System - Local Review and Verification Form

This form is to be used by Health Inspection Program license applicants to demonstrate that their facility has adequate **wastewater disposal** system capacity for the use proposed. This form must be presented to the Local Plumbing Inspector of the municipality where the facility is located for review and approval of wastewater disposal system capacity. *Please include this completed form with your license application.* 

#### Health Inspection Program Onsite Wastewater Disposal System Local Review and Approval Form HHE-602 Appendix C

	Date. 1 / 2 2
Facility Name: <u>Tollced</u>	
Facility Physical Address: 868 Roosevelt 7	Tail
Facility: [] Owner Mondy E Jesse	Bocchard
Telephone: 207-755-1315 E-Mail N7494	1097@ BMail. CUM
Mailing Address if different from address above: 482 webbs	nill's R.J. Raymond, 04671
1. Check all boxes that apply: Are you proposing □ new construction □ change Change in use □ increased use or □ other? Specify:	remodeling 🗆 ownership
<ol> <li>Please describe the proposed use or proposed change in existing use</li> <li>a. Prior use as licensed: <u>Yetar</u></li> <li>40 site campground" or "not previously licensed"):</li> </ol>	e for this property: (for example, "a takeout with no seats", "a
b. Proposed use: <u>ReSevent</u> seat restaurant", "a 30-unit motel" or "no change in use").	(List number of units for example, "40
c. Are you a new owner of the establishment (please circle)? Yes N Please have the Local Plumbing Inspector at your town office verity that he/s that: A) the existing wastewater disposal system has the capacity required expanded wastewater disposal system designed that will meet the required	o she has reviewed your proposal and has determined d for your proposal; or, <b>B</b> ) you have had a new or ements for proper wastewater disposal. Uses that

increase wastewater disposal system design flows by more than 25%, including prior unapproved increases, must be installed at the time of expansion or change of ownership as required in Section 9 of the Maine Subsurface Wastewater Disposal Rules.

## To be completed by the Local Plumbing Inspector:

 MANDATORY: LPI please write in number of indoor/outdoor seats, rooms, campers and/or sites

 \_\_\_\_\_\_\_SEATS-IN\_\_\_\_\_\_SEATS-OUT\_\_\_\_\_\_ROOMS\_\_\_\_\_COTTAGES

 \_\_\_\_\_\_\_CAMPGROUND SITES \_\_\_\_\_YOUTH CAMP CAMPERS \_\_\_\_\_YOUTH CAMP

 STAFF

(To request a record search for difficult to find permits please visit www.mainepublichealth.gov/septic-systems)

I, <u>Jois Has</u>, the undersigned, have reviewed the proposal for the subject property and find that the property is either served by an existing wastewater disposal system that meets the design requirements for the proposed use or the applicant has submitted an application for an expanded system design (and installation if required by the Expansion section of the Rules) that meets the design requirements of the Rules and any relevant local ordinances for the proposed use.

LPI Signature

11-8-2022 Date

HHE-637

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Day UEA 40 04 0010

SUBSURFACE WASTI	EWATER DISPOSAL S	YSTEM APPLICA	TION	Maine Dept. Health & Human Services Div. Environmental Health, 11SHS (207) 287-2070 Fax: (207) 287-4172
PROPERTY	LOCATION	>> CAU	TION: LPI AP	PROVAL REQUIRED <<
City, Town,	KIAM	Town/City		Permit #
Street or Road	COSEDELT TRAV	Date Permit Issued	_// Fee	: \$ Double Fee Charged [ ]
Subdivision, Lot #		Local Plumbing	Inspector Signature	L.P.I. #
OWNER/APPLICA		Fee: \$	state min fee	e \$ Locally adopted fee
Name (last, first, MI)	Owner V	Copy: []Owner	[] Town [	] State
LEWIS MICH	AEL Applicant	The Subsurface W	astewater Disposa	al System shall not be installed until a
Mailing Address 34 A	ZUNDEL RD	Permit is issued by	the Local Plumbin	ng Inspector. The Permit shall
Owner/Applicant RAYMO	ND ME 04071	with this application	and the Maine S	ubsurface Wastewater Disposal Rules.
Daytime Tel. # 831-	2312	Municipal	Tax Map #	Lot #
OWNER OR APPLICAN I state and acknowledge that the informa my knowledge and understand that any and/or Local Plumbing Inspector to deny	T STATEMENT tition submitted is correct to the best of falsification is reason for the Department a Permit.	I have inspected with the Subsur	CAUTION: INSPECT the installation author face Wastewater Dispo	TION REQUIRED rzed above and found it to be in compliance psal Rules Application. (1st) date approved
Signature of Owner or	Applicant Date	Local	Plumbing Inspector Sig	gnature (2nd) date approved
1.First Time System	1. No Rule Variance	KEQUIKES	Con DISPO	DSAL SYSTEM COMPONENTS
2. Replacement System	2)First Time System Variance	EASEMENT RED	'0 2. Prin	nitive System (graywater & alt. toilet)
Type replaced:	Local Plumbing Inspector     State & Local Plumbing In	Approval	3. Alte 4. Non	-engineered Treatment Tank (only)
Year installed:	<ul> <li>3. Replacement System Varian</li> </ul>		5. Hold	ding Tank, gallons
<ol> <li>Expanded System         <ul> <li>a. &lt;25% Expansion</li> </ul> </li> </ol>	a. Local Plumbing Inspector	Approval	6. Non 7. Sep	-engineered Disposal Field (only) arated Laundry System
b. 25% Expansion	b. State & Local Fluitibility in	speciol Apploval	8. Con	nplete Engineered System (2000 gpd or more)
5. Seasonal Conversion	4. Minimum Lot Size Variance		9. Eng 10. Eng	gineered Treatment Tank (only) gineered Disposal Field (only)
			11. Pre	-treatment, specify:
ansist +	1. Single Family Dwelling Unit, I	No. of Bedrooms:		cellaneous Components Z000 GAL GREASE
ABUTTING LOT ACRES	2. Multiple Family Dwelling, No.	of Units:	TYP	PE OF WATER SUPPLY
SHORELAND ZONING	(specify)	MARS Holes	1. Drilled	Well 2. Dug Well 3. Private
Yes 🚯 .	Current Use Seasonal Year	Round Undeveloped		5. Other
	DESIGN DETAILS (S	YSTEM LAYOUT SH	IOWN ON PAG	GE 3)
TREATMENT TANK	DISPOSAL FIELD TYPE &	SIZE GARBAGE DI	SPOSAL UNIT	DESIGN FLOW
a. Regular	1. Stone Bed 2. Stone Fren	ch 1. No 2. Ye	es (3.) Maybe	1980 gallons per day
b. Low Profile W/ FILTER	acluster array c. Linear	a, multi-compar	tment tank	BASED ON:
3. Other: <u>H-20</u>	b. regular load OH-20 lo	ad b. <u>2</u> tanks in	series	2. Table 4C(other facilities)
CAPACITY: 4000 GAL.	4. Other: SIZE: <b>33/00</b> ft lir	Gincrease in ta	ank capacity	SHOW CALCULATIONS for other facilities
SOIL DATA & DESIGN CLASS	DISPOSAL FIFLD SIZING			3 Section (G (motor readings)
PROFILE CONDITION		Phot Required	IVK PUMP	ATTACH WATER METER DATA
<u>5 B</u>	Medium2.6 sq. ft. / gpd	2. May Be Required		
at Observation Hole # 77-	2. MediumLarge 3.3 sq. f.t /	gpd 3. Required		at center of disposal area
of Most Limiting Soil Factor	3. Large4.1 sq. ft. / gpd	Specify only for engin	eered systems:	Lat. <u>43</u> d <u>30</u> m <u>40</u> s Lon. <u>70</u> d <u>710</u> m <u>60</u> s
	4. Extra Large5.0 sq. ft. / gp	d DOSE:	gallons	if g.p.s, state margin of error:
ALL BELLAS & AF	SITE EVA	LUATOR STATEME	NT	
I certify that on	(date) + completed a site e	valuation on this proper	rty and state that	the data reported are accurate and
that the proposed system is in	compliance with the State of M	aine Subsurface Waste	ewater Disposal I	Rules (10-144A CMR 241).
JOHLI M. RIORDAL	The Winda	m 4861	<u> </u>	1/1/2022
PE Site Evaluator	Signature	ME# DE#	1	Øate
JAMES G MA	MCIMI SE#24	7 892-94	F98	
Site Evaluator	Name Printed	Telephone	Number	E-mail Address
Note : Changes to or deviation	s from the design should be co	onfirmed with the Site E	valuator.	Page 1 of 3 HHE-200 Rev 11/2013

Basis of Design for First Time Subsurface Disposal System

 Project:
 868 Roosevelt Trail - Commercial Development by Michael Lewis

 Prepared by:
 John Riordan

 Date:
 11/1/2022

Reference: State of Maine Subsurface Wastewater Disposal Rules, Eff Date 8/3/2015 (MSWDR)

Design Considerations for System Components

**Design Flow** 

Calculation of flow per seat:

20.0 Gallons per seat 83 seats Allocated flow per seat to be used for design Wastewater flow estimate for restaurant capacity Proposed restaurant seats

Total restaurant seats Total restaurant employees Pizza Takeout Warehouse Total Flow

Design Flow per user or unit, Table 4C 20 1,660 12 120 100 100 100 100 1,980 GPD

- - 5 83

New Disposal System to use Pre-Cast Concrete Disposal Devices			
Disposal system sizing factor is Medium Total Design Flow Flow apportioned to restaurant	2.6 1,980 1,880	SF/GAL GPD GPD	Table 4D soils characteristics as 5B based on Jim Mancini Te
Adjustment for restaurant flow Adjusted restaurant flow for disposal field sizing Additional flow Subtotal of flow estimate	1.3 2,444 100 2,544	GPD GPD	This accounts for credit for grease trap, multiple septic tanks, and use of septic tank filters
Infiltration Area required for total flow	6.614	SF	
Disposal area credit for using 4'x8' chambers Number of chambers required for total flow Number of proposed chambers	64 103 103	SF/chamber 4x8 Chambers 4x8 Chambers	
Proposed layout of chambers: Chambers lengthwise Chambers widthwise	5 21	Bed length Bed width	40 FT 84 FT
Total chambers	105	Bed Area	3,360 SF
Sepic Tank Sizing			
Liquid capacity requirements of septic tanks			
Minimum capacity200% of design flow	200% 3,960	gallons	Of Design flow: 1,980 GPD
1st Septic Tank 2nd Septic Tank Zabel Effluent filters will be installed on discharge fr	2,000 2,000 m all septi	gallons gallons c tanks	
Grease Trap sizing			
Number of meals per day (total flow per day/2 gal pe Storage capacity factor Dish washing factor Grease tank capacity Grease trap capacity to be provided	r meal)	830 2 1,660 2,000	gallons

Disposal Field Sizing Test Pits report a soil classification of 5B
PROPERTY	LOCATION	(207) 287-2070 Fax: (207) 287-4172	PEAD
City, Town,	11 4 40	Town/City	10-10
treet or Road	HAVN	Date Permit Issued / / Fee: S	
GUOK	COSEVEDT R.		
odivision, Lot #	•	L.P.I. #	
OWNER/APPLICAI	NT INFORMATION	Fee: \$	
EWIS MICHAI	Apolicant	The Subsurface Wastewater Disposal System shall not be installed	
illing Address 34 AT	RUNDEL. RH	Permit is issued by the Local Plumbing Inspector. The Permit shall	
vner/Applicant RAUmo	ND, ME, ALGTI	authorize the owner or installer to install the disposal system in accordance	
avtime Tel # 021	7 217	With this application and the Maine Subsurface Wastewater Disposal Rules.	
OWNER OR APPLICAN	T STATEMENT		
ale and acknowledge that the informa knowledge and undersiand that any f	lion submitted is correct to the best of alsification is reason for the Departme	f I have inspected the installation authorized above and found it to be in compliance ent with the Subsurface Wachender Discoord Public Active time to	
lor Local Plumbing Inspector to deny	a Permit.	(1st) date approved	
Signature of Owner or A	Applicant Date	Local Plumbing Inspector Signature (20d) doto account	
TYPE OF APPLICATION	· ·. P	CRMIT INFORMATION	
First Time System	1 No Rule Variance V FA	N REQUIRES ST MENT REQUIRED 1. Complete Non-projected System	
Replacement System	2. First Time System Variand	2. Primitive System (graywater & alt. toilet)	
e replaced: UNC o	a. Local Plumbing Inspect b. State & Local Plumbing	tor Approval 3. Alternative Toilet, specify:	
ar installed: <u>PRE-1974</u>	3. Replacement System Vari	fance 5. Holding Tank, gallons	
a) <25% Expansion b) >25% Expansion	a. Local Plumbing Inspect b. State & Local Plumbing	tor Approval Jinspector Approval 7. Separated Laundry System	~
. Experimental System	4. Minimum Lot Size Variance	8. Complete Engineered System (2000.gpd or more)	
. Seasonal Conversion	5. Seasonal Conversion Per	1 Engineered Disposal Field (only)	
SIZE OF PROPERTY	DISPOSAL SYSTEM TO	O SERVE	et at
00 535 (a.F.	1. Single Family Dwelling Uni 2. Multiple Family Dwelling, N	It, No. of Bedrooms: TYPE OF WATER SUPPLY	ETRAPO
SHORELAND ZONING	3 Other: EAT PLACE	TAKE 001, WAKEHOUSE 1. Drilled Well 2. Dug Well 3. Private	
Yes No .	(specity) Current Use Seasonal Ye	TRD C(L EXTRAC (ICIL) + ParRound Undeveloped (4) Public 5. Other	
0% F 1989 GPD.	DESIGN DETAILS	(SYSTEM LAYOUT SHOWN ON PAGE 3)	
TREATMENT TANK	DISPOSAL FIELD TYPE	E & SIZE GARBAGE DISPOSAL UNIT Jud MININ DESIGN FLOW X 023 = 2	544 m
Regular 7000 EACH	3. Proprietary Device	encn 1. No 2. Yes (3) Maybe	th that it is
Plastic U _ 761	a cluster array c. Linear	r a. multi-compartment tank   1 Table 4A (dwolling upit(a))	
APACITY: 40/11 GAL	b. regular load d/H-20 4. Other:	load (b) 3 tanks in series 2. Table 4C (other facilities)	+ ><> >.
TOTAL	SIZE: 07'20	lin. ft. (d.)Filter on Tank Outlet	LS TER VI
DATA & DESIGN CLASS	DISPOSAL FIELD SIZING	G . EFFLUENT/EJECTOR PUMP WAREHOUSE	
FILE CONDITION	and the second second	T. Not Required "ELEVATE, TBD OLL EXTRACTION (SLEANING)	) v
bservation Hole # 771	2. Medium—Large 3.3 sg. ft	2. May Be Required DRAIN "LATITUDE AND LONGITUDE	
th <u>248</u>	3. Large4,1 sq. ft. / gpd	Specify only for engineered systems; Lat. 41.3 d SU m 40.0 k	
ost Limiting Soil Factor	4. Extra Large-5.0 sq. ft. / g	gpd DOSE:gallons fg.p.s, state margin of error;	
1.13/77	SITE EV	ALUATOR STATEMENT	
ify that on + 6/3/27: "	(date) I completed a site	evaluation on this property and state that the data reported are accurate and	
he proposed system is in co	ompliance with the State of	Maine Subsurface Wastewater Disposal Rules (10-144A CMR 241).	· ·
Janes Ari	Mencul	241 JUM18, 2022	
Site Evaluator Si	gnature	SE#	
Site Evaluator N	A ANCINI	Talashare Multille	
	ane runteu.	E-mail Address	
: Changes to or deviations t	from the design should be c	confirmed with the Site Evaluator. Page 1 of 3	
			,

Department of Human Services SUBSURFACE WASTEWATER DISPOSAL SYSTEM APPLICATION Division of Health Engineering (207) 287-5672 Fax: (207) 287-3165 Owner's Name Town. City, Plantation Street, Road, Subdivision Scale 1"= STTE PLAN ft. or as shown SITE LOCATION PLAN (map from Maine Atlas. recommended) SUNA SOIL DESCRIPTION AND CLASSIFICATION (Location of Observation Holes Shown Above) on Hole \_\_\_\_\_ Test Pit \_\_ Boring "Depth of Organic Horizon Above Mineral Soil Observation Holc Observation Hole Test Pit Boring Ľ " Depth of Urganic Horizon Above Mineral Soil Texture Consistency Mottling Texture Color Consistency Color Wotting 0 0 Depth Below Mineral Soil Surface (inches) Depth Below Mineral Soil Surface (inches) b 8 8 0 50 50 Soil Classification Liniting Ground Water Slope Soil Classification Limiting Slope [] Ground Water Factor G ] Restrictive Layer Factor Bedrock % ] Bedrock Profile anditin 1Ph Deph Pr ile Condifion PitDepfh THE AL Page 2 of 3 Site Evaluator Signature HHE-200 Rev. 8/01 SE#

Maine Dept.Health & Human Services Division of Environmental Health SUBSURFACE WASTEWATER DISPOSAL SYSTEM APPLICATION (207) 287-5672 Fax: (207) 287-3165 · Town, City, Plantation Street, Road, Subdivision **Owner's Name** KI NAHAM 964 ROOS . TR. EWIS, MICHAEL SUBSURFACE WASTEWATER DISPOSAL PLAN BINUDIN SCALE: 1" = 20 FT 83 1 92/2 3000 CALON - 2.000 GAL GIREASETRAPO SEPTICIANAS From KITCHEN IN SERVES . SINK . NOTE : GRADE AT . (ALL CORNERS) TOP of SURE 84 5 ROUGS of ZI CHAMBERS IN CLUSTER AS SHOWN ELEVATION REFERENCE POINT BROCK FILL REQUIREMENTS CONSTRUCTION ELEVATIONS BROOKS Location & Description: BUTTEM OF SIDING. U Finished Grade Elevation -60". Top of Distribution Pipe or Proprietary Device) Reference Elevation: Bottom of Disposal Area (GH STOLLE BASE (0)AT DO Depth of Fill (Downslope) DISPOSAL AREA CROSS SECTION Scale Horizontal 1" = 💙 ft. 1'' = II ft.Vertical GRAVELLY & A. COARSE STRIP 24" of Sell BELOW STONE BASE BIERS FILL 4" INHO SOLL. CHAMBER 7" SHUDINGULATION. CLEAN STONE 6 OU BOFFOM 12" ON SAPESO CHAMBER DETAIL (no scale) Page 3 of 3 HHE-200 Rev. 8/01 74 1/10/19 / Date SE # Site Evaluator Signature



Basis of Design for First Time Subsurface Disposal System

John Riordan 6/10/2022 Prepared by: Date:

Reference: State of Maine Subsurface Wastewater Disposal Rules, Eff Date 8/3/2015 (MSWDR)

Design Considerations for System Components

# **Design Flow**

Calculation of flow per seat:

Proposed restaurant seats

83 seats

Allocated flow per seat to be used for design

20.0 Gallons per seat

Wastewater flow estimate for restaurant capacity

Design Flow

	1,660 1880 GYD TOTAL"	00	× 1,980 GPD (< 7000 GPD)
per user or unit, Table 4C	¥ 83 20	◆ ✓ ◆   ○ □	
	I otal restaurant seats	Warehouse + TBD EXTRACTION .	I Otal Flow

Z

SEE BOTTOM

1880 GAV X 103 MULTO FACTOR = Z444 GAV + 100 WAREHOUSE + TEVENTRACTIONS (CLEANING) 2544 TOTAL GAV MINS MUM

anest, Wourier 5° E6 247

JUNE 20 2022

Sepic Tank Sizing

Liquid capacity requirements of septic tanks

Minimum capacity200% of design flow

Z Septic TankS

200% 3,960 galllons

1,980 GPD

Of Design flow:

· main

ZODO gallons EACH

Zabel Effluent filters will be installed on discharge from all septic tanks

Grease Trap sizing

Number of meals per day (total flow per day/2 gal per meal) Grease tank capacity Grease trap capacity to be provided Storage capacity factor Dish washing factor

1,660 3,000 gallons

830

S.E. 124 0 181 2022 truth 21 2022 SUNE

# Capacity of Existing Subsurface Disposal System

Project:868 Roosevelt Trail - Commercial Development by Michael LewisPrepared by:John RiordanDate:3/18/2024

Reference: State of Maine Subsurface Wastewater Disposal Rules, Eff Date 9/23/2023 (MSWDR)

**Design Considerations for System Components** 

# **Design Flow**

#### Wastewater flow estimate for commercial development

	Ε	Design Flow		
	per user or unit, Table 5C			
Existing restaurant seats	56	20	1,120	
Existing restaurant employees	10	12	120	
Proposed bakery	1	100	100	
Proposed bakery seats (limited service)	20	10	200	
Proposed bakery employees	3	12	36	
Marijuana Packaging	1	100	100	
Warehouse	1	100	100	
Total Flow			1,776	GPD

# **Disposal Field Sizing**

Test Pits report a soil classification of 5B

# New Disposal System to use Pre-Cast Concrete Disposal Devices

Disposal system sizing factor is Medium Total Design Flow Flow apportioned to restaurant and bakery	2.6 1,776 1,576	SF/GAL GPD GPD	Table 4D soils characteristics as 5B based on Jim Mancini Test
Adjustment factor for restaurant and bakery flow Adjusted flow for disposal field sizing Additional flow Subtotal of adjusted flow estimate for field sizing		GPD GPD	This accounts for credit for grease trap, multiple septic tanks, and use of septic tank filters
Infiltration Area required for total adjusted flow Disposal area credit for using 4'x8' chambers Number of chambers required for total flow Number of installed chambers	5,847 64 91 105	SF SF/chamber 4x8 Chambers 4x8 Chambers	(14 more than required)
Layout of chambers: Chambers lengthwise Chambers widthwise	7 15	Bed length Bed width Bed Area	56 FT 60 FT 3,360 SF
Total chambers	105		
Sepic Tank Sizing			
Liquid capacity requirements of septic tanks			
Minimum capacity200% of design flow	200% 3,552	galllons	Of Design flow: 1,776 GPD
1st Septic Tank 2nd Septic Tank Zabel Effluent filters installed on discharge from all septic t	2,000 2,000 anks	gallons gallons	
Grease Trap sizing			
Number of meals per day (total flow per day/2 gal per mea Storage capacity factor Dish washing factor Grease tank capacity Grease trap capacity provided	l)	660 2 1 1,320 2,000	gallons