

Essex Land Use Regulation Housing Audit

Developed by CCRPC for the Town of Essex
July, 2018



CHITTENDEN COUNTY RPC
Communities Planning Together

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EXECUTIVE SUMMARY

The following report includes a variety of recommendations for the Town of Essex Zoning Regulations to eliminate barriers to affordable housing. Some of these recommendations are broad in scope while others are simple housekeeping changes. The broader recommendations go beyond a text edit in the zoning regulations and, while complex, may produce a more beneficial result than the minor housekeeping recommendations. The broader recommendations should be considered within the context of a housing needs assessment, and perhaps by a housing committee if and when established. This report should also help as a guide when implementing changes from the Town Center visioning work.

Here is a summary of the overarching broad recommendations:

- Consider a Development Review Board form of review so projects can be reviewed with just one combined Site Plan and Conditional Use review rather than the time and money associated with two different Boards and two hearings.
- Consider a Growth Center or New Town Center and Neighborhood Development Area Designation from the State to alleviate Act 250 review and permitting.
- Continue to allow Accessory Dwelling Units (ADUs) in all residential areas with more relaxed standards.
- Overall, the base dimensional requirements do not allow for the level of density needed to help accommodate additional housing, let alone affordable housing. Therefore, it is recommended that the regulations be amended, particularly in the Town Center to accommodate more density in a smart growth manner.
- Overall, the standards and process for a density bonus and a Planned Unit Development are too complex to gain the benefit of the increased density. Within the areas planned for growth, define the density and/or form of development you'd like to see and simplify the review process so that vision can be achieved. Eliminate the overly complicated PUD and density bonus provisions.

- Inclusionary zoning (a mandatory requirement for a portion of a housing development to be affordable) can be an effective mechanism for achieving housing affordability in areas where growth is happening. It is not a tool that addresses the cost of building affordable housing, as this mandatory requirement simply passes the cost on to developers. However, as changes are considered in the Town Center, it is a tool that should be looked at, along with a local housing trust fund.
- Overall, consider whether minimum parking requirements are too high and whether maximum parking or no parking requirements would be a better method.

BACKGROUND

By way of background, the Essex 2016 Town Plan includes:

Action 4.1 Undertake a comprehensive housing study, including recommendations for regulatory and non-regulatory methods of increasing the stock of affordable housing.

Action 4.2 Develop regulations to promote affordable housing and/or remove barriers to it, if this initiative is recommended in the comprehensive housing study.

The Town is not undertaking a comprehensive housing study at this time, largely because the VHFA's website has not been updated with the necessary housing data. It is expected that the housing data website will be updated sometime in 2018. VHFA's Maura Collins has also recommended that the Town form an Affordable Housing Committee to tackle the issue.

In the meantime, the Town of Essex requested CCRPC to do a comprehensive review, or "audit", of the Town's zoning and subdivision regulations. The audit would determine the obstacles to affordable housing that may be embedded in the regulations and prepare suggested zoning and subdivision amendments to promote affordable housing and/or remove barriers to it.

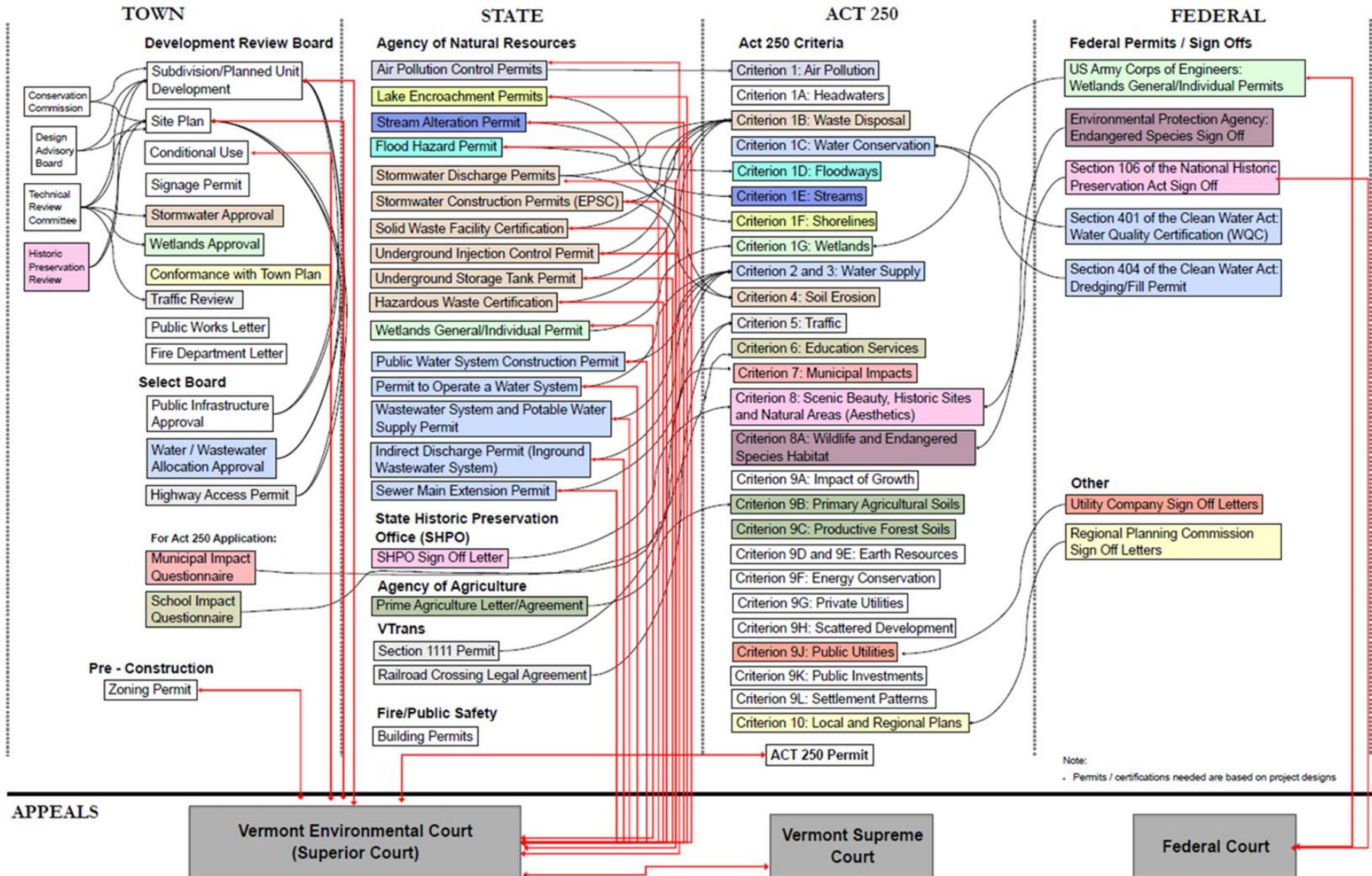
The timing of this study is appropriate from a regional perspective as there is a total housing and affordable housing shortage that exists in the region.

- One of the biggest challenges identified in the ECOS Plan is our housing shortageⁱ.
- Housing is unaffordable: 33% of homeowners and 56% of renters spend more than 30% of their income on housingⁱⁱ.

- Less workers live in the County: 68% of employees live here, compared to 75% in 2002ⁱⁱⁱ.
- Household size is shrinking: 2.4 persons/household, compared to 3.5 in 1960^{iv}; and we are growing at the same time (by approximately 900 people per year over the last six years^v).
- Rental vacancy rate is anemic: 2.6% in 2017; 1.8% long term average^{vi}

The cost of building more housing is a challenge, and it's particularly challenging to build housing to an affordable price point for many reasons. One reason is the lengthy and unpredictable permitting process in Vermont as demonstrated by the flowchart on the following page from Ernie Pomerleau. While this is not the only cost factor, it is significant for a municipality because streamlining and improving efficiency is within your purview.

Project Permitting Flowchart



METHODOLOGY

KICK-OFF MEETINGS

Regina Mahony, Planning Program Manager at CCRPC, met with Dana Hanley and Darren Schibler on 2/2/2018 to discuss the parameters of this project, and verify the scope. It was decided that CCRPC will focus their review on the following provisions: base density, density bonus, parking requirements, and the development review process in the zoning districts in the sewer service area. In addition, CCRPC will review the accessory dwelling unit provisions, as they are applicable to all zoning districts both inside and outside of the sewer service area. CCRPC will only do a cursory review of the Agricultural-Residential, Conservation, Floodplain, Industrial/Residential, and Fort Ethan Allen districts as they are not within the Town's sewer service area and not likely candidates for additional housing.

It is important to note that this study does not include an analysis of the affordable housing needs for Essex – including what price points Essex may want to target. This will come from the comprehensive housing study.

Regina Mahony and Essex planning staff reviewed the scope of work with the Planning Commission on 2/22/2018. Regina Mahony answered preliminary questions and gathered feedback from the Planning Commission.

Regina Mahony provided Essex planning staff with a draft report, and subsequently incorporated Staff comments. The draft report was then provided to the Essex Planning Commission in advance of the June 28, 2018 presentation. Regina Mahony subsequently incorporated comments from the Commission in the Final Report. Lastly, Regina Mahony provided the Selectboard with a presentation on July 9, 2018.

CCRPC RESEARCH & RECOMMENDATIONS

Following the preliminary review, CCRPC conducted a literature review for best practices where relevant; reviewed Essex's regulations; reviewed regulations in surrounding municipalities; and developed a list of recommendations. These results are presented by regulatory provision category below.

REVIEW & RECOMMENDATIONS

DEVELOPMENT REVIEW PROCESS

Before getting into specific zoning provisions, it is beneficial to review the development review process and make some overarching recommendations on the existing procedures.

Reason for Review from Affordable Housing Perspective

Time and uncertainty can add to the cost of a development project and minimize the ability to accommodate affordable housing. The basis of this review is focused on the distinction between by-right (i.e. objective) and discretionary approvals (i.e. subjective), and other review/approval aspects that can reduce time-consuming, costly, uncertain, inconsistent, and unpredictable decisions.

“Elected officials want zoning to achieve specific goals. Citizens want to know what can happen next to their home. Developers want to read the zoning code and prepare a plan that meets the standards and can be approved. Discretionary approvals fail all these desires, and it stands to reason that a failed zoning tool should be abandoned.”
By Lane Kendig^{vii}

In the *By-Right Zoning, Zoning Practice* report, Lane Kendig describes both conditional use and Planned Unit Developments as highly discretionary approval processes. Conditional uses were originally added to use tables to address uses that are necessary and sometimes needed in residential areas or downtowns (e.g. emergency services, wastewater treatment plants, electrical sub-stations), likely to cause a nuisance, and were difficult to classify as simply permitted or prohibited. Over time common uses have been added to this list because only under certain conditions may a particular use be a good fit in some districts. The challenge is that the conditional use standards are highly discretionary (e.g. “character of neighborhood”) and can lead to unpredictable results. The issues that are usually of concern (e.g. unsightly appearance, traffic, signs, lighting, etc.) can and should be addressed through clear, objective standards and not under the context of a conditional approval. In addition, many of these provisions are covered under a Site Plan review process. Planned Unit Developments (PUDs) are also highly discretionary as the concept is to allow for flexibility from the standards, and therefore results in unpredictable results.

Comparison to Other Regional Municipalities

Municipalities have been working to make their regulations more objective for a few reasons, including the current subjective review processes do not result in predictable outcomes, J.A.M. Golf LLC and other VT decisions clarify the requirements for more specific and objective standards^{viii}, and developments have not met the vision hoped for in the municipal plans. Form Based Codes are a tool that has been used to establish more objective standards to achieve predictable outcomes and developments that meet the communities vision. Some municipalities have an administrative review process associated with these (i.e. approved by the Zoning Administrator), while others are approved by the Development Review Board. There are many aspects to a Form Based Code, but it is not necessary to make use of all the provisions depending on the objectives of the municipality. The key benefit is more objective standards. There are also other tools that can be used as well, including improvements to existing standards within the regulations (e.g. switch from setbacks to build-to lines).

The following table includes four municipalities in Chittenden County that have adopted a form based code and describes their review process and subjectivity. Other municipalities in Chittenden County with form based codes include Shelburne, Jericho and Westford (many components of form based code type zoning, though they don't call it that).

Form Based Code Provisions in Chittenden County Communities

	Winooski (Gateways)	South Burlington (City Center)	Burlington (Downtown & surrounding district)	Colchester (Severance Corners)
Review Type - Small projects	Administrative Approval	Administrative Approval	Administrative Approval	Development Review Board
Review Type - Large projects	Administrative Approval	Administrative Approval	Administrative Approval & DRB depending on height	Development Review Board
Does the Code allow for staff or DRB discretion?	Yes, within objective limits: "Administrative Adjustment Standards"	None except DRB for doorway spacing	Fixed criteria for administrative; some discretion for DRB	No

Recommendations for Essex Regulations

Process 1. The overall recommendation is to adjust the zoning regulations to a more by-right, objective process. This includes making multi-family housing a permitted use, and not requiring PUD approval.

Process 2. Table 2.1: Make multi-family housing is a permitted use rather than conditional use in the districts where the Town would like to see more housing. Currently there are only four districts where multi-family housing is a permitted use, and two of those districts aren't likely to be used for additional multi-family housing (i.e. R3 is essentially built-out and in B1 housing isn't a

component of the purpose statement). Secondly there is a provision where multi-family dwellings are permitted but only under PUD approval; therefore, the benefit of it being permitted by-right is negated by requiring a complicated, subjective review process.

Process 3. Consider a Development Review Board form of review so projects can be reviewed with just one combined Site Plan and Conditional Use review rather than the time and money associated with two different Boards and two hearings.

Process 4. Consider a Growth Center or New Town Center and Neighborhood Development Area Designation from the State to alleviate Act 250 review and permitting.

Process 5. 5.5(A): Amendments – Approved as consent agenda. For many Chittenden County municipalities, these types of things are approved administratively by staff. Consider following this practice as it can eliminate time and uncertainty for applicants.

Process 6. 8.1: Subdivision Definition – Amend the subdivision definition so a multi-family building on one lot does not need to be approved as a subdivision (review it instead as a Site Plan only). Look to the Essex Way 70 decision, and other multi-family approvals to understand if there is anything from the subdivision review process that is necessary for an effective review of these types of projects. If so, incorporate those elements within a Site Plan provision specific to multi-family projects, rather than subjecting these developments to a 2- or 3-hearing process.

Process 7. The table below attempts to compare the relative ease of the process changes to the benefit. The more difficult changes may likely produce the greatest benefit. However, within each of these options there are small changes that can be made with less difficulty.

OPTIONS FOR PROCESS CHANGES	EASE OF CHANGE	RELATIVE BENEFIT OF CHANGE	SPECIFIC EXAMPLES
ADDITIONAL “BY RIGHT” APPROVALS (MEANING PERMITTED WITHOUT A NEED FOR DISCRETIONARY DECISION MAKING AND APPROVED BY STAFF)	DIFFICULT	HIGH	ELIMINATE CU REVIEW FOR ADUS IN NEW ACCESSORY STRUCTURES AND ADDITIONAL FLOOR AREA
FEWER DISCRETIONARY APPROVALS (I.E. CONDITIONAL USE, PUDS AND SUBDIVISION REVIEW WHERE NO LAND IS BEING SUBDIVIDED)	EASY	HIGH	NO SUBDIVISION REVIEW FOR MULTI-FAMILY ON ONE LOT, ONLY SITE PLAN REVIEW. ALSO MULTI-FAMILY AS PERMITTED USE RATHER THAN CONDITIONAL
DEVELOPMENT REVIEW BOARD STRUCTURE RATHER THAN PLANNING COMMISSION & ZONING BOARD OF ADJUSTMENT	DIFFICULT	MEDIUM	ELIMINATE REPETITIVE REVIEW PROCESS BY TWO DIFFERENT BOARDS FOR THE SAME APPLICATION
ADDITIONAL CONSENT AGENDA APPROVALS	EASY	LOW	

ACCESSORY DWELLING UNITS

Vermont recognizes the benefits that Accessory Dwelling Units (ADUs) can have on overall housing stock and housing affordability and requires municipalities to allow these units wherever single family homes are allowed. However, ADUs haven't been built in significant numbers despite their relative low cost in comparison to other new housing development in infill areas. This section describes the benefits of ADUs, successful incentive programs in the West, comparison to other Chittenden County municipalities, and recommendations for Essex to consider for greater use of ADUs.

Reason for Review from Affordable Housing Perspective

Benefits of Accessory Dwelling Units^{ix}:

- Increases a community's housing supply without significant further land development
- Facilitates efficient use of existing housing stock & infrastructure
- An affordable housing option for many low- and moderate-income residents
- Improves homeowner cash flow
- Helpful to aging and/or people with disabilities (or caregivers, empty nesters, young adults, etc.) who may want to live close to family members.

Despite these benefits, ADUs have not been built in a significant way. However, there has been more recent success in the West, specifically in Vancouver, Seattle, Portland and California. *Jumpstarting the Market for Accessory Dwelling Units: Lessons Learned from Portland, Seattle and Vancouver* helps to explain the market in these cities and the key takeaways that helped enable their success^x:

- Reform zoning for minimum lot size and floor area. Minimize design review and relax owner occupancy requirements. Homeowners appreciate flexibility and use them for a variety of reasons; the majority are used for affordable housing (not short-term rentals as some expected).

- Work with local banks to allow homeowners to borrow against the future value of the ADU. Otherwise, only those with cash can afford to build them despite them costing the lowest of any new housing construction in already built-up areas (because they are small, can be built quickly and efficiently, and there is no land cost). Reduction of permit fees and utility fees can spur homeowners to build, though it likely won't impact the cost of construction significantly.
- Educating landowners and providing technical assistance will likely produce good results for relatively little cost. This played a big role in Portland's success over the last decade. As an example, this is a great website geared toward property owners and developers: www.accessorydwelling.org.

Of note is Portland's success (2,000 ADU permits issued since 2010) which can be attributed to these factors^{xi}:

- Regulatory: no owner occupancy requirement, no design review, a by-right process, and fee waivers.
- Financial: eliminated impact fees (called System Development Charges) which are on average 7% of the cost of construction.
- Social: green building and ADU advocates hosted tours to educate other residents on the benefits and the process in building.

California made sweeping changes to their enabling statute for ADUs in an attempt to help deal with their housing shortage crisis. The law that went into effect on January 1, 2017 makes a wide variety of changes including but not limited to administrative approval, limitation of parking requirements, and elimination of some utility connection fees^{xii}.

Comparison to Other Regional Municipalities

	Occupancy Requirement		Relation to Principal Dwelling		Total Floor Area	Required Parking	Bedrooms	Other
	Principal Dwelling	Either Principal or ADU	Within	Attached with Expansion or New Detached ¹				
Essex		X	P	CU	30%	1/unit	efficiency or 1 bedroom	
Essex Junction (Section 721)	X		P	CU	30%	1/unit		not in residential garage unless there is adequate separation between the residential unit and garage and is compliant with the Vermont Fire Prevention Code
Burlington (Section 5.4.5)		X	P	CU	30%	1/unit	efficiency or 1 bedroom	
Colchester (Section 2.09(B))		X	P	CU	30% or 900 ft ² whichever is greater	1/bedroom	up to 2 bedrooms	unit whether attached or detached shall have the external appearance of a single-family residence; and compatible (including scale, fenestration, roof & siding materials, color & design) with the principal dwelling
South Burlington (Section 3.10.E.)	X		P	CU	30%	2/unit ²	efficiency or 1 bedroom	
Williston (Section 20.1)	X		P	CU	30% ³	1/unit for efficiency & 1 bedroom, 2/unit for 2 bedrooms	up to 2 bedrooms	Detached accessory dwellings in the Village must comply with the Village design standards.
Winooski (Section 5.1)		X	P	CU	30%	1/unit	efficiency or 1 bedroom	
CCRPC Recommendation for Essex	Consider no owner occupancy requirement		Allow both by right so long as lot coverage and setbacks are met ⁴		Relax floor area size ⁵	Consider no off-street parking in areas with transit.		

¹While there are some distinctions, Essex and most of these municipalities require a CU for additions or new accessory structure, increase in building height or habitable floor area, or increase in dimensions of parking area

²South Burlington - if deed restricted for a disabled person, no additional parking required.

³Williston - "...or where the parcel is larger than one-half acre, but too small to subdivide in the zoning district in which it is located, no more than 50% of the total floor area of the dwelling to which it is accessory, with a maximum size for any accessory dwelling of 1,500 square feet."

⁴Essentially no one can do an ADU by right if they can't fit it within the existing structure of their home.

⁵Portland allows 75%, up to a maximum of 800 ft².

Recommendations for Essex Regulations

ADU 1. The overall recommendation is to continue to allow ADUs in all residential areas with more relaxed standards.

Opportunities for Improvement:

ADU 2. 4.1(A)(2): Owner occupancy. While it is helpful that either the single family unit or the accessory unit can be owner occupied, consider removal of the owner occupancy requirement altogether. There is a question about whether this is enabled in statute. 24 VSA §4412 (1)(E) is the enabling statute for accessory dwelling units and includes the language "no bylaw shall have the effect of excluding as a permitted use one accessory dwelling unit that is located within or appurtenant to an owner-occupied single-family dwelling." §4412 (1)(F) states "Nothing in subdivision (1)(E) of this section shall be construed to prohibit: (i) a bylaw that is less restrictive of accessory dwelling units". Since (1)(F) refers to the entirety of (1)(E), I interpret this to mean that a municipality can relax any provision within (1)(E), including "owner-occupied". However this is debatable and if Essex were interested, legal counsel should be sought. An associated issue to be resolved, if the Town removes the owner occupancy requirement is the distinction between an ADU and a duplex. The main differences between ADUs and duplexes are the size limitation and owner occupancy requirement. If the owner occupancy component is removed from ADUs it challenges the system in determining what use it actually is. That is a real challenge that would need to be worked out, but if the end goal is more housing units and more units that would fall into an affordable category both ADUs and duplexes are

valuable uses that the Town should encourage. There is no real need to make the permitting process for one more complicated than the other.

ADU 3. 4.1(A)(5): Shall not exceed 30% in size. Consider relaxing this size maximum by one or both of the following: 1. Allow the 30% to be calculated with the ADU rather than just the single family dwelling prior to construction; 2. Allow for 30% or up to a maximum size (examples include 800ft² from Portland, OR; and 900ft² from Colchester). Based on Essex's 30% max, only a fairly large home over 2,600 ft² could have an ADU around 800 ft²; a 2,000 ft² home could only have a 600 ft² ADU; and a traditional home around 1,200 ft² could only have a 360 ft² ADU which some may find too small. There is some value in holding the 30% size limitation if it is truly producing smaller units that are filling an affordable housing gap, but it is recommended to allow some flexibility in how the 30% is calculated.

ADU 4. 4.1(A)(6): Parking. See parking review section for more details.

ADU 5. 4.1(B): Conditional Use Review. As written Section 4.1(B) requires Conditional Use review for additions or new structures (“...that increases the height *or floor area* of the existing single family dwelling...”). In practice, it is rare for an applicant to go to the ZBA for an accessory apartment either because the single family home is so large the 30% floor area for the accessory apartment can be easily accommodated within the existing floor area, or because a zoning permit is pulled for an addition first and then a second permit is pulled for an accessory apartment. The latter comes with some risk, and while minimal, it is not a risk that a landowner with limited means would likely take. Additionally, in practice, conditional use review is only invoked when the ADU itself exceeds the 30% floor area limitation; however, the wording in 4.1(B) is not limited to only that. Consider an amendment to 4.1(B) that would eliminate the need for Conditional Use review for an addition to accommodate an ADU, so long as the addition and parking fit within lot coverage, setbacks and height. This could be accomplished by simply deleting “or floor area” from Section 4.1(B). This would increase the opportunity for ADU development by right. Also, from a land use perspective a duplex is a more “intense” use than an ADU; and currently, duplexes are a

permitted use in all residential districts except MXD where it is a conditional use, and C1 where it isn't allowed at all. Therefore, if the more intense duplex is a permitted use in most circumstances, this is an argument for ADUs as permitted uses even when done in an addition.

ADU 6. 4.1(B): Conditional Use Review. To further expand on the opportunities for ADU development by right, consider allowing ADUs in a new accessory structure without Conditional Use review so long as the new structure and parking fit within lot coverage, setbacks and height. Because new accessory structures may be placed further back in the yard than the existing single family home, it may be appropriate to establish some basic design standards associated with this by right ADU development. For example, a standard that the 2nd story can only be 60% of the floor area of the 1st story to avoid obtrusive height and sight lines directly into a neighboring back yard (this is an example from Vancouver, and they have others. Winooski's residential form-based code district has some simple standards that could help with the preservation of privacy in back yards as well). Another example is this provision from Colchester: "unit whether attached or detached shall have the external appearance of a single-family residence; and compatible (including scale, fenestration, roof & siding materials, color & design) with the principal dwelling." Ensure that these standards are clear and specific so the Zoning Administrator can approve them without discretion via a zoning permit.

BASE DENSITY

Reason for Review from Affordable Housing Perspective

While there are many factors that impact the cost of construction, the number of homes that can be built on a given lot is a critical piece of the puzzle. The base thresholds that CCRPC used for comparison in this study include the following:

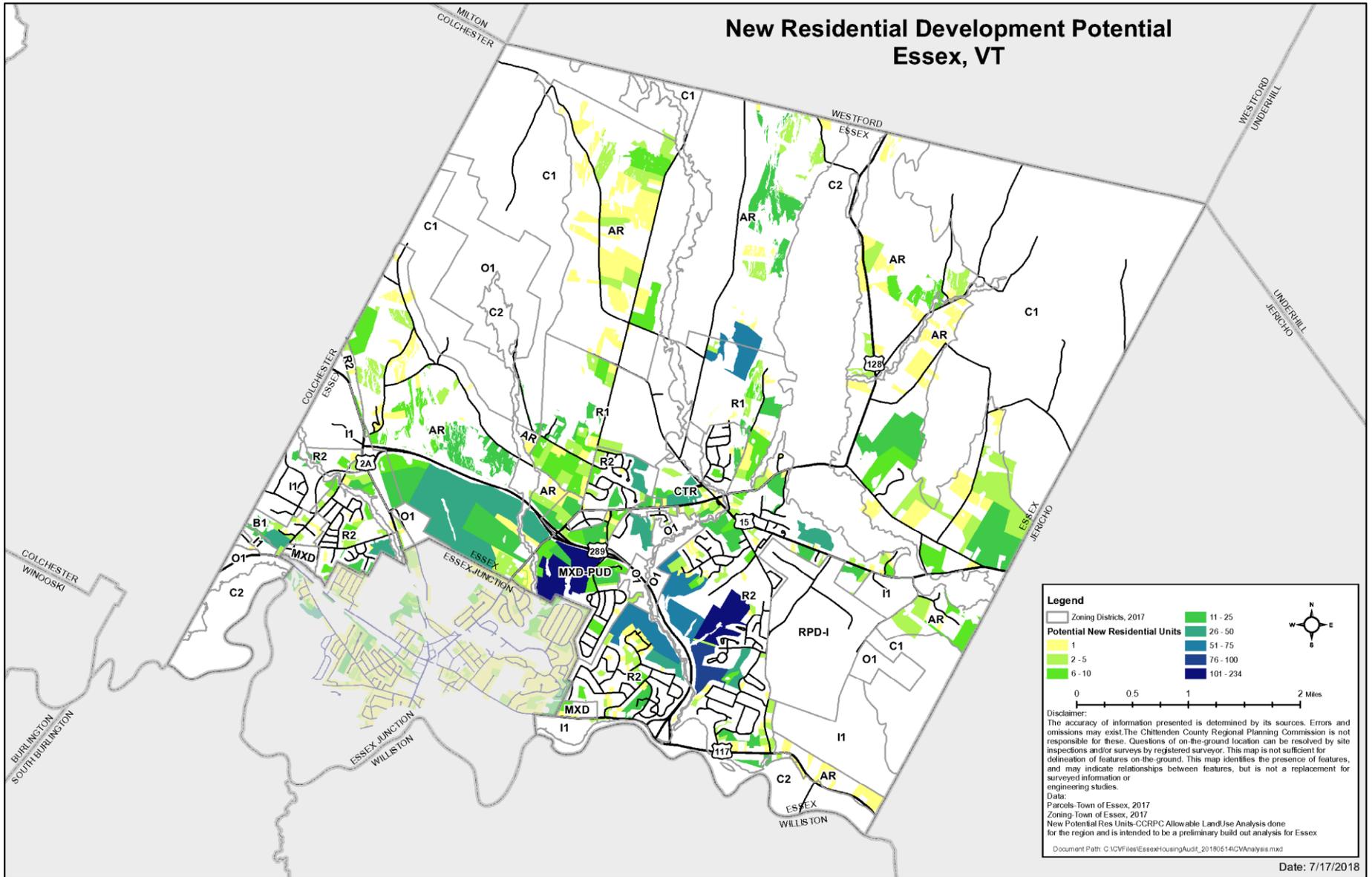
- 4 units per acre is the minimum density threshold for Vermont’s Growth Center and Neighborhood Development Area designations.
- 7 units per acre is the minimum density needed to support transit with a frequency of 1 bus every 30 minutes^{xiii}.
- 5,000 ft² is the recommended minimum lot size for single family residential from Vermont’s Growth Center and Neighborhood Development Area designations. It is presumed that this can promote infill development and creates a neighborhood scale development that is walkable.
- Another factor to consider is flexibility in unit sizing. The market for micro apartments is being driven by millennials and the retirement of baby boomers. These units are commonly understood to be smaller than 400ft², and can be as small as 220ft², according to the International Code Council’s International Building Code. “Tiny homes” are also typically 400ft² or smaller.

Also, because the densities in each zoning district are related to limited sewer service area allocations, density increases to accommodate a more affordable housing unit cost in one area may involve a reduction in density in another area. To understand the future growth allocation based on existing zoning densities, CCRPC mapped Essex’s potential future growth from the 2050 population forecasts (established for the *2018 ECOS Plan* and prepared by Economic & Policy Resources, Inc. in 2017). The 2050 population and household forecasts for Essex include the Junction and are listed below:

Essex (with the Junction)	Population Forecast	Household Forecast
2015	20,946	8,360
2050	24,020	11,429

Prepared by Economic & Policy Resources, Inc. 2017

The following map depicts a build-out based on potential new residential development from the forecast, current zoning parameters and development constraints removed (meaning natural resources that can't be developed, such as wetlands, have been accounted for).



Comparison to Density Thresholds

Zoning District in Sewer Service Area	Meet NDA min. 4 du/acre density?	Type of Housing Permitted?	Type of Housing CU?	Allow at least 3 stories?	Allow for smaller (approximately 5,000 ft ²) minimum lot sizes for SF?	Allow for relaxed dimensional requirements for infill?	7 units/acre for 30 min. bus service?
MXDC	Yes, smallest at 7,000ft ²	two and multi-family	congregate	Yes, but only 40'	This district doesn't allow SF homes.	Yes, 70% lot coverage for multi-family residential; 36' front setback at minimum (larger on Rte. 15 and Main St.); no side or rear setbacks	No
CTR	Yes, 10,000ft ²	single and two family	multi-family and congregate	Yes, but only 40'	Not sure this is prohibited. The purpose statement indicates moderate to high density development.	Allows for up to 4 units within existing historic structures which is useful for existing structures. But standards for new construction is limited. Only allows for 40% lot coverage for multi-family residential.	No
R3	Yes, 10,000ft ²	single, two and multi	congregate	Yes, but only 40'. Maybe OK here.	Ratio in PUD getting slightly better but still a square lot with a required 75' min frontage (100' regular) would be 66' depth.	Not really. Slightly better setbacks in PUDs but not really encouraging infill. Though this zone is built-out.	No
RB	Yes, 10,000ft ²	single and two family	multi-family and congregate	Yes, but only 40'. Maybe OK here.	Doesn't prevent it, but with 100' minimum frontage it really isn't workable (you'd only have a 50' depth).	Not really, and PUDs not allowed.	No
B1	No, 20,000ft ²	multi-family and congregate		Yes, but only 40'. Maybe OK here.	Does not allow single family	Allows 70% lot coverage for multi-family; though 150' frontage might be large even for multi-family (urban v. suburban style)	No
R2	No, 20,000ft ²	single and two family	multi-family and congregate	Yes (40', but okay here)	Ratio in PUD getting slightly better but still a square lot with a required 75' min frontage (100' frontage otherwise) would be 66' depth.	Not really. Slightly better setbacks in PUDs but not really encouraging infill. Though density increases for congregate housing at 10,000ft ² /du.	No
HP-DC	No, 20,000ft ²	single, two and multi	congregate	Yes, but only 40'	No, minimum lot size is too large. No frontage and no setbacks is helpful.	No frontage, no setbacks, but only 40% lot coverage for multi-family.	No

MXD	No, 20,000ft ²	two family in PUD	two and multi-family and congregate	Yes, but only 40'. Maybe OK here.	Ratio in PUD getting slightly better but still a square lot with a required 75' min frontage (100' regular) would be 66' depth.	Not really. Slightly better setbacks in PUDs but not really encouraging infill.	No
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Recommendations for Essex Regulations

Overall, the base dimensional requirements do not allow for the level of density needed to help accommodate additional housing, let alone affordable housing. Therefore, it is recommended that the regulations be amended, particularly in the Town Center to accommodate more density in a smart growth manner. Look to the R2 district, particularly east of 289 for additional sewer allocation if needed to bolster the development potential in the Town Center.

Opportunities for Improvement:

Base Density 1. 8.1: Dwelling Unit Size in Definitions - Essex’s current definition for dwelling unit size allows for 350ft² usable floor area in any two-family, multi-family or mobile home configuration; and the minimum size for single family units is 500ft². The multi-family size could be reduced to allow for smaller units to accommodate the micro unit apartments. However, according to a recent Burlington Free Press article^{xiv} on smaller units in the region, the smallest studios reported are 360ft² -- so perhaps 350ft² is small enough. Regarding the single family unit size of 500ft², it is limiting the use of “tiny homes” which are typically^{xv} referred to as 400ft² or less.

Base Density 2. Article II: Minimum Lot Area - Generally the minimum lot area is the basis for density, and the associated base density for most of the zoning districts in the sewer service area is very low. Density increases largely require PUD approval which is an incredibly complicated review process (see below for more details).

Base Density 3. Article II: Lot Frontages - Generally the minimum lot frontages for many of the zoning districts in the sewer service area are too large to create small in-fill residential lots of 5,000ft² or less. A 50’ frontage can help pave the way for a 5,000ft² (or 1/8 acre) lot. While 10,000ft² (or ¼ acre) lots are compatible with 75’ to 100’ frontages, lots should be smaller in sewer service areas where multi-modal, walkable neighborhoods are the goal.

Base Density 4. Consider form over traditional use and density based zoning. Increasing density can be a hard sell when the public doesn’t have visuals to help them understand the changes proposed. Focusing visuals on the human experience within the streetscape can help residents understand what the changes will feel like, rather than fear the greater height or density that goes along with the change. See pages 17 and 20 in the [Winooski Gateway Corridors Vision Plan](#) as an example (credit to

Urban Advantage for the visuals). Form Based Code (or similar tools) processes start with a robust visioning exercise that aims at consensus over the look and feel of a place. That vision is then coded and standardized in a by-right, objective zoning regulation to help create a predictable approval process on the back-end. Along with this planning process it is important to educate residents on the high cost of expanding infrastructure into greenfields rather than concentrating development in areas planned for growth that are already served by existing infrastructure.

DENSITY BONUS & PUDS

Reason for Review from Affordable Housing Perspective

As discussed in the previous section, some of the zoning districts have low base densities and dimensional requirements that are likely barriers to increased housing and affordable housing. Because Planned Unit Development is the only method for increased density through the density bonus provisions, this provision was analyzed as part of this study.

Comparison to Burlington’s Inclusionary Zoning Ordinance

While affordable housing is not a requirement in Essex’s regulations, it is helpful to look at inclusionary zoning parameters as a frame of reference for the ‘get something to give something’ concept as the intent is the same for density bonus provisions associated with incentivizing affordable housing development.

The sidebar from the Burlington Inclusionary Zoning report eloquently captures the challenge of cost shifting to developers. In addition, the report identifies the importance of a consistent and predictable development review process and public funds to support the system in full. The following explains some of the basic provisions of Burlington’s inclusionary ordinance and the report’s recommendations^{xvi}:

1. Required for projects with 5 or more residential units; and 10 or more units for rehabs. The study finds that 5 units may be too small in Burlington’s market, and recommends increasing this to 10 or more units.
2. The percent affordable is based on the average market value of the units:

The following is a screen shot from the *Evaluation of the City of Burlington’s Inclusionary Zoning Ordinance* by czb, LLC. Jan. 2017

Cost shifting from the public to developers:

The public has a right to set high standards for development in Burlington. After all, careful stewardship of the city’s assets has created tremendous value that would be silly not to leverage. But that does not mean developers should be expected to provide a public good without incentive or compensation of some kind – that is why cost offsets are a fundamental part of any inclusionary zoning ordinance. Developers are no less rational than other economic actors and need to obtain a return comparable to any risk-taking entity; expecting them to do otherwise will limit the realization of community goals that mandate their participation as partners.

Average price range of units	% of units to become perpetually affordable
At or below 139% Area Median Income (AMI)	15%
Between 140 – 179% AMI	20%
180% + of AMI, or on waterfront	25%

Income targets: 65% AMI for rental; 75% for ownership. The study recommends switching this to ranges, and notes that 75% is low for ownership. When Essex does a housing needs assessment and research to understand the right income targets, page 32 of this report can be helpful for more specifics on these range recommendations.

3. Cost offsets: Developers are entitled to density and lot coverage bonuses of between 15% and 20%; 50% parking requirement waiver; and waiver of a portion of impact fees for the inclusionary units. However, the study reports that the give and get that should work here to cover the developers costs of complying is not working. Interviews with the for-profit and non-profit developers found these bonuses are not being realized and in fact developments end up coming in under the base allowable density. The study recommends revamping these because cost offsets are fundamental to inclusionary zoning to help offset the costs that developers incur in building to an affordable price point.

Because of this study, the City has been considering amendments to the ordinance. While they are still in process, the Inclusionary Zoning Working Group has produced this recommendations report on 6/4/2018:

https://www.burlingtonvt.gov/sites/default/files/IZWG%20Draft%20Recommendations%206.4.18_0.pdf. It would be beneficial for Essex to follow the results of this work to assist with improvements to the existing density bonus provision, or for considering an inclusionary zoning provision.

Recommendations for Essex Regulations

Density Bonus & PUD 1. Overall, the standards and process for a density bonus and a Planned Unit Development are too complex to gain the benefit of the density bonuses. Within the areas planned for growth, define the density and/or form of

development you'd like to see and simplify the review process so that vision can be achieved. Eliminate overly complicated PUD and density bonus provisions.

Density Bonus & PUD 2. Inclusionary zoning (a mandatory requirement for a portion of a housing development to be affordable) can be an effective mechanism for achieving housing affordability in areas where growth is happening. It is not a tool that addresses the cost of building affordable housing, as this mandatory requirement simply passes the cost on to developers. However, as changes are considered in the Town Center it is a tool that should be looked at, along with a local housing trust fund.

Strengths:

Density Bonus & PUD 3. 6.8(A): Purpose of PUD-R – Inclusion of “provide greater housing opportunities” is very helpful in the purpose statement.

Opportunities for Improvement:

Density Bonus & PUD 4. 8.1: Affordable Housing Definition – allow for up to 100% area median income (AMI) as a range as suggested at the Economics of Housing workshop. A housing needs assessment will help Essex define the correct range for its goals, but a range can be much more workable than a set target.

Density Bonus & PUD 5. 6.3(A)(1): PUD, Review Process – As suggested elsewhere in this report, change the subdivision definition so that multi-family residential projects on one lot do not need to be reviewed as a subdivision as there is no actual subdivision of land. Also, another bullet is likely needed in Section 6.3(A) to define the review process for this situation. If PUDs remain as the only method for increased density, a more simplified PUD approval process should be established (potentially site plan only). Though the overall recommendation is to set a higher base density by right and review it as a Site Plan.

Density Bonus & PUD 6. 6.4(E): Density Calculations – while not uncommon, this provision requires the unbuildable land to be subtracted from the allowable density calculation. If the remaining buildable land can accommodate the full density (water, sewer, parking, etc.) of the entire project parcel, why not allow the full density on the buildable portion? The unbuildable land will be protected; this provision does not protect it further.

Density Bonus & PUD 7. 6.4(K): Residential Density Bonus – this provision is requiring at least two extra amenities (energy efficiency), in return for the one added benefit of 25% more density. Because an increase in housing is a municipal goal, consider allowing it by right within the appropriate parameters, rather than using it as a carrot for other good behavior. Also, 25% more density as the ‘get’ for building more density may not be enough of a benefit to make the finances work.

Density Bonus & PUD 8. 6.4(K): Residential Density Bonus – The energy efficiency requirement reads: “All units in any development that is granted a density bonus must meet the Energy Star standards as defined by Efficiency Vermont.” In talking with Efficiency Vermont to determine whether this requirement is above and beyond the current VT Residential Building Energy Standards (RBES), it became clear that the provision in Essex’s regulation is not well defined. This provision should be amended to clarify exactly what standard developers are being required to meet. There are four standards (not including ‘net zero’ which is above and beyond these):

1. EPA’s Energy Star standards. Defined by the federal Environmental Protection Agency and certified by third parties. Efficiency Vermont conducts those rating certifications in VT, but they don’t define these standards. According to Steve Spatz of Efficiency Vermont, they don’t see a lot of Vermont developers seeking this standard and it can be very difficult to meet if they aren’t intending it from the start since it includes other provisions like water usage and onsite water run-off.

2. Efficiency Vermont Certified Home. This is an Efficiency Vermont program and they conduct final building verifications to issue these certifications. The standards are above and beyond the base RBES requirements since 2018, and the stretch energy code that is required under Act 250 review.
3. Stretch Energy Code under Act 250 Review. This is more stringent than the base RBES requirements largely due to higher insulation value for foundations (R15 to R20).
4. VT Residential Building Energy Standards. This is the base requirement for all new residential construction in VT. Establishing this as the standard would not be imposing an additional burden on developers, which is recommended for the purposes of this report. Considering additional requirements do not improve the bottom line for the goal of achieving more affordable housing.

Density Bonus & PUD 9. 6.4(K)(2): Residential Density Bonus – It doesn't sound like the provision for contribution to the municipal conservation fund in an amount at least 50% of the current assessed lot value has been used. Essex Staff has run this through on some conceptual projects and found that it doesn't seem to make financial sense. This is similar to a fee in lieu provision in an inclusionary zoning ordinance. Monitor the work in Burlington's inclusionary zoning ordinance, as an example, to set a more reasonable fee for contribution.

Density Bonus & PUD 10. 6.4(K)(3): Residential Density Bonus – while density bonuses are not the best tool for achieving the right density, it is good that only a portion of the bonus units (25%) need to be affordable. That is likely more workable for a developer than requiring 25% of the total units to be affordable, and seemingly more workable than the 25% total affordable in the 400% bonus provision. A Housing Committee with input from the development community can help define the specific percentage that is right for Essex, as well as understanding where Burlington ultimately lands on their inclusionary zoning ordinance.

Density Bonus & PUD 11. 6.6: PUD-Commercial – Within this review process congregate and 1- and 2-bedroom multi-family residential uses can be built without the restrictions that are in PUD-Mixed Use. Namely the 10 du/acre maximum restriction doesn't come into play here, so the allowance of up to 400% density bonus appears to be a real incentive. However, there are several confusing provisions to try to settle here. It appears that this is only allowed in the B1 district with a base density of 20,000 ft², which equates to a low number of units – making the 400% density bonus appealing. However, though the B1 district isn't intended for housing (even though congregate housing is allowed). In addition, Table 2.9(F)(2) states that the maximum density is 25 units/acre, a very different density than defined by 20,000ft².

Example Density: PUD-C, B1 District, 3 acre lot (the minimum required for a PUD-C)	Calculated Units	Comments
Base Density of 20,000ft ² (though it isn't clear how the 25 units/acre maximum comes into play):	6 units	Very low.
400% Density bonus (Section 6.4(K)):	+ 18 units = 24 total units	Seemingly useful incentive. However, this translates to 1 du/5,000 ft ² (or 8 units/acre), an arguably good base for a walkable single family neighborhood, but still low for a multi-family project?
25% Required Affordable:	6 units	While 24 total is better than 6, 18 units is not enough to recover the cost of the 6 units affordable. Consider a lower proportion of affordable, just like the 25% density bonus (which requires only 25% of the bonus units to be affordable).

Density Bonus & PUD 12. 6.7: PUD-Mixed Use – There are some scenarios where the density bonuses allowable with a PUD-Mixed Use are workable, however Section 6.7(E) sets a maximum density of 10 du/acre which undermines the intent of the 400% density bonus.

Example Density: PUD-MU, MXD-C district, 5 acre lot (the minimum required for PUD-MU)	Calculated Units	Comments

Base Density of 7,000ft ² :	28 units	Better base density
400% Density bonus (Section 6.4(K)):	+ 84 units = 112 units	A much more logical density for multi-family in an concentrated growth is desired. 1 du/1,785ft ² or 22 units/acre (frame of reference: in DT Burlington the cost of land at \$500,000/acre translates to a minimum of 20 units/acre to make a project work financially).
25% Required Affordable:	28 units	With 112 units total, there is room to recover some affordable units (though 25% may still be too high).
Max 10 units/acre:	Only 50 units with 12 affordable	While this is greater than the base density, it is significantly lower than 112, so the 400% bonus is meaningless. Consider a lower proportion of affordable, just like the 25% density bonus (which requires only 25% of the bonus units to be affordable).

Example Density: PUD-MU, MXD district, 5 acre lot (the minimum required for PUD-MU)	Calculated Units	Comments
Base Density of 20,000ft ² :	10 units	Very low for a mixed-use area that is planned for growth in the sewer service area.
400% Density bonus (Section 6.4(K)):	+ 30 units = 40 units	Seemingly useful incentive. However, this translates to 1 du/5,000ft ² (or 8 units/acre), an arguably good base for a walkable single family neighborhood, but still low for a multi-family project on a 5 acre lot.
25% Required Affordable:	10 units	While 40 total is better than 10, 30 units may not be enough to recover the cost of the 10 units affordable.
Max 10 units/acre:	Not triggered.	

Density Bonus & PUD 13. 6.7(D)(2): PUD-Mixed Use – Non-residential density. Why not use this same, simple concept for residential densities as well? It’s more of a form-based approach and allows for development of the lots as appropriate for the space rather than setting and defining arbitrary densities.

Density Bonus & PUD 14. 6.7(D)(3): PUD-Mixed Use – This section describes that areas devoted to commercial only buildings be subtracted out and added back in as 2/3 when calculating total density. The intent is unclear and the approach is convoluted. Consider adding an intent so applicants know what the aim is, and establishing a more simple method for achieving the intent.

Density Bonus & PUD 15. 6.7(D)(4): PUD-Mixed Use – Additional 2 units/density. This seems like a good incentive because it doesn’t have any associated requirements with it; however, it isn’t allowed beyond the 25% bonus, so it really isn’t adding anything. In addition, it is unclear how this relates to the 400% density bonus.

Density Bonus & PUD 16. 6.7(F): PUD-Mixed Use – Doesn’t allow any construction in a subsequent phase until the previous phase is complete and seems quite restrictive from an infrastructure standpoint. While the intent is sound (infrastructure should not get too far ahead of the project itself in case something goes wrong), it seems the PC could allow some flexibility here. Particularly when it comes to the opportunity to establish street connections; there may be a benefit in those connections even if all the phases of development aren’t fulfilled.

Density Bonus & PUD 17. 6.8(E)(2): PUD-R – Suggest that you include a reference to provision 6.4(K) as a reminder that density bonuses can be approved here. For an example of how the density bonus works in the PUD-R (to compare to the above PUD example tables):

Example Density: PUD-R, R2 district, 5 acre lot (to compare to the other scenarios)	Calculated Units	Comments
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Open Space (Section 6.8(J)):	1 acre	The density from this acre can be used in the density calculation which is helpful (but only if it can be reasonably adapted to recreational use), unlike undevelopable land.
Base Density of 20,000ft ² :	10 units	Very low for a 5 acre lot.
400% Density Bonus (Section 6.4(K)):	+ 30 units = 40 units	Seemingly useful incentive, and it translates to 1 du/5,000 ft ² (or 8 units/acre), an arguably good base for a walkable single family neighborhood.
25% Required Affordable:	10 units	While 40 total is better than 10, 30 units may not be enough to recover the cost of the 10 units affordable. Also, considering undevelopable land needs to be subtracted, it is unlikely you'd even get to 40 total units in this scenario.

Density Bonus & PUD 18. 6.8(F): PUD-R, Minimum Lot Size & Lot Area – This provision requires the applicant to prove the benefit of these reductions. If the intent of the PUD-R is more efficient use of the land, the lot sizes and lot area must be reduced because at its base it creates an inefficient, suburban layout. Consider allowing these reductions by right, rather than waiver. This might mean changing the base dimensional requirements rather than allowing for by right exceptions in the PUD provision, but it could be the latter. This may be appropriate in some districts and not others.

Density Bonus & PUD 19. 6.8(G)(2)(c): PUD-R, Side Yard – Allowing a zero feet setback on one side of a single family lot is challenging for maintenance of that lot (house painting, etc.). Perhaps this would be better suited by relaxing the total frontage, and allowing 5' side setbacks?

Density Bonus & PUD 20. 6.8(G)(4): PUD-R, Frontage – While the 100' frontage might make sense for the AR and R1 districts, a 50' frontage may be more effective at creating a walkable neighborhood which might be more logical in some of the R2 district locations. In addition, 5,000ft² is a good marker for a walkable, single family neighborhood. 75' of frontage creates an inefficient lot pattern (75' wide, and 66' deep).

Density Bonus & PUD 21. 6.8(G)(5): PUD-R, Townhouse – Very useful to allow for these with waivers to frontage, setback and size provisions; however, consider allowing these by right in some districts. A form-based code style code can help enable this, though it isn't necessary.

Density Bonus & PUD 22. 6.8(H): PUD-R, Buffers – This buffer concept can unintentionally create a separation of uses, and can reinforce suburban style, non-walkable areas. This may make sense in some districts, but consider a different method in the districts where you want to influence a more walkable neighborhood.

Density Bonus & PUD 23. 6.8(I): PUD-R, Mobile Home Parks - The specific site standards for a new mobile home park is more on par with a walkable neighborhood pattern, except for 30' front setback as it is too deep. I'd suggest using this for all areas where the goal is a walkable neighborhood with detached style developments (the homes themselves could be single, duplex or more).

Density Bonus & PUD 24. 6.8(J)(1)(a): PUD-R, Open Space – If a multi-family, single parcel project needs to go through PUD review to get a density bonus, this provision then requires them to set aside 1 acre for open space. Depending on the site and size of the overall parcel, this could be a non-starter for a multi-family project. This provision makes sense for a larger detached neighborhood style development where the 1 acre would abut existing open space or could be used for a neighborhood park, but for a multi-family project in the MXD, MXDC or CTR districts this could be a challenge. It may be better to identify urban open spaces within the Town Center in a master plan/form-based code type of structure rather than requiring every project to set aside an acre.

Density Bonus & PUD 25. 6.8(J)(1)(c): PUD-R, Open Space - Only acreage associated with open space used for recreation purposes can be used in the allowable density calculation. There are other natural resource benefits of open space protection, and the acreage associated with all of them should be used in the allowable density calculation. Protect the natural resources

and set aside open space, but don't penalize the applicant by not allowing the density from that open space acreage to be used in the overall density calculation.

PARKING

Reason for Review from Affordable Housing Perspective

Parking is a significant cost of development, and therefore raises housing prices. There are a variety of factors that influence the cost of constructing parking, but some of the average costs cited by parking researchers include:

- Donald Shoup, professor of urban planning at the University of California, Los Angeles, and the author of *The High Cost of Free Parking*, finds: “the average cost per space for parking structures in the U.S. is about \$24,000 for aboveground parking and \$34,000 for underground parking.”^{xvii}
- Carl Walker’s annual *Parking Structure Cost Outlook for 2017* reports: “As of March 2017, our statistical data indicates that the median construction cost for a new parking structure is \$19,700 per space and \$59.06 per square foot.”^{xviii} These costs do not include land acquisition, permitting and engineering, and other soft costs. Since New England’s construction costs are generally higher than the U.S. average, Boston’s median cost may be a better surrogate for Vermont than the U.S. median. Boston’s median cost/space is \$22,591 and \$67.74 per square foot^{xix}. Compare that to a typical cost of construction of a home in Chittenden County of \$250,000 (Housing Vermont example from the Chittenden County Economics of Housing Workshop on 1/29/18), a \$22,591 parking space is 9% of that total cost.

Donald Shoup’s work identifies the significance of this cost particularly on affordable housing – the cost of the parking can negate the affordable housing subsidy.^{xx} In addition to the impact on housing prices, other reasons to examine parking requirements found in municipal land use regulations include the impact it has on inducing automobile traffic rather than multi-modal, walkable neighborhood patterns, and causing inefficient use of land and degradation of the built environment. For these reasons, many municipalities are considering alternatives to the traditional approach of minimum parking requirements so that only the necessary amount of parking is built^{xxi}.

Comparison to Other Regional Municipalities

Required Residential Parking	Essex	Essex Junction	Burlington	Colchester	South Burlington	Williston	Winooski
These are all minimum parking requirements unless stated otherwise							
Residential (single family and duplex)	2.3 spaces per DU	2 spaces per DU	2 spaces per DU; except 1 space per DU in Downtown	2 spaces per DU Plus 1 space for every four units for two-family DUs	2 spaces per DU	2 spaces per DU	2 spaces per DU
Residential, multiple family	1.67 spaces per 1 & 2 bedroom DUs	2 spaces per multi-family DU Plus 1 space for every 10 DUs	2 spaces per DU in neighborhood districts 1 space per DU in Shared Use and Downtown districts	2 spaces per DU Plus 1 space for every 4 DUs	1 space per studio and 1-bedroom DUs 2 spaces per DU for all other DUs Plus 1 space for every 4 DUs	1.75 spaces per DU	1 space per studio, 1 & 2 bedroom DUs 1.5 spaces per 3 bedroom or larger DUs Plus 1 space for every 4 DUs (calculated at increments of 4)
Residential, accessory dwelling	1 space per DU	1 space per DU	1 space per DU	1 space/bedroom	1 space, but 2 when w/o occupancy restriction on lots of ½ acre or more	1 space per efficiency & 1 bedroom DU 2 spaces per 2 bedroom DU	1 space per DU
Other			Many special residential use parking minimums. Maximum total spaces shall not exceed 125% of the minimum number of required spaces (Sec. 8.1.9)	Congregate Housing: 1.2 spaces per DU Plus 1 space for every 4 units	In City Center/Form Based Code District: Maximum 2 spaces per DU		

A local parking reform example: A few years ago South Burlington researched actual parking needs at residential developments on Farrell Street and a few other locations. Based on these data they reduced the minimum required parking for studio and 1 bedroom units from 2 spaces to 1 space. In the Form Based Code district they set a maximum of 2 spaces/unit. In addition, they are now re-thinking their parking regulations citywide. Staff have had discussions with the Planning Commission about doing one of the following:

- Eliminating parking minimums altogether
- Switching the parking “minimums” to being “maximums” and eliminating minimums
- Eliminating minimums and setting something akin to the current minimum as a “maximum without DRB approval”

South Burlington has found that most if not all single and two-family homes have far more than the minimum parking requirements. On the multi-family side, they’ve not experienced a situation where the number of parking spaces they’ve required has been too little (except for a student housing building that was more of a management issue).

Also, Burlington is now considering removing minimum parking requirements in the Downtown.

For more examples of municipalities that have reduced minimum parking requirements, switched to maximum parking requirements, or done away with them altogether see this national map from Strong Towns:

<https://www.strongtowns.org/journal/2016/11/22/our-parking-minimums-map-updated>

Additional resources that may be helpful include: a City Lab interview with Donald Shoup:

<https://www.citylab.com/transportation/2018/05/parking-is-sexy-now-thank-donald-shoup/560876/>; and his new book:

<https://www.routledge.com/Parking-and-the-City/Shoup/p/book/9781138497122>

Recommendations for Essex Regulations

Parking 1. Overall, consider whether minimum parking requirements are too high and whether maximum parking or no parking requirements would be a better method.

Room for Improvement:

Parking 2. Table 3.3: Residential Parking – 2.3 parking spaces per dwelling unit for single family and duplexes is higher than the surrounding municipalities. Consider decreasing this requirement. Particularly considering the addition of 1 unit for an ADU - a single family house would then need 3.3 parking spaces, rounded up to 4 parking spaces, which could be prohibitive in some circumstances.

Parking 3. Table 3.3: Multi-family Residential Parking – Depending on the size of the unit the Essex minimum parking requirements are over or under South Burlington’s (a comparison made due to their current work on this topic):

	1 Bedroom Multi-Family, 8 unit project	2 Bedroom Multi-Family, 8 unit project
Essex	14 parking spaces	14 parking spaces
South Burlington	10 parking spaces	16 parking spaces

Consider researching current parking usage and demand and adjust accordingly to minimize any unnecessary parking requirements. Also consider alternative methods (i.e. maximum parking requirements, or no requirements). Developers at the Economics of Housing Workshop advocated for no parking requirements as they know what parking needs they have and will accommodate those to effectively market the units.

Parking 4. 3.9(E): Recommended New Section on Parking Reductions – The shared parking and off-site lot are helpful provisions. Considering the high cost of parking spaces and the impact on housing prices, it may be beneficial to allow for a reduction in required residential parking based on proximity to bus stops and bike facilities (and perhaps car-share if that expands in the future). Typical walking distance to a transit stop is about 0.25 to 0.50 mile (5 to 10 minutes)^{xxii}.

SUMMARY/CONCLUSION

This study includes several recommendations that can be used by the Town to remove barriers to affordable housing within the land use regulations. While regulations and permitting are not the only factor impacting the high costs of construction, it is a significant factor that is within the control of the Town. If Essex conducts a comprehensive housing study, this study should be a helpful companion document for any regulatory recommendations. This study can also be used more immediately as land use amendments are considered, such as amendments to the Town Center.

ⁱ Chittenden County, VT Competitive Assessment, 2012 – *An ECOS Plan Analysis Report*

ⁱⁱ American Community Survey, 1-year estimates.

ⁱⁱⁱ U.S. Census Bureau Longitudinal Employer-Household Dynamics. 2002 and 2015.

^{iv} U.S. Decennial Census.

^v American Community Survey, 1-year estimates.

^{vi} Allen, Brooks & Minor Report, December 2017.

^{vii} *By-Right Zoning: Minimizing Reliance on Discretionary Approvals*. By Lane Kendig. Zoning Practice, April 2016. A publication of the American Planning Association.

^{viii} *Interpreting and Applying Development Standards*. Vermont Land Use Education and Training Collaborative. Development Review Training Modules. August 2010. <http://vpic.info/Publications/Reports/DevelopmentReviewModules/Interpreting.pdf>

^{ix} *Big House, Little House, Back House...ADU?* American Planning Association Webinar. Presented by Ben Frost, NNECAPA member.

<https://youtu.be/yt9U208YW6M>

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- ^x *Jumpstarting the Market for Accessory Dwelling Units: Lessons Learned From Portland, Seattle And Vancouver*. Karen Chapple, Jake Wegmann, Farzad Mashhood, and Rebecca Coleman. Prepared for and funded by the San Francisco chapter of the Urban Land Institute. http://turnercenter.berkeley.edu/uploads/ADU_report_4.18.pdf
- ^{xi} *Jumpstarting the Market For Accessory Dwelling Units: Lessons Learned From Portland, Seattle And Vancouver*. Karen Chapple, Jake Wegmann, Farzad Mashhood, and Rebecca Coleman. Prepared for and funded by the San Francisco chapter of the Urban Land Institute. http://turnercenter.berkeley.edu/uploads/ADU_report_4.18.pdf
- ^{xii} *ADU Update: Early Lessons and Impacts of California's State and Local Policy Changes*. By David Garcia, December 2017. Turner Center at Berkeley. http://turnercenter.berkeley.edu/uploads/ADU_Update_Brief_December_2017_.pdf
- ^{xiii} *Visualizing Density Website: Investigating the density challenge facing the United States*. Lincoln Institute of Land Policy. Contributors: Julie Campoli of Terra Firma Urban Design, Alex MacLean of Landslides, and Lincoln Institute Staff: Armando Carbonell and Dennis Robinson. <http://datatoolkits.lincolnst.edu/subcenters/visualizing-density/glossary.aspx#threshold>
- ^{xiv} *Developers Offer Small Units as Answer to Burlington's Workforce Housing Crunch*. Joel Banner Baird. Burlington Free Press. April 2, 2018. <https://www.burlingtonfreepress.com/story/news/2018/04/08/micro-apartments-planned-south-burlington-larkin/478030002/>
- ^{xv} *Making Space for Tiny Houses*. David Morley, AICP. A Publication of the American Planning Association, PAS QuickNotes No. 68
- ^{xvi} *Evaluation of the City of Burlington's Inclusionary Zoning Ordinance*. By czb, LLC. January 2017.
- ^{xvii} *Putting a Cap on Parking Requirements: A Way to Make Cities Function Better*. Donald Shoup. Planning May 2015.
- ^{xviii} *Parking Structure Cost Outlook for 2017*. By Gary Cudney, P.E., President/CEO of Carl Walker. Can be found: <http://denver.streetsblog.org/wp-content/uploads/sites/14/2017/10/2017-Cost-Article.pdf>
- ^{xix} *Parking Structure Cost Outlook for 2017*. By Gary Cudney, P.E., President/CEO of Carl Walker. Can be found: <http://denver.streetsblog.org/wp-content/uploads/sites/14/2017/10/2017-Cost-Article.pdf>
- ^{xx} *Putting a Cap on Parking Requirements: A Way to Make Cities Function Better*. Donald Shoup. Planning May 2015.
- ^{xxi} *Eliminating Parking Minimums*. By Ben LeRoy. American Planning Association. Zoning Practice June 2017.
- ^{xxii} *Pedestrian Safety Guide for Transit Agencies*. Federal Highway Administration. https://safety.fhwa.dot.gov/ped_bike/ped_transit/ped_transguide/ch4.cfm