

**Stockard & Engler & Brigham, LLC**

# **Cambridge Inclusionary Housing Study**

*Prepared for*

**CITY OF CAMBRIDGE**

**COMMUNITY DEVELOPMENT DEPARTMENT**

*February 1998*

## **Introduction**

This report examines the need for affordable housing generated by development of market rate housing in the City of Cambridge. The City has formulated its inclusionary housing policy according to the following rationale. First, the City has a policy of preserving the economic diversity of its population which requires a stock of housing affordable to low and moderate income households. The existing stock of such affordable housing now comprises 15% of the City's total housing stock. Second, the development of market rate housing increases the proportion of such housing relative to the overall stock of the City and reduces the proportion of affordable housing relative to the overall stock of the City. Third, occupancy of newly constructed market rate housing by middle and upper income households is not generating vacancies in existing units at prices affordable to low and moderate income households, thereby not mitigating the impact of newly constructed market rate housing. Fourth, these circumstances harm the City's ability to attain its goal of preserving the economic diversity of the City's population by maintaining a stock of 15% affordable housing. Fifth, developers of newly constructed market rate housing should provide affordable housing proportionate to the need created by their market rate housing developments for such housing.

## **Study Methodology**

The methodology of this report includes six steps to determine the amount of affordable housing required to mitigate the harmful effects of new market rate housing on the City's economic diversity goal.

1. Determination of proportion of housing stock subject to long term restrictions that maintains its affordability for low and moderate income residents.
2. Determination of cost of typical new market rate housing units being developed in the city.
3. Determination of income characteristics of new households living in typical new market rate housing units.
4. Determination of prior residence of households living in new market rate housing units.
5. Determination of housing cost level upon turnover of units vacated by households living in new market rate housing units.
6. Determination of the amount of housing units necessary to preserve City's economic diversity.

## **STEP 1.**

### ***DETERMINATION OF PROPORTION OF HOUSING STOCK SUBJECT TO LONG-TERM RESTRICTIONS TO MAINTAIN AFFORDABLE HOUSING FOR LOW AND MODERATE INCOME RESIDENTS.***

The City of Cambridge has a longstanding policy to promote and preserve a proportion of its housing stock as affordable. This policy is stated in the City's zoning ordinance; in Article 1.30, "...to encourage housing for persons of all income levels." And in Article 11.200, "...to provide for a full range of housing choice for households in all incomes, ages, and sizes. "

How does the City define affordable housing? The City uses the standards established by state and federal programs. To be affordable, the cost of the housing must not exceed 30% of the gross income of households whose incomes are 80% or less of the Boston area median income. The state and federal standards for household income used to calculate affordability are set by the U.S. Department of Housing and Urban Development Section 8 program and Community Development Block Grant program. These income limits are updated on an annual basis and are divided into two income groups. The first is called "moderate income" which means those households that earn between 50% and 80% of area median income. The second is "low income" which means those households earning less than 50% of area median income. For homeownership, housing cost is comprised of mortgage principal and interest, real estate taxes, condominium fees (if applicable), and property insurance. For rental housing, the housing cost is defined as rent plus an allowance for tenant-paid utilities.

**Table 1-A**

Housing Cost Affordability Matrix for Low and Moderate Income Households

<b>Household Size</b>	<b>Low Income</b>	<b>30% of monthly income for housing</b>	<b>Moderate Income</b>	<b>30% of monthly income for housing</b>
1	\$21,000	\$525	\$31,700	\$793
2	\$24,000	\$600	\$36,250	\$906
3	\$27,000	\$675	\$40,750	\$1,019
4	\$30,000	\$750	\$45,300	\$1,133
5	\$32,400	\$810	\$48,900	\$1,223
6	\$34,800	\$870	\$52,550	\$1,314
7	\$37,200	\$930	\$56,150	\$1,404
8 or more	\$39,600	\$990	\$59,800	\$1,495

How does the City determine the proportion of housing stock, subject to long-term restrictions, that will maintain affordable housing for low and moderate income residents? The City uses the criteria established by the Massachusetts Department of Housing and Community Development (DHCD) in its compilation of an annual subsidized housing

inventory for all cities and towns in the Commonwealth of Massachusetts. This Inventory is used by DHCD to determine the percentage of subsidized housing units for the purposes of M.G.L. Chapter 40B. M.G.L Chapter 40B requires each city and town to maintain a minimum stock of affordable units equal to 10% of the total housing stock. This percentage is determined as the number of qualifying units divided by the total number of 1990 year-round housing units in each city or town. Qualifying units are those units with long-term restrictions that ensure its long-term affordability. Tenant-based assisted units are not included in the inventory.

According to the City's 1997 housing stock inventory, **15.43%, rounded to 15%**, of Cambridge's housing stock is secured with long-term restrictions that make these housing units affordable to low and moderate income households. This is the proportion of housing stock needed, subject to long-term restrictions, that will maintain the existing proportion of affordable housing in the overall housing stock.

The existing proportion of Cambridge households of low and moderate income is actually significantly greater than 15% of the total household population. Based on 1990 census data, this proportion is estimated to be roughly 40% of the total household population. Affordable housing development sponsored by city, state and federal programs is responsible for meeting the additional need for affordable housing beyond the current ~~15% of the stock subject to long-term affordability restrictions without other financial assistance.~~ assistance.

## **STEP 2.**

### ***DETERMINATION OF COST OF TYPICAL NEW CONSTRUCTION MARKET RATE HOUSING UNITS BEING DEVELOPED IN THE CITY.***

As of January 1, 1996, the City of Cambridge had 42,073 housing units: 11,500 owner-occupied units and 30,573 rental units. For the purposes of this study, the housing cost profile will be outlined for both owner-occupied housing and rental housing.

What type of market rate housing is being built in Cambridge? The City of Cambridge Community Development Department conducted a survey in December, 1997 of residential developments that had been constructed in 1997 or were under construction and due to be completed in 1998 (see attached new development survey). The housing costs (purchase price or rent level) of seven new condominium developments and nine new rental developments were obtained.

According to the survey, the average sales prices for new market rate units are as follows:

<u>Unit Size</u>	<u>Price</u>
1 bedroom	\$175,670
2 bedroom	\$199,000
3 bedroom	\$383,000

The average rents for new market rate rental housing are as follows:

<u>Unit Size</u>	<u>Price</u>
1 bedroom	\$1,358/mo
2 bedroom	\$1,897/mo
3 bedroom	\$2,662/mo

Using the housing cost figures from the New Development Survey and the U.S. Department of Housing and Urban Development (HUD) income limits for moderate income households (80% of area median income), we can calculate the affordability of new market rate housing being constructed in Cambridge.

### **Table 2-A**

#### **Disparity Between Homes Affordable to Low or Moderate Income Families and Market Rate Homeownership Costs**

<b>Unit Size</b>	<b>Average Sales Price</b>	<b>Average Household Size</b>	<b>Monthly Housing Cost</b>	<b>Income Available (30% of monthly moderate income limit)</b>
<b>1 Bedroom</b>	\$175,670	2	<b>\$1,438</b>	\$906
<b>2 Bedroom</b>	\$199,000	3	<b>\$1,629</b>	\$1,019
<b>3 Bedroom</b>	\$383,000	4	<b>\$3,136</b>	\$1,133

In order to determine the affordability of new market rate homeownership units in Cambridge, we have taken the average cost of the unit, assumed how many people would occupy the unit, and then calculated whether a moderate income household earning 80% of median income could afford the unit. As stated previously in this report, in order to be considered affordable, housing costs should not exceed 30% of gross income. For the homeownership affordability tables in this report, it was assumed that purchases would require a 10% down payment on a 30-year mortgage at 8% interest. Cambridge property taxes are approximately \$14 per \$1,000 of valuation and mortgage insurance is calculated at \$5 per \$1,000 of valuation. With these assumptions, it is possible to determine monthly housing costs for new market rate housing. These costs are then multiplied by 12. The product is then divided by 0.3 to arrive at the minimum income required to purchase the home, assuming that no more than 30% of gross income will be devoted to housing costs.

As shown, the monthly housing cost of new market rate housing exceeds affordability for low and moderate income households in each case. The average monthly cost of a newly constructed one bedroom homeownership unit is \$1,438 compared to an affordable cost of \$906. The average new unit costs 59% more than an affordable one bedroom homeownership unit. An analysis of two bedroom units yields a similar finding: the new

unit costs 60% more than an affordable two bedroom homeownership unit. Finally, the average cost of a new three bedroom homeownership unit costs 177% more than an affordable homeownership unit.

Note that for purposes of this analysis, we have used the average household size for each type of unit. The average household size is the unit size plus one additional occupant. Therefore the average household size of a one bedroom unit is two persons, a two bedroom unit has three persons, and a three bedroom unit has four persons.

The actual number of persons occupying each of these unit types may vary. A one bedroom unit may be occupied by one or two persons, a two bedroom unit may be occupied by two to four persons, and a three bedroom unit may be occupied by three to six persons.

The disparity between the monthly housing costs of newly constructed homeownership units and costs affordable to low or moderate income households is significant across the range of household sizes for each unit type. The disparity may be lower for smaller households and higher for larger households.

**Table 2-B.**

**Disparity Between Market Rents and Income Available for Rent Among Low or Moderate Income Families**

<b>Unit Size</b>	<b>Average Rent</b>	<b>Average Household Size</b>	<b>Income Available (30% of monthly moderate income limit)</b>
<b>1 Bedroom</b>	<b>\$1,358</b>	<b>2</b>	<b>\$906</b>
<b>2 Bedroom</b>	<b>\$1,897</b>	<b>3</b>	<b>\$1,019</b>
<b>3 Bedroom</b>	<b>\$2,662</b>	<b>4</b>	<b>\$1,133</b>

As shown the monthly housing cost of new rental housing exceeds affordability in each case. The average monthly cost of a market rate one bedroom unit is \$1,358 compared to an affordable cost of \$906. The average market rate unit costs 50% more than an affordable one bedroom rental unit. An analysis of two bedroom units yields a similar finding: the market rate unit costs 86% more than an affordable two bedroom rental unit. Finally, the average cost of a new three bedroom market rate unit costs 135% more than an affordable rental unit.

The same analysis of household size, as described above, was used for the rental analysis.

### **STEP 3.**

#### ***DETERMINATION OF INCOME CHARACTERISTICS OF NEW HOUSEHOLDS LIVING IN TYPICAL NEW MARKET RATE HOUSING UNITS.***

By knowing the average sales prices of new market rate housing in Cambridge, it is possible to determine the minimum income needed to purchase new housing. Minimum required income is extrapolated by determining mortgage, tax and insurance costs and assuming that no more than 30% of income will be devoted to those costs. For the tables that follow, it was assumed that purchases would require a 10% down payment on a 30-year mortgage at 8% interest. Cambridge property taxes are approximately \$14 per \$1,000 of valuation and mortgage insurance is calculated at \$5 per \$1,000 of valuation. With these assumptions, it is possible to determine monthly housing costs for new market rate housing. These costs are then multiplied by 12. The product is then divided by 0.3 to arrive at the minimum income required to purchase the home, assuming that no more than 30% of gross income will be devoted to housing costs.

Minimum income required to rent (Table 3-B) is calculated in the same manner: rental costs were multiplied by 12 and the product was then divided by 0.3. This calculation results in the minimum income required to rent, assuming that no more than 30% of gross income will be devoted to housing costs.

#### **Table 3-A**

**Minimum Income Required to Purchase New Market Rate Housing in Cambridge**

<b>Housing Type</b>	<b>Median Price</b>	<b>PITI*/Month</b>	<b>Minimum Income</b>
<b>1 Bedroom</b>	\$175,670	\$1,438	\$57,530
<b>2 Bedroom</b>	\$199,000	\$1,629	\$65,170
<b>3 Bedroom</b>	\$383,000	\$3,136	\$125,428

\*PITI=Principal, Interest, Taxes and Insurance

#### **Table 3-B**

**Minimum Income Required to Rent New Market Rate Housing in Cambridge**

<b>Housing Type</b>	<b>Average Rent (incl. Utilities)</b>	<b>Household</b>	<b>Minimum Income</b>
<b>1 Bedroom</b>	\$1,358	2	\$54,320
<b>2 Bedroom</b>	\$1,897	3	\$75,880
<b>3 Bedroom</b>	\$2,662	4	\$106,480

As tables 3-A and 3-B demonstrate, the incomes currently required to purchase or rent market rate housing in Cambridge are significantly greater than the incomes of low and

moderate income persons and exceed 80% of median in all cases. It should also be noted that for newly constructed housing units in the city, either for sale or rent, average prices and rents reflect almost all units, so that there is no "lower priced" tier which might be affordable to persons whose incomes are below 80% of median.

#### **STEP 4.**

##### ***DETERMINATION OF PRIOR RESIDENCE OF HOUSEHOLDS LIVING IN NEW MARKET RATE HOUSING UNITS.***

Where are occupants of new market rate housing units coming from? Are they Cambridge residents who are relocating within Cambridge or are they moving to Cambridge from other communities? These questions are relevant in trying to determine the proportion of affordable housing units in the City. If occupants of new units have relocated within the City, we need to understand the affordability of their prior residences. If the prior residences are priced at affordable rents following the unit turnover, the affordable housing proportion would not be affected by the increase in supply of new market units.

In order to determine the prior residence of households living in new market rate units, the Cambridge Community Development Department analyzed the occupancy pattern of a newly constructed and occupied rental housing development with 31 units in December, 1997. This analysis shows that over an 18-month period from mid-1996 through 1997, 23% of the households originated in Cambridge, and 77% were in-migrants to Cambridge.

By way of comparison, the Cambridge Community Development Department recently completed a study called Impacts of the Termination of Rent Control, dated January, 1998. The study, based on a survey performed by Atlantic Marketing Research, of 1,000 renter households found that 60% of market rate tenants who replaced former rent control tenants have lived in Cambridge for two years or less. Another 21% of market rate tenants who replaced former rent control tenants have lived in Cambridge for three to five years. In sum, 81% of the tenants in formerly rent controlled, now market rate, rental units moved to Cambridge within the last five years.

Based on this analysis, it is estimated that 77% of the occupants of newly built housing have moved to Cambridge from other jurisdictions and have incomes that exceed low and moderate levels. To fully understand the impacts on the City's economic diversity, however, we need to analyze the occupancy patterns of the units vacated by the other 23% of occupants of newly built housing who have moved from existing units within the city. This analysis follows in Step 5.



## **STEP 5.**

### ***DETERMINATION OF HOUSING IMPACTS UPON TURNOVER OF UNITS VACATED BY HOUSEHOLDS MOVING TO NEW MARKET RATE HOUSING UNITS.***

What are the impacts to economic diversity of the turnover of housing units in Cambridge vacated by households moving to new market rate housing units in the City? In order to determine the cost of housing vacated by households moving to new market rate housing, the Community Development Department gathered information on current prices for existing (as contrasted with newly constructed units) market rate housing for both rental and homeownership housing.

What is the cost to purchase existing market rate housing? The Cambridge Community Development Department issued a report October 21, 1997 entitled Housing Market Information. In this report, the Cambridge Revaluation Office determined the 1996 (the most recent data available) median sales prices for existing properties in Cambridge as follows:

Single-family median sales price	\$321,000
Two-family median sales price	\$279,000
Three-family median sales price	\$284,000
Condominium median sales price	\$170,500

What is the cost to rent existing market rate rental units? The Community Development Department study shows the estimated average rents paid for existing market rate units are as follows:

1 Bedroom apartment	\$1,000
2 Bedroom apartment	\$1,200
3 Bedroom apartment	\$1,500

The affordable housing standard established in Step 1 of this report states that in order to be considered affordable housing, a unit must cost the household no more than 30% of its gross monthly income. Using this standard, it is clear that the median sales prices and the median rents for existing property in Cambridge are not affordable. Therefore, market dynamics are not resulting in the increased availability of affordable units due to new market rate housing development.

**Table 5-A**

Minimum Income Required to Purchase Existing Cambridge Properties

Housing Type	Median Price	PITI*/Month	Minimum Income
Single Family	\$321,000	\$2,628	\$105,124
Two Family	\$279,000	\$2,284	\$91,369
Three Family	\$284,000	\$2,325	\$93,007
Condominium	\$170,000	\$1,546	\$61,837

\*PITI=Principal, Interest, Taxes and Insurance

**Table 5-B**

Minimum Income Required to Rent Existing Cambridge Properties

Housing Type	Average Rent (incl. Utilities)	Household	Minimum Income
1 Bedroom	\$1,000	2	\$40,000
2 Bedroom	\$1,200	3	\$48,000
3 Bedroom	\$1,500	4	\$60,000

As tables 5-A and 5-B demonstrate, the incomes currently required to purchase or rent existing market rate housing in Cambridge are significantly greater than the incomes of low and moderate income persons and exceed 80% of median in all cases.

For every 10 new market rate units being constructed in Cambridge, 23% of the new units are being occupied by occupants relocating from other residences in Cambridge and 77% by occupants newly migrating to Cambridge from other jurisdictions. Put another way, for every 10 new market rate units developed, 2.3 units of existing Cambridge housing are being vacated. Although exact statistics on the income characteristics of subsequent occupants of these vacated units are not currently available, the strength of the Cambridge housing market indicates that such units will be occupied at market, rather than below-market, rates.

While “filtering” in theory might result in making some of these units affordable to low and moderate income families, the reality of the existing tight Cambridge housing market renders such a possibility remote. Furthermore, in order to guarantee that the City’s diversity goal of 1.5 units per 10 units is met, more than half of these vacated units would have to filter down to the affordable level, a result insupportable by available market evidence.

## **STEP 6.**

### ***DETERMINATION OF THE AMOUNT OF HOUSING UNITS NECESSARY TO PRESERVE CITY'S ECONOMIC DIVERSITY.***

This report has looked at the housing market dynamics in Cambridge, Massachusetts to determine the effects of newly constructed market rate housing on the City's economic diversity. The City has a policy to maintain a stock of affordable housing to ensure that the economic diversity of the City's population is preserved. New housing construction is increasing the supply of units, although the costs of such housing are significantly higher than affordable levels. New occupants of this newly built housing have incomes significantly higher than low and moderate income persons. The occupancy of newly built units is opening up some existing units in the City at the rate of 2.3 units per 10 newly constructed units. These vacated units, however, are priced upon turnover at levels significantly higher than affordable levels. It is highly unlikely that this "filtering" process results in occupancy by low or moderate income families.

Therefore, based on these findings, new housing construction is reducing the proportion of affordable housing in the overall housing supply in the City of Cambridge. This, in turn, is reducing the economic diversity of the City's population.

For each 10 units of newly built market rate housing, an additional 1.5 units of affordable housing are needed to maintain the existing affordable housing proportion and assist in meeting the City's economic diversity goal.

## **CAMBRIDGE INCLUSIONARY HOUSING STUDY**

### **LIST OF ATTACHMENTS**

- 1. List of Affordable Housing Developments, CDD, 12/97**
- 2. New Development Survey, CDD, 12/97**
- 3. Impacts of the Termination of Rent Control, Atlantic Marketing Research, 1/98**
- 4. Housing Market Information, CDD, 10/97**