## ESTIMATING OFF-CAMPUS STUDENT HOUSING SUPPLY AND DEMAND

## Key Points

$\checkmark$ In the Fall of 2011, the supply of Durham apartments was less than $50 \%$ of the need for off-campus housing
$\checkmark$ Over 1,200 new beds have been built or approved since the Fall of 2011
$\checkmark$ Over 590 additional apartment beds are in the planning process
$\checkmark$ The supply of beds in the fall of 2014 and 2015 is expected to exceed the need for offcampus housing
$\checkmark$ Slowing the pace of student housing redevelopment allows Durham to better assess how the new housing supply is absorbed into the market

UNH Enrollment and Housing

## Fulltime Enrollment

The Fulltime Student enrollment at the University of New Hampshire Durham campus is 12,658 students. 11,752 are enrolled as fulltime undergraduates and 1,106 are enrolled as fulltime graduate students ${ }^{1}$.

## On-Campus Housing

UNH provides both Graduate and Undergraduate housing, however, the majority of housing is for undergraduates. The UNH on-campus housing provides 7,084 undergraduate beds $^{2}$ and approximately 277 graduate beds.

## Off-Campus Housing Demand

Total Off-Campus Student Housing Demand
The total demand for off-campus housing is estimated by the difference between the fulltime enrollment and the on-campus housing provided by UNH:

11,752 Full Time Undergraduate Students

- 7,084 UNH Undergraduate On-Campus Beds

4,668 Undergraduate Requirement for Off-Campus Housing
1,106 Full Time Graduate Students

- 277 UNH Graduate Off-Campus Beds

829 Graduate Requirement for Off-Campus Housing

[^0]
## Durham Student Housing Demand

Even if the supply of Durham student housing is adequate, many fulltime students will seek housing outside of Durham. Reasons for seeking housing in other communities include:

- Financial need to live at home (note that approximately 2,900 UNH students are from Strafford and Rockingham Counties),
- Proximity to spouse's work,
- High Durham apartment costs,
- Quality and age of Durham apartments,
- Greater apartment value in other communities (space and features), and
- Desirable characteristics of other communities.

As such, the demand for Student Housing in Durham cannot be precisely estimated, however, it will be less than the total requirement for undergraduate and graduate off-campus housing.

## Durham Housing Supply

Durham student housing was estimated in 2011 by analyzing the Durham Assessors Database and new construction ${ }^{3}$, and was estimated to be 2,560 beds (excludes the estimated 540 beds in single family rentals). This data is consistent with the 2010 DLA estimate of 2000-2500 student beds ${ }^{4}$.

Since the fall of 2011, 744 beds have been added in Durham (Cottages of Durham, 9-11 Madbury Road, and The Grange), 528 additional beds have been approved (Peak and 10 Pettee Brook Lane), 590 new beds are planned (Madbury Greens and Orion) and 300 beds are projected to be added in 2015.

Figure 1 summarizes the growth in the student housing supply. Prior to the fall of 2012 when the Cottage of Durham opened, Durham off-campus housing accommodated less that 50\% of the student housing demand. In 2014 or 2015, the Durham housing supply is likely to exceed the demand.

[^1]

Figure 1 - Durham Student Housing Growth in Durham

## COMPARISON OF APARTMENT CHARACTERISTICS

## Key Points

$\checkmark \quad$ The 2011 U.S. Census Bureau American Housing Survey shows that new construction for rental property is providing an average of 560 square feet per occupant
$\checkmark$ A sample of new multiunit apartment construction in southern New Hampshire shows an average space per bedroom (occupant) of nearly 500 square feet
$\checkmark$ New apartment construction in Durham often provides significantly less space, consistent with the zoning requirement of 200 square feet per occupant
$\checkmark$ The proposed zoning change will, at the very least, provide apartments with greater space per occupant and may allow new multiunit housing to address broader markets

## Durham Apartment Characteristics

The current zoning, particularly in the Central Business District, encourages multiunit and mixed use apartments providing slightly more than 200 square feet per occupant with a high number of occupants. This is especially true when a smaller parcel of land is fully developed. Examples of apartment layouts were provided in the May 20, 2013 Council Communication.

It was suggested that apartments designed for students could be reconfigured if the market changed, however, it should be noted that the financial viability of reconfiguring apartments is questionable with costs that are highly dependent on the original construction and layout, and can approach $40 \%$ of original construction costs. Costs include ${ }^{5}$ :

- Interior Construction (Partitions, Doors, Wall and Floor Finishes, etc.): \$28.80 per square foot $-24.1 \%$ of original construction cost
- Plumbing Reconfiguration: $\$ 18.40$ per square foot $-11.4 \%$ of original construction cost
- Electrical Branch Wiring and Lighting: \$6.80 per square foot $-4.2 \%$ of original construction cost


## National and State Apartment Characteristics - New Multiunit Construction

The American Housing Survey (AHS) was sponsored by the Department of Housing and Urban Development and conducted by the U.S. Census Bureau. The last survey was published in 2011, and is the most comprehensive national housing survey according to the Census Bureau.

AHS data set C-02-RO provides data on Rooms, Size and Amenities of Renter Occupied Units. The data also includes the space per person in rental units built within 4 years of the survey. Figure 2 shows the distribution of space per person in renter occupied units that provide less

[^2]than 1,000 square feet per person (excludes manufactured/mobile homes). The average new rental unit provides approximately 560 square feet of space per occupant.


Figure 2 - Floor Space per Person in Renter Occupied Units in the United States

Since the data shown in Figure 2 is based on national data, it was compared to the space provided in multiunit apartment complexes in southern New Hampshire that were either recently constructed or purchased (purchase price exceeding \$25M). Seven multiunit complexes were selected and evaluated based on readily available apartment information and leasing rates, and assessing data available from Vision Government Solutions Inc. The seven multiunit complexes were:

1. University Heights - Hooksett
2. Dunns Bridge - Dover
3. Legacy Park - Manchester
4. Country Side Village - Manchester
5. Bedford Green - Bedford
6. Heritage on the Merrimack - Bedford
7. Story Brook Apartments - Epping

Based on leasing data for the apartments, the average space per bedroom (occupant) was calculated for two bedroom units and was slightly more than 470 square feet. Table 1 provides the information on each multiunit complex and Figure 3 shows how these apartments correlate to the national data and compare to Durham.

Table 1 - Occupant space in new southern New Hampshire apartments.

| Apartment | Address | City | 2 Bedroom Size <br> (Square Feet) | Floor Space Per <br> Bedroom |
| :--- | :--- | :--- | :---: | :---: |
| University Heights | 15 Princeton Dr | Hooksett | 989 | 494.7 |
| Dunns Bridge |  | Dover | 870 | 435.0 |
| Legacy Park | Bartlett St \& Sentinel CT | Manchester | 857 | 428.5 |
| Country Side Village | 60 Village Circle Way | Manchester | 910 | 455.0 |
| Bedford Green | 37 Hawthorne Drive | Bedford | 1079 | 539.5 |
| Heritage on the Merrimack | 38 Hawthorne Drive | Bedford | 1023 | 511.5 |
| Story Brook Apartments | 58 Elm Street | Epping | 875 | 437.5 |
|  |  | AVERAGE | 943 | 471.7 |



Figure 3 - Comparing AHS, New Hampshire and Durham Apartment Space per Occupant

# RENTAL REVENUE COMPARISONS BETWEEN DURHAM AND OTHER COMMUNITIES 

## Key Points

$\checkmark$ New multiunit apartments in Southern New Hampshire generate revenue of \$15-16 per square foot for 2-Bedroom Units
$\checkmark$ New mixed iuse apartments in Durham generate rental revenue approaching \$43 per square foot under the current zoning
$\checkmark$ New mixed use developments in Durham generate an average revenue of \$34-35 per square foot (combined apartment and commercial rentals)
$\checkmark$ Under the proposed zoning changes, the average mixed use revenue will approach \$24 per square foot, and is nearly $\mathbf{5 0 \%}$ greater than the revenue produced in new multiunit apartments outside of Durham
$\checkmark$ The proposed zoning change does not make redevelopment economically unattractive or unviable

## Rental Revenue in Large Mixed Use Projects in Southern New Hampshire

The seven southern New Hampshire multiunit complexes were used to evaluate the revenue generated for apartments with two bedrooms. The average yearly lease rate is $\$ 14,975$ and the revenue per square foot is $\$ 15.77$ as shown in Table $2^{6}$.

Table 2 - Lease Revenue for Southern New Hampshire Multiunit Apartments

| Apartment | Address | City | Yearly Lease | Lease Rate/Ft^2 |
| :--- | :--- | :--- | ---: | ---: |
| University Heights | (15 Princeton Dr | Hooksett | $\$ 16,200$ | $\$ 16.37$ |
| Dunns Bridge |  | Dover | $\$ 11,940$ | $\$ 13.72$ |
| Legacy Park | Bartlett St \& Sentinel CT | Manchester | $\$ 13,140$ | $\$ 15.33$ |
| Country Side Village | 60 Village Circle Way | Manchester | $\$ 14,268$ | $\$ 15.68$ |
| Bedford Green | 37 Hawthorne Drive | Bedford | $\$ 18,705$ | $\$ 17.34$ |
| Heritage on the Merrimack | 38 Hawthorne Drive | Bedford | $\$ 17,970$ | $\$ 17.57$ |
| Story Brook Apartments | 58 Elm Street | Epping | $\$ 12,600$ | $\$ 14.40$ |
|  |  | AVERAGE | $\$ 14,975$ | $\$ 15.77$ |

[^3]
## Durham Apartment and Mixed Use Revenue Estimates

The current multiuse redevelopment in Durham generates apartment rental revenue of up to \$43 per square foot. Commercial space generates less revenue, and the average multiuse redevelopment generates revenue of \$34 per square foot assuming commercial space is leased at $\$ 18.00$ per square foot with a $10 \%$ vacancy rate. Under the proposed zoning change, apartment revenue is nearly $\$ 29$ per square foot, and the average multiuse redevelopment generates revenue of $\$ 24$ per square foot for the combined apartment and commercial space. Table 3 shows the revenue calculations.

Table 3 - Calculating Durham Rental Revenue per Square Foot

|  | Current <br> Zoning | Proposed Change |
| :---: | :---: | :---: |
| VARIABLES |  |  |
| Lot size (Acres) | 0.25 | 0.25 |
| Lot size (Sq. Ft) - Calculated | 10,890 | 10,890 |
| Minimum lot size (sq. ft.) per DU | 900 | 900 |
| Percent of Lot Used for Building Structure | 90.0\% | 90.0\% |
| Percent lost building space for Service \& Infrastructure | 25.0\% | 25.0\% |
| Residential Floors | 2 | 2 |
| Occupants per 300 Sq. Feet | 1.50 | 1.00 |
| Unrelated Rule ("No" or Number) | No | No |
| Maximum Residents Per Apartment (Market) | 8 | 8 |
|  |  |  |
|  |  |  |
| CALCULATIONS |  |  |
| Max DU Allowed for Lot | 12 | 12 |
| Min Area (Sq. ft.) per Occupant | 200 | 300 |
| Residential Floor Space in Development | 14,702 | 14,702 |
| Average APT/DU Size (Sq. Ft) | 1,225 | 1,225 |
| Average Residents per Apt/DU | 6.1 | 4.1 |
| Total Residents | 73 | 49 |
| Floor Space Per Resident | 201 | 300 |
| Zoning Minimum Space Per Occupant | 200 | 300 |
| Ratio of require Space to Space Provided | 0.99 | 1.00 |
| Monthly Rental Price per Student | \$725.00 | \$725.00 |
| Revenue per Square Foot - Student Rental | \$43.20 | \$29.00 |
|  |  |  |
| Retail / Commercial Space | 7,351 | 7,351 |
| Rental Rate | \$18.00 | \$18.00 |
| Vacancy Rate | 10\% | 10\% |
| Revenue per Square Foot - Commercial | \$16.20 | \$16.20 |
|  |  |  |
| Blended Revenue Per Square Foot | \$34.20 | \$24.73 |
|  |  |  |
|  |  |  |

Figure 4 compares the revenue for multiunit apartments in southern New Hampshire with Durham both before and after the proposed ordinance change.


Figure 4 - Rental Revenue Comparison between Durham and Southern New Hampshire

## DEMAND OF PUBLIC SERVICES

## Key Points

$\checkmark$ Student housing places significant demands on police and fire services that is disproportional to the number of students.
$\checkmark$ The demand for emergency fire and medical services within Durham (off the UNH campus) nearly doubles during peak months when UNH is in Session
$\checkmark$ Police arrests nearly triple during some months when UNH is in session
$\checkmark$ Increased demands on emergency services have significant impact on Durham tax payers because many must be scaled to meet the peak demands

Demands on Fire, EMS and Police Service
Figure 5 shows arrests in Durham by month for the period between January 2012 and June 2013 ${ }^{7}$. The peak in arrests correlate to months when UNH is in session, and Durham Police arrest data shows that $60 \%$ of the arrests are UNH students.

[^4]

Figure 5 - Durham Police Arrest Data

Figure 6 shows 2012 Durham Fire Department data for emergency calls that are off campus ${ }^{8}$. The peak demand for service is when UNH is in session, and is more than double the demand for service when UNH is not in session.

[^5]

Figure 6 - Durham Fire Department Emergency Responses


[^0]:    ${ }^{1}$ UNH Office of Institutional Research and Assessment, March 2013
    ${ }^{2}$ UNH Department of Residential Life

[^1]:    ${ }^{3}$ Presentation to the Durham Town Council - May 7, 2012
    ${ }^{4}$ DLA estimate of 2000-2500 beds in managed apartments - Paul Berton, June 28, 2010 EDC Meeting

[^2]:    ${ }^{5}$ RSMeans Square Foot Costs, $32{ }^{\text {nd }}$ Annual Edition, Section M. 010 - Apartment 1-3 Stories

[^3]:    ${ }^{6}$ Leasing data collected from various web sites including www.apartmentguide.com, www.rent.com, www.forrent.com and apartment websites.

[^4]:    ${ }^{7}$ Data provided by the Durham Police Department

[^5]:    ${ }^{8}$ Data calculated from 2012 call records provided by the Durham Fire Department

