

Hancock Village
Brookline Massachusetts
A Phased Development Program
A Fiscal Impact Analysis

May 27, 2010

1.0 Preface

This report has been prepared for Chestnut Hill Realty (CHR) as part of the Hancock Village Committee review process to consider additional development on the property located off Independence Drive in the Town of Brookline Massachusetts generally known as Hancock Village. Assistance was provided by the Brookline Planning Department, School Department, Department of Public Works, Police Department, Fire Department and Assessor's Office. The conclusions and findings are those of John W. Connery the report author.

The objective of the report is to provide local officials and residents with an understanding of the fiscal implications of a ten year phased development program to expand the existing Hancock Village by adding 480 units of new rental housing, while removing 14 existing units and improving the parking and internal circulation system (Proposal).

In terms of unit types the proposal is as follows:

- 289 one bedroom apartments (60%)
- 191 two bedroom apartments (40%)

In terms of phasing, the dates indicated below represent completion of construction:

- Improvements to surface parking 2011.
- 50 one bedroom units by 2012
- 79 one bedroom units and 31 two bedroom units by 2014
- 50 one bedroom and 50 two bedroom units by 2016
- 110 one bedroom and 110 two bedroom units by 2020.

The Proposal at completion will generate 480 new multi-family units and remove 14 existing units as a consequence of the new construction resulting in a net addition of 466 units. A total of 15% or 72 units will be set aside to meet the affordable housing requirements of the Town.

This report is primarily concerned with the estimated *net fiscal position* of the proposed housing expansion during each phase of the project and at project stabilization. Specifically, the report

intends to illustrate the estimated relationship of the annual municipal service cost to the annual municipal revenue said relationship being expressed in terms of dollars (annual net fiscal loss or gain) and as a ratio of annual service cost to annual revenue i.e. the cost to revenue ratio. The cost to revenue ratio indicates what portion of each revenue dollar collected is needed to cover the costs of the associated municipal services. A cost to revenue ratio of 0.50 indicates that a project requires 50 cents of every revenue dollar received to be expended for municipal services leaving 50 cents as a net fiscal benefit that can be assigned to other municipal needs. A cost to revenue ratio of 1.00 is revenue neutral, a ratio of 1.50 is negative and indicates that the development requires \$1.50 in service cost for every dollar received as revenue i.e. an indication of net fiscal loss.

2.0 Summary of Findings.

- At stabilization in 2021 the Proposal will generate an average annual net fiscal loss of approximately \$511,000 per year with a *1.28 cost to revenue ratio*.
- Estimated gross annual revenues (all sources) in 2021 are \$1,858,000; and estimated costs are \$2,364,620.
- By 2021 the Proposal will generate an additional 88 students; approximately 78% or 69 students will attend the Baker School based on existing Hancock Village student enrollment patterns.
- School costs represent approximately 82% of all service costs in 2021.
- The assessed taxable value for the Proposal in 2021 dollars is approximately \$125,000,000.
- The 85% of the proposed market rate units will have rents ranging from 40% to 60% higher than the current market rate units. The 15% of units designated as affordable housing will be consistent with Brookline's regulations.
- Estimated one-time construction related fees over the course of the construction period are \$2,195,000.

3.0 Summary of Methodology

Fiscal analyses are traditionally prepared to provide a municipality with an understanding of the fiscal implications of a proposed project with a focus on the municipal departments that may likely be affected by new growth. As such, a fiscal analysis is generally a projection of the relationship between the municipal operating budget and projected revenues. In this instance the fiscal implications of each phase of the development will be examined as well as the completed (stabilized) proposal. In this manner the Town will be able to determine if at any one point in the development process the project generates the potential for a short term or permanent fiscal loss.

Revenue

Contrary to popular understanding, communities have various sources of revenue beyond the real estate property tax. For example, in Brookline the property tax comprises approximately 66% of the annual revenue stream, state aid accounts for approximately 9%, local receipts 21%, and other available sources 4%. As noted in the body of the report, the various forms of revenue will be applied, as appropriate; in order to construct an accurate estimate of the relationship between municipal revenue and municipal service costs as the Proposal develops. Revenues and costs for municipal water and sewer service are counted as fees paid to the Town into an enterprise account, essentially a pay as you use account. As such, water and sewer services do not directly impact the property tax levy in Brookline as do services such as schools, fire, police, and public works which are funded directly from general fund. Brookline also has a recreation enterprise account but it does not cover all recreation costs, the report will address this revenue source.

Revenue projections are a combination of the stabilized income method and the improvement value method as appropriate over the ten year estimated project construction period. For this report property taxes are estimated using the current tax rate expanded by a percentage of 2.5% per year while increasing the value of the annual property assessment by 1.5%. Building Permit fees, a one-time source of revenue, are based on the \$20 per \$1,000 of construction value plus an additional \$1 for other pertinent fee costs (fees are assumed to be constant over a ten year period); state aid estimates are also based on current levels of assistance for the entire project period, and local receipts reflect the FY 2010 budget estimates with a one percent annual increase per year.

Municipal Cost

This report uses the FY10 municipal operating budget and the FY 10 Fiscal Plan as the basis for its municipal cost estimates and findings, however, for real estate tax estimating purposes the current residential rate of \$10.97 was applied as the real estate tax basis. The cost component of this analysis includes a review of all municipal budget items that are measurably impacted by the proposal. In this instance, I employed current police data and information assembled via

discussions with the fire department to illustrate the projected public safety costs. Municipal cost associated with the school department reflects the portion actual net school spending per pupil (ANSS) that is the responsibility of the community i.e. the portion of the school costs paid by local residents via the property taxes, but excluding state aid revenue paid to the Town that subsidizes a portion of school costs, said revenue is addressed separately so not to double count that revenue source. In this analysis the ANSS is adjusted at a compounded rate of 4.5% annually to reflect rising school costs over the estimated ten year period of project construction

The Building Department will also incur the cost of construction review. However, the building permit fees and other associated fees will generate approximately \$2,195,000 over the course of construction. The value of the building permit and associated construction fees are provided to illustrate that the significant one time revenue generated by this revenue source will be more than adequate to address additional departmental project review costs.

My review and discussion with DPW officials indicates that the proposal will not generate any new Department of Public Works (DPW) costs since all the traditional DPW costs will be assumed by the private owner as is the case with the existing Hancock Village. Additionally the water and sewer enterprise fees will address the cost of providing said services to the proposal, and therefore are also not part of the fiscal analysis balance sheet.

Existing public debt is not calculated as part of annual fiscal cost since it is a pre-existing condition. For all other budget line items which include the wide array of the remaining community services, I applied either a per capita cost estimate or service call estimate minus any appropriate revenue off-sets as applicable or as in the case of the police department a cost estimate based on actual service call records. To address rising service costs for various municipal departments over the 10 year construction period I increased annual service costs by 3%, a factor based on my interpretation of the 2010 Fiscal Plan.

The individual departmental cost and revenue analyses are combined in summary tables and unified to provide the reader with an overview of projected cost and revenues as the Proposal proceeds through a ten year development cycle and with an estimated stabilization in 2021.

4.0 Municipal Service Cost Analysis

This analysis divides municipal service costs into two broad categories: education costs and general service costs which are all other non-school operating costs. In addition, there are several departmental or general budget line items that will not be impacted by the proposal in any measurable way. Some examples of municipal costs not measurably impacted are existing municipal debt, overlay accounts, free cash and special appropriations. The non-school costs examined in this report (general service costs) are divided into the general budget categories employed by the Town.

4.1 Education Costs and New Enrollment

Our review of the most recent Massachusetts Department of Education data (updated to July 2009) indicates that enrollment in Brookline peaked 2002 and declined slightly over the next four years. However, since 2007 enrollments have returned to the historic high water marks. Currently, there are approximately 6,200 students in the Brookline School System. Additionally, the 2009 -10 school year witnessed a significant increase in pre-school and kindergarten enrollments of approximately 160 students which is likely to further stress a physical plant that according to a February 2009 School Facilities Assessment Report, (prepared for the Brookline School Department) is near or over capacity at all facilities except for Brookline High School.

Given the above noted capacity issues, this report employs the Actual Net School Spending (ANSS) per pupil cost, as opposed to a more defined incremental cost analysis, as the method best suited to reflect the school costs of additional pupils. In FY2009, the last year of complete data the ANSS is \$14,971. It is important to note that not all of the ANSS cost impacts the Brookline general fund. The Town received approximately \$1,242 per pupil in state aid in FY09. This is a revenue source that needs to be assigned against the ANSS. *By deducting the state aid from the ANSS value I have accounted for the state aid to education revenue source. Accordingly, deducting \$1,242 per pupil from the ANSS of \$14,971 leaves a local school cost responsibility of \$13,729 per pupil for the Brookline school system.* It should be noted that the ANSS includes all indirect payments.

The exiting 530 unit Hancock Village generates a significant number of school aged children. The October 2009 Hancock Village records obtained from The Brookline School Dept. indicate a total of 309 students ages 2.6 months to 18 years of age. The resulting student per total unit ratio of 0.58 (309 students divided by 530 units) is considerably higher than the Town wide average of 0.21. However, it must be noted that Hancock Village is not a traditional multi-family development but rather a development of attached single family units (town or row houses) and these units are more analogous to single family homes than traditional multi-family apartments in terms of student generation rates. More importantly, given current average rents, as compared to Brookline as a whole, Hancock Village is the Town's large scale affordable rental community. Nearly a majority of Hancock Village units (46%) would qualify as an affordable housing given Brookline's broader definition of affordable housing which permits some affordable rents to be set in accordance with 100% of area median income (AMI). Accordingly, given unit type, age of units, and the current average rent it is not surprising that Hancock Village has a higher student per unit ratio than Brookline as a whole.

While the student generation characteristics of the existing 530 development will likely remain the same for the foreseeable future, the Proposal has been designed to avoid exacerbating the pre-existing capacity issues in the Brookline School System. Specifically, all the new units will be designed as flats and 60% of all units designed as one bedroom units. Accordingly, the completed project will have only 1.4 bedrooms per unit a ratio that will minimize traditional family use. Further, the proposed development anticipates a revision to the zoning by-law that

would restrict all one bedroom units to only 2 people per unit; there will be no three bedroom units, and 220 of the proposed 480 units will be in a seven story building. The seven story building typically would have demonstrably fewer students per unit than garden style flats (See Appendix 1). More importantly the new units will be designed and finished to permit market rate rents in 85% of the new units, that reflect the comparable rents for new rental properties in Brookline; in this case market rents 40% to 60% higher depending on unit type. It is anticipated that with market rents more consistent with existing Brookline market rate rents there will be considerably fewer students per unit. The student projections were developed using existing Hancock Village rent data as base factor for the enrollment projections.

Currently, there are 246 one bedroom units in Hancock Village; of this number 15 one bedroom units generate 17 students. Accordingly, 231 of the 246 one bedroom units do not generate any school aged children. The student per unit ratio is 0.069 students per unit (17 students per 246 one bedroom units). In general terms this is a very low student per unit ratio but for one bedroom units it is a high generation rate given that the regional average for one bedroom units (affordable and market rate combined) is essentially zero. Accordingly, in my projections it is recognized that the Proposal will generate school aged students in the new one bedroom units, but the student generation rate will be tempered by the significantly higher rents in the new market rate units and proposed limitation on occupancy of one bedroom units to two people. As mentioned above, as part of the Proposal, Chestnut Hill Realty would require a zoning change with a restriction requiring a maximum of two people per one bedroom unit. This restriction along with rents consistent with market rate rents for new units in Brookline will generate a disincentive for use of one bedroom apartments for families or individuals with school aged children.

The current average rent of a Hancock Village one bedroom unit is \$1,605; however, the average rent for a new market rate one bedroom units will be \$2,300 (current dollars) an increase of 44% or approximately \$700 per month or \$8,340 per year. Accordingly, we believe that the higher rents (consistent with market rents for new units in Brookline) and the proposed zoning restriction will reduce the number of school aged children generated from one bedroom units.

It is important to note that rent rates have a well understood impact on the number of school aged children likely to be found in an apartment unit. For example, my experience (and the experience of many fiscal analysts) is that market rate *two bedroom units* generate approximately 0.15 students per unit in the Boston Metropolitan Area. However, the affordable two bedroom units, with rents at approximately \$700 dollars less per month generate 0.40 students per unit. The regional student generation rate for affordable and market rate two bedroom units clearly indicates the relationship between the cost of rent and student generation. Specifically, that an affordable unit can generate approximately 2.7 times the number students as the market rate units (0.40 to 0.15). Given the higher rents in the majority of Brookline rental units outside Hancock Village and the overall low student per unit ratio experienced in Brookline (0.21 per unit) the relationship of students per unit and higher rent must be considered a significant factor in the

overall student per unit rates in Brookline. The long term regional experience has been and continues to be that affordable units (units with lower rents) generate a higher student per unit rate. This same principal can be applied to the Proposal's market rate units (85% of the total) which will increase rents for one bedroom units by approximately \$700 per month and by \$850 per month for two bedroom units. Applying the same 2.7 student differential ratio for market and affordable units, referenced above, I anticipate that market rate one and two bedroom student generation rates will decline. Accordingly, to recognize the potential for student generation from the new market rate one bedroom units I am assigning a value of 0.027 students per unit; a value that is considerably above the regional average of zero. However, for the 15% affordable rate one bedroom units I am maintaining the existing overall a rate of 0.069 per unit reflecting the existing conditions.

Currently in Hancock Village the two bedroom student per unit rate is rate is 1.04 students per unit (264 school aged children in 255 total units). Similar to the current one bedroom student rate discussed above, this is a high rate particularly when compared to the regional average of 0.15 for two bedroom market rate units and 0.40 for affordable units. Taking into consideration the anticipated and significant rent increases, (the current two bedroom average rent of \$1,912 will increase to an average \$2,850 per month an increase of \$11,250 per year; I am assigning a value of 0.40 students per two bedroom unit for the new market rate units and 1.04 students per (current average) for the proposed affordable units.

The Proposal also calls for 110 of the 193 new two bedroom units to be located in a seven story building. Comparable buildings in Brookline and the region generate significantly fewer students per unit (See Appendix 1). Accordingly my student per unit estimate reflects student generation rates for both the two bedroom garden style and elevator accessed apartment units. Additionally, the two bedroom market rate rents in the seven story building will be significantly higher than the garden style apartments i.e. an average of \$3,100 or an increase of 62% above current two bedroom rates or an increase of \$13,800 per year.

Accordingly, for the two bedroom market rate units in the new seven story building I am employing a rate of 0.35 given the proposed rent schedule and the impact of building type. For the affordable two bedroom units in the seven story building I am employing the ratio 0.75, less than the current 1.04 to take into consideration the impact on student generation ratios traditionally found in buildings serviced primarily elevators i.e. usually half or less than half the rate in buildings not primarily serviced by elevators.

Please see Table 1 on the following page for a student projection by year thorough to project stabilization in 2021.

Table 1. Additional Students by Development Phase and Total

School Year	Occupied Units by Type	Students / unit	Total Students
2010-11	No rented units	0	0
2010-12	No rented units	0	0
2012-13	42 one bedroom, market rate 8 one bedroom affordable Students added this year Total: 50 units occupied	0.027 0.069	1.13 0.55 2
2013-14	Same as 2012-13 Students added this year Cumulative students Total: 50 units occupied	0	0 2
2014-15	40 one bedroom market 8 one bedroom affordable Students this year Cumulative students	0.027 0.069	1.08 0.55 2 4
2015-16	No change Cumulative students		4
2016 - 17	26 one bedroom market 5 one bedroom affordable 26 two bedroom market 5 two bedroom affordable Students this year Cumulative students Total 160 units occupied	0.027 0.069 0.400 1.040	0.70 0.35 10.04 5.20 16 21
2017-18	42 one bedroom market 8 one bedroom affordable 42 two bedroom market 8 two bedroom affordable Students added this year Cumulative students Total 260 units occupied	0.027 0.035 0.400 1.040	1.13 0.28 16.80 8.32 27 48

2018-19	No additional occupancies Cumulative Students Total occupied units 260		48
2019-20	47 one bedroom market 8 one bedroom affordable 47 two bedroom market 8 two bedroom affordable Students added this year Students removed Net New Students added this year Cumulative students Total: 370 occupied units	0.015 0.035 0.350 0.750	0.705 0.280 16.45 6.00 23 -6 (1) 17 65
2020-2021	47 one bedroom market 8 one bedroom affordable 47 two bedroom market 8 two bedroom affordable. Students added this year Cumulative students Total: 480 occupied units	0.015 0.035 0.350 0.750	0.705 0.280 16.45 6.00 23 88
Total	480		88

(1) The 14 units to be removed in 2019 are comprised of 6 two bedroom, 1 three bedroom and 7 one bedroom units. Based on the ratios assumed in the table above they will generate 6\ students.

Table 1 above indicates that by the 2020-21 school years the proposal will generate 88 school aged children, given the reductions associated with the removal of 14 existing units. Assuming the same breakdown of school assignments as exists today, 78% or 69 students will attend the Baker School; 10 or 11% will attend the High School and the remainder or 9 students will attend other elementary schools. While Brookline has a significant private school enrollment of approximately 15% of all school aged children, the very large majority of said students are from home ownership residences and the higher income families in Brookline. Accordingly I have not assigned any of the projected students as potential private school enrollees.

It is important to note that the anticipated increase in school age children not only occurs over a period of 10 years but that there are defined breaks in the generation of new enrollment during said period. Table 2 below illustrates this characteristic and the estimated school costs. As noted

in Section 4.1 the actual net school service (ANSS) cost per pupil in 2009 was \$13,729 after removing state aid. Since this study assumes a 10 year construction period I have examined the school budgets of the past ten years and determined that the average annual increase in school costs has been approximately 4.3 % per year. To be conservative, I have applied a 4.5% average annual increase for the purposes of this study (Note: while the years 2009-12 year indicates no additional cost due to no new enrollments , the future calculations was based on the current \$13,729 plus the compounded effect of 4.5% annual cost increases). Thus for the school year 2012 -13 cost is \$15,667 and accordingly by 2020-21 direct impact on the tax levy is estimated at \$22,302 per pupil, not including state aid.

Table 2. Projected School Enrollment Increases and Associated Cost.

School Year	New Enrollment	Total Enrolment	Estimated Cost per Pupil	Total Cost per Year
2009-10	0	0	0	0
2010-11	0	0	0	0
2011-12	0	0	0	0
2012-13	2	2	\$15,667	31,334
2013-14	0	2	\$16,372	32,744
2014-15	2	4	\$17,109	\$ 68,436
2015-16	0	4	\$17,879	\$ 71,516
2016-17	16	21	\$18,702	\$392,742
2017-18	27	48	\$19,544	\$938,112
2018-19	0	48	\$20,423	\$980,304
2019-2020	17(1)	65	\$21,342	\$1,387,230
2020-2021	23 (2)	88	\$22,302	\$1,962,576

(1) Includes reduction of 6 students due to removal of 14 existing units.

(2) Assumes final rent up of the proposed 7 story building and stabilization in 2021.

As noted in Section 4.1 the actual net school service (ANSS) cost per pupil in 2009 was \$13,729 after removing state aid. Since this study assumes a 10 year period I have examined the school budgets of the past ten years and determined that the average annual increase in school costs has been 4.3 %. To be slightly conservative I applied a 4.5% average annual increase for the

purposes of this study. Accordingly, by 2020-21 school year, the school cost per pupil will be approximately \$22,302 per pupil, not including state aid. Therefore, by the 2020-21 school year the estimated school costs related to the Proposal will be approximately \$1,962,576.

As indicated by Table 2 above by the 2013-14 school year we anticipate only two (2) additional students in the school system; by the 2016-17 school year total enrollment increases will amount to 21; by the 2017-18 school year it will be 48 and by 2020-21 the projected total of 88 net new students will be achieved.

4.2 Public Safety. For most communities public safety costs are the second largest municipal service costs after school costs. For the purposes of this report public safety costs are divided into police and fire safety services.

Police Department

Hancock Village, like all residential uses, generates a need for a variety police services. Currently Brookline has a force of 140 officers, or a rate of 1 officer per 400 people. In some communities using the anticipated population of the new project and the current officer to population ratio can provide a reasonable estimate of new demands on police services. In this instance, I believe Brookline is too complex a community to use such an approach. In communities such as Brookline that have a considerable commercial area and are located at the cross roads of major regional traffic flows there are numerous times when more than 50% of daily police services is needed for non-residential purposes. To get a more accurate understanding of the needed police service costs, particularly for a project with a ten year horizon, the Brookline Police Department provided detailed information relative to the number and type of police calls generated by Hancock Village properties for 2008 and the total number of police service calls Town wide. Individual police responses vary in terms of man hours required by the type of incident and the severity of the issue. However, my approach in estimating police costs assumes that a police service call is an effective general measure of cost, since at any point in time, any type of police response could occur in any neighborhood. Accordingly, for the purposes of this report I have assumed the ratio of police calls associated with the subject properties to overall community calls is a fair method to estimate and apportion annual police service costs.

For the most recent complete year (2008) the Brookline Police responded to 61,277 calls for service and of that number 127 were associated with Hancock Village or 0.002%, see Table 3 below.

Table 3. Comparative Police Calls for Assistance

Subject	Year	Police Calls	Percent of Service Calls
Brookline	2008	61,277	100.00
Han. Village	2008	127	0.002

As indicated, Hancock Village generated 0.002% of the total number of police calls in 2008. By relating the 0.002 % of service calls to the overall police FY 2010 budget of \$14,381,212, an estimated annual service cost of \$28,762 can be derived for the existing 530 unit Hancock Village or an annual per unit cost of \$54. Adjusting the current base cost to \$30,000 for the 466 net new units the estimated base cost per unit in 2012 is \$60. Further, based on my review of police budgets of the past decade I am assigning a cost increase of 3% per year. Table 3 illustrates the estimated police costs over time. Please note, construction of some one bedroom units may be completed in 2012, however it is likely that full occupancy will not occur until the following year. Table 4 below the police costs are shown for the year after construction completion when the new population is present.

Table 4. Police Service Cost

Year	Net New Units	Cost Per Unit \$ (1)	Additional Cost Per Year
2010	0	0	0
2011	0	0	0
2012	50	60	\$ 3,000
2013	50	62	\$ 3,100
2014	105	64	\$ 6,720
2015	160	66	\$10,560
2016	210	68	\$14,280
2017	260	70	\$18,200
2018	260	72	\$18,720
2019	370	74	\$27,380
2020	466	76	\$35,416
2021	466	78	\$36, 348

Fire Department

The Fire Department has a FY 2010 budget of \$12,206,045 to provide fire safety services to all sectors of the community. Some communities operate municipal ambulance services but Brookline contracts with private firms for the provision of ambulance service who in turn collects the insurance payments. In a community as complex as Brookline a range of 35% to 90% of the annual budget can be related to commercial, industrial, institutional and vehicular related fire safety issues (see appendix 2). For the purposes of this report I am assuming a midpoint of 65%. Accordingly, 35% of the annual fire service budget will be assigned to the existing 27,500 residential units; or a per unit cost of \$155 per unit. Table 5 below uses the estimated fire service cost per unit and applies it over the project build out period and similar to police costs the cost of service is increased by 3% per year.

Table 5. Fire Service Costs

Year	Occupied New Units	Estimated Cost per DU	Total cost per Year
2010	0	0	0
2011	0	0	0
2012	50	\$160	\$8,000
2013	50	\$164	\$8,200
2014	105	\$169	\$17,745
2015	160	\$174	\$27,840
2016	210	\$179	\$37,590
2017	260	\$185	\$48,100
2018	260	\$190	\$49,400
2019	370	\$196	\$72,528
2020	466	\$202	\$94,132
2021	466	\$208	\$96,928

In addition to the annual fire service costs carried on the operating budget, the Fire Chief has made it clear that by the time the 7 story building is in place there needs to be an additional aerial ladder truck with at least a 105 ft ladder in service to service South Brookline. The issue is not that Brookline does not have such equipment but that currently it has only two such 105 ft ladder

trucks and they are stationed in North Brookline given building types in that area. The issue, therefore, is one of response time. The Town has recently acquired a third ladder truck, a Quint which is a combination of ladder and pumper, this piece of equipment will initially be housed in Coolidge Corner but may end up at the Reservoir Road Station on Boylston Street. The truck is equipped with a 105 foot ladder. In addition to this new piece of equipment, the Town's capital budget envisions the purchase of a truck in 2018 which would replace another of the Town's standard pumper vehicles with a Quint. If either of these new ladder trucks is located at either the Hammond Street or the Boylston and Reservoir Road fire stations the issue of response time would be mitigated. Accordingly, based on our discussions with the Fire chief the Town is in the process of undertaking a study to determine conditions of each of the stations to house this new generation of fire equipment. The proportional share of said cost assigned to the Proposal is not carried in this report given the projected capital improvement budget for a new fire apparatus by the time the seven story building is under construction and the Town's recent equipment purchase. Further, as with any public safety equipment it is not simply servicing any one location in the Town, it serves the entire community. Accordingly, if there is any cost associated with the need to upgrade a station to house the new apparatus in the logical proximity to the proposed development, I believe that it should be considered as a one-time cost that can be more logically addressed in an associated development agreement related to the overall project approval. In our discussion with the Fire Chief it was noted that while the ladder would be needed for the reasons indicated above, there would not be a corresponding increase in fire companies nor would the replacement equipment require new staff.

4.3 Public Works

For most new development, traditional public services such as roadway maintenance, snow plowing, drainage management, and lighting, is a function of local government. However, in the instance of the proposal, all traditional DPW services such as road maintenance, drainage, snow plowing, lighting, trash collection will be the responsibility of the private owner. Further Independence Drive is being maintained by the Town and will continue to do so at current levels, therefore, there is no measurable change for said roadway. Accordingly, there will be no incremental cost increase assigned to the proposal for public works services.

4.4 General Government

The General Government category in the Brookline municipal budget covers the traditional Town Hall departments and service functions including the operation of all Town Boards. While not always and not recently in Brookline, this general government cost category can be affected by new growth since it is population that generally drives general government services. However, the sources of general government costs within a municipal population can and does change over time. Accordingly, to estimate this cost component I have selected the per capita

method to assign annual service costs as the most effective method to arrive at average cost increases over an extended time period.

Accordingly, the Municipal Administration budget of \$7,458,456 represents a per capita cost of approximately \$133 per year given a population of 56,000. This estimate is somewhat high because it does not deduct for the cost of municipal administration related to commercial and institutional uses. However, since studies, such as The Fiscal Impact Handbook by Burchell and Listokin, indicate that service cost associated with commercial uses represent only 4-8% of municipal administration costs I chose the median value of 6% and deducted said percentage from the total cost at project stabilization,(see appendix 2) Assuming that the one bedroom units (289) and the two bedroom units (191) generate 1.3 people and 2.2 people per unit respectively I estimate that by 2021 the total net new population from the net 466 new units will be approximately 800 people. Table 6 below illustrates the estimated cost of general government services based on a 3% cost increase per year.

Table 6. General Government Costs

Year	Occupied New Units	Total Population	Estimated Cost per Person \$	Total Cost / Year
2010	0	0	133	0
2011	0	0	137	0
2012	50	70	141	\$9,277
2013	50	70	145	\$9,541
2014	105	195	149	\$29,055
2015	160	270	154	\$41,580
2016	210	360	159	\$57,240
2017	260	450	164	\$73,800
2018	260	450	169	\$76,050
2019	370	625	174	\$108,750
2020	466	800	179	\$143,200
2021	466	800	184	\$147,200 (138,368) (1)

As indicated in the table above, general government service costs will not begin to occur until 2012 at the earliest and through to 2013 they will be minimal. By 2021 they will reach a total of

approximately \$138,000 by 2021. Note: Brookline received \$5,593,780 in unrestricted general government aid in FY10. For the purposes of this report rather than assigning this revenue department by department to general government costs as shown above and to other departments where applicable, the unrestricted government aid will be applied to non-appropriated expenses changed to the Town such as the MBTA costs, in a latter section of this report. This approach is selected to balance related other Town costs with other forms of annual revenue for the purposes of the fiscal analysis and is not intended to indicate a direct application of said funds to said obligations (see Section 4.13).

4.5 Library

Subtracting the \$41,555 in state aid to libraries (a revenue source) the Town’s cost for the Brookline Public Library is \$3,424,382. Similar to General Government services I have assigned a per capita cost but reviewing previous library budgets I have assigned a 2% service cost increase per year. Given an estimated population of \$56,000 the estimated per capita cost is \$61. Table 7 below illustrates Library costs over the proposal’s build out time frame including a two percent deduction for non residential impacts at stabilization in 2021.

Table 7 Library Costs

Year	Occupied New Units	Total Population	Estimated Cost per Person	Total Cost per Year
2010	0	0	61	0
2011	0	0	62	0
2012	50	70	63	\$4,410
2013	50	70	64	\$4,480
2014	105	195	65	\$12,675
2015	160	270	67	\$18,090
2016	210	360	69	\$24,840
2017	260	450	71	\$31,950
2018	260	450	73	\$32,850
2019	370	625	75	\$46,875
2020	466	800	77	\$61,600
2021	466	800	79	\$63,200

As illustrated above, at stabilization in 2021 the Proposal will generate approximately \$63,000 in additional annual library service costs.

4.6 Health and Human Services

Similar to the analyses above for library services I applied a per capita cost analysis over the project build out time period to illustrate the associated municipal service costs associated with the health and human services component of the operating budget. In this instance a budget of \$2,205,625 equates to a cost of \$39 per person. Table 8 below illustrates the costs over the project build out period including a cost escalation of 3% per year.

Table 8 Health and Human Services Costs

Year	Occupied New Units	Total Population	Estimated Cost per Person	Total Cost per Year
2010	0	0	39	0
2011	0	0	40	0
2012	50	70	41	\$2,870
2013	50	70	42	\$2,940
2014	105	195	43	\$8,385
2015	160	270	44	\$11,880
2016	210	360	45	\$18,135
2017	260	450	47	\$21,150
2018	260	450	49	\$22,005
2019	370	625	51	\$31,875
2020	466	800	54	\$43,200
2021	466	800	56	\$44,800

Similar to other cost categories, significant cost does not occur until 2017 and in the year 2021 the Proposal will generate approximately \$45,000 in health and human service costs. Health and Human Services departments also service commercial activities service but for the most part business inspections carry a fee that covers all or part of the inspection cost. Accordingly, for the purposes of this analysis I have assumed that the entire departmental budget is assigned to residential services, accordingly the health and human services cost estimate is conservative

(high) but given the limited impact of this item it is not a significant factor in the final estimate of fiscal impact.

4.7 Recreation.

After deducting for the golf enterprise fund and the recreation revolving fund revenues for FY10 to account for the associated revenue stream the remaining FY10 recreation budget is \$982,808 or \$18 per capita. Table 9 below illustrates the cost of recreation services over the construction period assuming a 3% annual cost increase to 2021.

Table 9 Recreation Cost

Year	Net New Units	Total Population	Estimated Cost per person	Total cost per Year
2010	0	0	18	0
2011	0	0	18	0
2012	50	70	19	1,330
2013	50	70	20	\$1,400
2014	105	195	21	\$4,095
2015	160	270	22	\$5,940
2016	210	360	23	\$8,280
2017	260	450	24	\$10,800
2018	260	450	25	\$11,250
2019	370	625	26	\$16,250
2020	466	800	27	\$21,600
2021	466	800	28	\$22,400

As indicated above, the additional annual recreation service costs is intended to be approximately \$22,400 in 2021.

4.8 Debt

Generally speaking, existing debt and interest are not allocated to a proposed new development in a fiscal analysis unless it is clear that the development directly related the debt. In this instance the pre-existing debt is not related to the proposed project and not factored into the estimated fiscal impact. Further it is not anticipated that the proposal will require additional capital spending and debt beyond what exists and is proposed as of December 2009.

4.9 Personal Service Reserve and Collective Bargaining

These budget categories will not be directly impacted by the Proposal and are not included in costs generated by the Proposal.

4.10 Personnel Benefits

The proposal will generate the need for additional school instructors and associated personnel but said costs have been included in the Actual Net School Service (ANSS) cost approach used in Section 4.1. The addition of approximately 800 new residents by 2021 will not likely require additional personnel in general government services based on the recent practices of Town government during the past decade. However, to be prudent all our departmental budget estimates shown above do include a cost of service increase that can maintain existing levels of staffing and possibly be used to add a minimal level of staffing depending on local decisions.

4.11 Non Departmental Costs

The non departmental costs covers pension benefits (contributory and non-contributory) of employees who are part of the town's retirement system. The Proposal will not directly impact these benefits. However, as mentioned the school costs could generate non-departmental costs but as noted these costs are included in my school cost estimate using the actual net school spending (ANSS) approach.

4.12 Special Appropriations

Special Revenue Appropriations in Brookline are municipal revenue financed capital improvement projects that in this instance are not impacted by the Proposal. Given that said appropriations are revenue financed projects that are not germane to the Proposal, no cost component is included in this report for this budget item.

4.13 Non Appropriated Costs.

Non-appropriated costs include items like the air pollution district costs, registry parking surcharges, tax levy overlay accounts, tax title and court judgments. Items like the aforementioned will not be impacted to any measurable degree by the Proposal. However, this budget category also includes costs that may be impacted by the Proposal or at least provide potential benefit to the residents of the Proposal in a manner that may generate future costs. For these reasons I have included the following non-appropriated items as costs; County Assessment, MAPC (regional planning fees), Special Education, School Lunch Assessment, Library Assessment, Charter School Assessment, MBTA (the largest component at 4.8 million dollars). Combined the aforementioned they noted assessments total approximately \$5,550,000.

Excluding library aid that has already been included in the library cost analysis (Section 4.5) the unrestricted general government aid of \$5,593,780 for FY10 has not been used up to this point in the report to offset various costs in government operations (see section 4.4 above) since it would involve a lengthy repeat of the Town's FY2010 financial plan to assign it to specific programs. For the 2010 forward to 2021 I have assumed that unrestricted general government aid would be roughly equal to the current level over a 10 year time period, since no one can predict with assurance that it might increase or decline. Accordingly, I have applied unrestricted general government aid income (an annual revenue source) against the non-appropriated costs for the purpose of balancing total costs and revenues for the purposes of this analysis only. In this instance these forms of cost and annual revenue essentially cancel out with annual revenue exceeding costs by \$43,000, a de minimus amount considering the instability of the items comprising non-appropriated costs.

5.0 Summary of Service Cost by Year

Table 10 below provides a summary of all the assigned municipal service costs discussed in the sections above and an annual total service cost.

Table 10. Summary of Municipal Costs by Year.

Year	Schools	Public Safety	General Govt.	Library	Health /Human Services	Recreation	Total
2010	0	0	0	0	0	0	0
2011	0	0	0	0	0	0	0
2012	0	\$11,000	\$8,720	\$4,410	\$2,870	\$1,330	\$28,280
2013	\$31,334	\$11,300	\$8,969	\$4,480	\$2,940	\$1,400	\$60,373
2014	\$32,744	\$24,465	\$27,312	\$12,675	\$8,385	\$4,095	\$109,551
2015	\$ 68,436	\$38,490	\$39,058	\$18,090	\$11,880	\$5,940	\$181,644
2016	\$ 71,516	\$51,870	\$53,806	\$24,840	\$18,135	\$8,280	\$228,237
2017	\$392,742	\$66,300	\$69,372	\$31,950	\$21,150	\$10,800	\$592,054
2018	\$938,112	\$68,120	\$71,487	\$32,850	\$22,005	\$11,250	\$1,143,964
2019	\$980,304	\$99,908	\$106,670	\$46,875	\$31,875	\$16,250	\$1,281,603
2020	\$1,387,230	129,548	\$134,608	\$61,600	\$43,200	\$21,600	\$1,781,138
2021	\$1,962,576	\$133,276	\$138,368	\$63,200	\$44,800	\$22,400	\$2,364,620

As indicated, in Table 10 above, by 2021 the proposal will generate approximately \$2,365,000 in annual municipal costs of which approximately 82% will be additional school costs.

6.0 Revenue

In Massachusetts the annual municipal revenue stream is comprised of various sources with property taxes, being the largest single source of revenue followed by local receipts (excise taxes, departmental fees, etc.), state aid (education and general government); and enterprise fees for items like water sewer, trash collection, transportation, and recreation services.

In this report I have accounted for the water and sewer service costs by indicating the fee for use associated with each service. In effect the annual service fee charged to the user covers the annual service cost and the individuals and business pay for water and sewer services on an “as you use basis”. Further, state aid to education and unrestricted government aid revenues has been addressed in Section 4.0. Therefore to prevent a double counting they are not included in the revenue analysis below.

Accordingly, the revenues that can be applied against the service costs summarized in Section 5 are property taxes, and local receipts (fees fines, excise taxes, departmental collections). For the assignment of local receipt revenue I employed the per capita method but only assigned 50% of the current \$828 current per capita local receipt revenue based on my review of applicable Schedule A local receipt categories and my lower estimate of cars per unit type that generate annual excise taxes.

For the property tax estimates I employed two methods of assessment: the stabilized income method and a property improvement or cost method. Due to the nature of the Proposal it will be built in phases over at least a ten year period. Accordingly in some tax years the real estate tax will be based only the physical improvements to the property. Once the property is fully constructed and occupied the assessor will likely switch to a stabilized income method based on the net operating income generated by the property. Therefore in the table below, for any given year, the property taxes assigned will be a mix of the stabilized income method and the property improvement or cost method. This mix of methods creates a more accurate image of tax flow and reduces the possibility of overstatement. Due to the likely lag in assessing all property by the income method by 2020 (the value of property on January 1, 2020 reflects the value of what it is assessed for 2019 year regardless of what improvements occur in 2020; the improvements of 2020 will be captured on January 1, 2021 and so on); accordingly for the purposes of this analysis the revenue projections assume a 2021 project stabilization and a switch to an income method for all assessments.

The estimates in Table 11 presented below have been assembled using the following assumptions:

- The stabilized income methods deducts 5% for vacancy considerations from gross property income, a 30% deduction from the resulting 95% for operations and maintenance cost, and 5% from said balance for reserve purposes to arrive at net

operating income. A capitalization rate of 0.075 is applied to the net operating income to arrive at assessed value.

- The assessed values have been increased at a rate of 1.5% per year and the current tax rate of \$10.97 per thousand increases at a rate of 2.5% over the period of construction.
- The rent assumptions used to construct the estimated assessed values reflect a reduced value for the 15% affordable housing component. Rents for the new market rate units will be 40% to 60% higher than the market rents currently at Hancock Village. All affordable rents are consistent with the Town’s affordable housing policies and methods of rent calculation. See Appendix 3 for detail on rents by type.
- The property improvement method is based on the construction cost projections of Chestnut Hill Realty as of October 2009. They have been assigned to conform to the 10 year development schedule assigned to the Proposal. The value of the construction estimates have been increased at a rate of 1% per year to account for labor and materials cost over the ten year period. However, local permit fees are assumed to be stable over the same ten year period.
- Local Receipts have been assigned by the per capita method and increased in value by 1% per year over the ten year period. However due to the nature of the Schedule A line items (not all items relate to residential development and the anticipated fewer cars per unit) my local receipt estimate is approximately 50% of the current per capita local receipt revenue or \$190.

Table11 Revenue Estimates by Year

Year	Components	Assessed Value \$	Taxes \$	Local Receipt \$	Annual Revenue \$	Cum. Revenue \$ and / Total Units
2010	Excess Land Value new zoning	3,285,000	36,036	0	36,036	36,036 / 0
2011	25% const. value for 50 1-bedroom garden apts.	2,194,000	24,660	0	46,841	82,850 / 0
	100% construction value new parking lots	1,971,000	22,154			
2012	100% construction value of 50-1 bedroom apts.	8,906,000	102,597	4,700	107,297	190,147/ 50

2013	50 –one bedroom apts. Inc. method 25% const. value for 48 1- bedroom apts. 25% construction value 62 units at Gerry garage	10,633,000 2,521,000 2,632,000	128,552 29,747 31,057				
				9,500	198,856	389,003 / 50	
2014	100% construction value of 62 1 bedroom apts 100% construction value of 48 1-bedroom apts. 50 -1 bedroom apts. Inc method	10,633,000 10,181,000 10,916,000	128,552 123,088 131,974				
				30,000	413,608	862,611 / 160 units approx 65% occupied.	
2015	50 -1 bedroom apts. income method. 48- 1 bedroom, inc method 62 units (1 and 2 BR) Gerry garage, inc meth. 25% const. value 100 east side units	11079,000 10,635,000 15,390,000 5,898,000	137,268 131,767 190,682 73,076				
				96,000	578,973	1,441,584 / 160 95% occupancy	
2016	100% const. value 100 units east side. 50 1 bedroom apts 48 1 bedroom apts. 62 units (1 and 2 BR) Gerry garage.	21,000,000 11,245,000 10,794,000 15,620,000	266,000 142,600 136,975 198,217				
				48,000	791,792	2,233,376 / 210 units 80% occupied.	
2017	100 units 1 and 2 bedroom –east side 50 1 bedroom apts	21,315,000 11,413,000	277,099 148,377				
				74,000	847,996	3,181,372 / 260 units	

	48 1 bedroom apts. 62 units (1 and 2 BR) Gerry garage.	10,955,000 15854,000	142,415 206,105			
2018	100 units 1 and 2 bedrooms –east side 50 1 bedroom apts 48 1 bedroom apts. 62 units (1 and 2 BR) Gerry garage. 25% construction value 7 story building	21,634,000 11,584,000 11,119,000 16,460,000 15,000,000	288,164 154,298 148,105 219,247 199,800	75,000	1,084,614	4,265,986 / 260 units
2019	100 units 1 and 2 bedroom –east side 50 1 bedroom apts. 48 1 bedroom apts. 62 units (1 and 2 BR) Gerry garage. 100% construction value7- story building	21,958,000 11,757,000 11,285,000 16,700,000 60,000,000	299,726 160,483 154,040 227,955 799,220	105,000	1,746,424	6,012,410 / 370 units 75% occupied
2020	All development on the income method of assessment Partial rent -up	123,000,000	1,678,950	137,000	1,815,950	7,828,360 / 480 new units 75% occupied
2021		125,000,000	1,706,000	152,000	1,858,000	9,686,000 / 480 new units 95% occupied.

As indicated above, at stabilization in 2021 the estimated gross annual revenue stream is anticipated to be approximately \$1,858,000 and the total revenue generated by 2021 will be approximately \$9,686,000.

7.0 Net Fiscal Impact by Year

Table 12 below illustrates the net fiscal impact by year and at stabilization and provides the reader with an overview of fiscal performance based on the estimated costs and revenues for any given year in the build out cycle.

Table 12 combines all the cost and revenue projections generated in the preceding sections of this report and illustrates the estimated fiscal position in terms of dollars and the annual cost to revenue ratio

Table 12. Cost to Revenue Ratio and Net Fiscal Gain or Loss

Year	Annual Cost	Annual Revenue	Net Gain or (loss)	Cost to Revenue Ratio.
2010	0	\$36,036	\$36,036	N/A
2011	0	\$46,184	\$46,184	N/A
2012	\$28,280	\$107,297	\$79,017	0.26
2013	\$60,373	\$198,856	\$138,483	0.30
2014	\$109,551	\$413,608	\$304,057	0.26
2015	\$181,644	\$578,973	\$397,329	0.31
2016	\$228,237	\$784,792	\$556,555	0.29
2017	\$592,054	\$847,929	\$255,875	0.70
2018	\$1,143,964	\$1,081,614	\$(62,350)	1.06
2019	\$1,281,603	\$1,746,624	\$464,821	0.73
2020	\$1,781,138	\$1,815,950	\$34,812	0.98
2021	\$2,364,620	\$1,858,000	(\$511,453)	1.28

As noted in Section 4.1, a considerable influx of additional school aged children at 2021 costs drives the Proposal into a fiscal negative for the long term. The proposal in 2021 has cost to revenue ratio of approximately 1.28 and an estimated annual net loss of \$511,000.

8.0 Building Permits and Associated Fees

Based on the construction values estimated in this report of approximately \$104,500,000, over the course of construction and an assumption that the \$20 per \$1,000 of construction value for building permits will remain stable and that electrical permits, plumbing permits, fire alarm and smoke alarm permits will generate an additional \$1 per \$1,000 of construction cost; I estimate that the Proposal will generate total fees of approximately \$21 per \$1,000 and generate approximately \$2,195,000 over the course of the project with approximately 50% of all fees being paid by 2017.

9.0 Conclusion

Given the preponderance of one bedroom units the proposal maintains a positive fiscal profile until stabilization in 2021. However, the completion of the 7 story building having an additional 110 two bedroom units with a 15% affordable component increases the net new student count to 88. The associated costs of the additional school aged children in the 2019-21 time frame significantly changes the fiscal nature of the proposal and at stabilization creates an estimated cost to revenue ratio of 1.28 and an estimated net fiscal loss of approximately \$511,000 annually. Given the nature of the Proposal the estimated net fiscal loss would be a permanent feature from 2021 and thereafter.

Appendices

Appendix 1. Examples of Brookline residential developments having a range of than seventy five to 232 total units and at least seven stories in height. Data Source: 2008-2009 Brookline School Dept.

50 to 60 Longwood avenue 12 students

1443 Beacon St. 7 students

1540 Beacon St. 0 students

216 St. Paul St. 1 student

Dexter Park (Freeman St.) 232 Units 30 students.

Non- Brookline Examples 2006-9

Imperial Towers, Newton, 152 units 0 students

Parkway Mystic, Arlington, 48 units 1 student

Park View, Winchester, 350 units 14 students

Appendix 2 Estimated commercial / residential service demand

The following data was derived from Exhibit 6-4 Typical Impact of Commercial Uses on Various Public Service Categories: Fiscal Impact Handbook Burchell and Listokin, Chapter 6 Proportional Valuation Fiscal Impact Method. In the report this table was used to estimate the percentage of commercial demand on some of the individual department budgets as noted.

Service Category	Percent Range	Mid-Point, %
General Government	4 to 6	6
Public Safety	35 to 90	75
Public Works	10 to 20	15
Health and Welfare	1 to 3	2
Recreation and Culture	1 to 3	2

As noted in the Fiscal Impact Handbook, “the analyst must temper his distribution of aggregate municipal costs with the kinds of services provided locally. He must also take into account the potential assumption of typically public services by the private facility”

Appendix 3 Affordable Housing Rent Values Brookline

Source: Brookline Planning Dept 12/9/09

One bedroom units @ 80% AMI - \$1,105

One bedroom @ 100% AMI \$1,571 (Current Hancock Village average for a one bedroom is \$1,605)

Two bedroom @ 80% AMI \$1,233

Two bedrooms @ 100% AMI - \$1,757

Current two bedroom average rent at Hancock Village is \$1,905