



# O'Leary-Burke Civil Associates, PLC

CIVIL ENGINEERING | REGULATORY AND PERMIT PREPARATION | LAND SURVEYING | CONSTRUCTION SERVICES | LAND USE PLANNING

January 22<sup>nd</sup>, 2016

Sharon Kelley  
Zoning Administrator  
Town of Essex  
81 Main Street  
Essex, VT

RE: Town Center Building H and Master Plan Amendment

Dear Sharon:

I am writing on behalf of Rick Bove to submit an application for Site Plan and Master Plan Amendment approval to the Planning Commission for building H within the Essex Town Center development. The applicant is proposing to construct a three-story residential building with a 17,240 ft<sup>2</sup> footprint containing 48 congregate housing units (1-bedroom), 4,041 sf of commercial space, and underground parking. The previously approved building G+H had a 22,500 SF footprint containing 56 congregate housing units, and 4,000 SF of commercial space. No approval for building G is being sought for at this time. The scope of work being proposed by the applicant is summarized below.

### **Roadways, Parking and Infrastructure**

The proposed roadway, parking and infrastructure development is the same as what was approved for building G+H, aside from the sidewalk around building G which will not be built until a later date.

### **Stormwater**

The project will result in approximately 92,613ft<sup>2</sup> (2.13 acres) of new impervious surface, including buildings, roadways, parking and sidewalks. The runoff from these surfaces will be collected by the same network of catch basins and storm pipes that was approved as part of building G+H. The project has a valid State of Vermont stormwater permit.

### **Traffic**

The project is expected to generate PM peak trips according to the following mix of uses from the ITE Traffic Generation Manual:

Building H:

Residential:	48 congregate apartment units	9
Office space:	4,041 ft <sup>2</sup>	6

**Total P.M. Peak trips for proposed buildings 15**

As with previous approvals, the new buildings proposed will be required to contribute an impact fee for future improvements on Essex Way and VT Route 15. The impact fee is calculated to be \$277.00 per P.M. peak trip. Therefore the traffic impact fee for buildings 'H' would be (\$277.00 x 15) = **\$4,155.**

**Water and Sewer**

The project will connect to both municipal water and municipal sewer. The water supply for building H involves the installation of approximately 520' of 8" water main extending from the existing main on Commonwealth Avenue and continuing down Carmichael Street to connect with the existing water main. Additionally, one hydrant will be installed at the northeast corner of the intersection of Commonwealth Avenue and Carmichael Street. The building will connect to stubs on the existing 8" sewer main.

The water usage for building H has been estimated according to section 10.12.380 of the Town Ordinances as follows:

*Building 'H'*

48 congregate apartment units @ 140 gpd each:	6,720 gpd
Office (max of 40 employees) @ 15 gpd/employee	<u>600 gpd</u>
<b>Total estimated daily usage:</b>	<b>7,320 gpd</b>

The applicant will pay the required water and wastewater allocation fees based on the estimated usage prior to connecting to the municipal water and wastewater systems. The fees have been estimated as follows:

*Building 'H'*

Water: (8,860 gpd X \$5.65) + \$1,000 = \$51,059.00  
Sewer: (8,860 gpd X \$9.75) + (2 X \$1,000) = \$88,375.00

**Total Water Allocation Fee: \$51,059.00**

**Total Sewer Allocation Fee: \$88,375.00**

Enclosed please find the following materials for your review:

1. Application for Master Plan and Site Plan Amendment review signed by the applicant;
2. List of property abutters with mailing labels;
3. 1 full-size sets of project plans;
4. 1 reduced-size sets of project plans;
5. Application fee of **\$442.68** (\$200.00: Site Plan Amendment, \$125.00: Other/Master Plan Amendment, \$107.68: Abutters Fee (\$6.73 x 16), \$10: Recording Fee);

If you have any questions or require any additional information please do not hesitate to call.

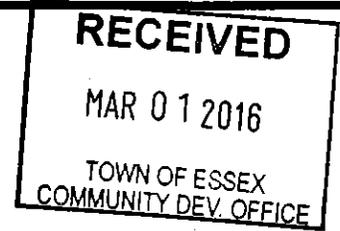
Sincerely,



Paul O'Leary Jr., P.E.

## Gregory Duggan

**From:** Graham Tidman <gtidman@olearyburke.com>  
**Sent:** Tuesday, March 01, 2016 4:01 PM  
**To:** Gregory Duggan  
**Cc:** Paul O'Leary  
**Subject:** RE: Items for Building H  
**Attachments:** (1) 008- Bove - GHXO-Small S4 H-1. Site Plan - Bove.pdf



Hello Greg,

I am writing in response to the comments you had on the Building H plans. Below are responses to each item, those in blue are from Michelle Dufresne while those in Green are from O'Leary-Burke.

- Final versions of the plans should have corrected titles, i.e. some still refer to Building G&H  
Titles have been changed, please see attached Site Plan.
- Is there a sheet #10? The sets we received skip from 9 to 11.  
The landscaping plan done by Wagner-Hodgson (Sheet L1.0) provided with the plan sets was intended to be sheet 10. I will be sure to correct the order of the sheets.
- Sheet 1 – lot coverage summary: The “Total Proposed” is 3.43 acres, but the sum of “Parking and Roadways,” “Sidewalks” and “Buildings” is 2.1 acres. Please point me to what I’m missing.  
A few of the Lot Coverage numbers were based on old calculations for Building G+H. The lot coverage numbers have been corrected and are now presented more clearly. Please see attached Site Plan.
- Please revise the plans to show a 7-foot-wide sidewalk between Building X and Commonwealth Ave.  
7 foot sidewalk between Building X and Commonwealth has been added to the corrected plans. Please see attached Site Plan.
- Please show a temporary, 5-foot-wide sidewalk in front of Building G along Commonwealth Ave.  
Temporary bituminous 5-foot-wide walk has been added to the corrected plans between Building G and Commonwealth. Please see attached Site Plan.
- Is the temporary 5-foot-wide walkway north of Carmichael Street going to connect to the sidewalk on Town Meadows property? Looking at the plans, there appears to be a gap between the new bank access drive and Town Meadows.  
The temporary 5-foot-wide walkway north of Carmichael Street will connect to the sidewalk on the Town Meadows property. The plans have been corrected to show that connection. Please attached Site Plan.
- The previous height waiver was for 50 feet. I’m measuring the cupola at about 53.5 feet. Please correct me if I’m wrong, or submit another waiver request for the additional height.  
The building height waiver is for 50’, not changed. The cupola, non-habitable space, has not changed it is 10’ tall. 60’ I don’t believe anyone had an issue with that being outside of the height waiver.
- What type of building materials are being used for the façade, trim, etc.?  
Same as before- Vinyl horizontal siding, cement board and composite trim.
- Is the plan to still use the earth-toned color scheme that the PC preferred with the approval for G&H?  
Yes, same color scheme
- Please respond to Public Works’ Feb. 18 memo, i.e. in regards to any substantial technical changes, location of underdrains along Carmichael Street, etc.  
There will be no substantial technical changes. The location of the underdrains along Carmichael Street (STA 19+50 to STA 22+00) will remain the same as depicted on the plans. The underdrains for this section of Carmichael Street will be installed when the road is built to completion with associated parking, curbing and sidewalks and will be located just outside the future curb. Please attached Site Plan.

Please let me know if there are any other issues that need to be addressed. Also, how many 24x36 and/or 11x17 sets of plans would you like?

Thank you for your time,

Graham Tidman  
O'Leary-Burke Civil Associates

**From:** Paul O'Leary  
**Sent:** Monday, February 29, 2016 9:52 AM  
**To:** Graham Tidman <gttidman@olearyburke.com>  
**Subject:** FW: Items for Building H

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**From:** Michelle Dufresne [<mailto:rmdufres@sover.net>]  
**Sent:** Monday, February 29, 2016 8:43 AM  
**To:** Paul O'Leary  
**Subject:** RE: Items for Building H

Hi Paul,  
See below

**Innovative Design Inc.**

Michelle Dufresne, Architect  
8 Carmichael Street, Suite104  
Essex Jct., Vt. 05452  
Phone: 802.872.8430  
Fax: 802.878.3310

**From:** Paul O'Leary [<mailto:poleary@olearyburke.com>]  
**Sent:** Monday, February 29, 2016 8:18 AM  
**To:** Michelle Dufresne <[rmdufres@sover.net](mailto:rmdufres@sover.net)>  
**Subject:** FW: Items for Building H

Hi Michele --

Can you comment on the waiver request, type of building materials, and color as listed below in Greg's email. Thanks.

Paul

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**From:** Gregory Duggan [<mailto:gduggan@ESSEX.ORG>]  
**Sent:** Thursday, February 25, 2016 6:01 PM  
**To:** Paul O'Leary  
**Cc:** [rickbove@comcast.net](mailto:rickbove@comcast.net)  
**Subject:** Items for Building H

Hi Paul,

Here are some items that have come up as I'm reviewing Building H:

- Final versions of the plans should have corrected titles, i.e. some still refer to Building G&H

- Is there a sheet #10? The sets we received skip from 9 to 11.
- Sheet 1 – lot coverage summary: The “Total Proposed” is 3.43 acres, but the sum of “Parking and Roadways,” “Sidewalks” and “Buildings” is 2.1 acres. Please point me to what I’m missing.
- Please revise the plans to show a 7-foot-wide sidewalk between Building X and Commonwealth Ave.
- Please show a temporary, 5-foot-wide sidewalk in front of Building G along Commonwealth Ave.
- Is the temporary 5-foot-wide walkway north of Carmichael Street going to connect to the sidewalk on Town Meadows property? Looking at the plans, there appears to be a gap between the new bank access drive and Town Meadows.
- The previous height waiver was for 50 feet. I’m measuring the cupola at about 53.5 feet. Please correct me if I’m wrong, or submit another waiver request for the additional height. The building height waiver is for 50’, not changed. The cupola, non-habitable space, has not changed it is 10’ tall. 60’ I don’t believe anyone had an issue with that being outside of the height waiver.
- What type of building materials are being used for the façade, trim, etc.? Same as before- Vinyl horizontal siding, cement board and composite trim.
- Is the plan to still use the earth-toned color scheme that the PC preferred with the approval for G&H? Yes, same color scheme
- Please respond to Public Works’ Feb. 18 memo, i.e. in regards to any substantial technical changes, location of underdrains along Carmichael Street, etc.

I’ll let you know of any more issues if they come up.

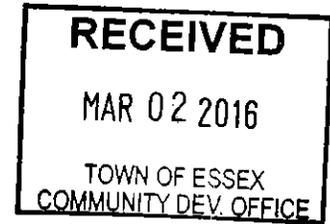
Best,  
Greg

Greg Duggan, Planner  
Town of Essex, 81 Main St.  
Essex Junction, VT 05452  
802-878-1343  
[gduggan@essex.org](mailto:gduggan@essex.org)

## Gregory Duggan

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**From:** Graham Tidman <gtidman@olearyburke.com>  
**Sent:** Wednesday, March 02, 2016 9:22 AM  
**To:** Gregory Duggan  
**Cc:** Paul O'Leary  
**Subject:** RE: Items for Building H



Good Morning Greg,

Thank you for the comments. It appears there are a couple of errors in the narrative. The underground parking is being reduced by 12 and those spaces are not being relocated. Also, the 2.13 acre impervious area for the stormwater is incorrect. Some of the roadway and parking area that was approved for buildings X and O was being included in the building H impervious total. There is no additional impervious being added to the project. I will make the necessary corrections to the narrative and luminaire schedule and I will also change the wall mount lights to a comparable LED model.

Thank you,

Graham Tidman  
O'Leary-Burke Civil Associates

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**From:** Gregory Duggan [mailto:guggan@ESSEX.ORG]  
**Sent:** Tuesday, March 01, 2016 5:14 PM  
**To:** Graham Tidman <gtidman@olearyburke.com>  
**Cc:** Paul O'Leary <poleary@olearyburke.com>  
**Subject:** RE: Items for Building H

Hi Graham,

Thanks for the responses. I forwarded them on to Public Works, as well.

We'll need three copies of the full-size plans, four copies of the 11x17s.

A few other items that I've come across:

- Parking: Underground parking is going from 60 spaces to 48, but the narrative says parking infrastructure is staying the same. Are 12 spots being relocated elsewhere? Do you have updated parking ratios?
- Lighting
  - Please update the lighting sheet so the luminaire schedule matches what's shown on the plans (i.e. the luminaire schedule says 13 wall-mounted lights, 11 D3 Type 3s; plans show 16 and 10, respectively).
  - All lights will need to be LEDs (the luminaire schedule says the wall-mounted lights will be halogen)
- Stormwater: The last approval indicated there would be 84,000 sf (1.93 acres) of impervious surface; the narrative for the amendment says there will be 92,613 sf (2.13 acres) for a smaller building. Is there a typo in one version, or is there additional impervious being added with this project?

Thanks,  
Greg



Sent to All 2/12/16

**Jennifer Booker**

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**From:** Essex Fire Chief <ccole183@comcast.net>  
**Sent:** Friday, February 12, 2016 8:16 AM  
**To:** Jennifer Booker; Gregory Duggan; Sharon Kelley  
**Cc:** Aaron Martin  
**Subject:** Re: Town Center Building H Master Plan

The Fire Department comments are as follows:

Due to the overall size of this building, it shall have fire department stand pipes in all stair towers with a 5" Storz connection on the exterior of the building located adjacent to the Fire Sprinkler connection (which shall also be a 5" Storz).

Carmichael Street must be completed during the initial site work phase to ensure emergency vehicle access to all buildings located in this vicinity - no exception here.

Fire alarm panel must be addressable and Applicant is encouraged to work with the Essex Fire Department Bureau of Life Safety on final design and location of all fire panels and connections.

Building will need to be clearly marked in contrasting colors on both the Carmichael and Commonwealth side.

They will also need Supra Boxes for each commercial occupancy unless they share a common master key which can then be located near the main fire annunciator panel.

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**From:** "Jennifer Booker" <JBooker@ESSEX.ORG>  
**To:** "Allyson Vile" <avile@ESSEX.ORG>, "Charlie Cole" <ccole183@comcast.net>, "Brad Larose" <blarose@ESSEX.ORG>, "Aaron Martin" <amartin@ESSEX.ORG>  
**Cc:** "Sharon Kelley" <skelley@ESSEX.ORG>, "Gregory Duggan" <gduggan@ESSEX.ORG>  
**Sent:** Tuesday, February 9, 2016 1:54:56 PM  
**Subject:** Town Center Building H Master Plan

Good afternoon,  
Attached are the plans for Town Center H master plan!

**\*More plans to come\***

Thanks,

Jenn Booker  
Community Development Secretary  
42 Allen Martin Dr. Essex Junction VT 05452 (temporary location)  
802-878-1343  
[jbooker@essex.org](mailto:jbooker@essex.org)

# Memorandum

To: Dana Farley, Community Development Director  
Cc: Greg Duggan, Town Planner  
Sharon Kelley, Town Zoning Administrator  
From: Dennis E. Lutz, P.E., Public Works Director  
Aaron Martin, P.E., Town Engineer and Utility Director  
Subject: Town Center, Buildings H  
And Master Plan Amendment  
Date: February 18, 2016



The proposed site plan and master plan amendment for Building H and the Town Center has been reviewed by the Public Works office. Previous reviews of this project have taken place. Please refer to the review memos dated 2/11/15, 2/24/15, 2/19/15, and 5/20/15 for further technical review comments. If there are any substantial technical changes to the design, the applicant needs to provide a line by line response listing changes from previous reviews and approvals and a plan set with revision clouds noting the changes made to the design. Town staff does not have the time to look for each change, sheet by sheet, that may have been made.

This review addresses the change in the number of congregate housing units of Building H only. Public Works staff recommends that all comments below be addressed by the applicant's engineer prior to approval. Furthermore, with all the changes made to the plans over the years and multiple reviews, Public Works will need a complete copy of all plans and specs, with all changes included prior to the project obtaining a building permit.

## Traffic:

1. Public Work's staff has reviewed the additional information submitted regarding the changes to Building H and the impacts on traffic originally approved for the Town Meadow master plan, and the current June 2014 traffic study for the Town Center. The revised project includes a change to congregate housing in Building H, which increases the total P.M. Peak trips for Building H to 15. We concur with this change. Public Works is of the opinion that any additional traffic that will be generated by the proposed building is within the total traffic volume originally approved in the master plan.
2. The Traffic impact fee associated with Building H has been calculated by the applicants Engineer and the Town of Essex Public Works Department agrees with the calculations provided, as revised. The traffic impact fee for Building H is **\$4,155.00** and shall be paid to the Town before a building permit is issued.

3. All roadway, sidewalks, paths, and street scape enhancements to be taken over by the Town shall meet all the requirements within the Town of Essex Specifications for Construction.
4. Public Works staff would like to reiterate the following comments from previous review memos regarding proposed roads and pedestrian networks associated with the project.
  - a. It is of the opinion that the proposed location of the underdrains along the section of Carmichael Street, (Sta. 19+50 to 22+00), must be relocated from where they are depicted on the plans. When this section of Carmichael Street is completed in future developments, the underdrain will be left under the roadway when they should be located as indicated on Commonwealth Ave – behind or under the future curb.
  - b. Public Works recommends that the existing sidewalk along the north side of the Town Meadow section of Carmichael Street should be connected to the pedestrian network along the north side of Carmichael Street to the intersection of Commonwealth Avenue. This can be a temporary connection with a gravel base and a paved surface. There is a significant residential base population now along both sections of Carmichael Street and this will only increase as a result of this project. With this section of temporary paved walkway, the Town will be able to make a continuous loop with its sidewalk plow to enable year round access from the proposed building to the pharmacy and other businesses as well as access from the Town Meadows buildings to the businesses in the Essex Town Center. The temporary path must be paved; a gravel path is unacceptable.
5. In addition to comment 4b. above, Public Works will require a temporary five foot wide paved walk along the west side of Commonwealth Avenue beginning at the terminus of the existing walk at the south-west corner of the Butlers Corners intersection, south along the frontage of proposed Building G, terminating at the sidewalk in front of Building H. As with the temporary paths mentioned in previous reviews, the temporary path must be paved; a gravel path is unacceptable.
6. All roadway, sidewalks, paths, and street scape enhancements to be taken over by the Town shall meet all the requirements within the Town of Essex Specifications for Construction.

**Water/Sewer:**

1. The applicant's engineer has provided water and sewer calculations based on Table 10.12.380 of the Towns Water Use Ordinance for the proposed buildings. There are a couple errors with the flows used calculating the total usage for Building H. The changes have been made below.
2. The Public Works Department calculates the water and sewer usage for Buildings H to be:

**Building H**

48 Apartment Units X 140 GPD / Unit =	6,720 GPD
Office (max of 40 employees) @ 15 GPD/employee	<u>600 GPD</u>
Total=	<b>7,320 GPD</b>

3. If the fee schedule changes, then the fee charged shall be the fee in effect at the time of submittal for a building permit.

### Building H

Water:  $7,320 \text{ GPD} \times \$5.65/\text{gal} + \$1000 = \$42,358.00$

Sewer:  $7,320 \text{ GPD} \times \$9.75/\text{gal} + \$2000 = \$73,370.00$

Total = **\$115,728.00**

4. The applicants engineer shall provide peak domestic water demand calculations, based on the number of fixture units, for properly sizing the water meter for each the proposed buildings. The Town of Essex will not size the meter based on line pressure in the building. Public works recommends that each of the uses within Building H have separate meters for billing.
5. Public Work has a concern that needs to be addressed as part the building plans for which Public Works is not responsible. However, the issue can impact significantly on the building. Although the street water pressure is adequate and sufficient for fire protection, the building is located at an elevation that without consideration of the sizing of the indoor piping could present flow and pressure problems for businesses and residents - especially those on the 2<sup>nd</sup> floor.

Prior to construction, a licensed Mechanical Engineer needs to evaluate the pressure head losses within the interior of the building. In our opinion, normal operating pressure on the second floor may be marginal. This analysis is the responsibility of the owner and not the Town. Doing the calculations early may save the owner costs and future problems with tenants.