Portfolio Assessment for the Vermont Housing and Conservation Board

FINAL REPORT -- October 30, 2006

The Compass Group, LLC

Executive Summary

Public Investment is Necessary
Affordable housing is—at its most basic—about funding the gap between what it costs to develop and operate housing of acceptable quality and the revenue that can be generated by serving low-income residents. Today in America, low-income renters simply cannot afford rents necessary to build and sustain housing. Public finance in myriad forms bridges the divide.

Reasons for this Study
Bridging the cost divide in housing is becoming harder and more essential. Development and operating costs of housing have increased at a rapid pace nationwide, increasing the demand, cost and importance of affordable housing. VHCB has invested in more than 5,000 housing units and has requested this study to inform policy decisions regarding future investments. This study assesses three interrelated aspects of Vermont's housing portfolio. First, it estimates the costs of preserving 'expiring use' properties—those that are nearing the end of their initial 15-year affordability requirement. Second, it determines the adequacy of resources to meet the capital needs requirements of existing (and aging) assets, including escrows, refinancing potential and operating cash flow. And third, it compares the underwriting of properties to their actual performance, determining the accuracy of the State's income and expense projections and providing insights which will enable the state to further improve its ability to predictably develop successful projects.

Choosing to Pay Now, or Pay Later
It is widely understood that all real estate requires repairs over time. Consequently, real estate is either maintained through continuous investment or renewed through periodic reinvestment or both, or is otherwise lost to deterioration. Long-term costs can be incorporated at initial development—at the expense of production volume (more dollars per unit results in fewer units produced). Alternately, these costs can be deferred to later years—lowering the initial development cost but requiring later reinvestment to preserve the property. Put simply: all public funders face a 'pay now or pay later' decision.

The need for eventual reinvestment provides opportunities for reevaluating the contributions of the housing to the policy goals and economic interests of its funders. Markets change, actual operating and capital costs never precisely match projections, and the policy goals of funders evolve and shift naturally over time. As the need for reinvestment arises, properties which are desirable (which have a low-cost/high-benefit ratio) can be pursued, while properties which are expensive to preserve relative to their contribution to affordable housing can be pruned from the portfolio.

As with initial development (when public funding is necessary), when it's time to extend affordability and viability after 15-20 years, usually some additional public investment will be needed. That is, generally properties cannot support their own preservation costs. Few properties have value above outstanding debt; in part, rent restrictions and the very low incomes of the residents which are at the heart of the mission—also constrain income

potential and (resulting) value. Consequently, the costs of preservation must be borne elsewhere. Against this backdrop, and softening the blow, is the knowledge that a reinvestment for continued viability and affordability is almost universally less expensive than new development.[1]

Key to the cost of preservation is the cost of capital repairs. Those items that were not paid for up-front must be paid for eventually. And reserves are not adequate to meet likely future capital needs at every property. Roughly half of the properties in the portfolio have the reserves and cash flow to self-finance the costs of future capital needs; the other half will require additional public investment. A third will require additional investment in excess of $5,000 per unit (though this is economically preferable to new development, which approaches $200,000 per unit). Compass recommends a higher reserve level if Vermont's goal is to avoid future capitalization of existing properties.

The ability to make a decision about 'paying now or paying later' is dependent on the quality of underwriting. Both revenues and expenses tend to exceed projections; however, on balance the portfolio is performing adequately on a bottom-line basis, relative to the original underwriting projections.

Recommendations and Findings

This report makes a series of recommendations and findings, which can best be understood in the fullness of the report; this summary is necessarily brief.

- Real estate has inherent risks. Funders can address these through either (1) generous initial financing/subsidy sufficient to withstand risk, or (2) operational, legal and financial flexibility to identify emerging problems and make subsequent corrective investments if the property fails to perform to its underwriting. Vermont must have a conscious strategy in this regard, and the appropriate tools, resources and capabilities.
- Compass advocates—and finds that the Vermont Funders generally adhere to principles of—'sustainable underwriting.' 'Sustainable Underwriting' generally allows less (or no) debt, requires greater initial subsidy, and results in less need for subsequent reinvestment, among other benefits. This approach generally requires:
    - context-specific, individualized underwriting, to accommodate the varied nature of transactions, including those in low growth communities, or those facing unique challenges. Vermont uses this principle, for instance underwriting properties in small towns to higher vacancy rates;
    - underwriting informed by the actual performance history of prior assets, and current tax, insurance and utility forecasts obtained through third parties (rather than rules of thumb or formulae). VHFA and Housing Vermont are applying these approaches, and VHCB is relying on these inputs. This is a relatively new practice for the Vermont Funders, but one which should improve the accuracy of underwriting projections;

[1] Vermont's 2006 Consolidated Plan prioritizes preservation and establishes a committee to support and strengthen these efforts statewide.

- reliance on expense cushions, or other means of insuring properties have underwritten cash flow which is sized appropriately for the risks inherent in the underwriting;
- a 'soft note' structure which balances the state's fiduciary responsibility and policy interest in recapturing excess cash flow on transactions which outperform their underwriting, while incentivizing the owner to operate the property efficiently (and profitably);
- use of available legal structures to preserve affordability and manage the portfolio. We recommend VHCB make all future covenants binding in the event of foreclosure. Continued affordability should be the default assumption. This approach should place VHCB in a strong position to protect its original investment, and Vermont's housing interests. This approach must be weighed against the 'back-end' economics: a binding affordability covenant may restrict exit value, and may force investors to demand greater yields elsewhere in a transaction. In practice, the Vermont Funders coordinate their positions, in their mutual interest to preserve affordability; and,
- real estate has long-term costs which are not always paid for at initial development. VHCB should consciously determine how long new properties should be initially sustainable, and should ensure that initial financing and public investment is consistent with this goal. Specifically, the report recommends that VHCB should work with other Vermont Funders to establish the term of intended viability for initial investments in projects, and should ensure that capital reserves are funded adequately over this term, and that renewed viability can be accomplished easily on projects which the State later determines are cost-effective and worthy of preservation.

Section 1. Overview of Tasks and Findings

1.1 Client and Consultants.

- **1.1.1. Client.** VHCB is an instrumentality of the State of Vermont. One of its roles is to facilitate the production and preservation of affordable rental housing for low-income Vermonters. VHCB allocates the State's HOME funds and allocates a variety of other funding sources as well. VHCB's portfolio of affordable rental housing (excluding mobile home parks, and excluding properties smaller than 3 units) comprises 240 properties with close to 5000 rental units. VHCB works closely with the Vermont Housing Finance Agency (which, among other roles, allocates Low Income Housing Tax Credits ("LIHTCs")) and Housing Vermont (a nonprofit LIHTC syndicator and developer). Many of the properties we studied had the involvement of all three agencies. The costs of our study were funded partially by the U.S. Department of Housing and Urban Development and partially by VHCB, VHFA and Housing Vermont.
- **1.1.2 Consultants.** The Compass Group is the author of this report, and ICF Consulting provided the contract under which the work was performed. The Compass Group (www.compassgroup.net) is a small business consulting firm with specialized expertise in affordable rental housing finance, operations, and policy. Compass' current clients include HUD's Mark-to-Market program, HUD's HOME program, USDA's Rural Housing Service, The Louisiana Recovery Authority, and the Department of Justice's Civil Litigation Division. Compass was the primary advisor to the Congressionally-created Millennial Housing Commission regarding affordable rental housing. Compass is also a member of HUD's 'College of Experts'. ICF Consulting (www.icfconsulting.com) is a major provider of technical assistance, training, and consulting to a wide variety of federal and State agencies. ICF holds a series of Community Development Technical Assistance contracts with the U.S. Department of Housing and Urban Development, under which some of the funding for this study was provided.

1.2 The Three Tasks. Our scope of work is divided into three large tasks. The tasks and our primary findings are discussed below. Our primary recommendations are discussed in Section 2.

- **1.2.1 The Underwriting Task** – compare the actual performance of a sample of 70 VHCB-funded properties to their underwritten performance. Determine whether the existing financing is consistent with long-term physical and financial viability ("sustainability") of the properties. Suggest potentially useful modifications to VHCB's underwriting standards and practices. Our key findings in this task are discussed below under *1.5 Underwriting: Strategies for Creating Sustainable Portfolios*.
- **1.2.2. The Expiring Use Task** – study the 15 VHCB-funded properties whose nonprofit general partners will have an option to purchase the properties in the next five years. Estimate the likely level of cash that the general partners will need in order to purchase the properties and position them for sustainability and

affordability. Our key findings in this task are discussed below under *1.6 Expiring Use Properties and Sustainability.*

- **1.2.3 The Capital Needs Tas**k – we were provided data from long-term capital needs assessments for 45 of the 70 properties in the underwriting sample. For the remaining properties in the underwriting sample, we estimated long-term capital needs by using the average from the long-term capital needs assessments. Our capital needs task was, for the full 70 properties, to determine whether the properties' existing reserve funding and existing financing are likely to allow the property to meet its long-term capital needs without requiring additional subsidy. Our key findings in this task are discussed below under *1.4 The State of the Art in Capital Planning.*

These tasks are not distinct; in fact they are quite inter-related. As noted below, we use the results of our analysis in the Underwriting Task to inform our findings and recommendations in the Expiring Use and Capital Needs tasks. Similarly, our recommendations regarding Capital Needs are fundamental to our recommendations in the other two tasks; accordingly, our Capital Needs recommendations are discussed below before we discuss our Underwriting and Expiring Use recommendations.

Our report begins by discussing an over-arching issue.

1.3 Affordable Rental Housing Is Difficult -- But Vital. Market-rate rental housing is fraught with risk – for example, construction can cost more and/or take longer than planned, units may lease up slower than planned and/or at lower rents than planned, operating costs (such as taxes, insurance and utilities) may be higher than planned, mortgage interest rates may increase before the property can be financed, and building systems can wear out sooner than planned and cost more to replace than planned. Affordable rental housing involves all of those risks, plus the additional complexities of the various subsidy programs, and the difficulties of working with the various target populations, many of whom have complicating factors (for example, need for supportive services) in addition to having low incomes and limited ability to afford rent and utilities. In addition, the formulas for the regulated rents may impose unexpected limitations. For example, between federal fiscal years 2004 and 2005, HUD Fair Market Rents declined in many parts of Vermont.

Yet affordable rental housing is essential – the largest group of Americans with serious housing affordability and/or quality problems is renters with incomes below 30% of area median income.[2] VHCB, VHFA, Housing Vermont, and the various nonprofit sponsors with whom they work, are to be commended for meeting this challenge head-on and for aggressively targeting affordable rental housing to Vermonters who are most in need.

[2] For the Vermont perspective, see Between A Rock and a Hard Place: Housing and Wages in Vermont, http://www.vhcb.org/housingandwages.html. See also the Harvard Joint Center for Housing Studies, State of the Nation's Housing 2005, http://www.jchs.harvard.edu/publications/markets/son2005/, pages 24 through 28 ("Housing Challenges"). Also see HUD's recently issued report on Worst Case Housing Needs in 2003 at http://www.huduser.org/publications/affhsg/affhsgneed.html.

A corollary is that many affordable rental housing properties will encounter serious stresses. National data for the Low Income Housing Tax Credit program suggest that, in any given year, one-third of properties will have negative cash flow.[3] Similarly, as discussed in Section 1.4, there is ample evidence that many affordable rental housing properties will need additional government funding as they age, in order to meet long-term major repair and replacement needs ("capital needs"). Accordingly, agencies such as VHCB carefully monitor properties they have funded, to detect signs of impending or actual stress, and to determine how best to address stresses that exceed what individual properties and owners can overcome.

1.4 The State of the Art in Capital Planning. VHCB and VHFA currently require sponsors to obtain long-term capital needs assessments (CNAs) as part of underwriting for moderate rehabilitation projects, and within six months after completion of construction for new construction and substantial rehabilitation projects. A CNA is an estimate of the funds that likely will be necessary, year by year, to repair and replace major building systems. As such, a CNA is an invaluable planning tool that gives sponsors an early warning system for anticipating major repairs and replacements ("capital needs"). CNAs are discussed in more detail in Sections 5.4 and 5.9.

Funding Capital Needs. A property can rely on a range of financial resources for meeting its long-term capital needs. These resources include any initial balance in the replacement reserve account, ongoing deposits to the reserve, investment earnings on reserve balances, future excess cash flow, future refinancing proceeds, and future public subsidies. Studies of large numbers of CNAs for older affordable rental housing[4] consistently show that industry rules of thumb (developed for market-rate rental housing) lead to levels of reserve funding that are adequate, at best, to meet one-third to one-half of long-term capital needs. Given that typical affordable rental housing properties cannot be expected to have significant future excess cash flow or significant future refinancing proceeds, there is widespread and growing acknowledgment that affordable rental housing requires its own capital needs funding approach, instead of the traditional approach that was imported from market rate rental housing.

The State of the Art. The state of the art in capital planning is to use CNAs during the underwriting process to determine the appropriate level of reserve funding, to update the CNA periodically (generally every five to ten years), and to re-size the reserve deposit level according to the updated CNA. For typical affordable rental housing that will have relatively little expectation of future excess cash flow / refinancing proceeds, this means a greatly increased level of reserve deposits, and, consequently, greatly reduced level of supportable private debt (and greatly increased level of needed public subsidies at the time of development).[5]

[3] Ernst & Young, "Understanding The Dynamics" series of reports.
[4] See, for example, the study reported at www.on-site-insight.com.
[5] At the margin, an additional dollar of reserve deposit means one less dollar of mortgage payment, which in turn means a $10 (or more) reduction in supportable debt, and a $10 (or more) increase in the public subsidies needed to make development feasible.

M2M Capital Needs Approach. For example, in HUD's Mark-to-Market program ("M2M"), which sizes a new reserve deposit to cover 100% of projected 20-year capital needs for 20-30 year old affordable rental housing properties, typically the existing reserve deposit needs to be at least doubled, and frequently tripled.[6] This experience has established conclusively that industry rules of thumb are consistently too low to fund capital needs fully.

Our Capital Needs Data and Key Findings. We had CNA data for 45 of the 70 properties in our sample. These data indicate that capital needs for the VHCB portfolio are consistent with amounts we have seen in other portfolios of affordable rental housing – with annual capital needs averaging $756 per unit (but with the very wide range above and below the average that we have found typical of other portfolios). Because existing reserve deposits average $527 per unit per year, existing reserves will not be adequate to fund foreseeable long-term capital needs, unless supplemented by excess cash flow, refinancing proceeds, or new public subsidies. Although deposits alone will not be adequate to meet needs, it must be noted that Vermont's average annual deposit of $527 per unit, is double the national average of $258 per unit.[7] This suggests that although the challenge of funding these needs exists in this portfolio, the situation is worse elsewhere in the U.S.

1.5 Underwriting: Strategies for Creating Sustainable Portfolios. Traditional underwriting for affordable rental housing has two serious flaws from the standpoint of sustainability.

- The margin ("debt service coverage") between operating profits ("net operating income") and mortgage payments ("debt service") is too small in relation to typical variances in rents, vacancies, and operating costs.
- The traditional level of reserve deposits is inadequate for affordable rental housing.

Developers and funders are therefore making two adjustments to improve sustainability – greater debt service coverage (or, alternatively, establishing an operating reserve) and larger monthly reserve deposits (or, alternatively, establishing a large initial replacement reserve balance). Both adjustments reduce the amount of private debt that a property can support, thereby increasing the amount of public subsidy that the property needs.

It should be mentioned that "sustainability" does not necessarily mean permanent viability, although some funders could choose to make certain properties sustainable on a permanent basis. Sustainability does, however, imply viability at least through the envisioned affordability period[8]. For example, in new construction properties funded

[6] The Compass Group, LLC is part of the financial advisory team for HUD's Mark-to-Market program. Because Mark-to-Market (M2M) has been the leading laboratory for sustainability principles in affordable rental housing, this report will frequently refer to M2M standards and experience.
[7] Ernst & Young, "Understanding The Dynamics" series of reports.
[8] Typically, VHCB and VHFA intend permanent affordability. However, that does not necessarily require initial funding based on (say) 100 year sustainability. Rather, VHCB and VHFA could choose to fund such

under the HOME program, a minimum 20-year affordability period is required. In that context, sustainable underwriting and funding practices would position the property so that it would be unlikely that the property would require additional government funding for at least 20 years.

The State of the Art. Sustainability therefore involves a trade-off: fewer ribbon-cuttings today, in order to have fewer properties in stress (and fewer resources devoted to shoring up those properties) several years from now. There is general consensus that almost all funders of affordable rental housing need to shift their underwriting standards in the direction of sustainability, but different organizations will choose to draw the line in different places.

Sustainability in M2M. For example, one of the sustainability initiatives in HUD's Mark-to-Market program is to size debt service coverage as the greater of:

- Any DSCR required by the lender;
- 3% of gross potential rents; and
- 7%-10% of operating expenses.

This is based on considerable evidence that revenue variances of 3%, and expense variances of 7%-10%, are frequent and thus foreseeable.

Our Underwriting vs. Actuals Data and Key Findings. In our review of actual versus underwritten results for the sample portfolio, we found that while properties typically meet their revenue projections, they typically over-spend their operating expense projections. On balance, the portfolio generally is performing adequately on a bottom-line basis, relative to the original underwriting projections.

1.6 Expiring Use Properties and Sustainability. When an existing affordable rental housing property is completing its initial affordability period and is being considered for longer-term preservation, there is general consensus that the preservation transaction should be structured so that there is a relatively low risk that the property will need additional subsidy during its extended affordability period. This, in turn, implies careful underwriting, including a CNA, structuring the financing so that the property will be able to withstand normal income and expense shocks, and structuring a replacement reserve that will be adequate to meet the expected capital needs during the extended affordability period.

Our Expiring Use Data and Key Findings. In our review of 15 expiring-use properties in the VHCB portfolio, we found that each general partner had an option to purchase the project at a reasonably favorable price (the most typical option being at the greater of outstanding debt, or appraised value assuming that affordable use is continued). We also found that these general partner purchase options were on more favorable terms than the statutory "qualified contract" option price.

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a property initially to be sustainable for (say) 20 years, intending to make a further preservation decision 15-20 years later.

1.7 Interviews. As part of our scope of work, we interviewed 5 Vermont-based experts and 6 national experts. There was a high level of consensus among interviewees, and in general we concurred with the views expressed by interviewees.

1.8 Economic Assumptions, Methodology and Terminology. See Appendix 2 for the economic assumptions we used, our analytical approaches, and definitions for real estate finance terminology used in this report.

1.9 Limiting Conditions. See Appendix 3 for a discussion of factors that should be taken into account in interpreting our findings and recommendations.

1.10 Contents of This Report. The remaining portions of this report are as follows:

- **Section 2 Primary Recommendations.**
- **Section 3 Underwriting Task.**
- **Section 4 Capital Needs Task.**
- **Section 5 Expiring-Use Task.**
- **Section 6 Other Recommendations.**
- **Appendices.**
  - **Appendix 1 List of Interviewees.**
  - **Appendix 2 Methodology, Economic Assumptions and Terminology.**
  - **Appendix 3 Limiting Conditions.**
  - **Appendix 4 Summary Results of Economic Analysis.**
  - **Appendix 5 Summary Results for Expiring-Use Task.**
- **Property-Specific Addendum.** In addition, we are providing property-specific output from our economic model as a separate document. This separate document contains, for each property having both underwritten cash flow and actual cash flow data, the following exhibits:
  - Underwritten vs. Actual cash flow (1 page)
  - Sustainability Analysis (1 page)
  - Amortization of Hard Debt (3 pages)
  - Cash Flow Projection (2 pages)
  - Expiring Use Analysis (1 page)

In addition to this report, we also delivered to VHCB the electronic data and analytical model that we developed for this assignment.

Section 2. Overview of Primary Recommendations

Following is a list of our primary recommendations, organized by task.

2.1 The Underwriting Task: Primary Recommendations. See Section 3 for our detailed findings and for our additional (secondary) recommendations regarding the underwriting task.

- **2.1.1 Make a Sustainability Decision.** In this report, we do not recommend any specific underwriting standard; rather, we encourage VHCB / VHFA / Housing Vermont to make a conscious choice of underwriting standards, to understand the level of sustainability risk inherent in those standards, and to formally incorporate the appropriate level of financial-restructuring activity in their long-range portfolio management strategy. If possible, VHCB, VHFA and Housing Vermont should adopt the same set of underwriting standards. *We understand that VHCB and VHFA already use substantially the same underwriting standards.*
- **2.1.2 Make Corresponding Modifications to Asset Management Practices.** To the extent that VHCB and VHFA choose to incur sustainability risk, they will need early warning systems and workout / restructuring capacity commensurate with the level of risk undertaken.
- **2.1.3 Make Corresponding Modifications to Lending Practices.** Similarly, to the extent they choose to minimize sustainability risk by funding properties more generously at the start, VHCB and VHFA should negotiate for a reasonable share of excess cash flow so as to recapture funding that – in reality – exceeds the amount necessary to produce a viable property.
- **2.1.4 Revise Operating Expense Underwriting Standards to Reflect Actual Results for Comparable Properties.** We recommend developing a high quality database of actual operating results, organized by property type (e.g., elevator buildings for seniors, walkup buildings for families), and using that database when underwriting future developments. *We understand that VHCB and VHFA have taken steps in this direction already.*

2.2 The Expiring Use Task: Primary Recommendations. See Section 4 for our detailed findings and for our secondary recommendations regarding the expiring use task.

- **2.2.1 Consider Requiring that the Housing Subsidy Covenant be "Foreclosure-Proof".** When the Subsidy Covenant was created in the 1980s, commercial lenders were not willing to accept a foreclosure-proof subsidy covenant (that is, a subsidy covenant that would survive a foreclosure and that would thus be binding on a lender who foreclosed). Today, however, lenders have much more experience with foreclosure-proof affordability requirements. For example, HUD's Mark-to-Market program has restructured over 1300 properties utilizing a foreclosure-proof affordability agreement, and we understand that some states use foreclosure-proof LIHTC LURAs. VHCB should consider shifting to a requirement that the Housing Subsidy Covenant be structured so that it would continue in effect after a foreclosure.

- **2.2.2 Prune the Portfolio via GP Purchase Option.** VHCB and VHFA should use the purchase-option and right-of-refusal processes to weed out properties, owners, and managing agents that are not making positive contributions (defined broadly) to the overall portfolio. For this purpose, options that can be exercised by VHCB or its designee are to be preferred over options that can be exercised only by the existing sponsor.

2.3 The Capital Needs Task: Primary Recommendations. See Section 5 for our detailed findings and for our secondary recommendations regarding the capital needs task.

- **2.3.1 Funding for Capital Needs.** VHCB and VHFA should make a conscious decision on a funding strategy for long-term capital needs. If VHCB and VHFA expect to make multiple funding commitments to a property over the property's useful life, it is not necessarily appropriate or desirable to provide up-front all of the resources likely to be needed to sustain the property long-term. *We believe that funding properties at initial development so that they are sustainable to (or modestly past) the point of the nonprofit GP's option exercise date, and providing additional funding at that time for long-term sustainability, might be an excellent option.*
- **2.3.2 Capital Planning in the Underwriting Stage.** VHCB / VHFA / Housing Vermont should enhance the role of capital planning in their underwriting practices. VHCB / VHFA / Housing Vermont should determine, on a property by property basis, the percentage of long-term capital needs that should be funded via the reserve. We expect that, frequently, this percentage will be 100%.
- **2.3.3 Update CNAs Periodically.** CNAs should be updated periodically (VHCB and VHFA recently began requiring periodic updates). The results of updated CNAs should be reflected in changes to the ongoing reserve deposit levels. Between periodic updates, the reserve deposit should be increased annually to adjust for inflation.
- **2.3.4 CNAs to Support Transactions.** A CNA should be obtained whenever an existing property is to be purchased or refinanced.
- **2.3.5 Capital Planning Horizon.** VHCB / VHFA / Housing Vermont should standardize on a 20-year capital needs analysis period.

2.4 Other Primary Recommendations. See Section 6 for additional discussion. Because VHCB / VHFA / Housing Vermont have such a high overlap of properties, they should collaborate on these recommendations.

- **2.4.1 Asset Management Database.** Develop a database on the portfolio that contains information sufficient to support a variety of asset management purposes.
- **2.4.2 Asset Management Risk Assessment.** Identify properties that are at-risk, identified by type and severity of risk. Risks would include excessive "hard" debt, weak markets, latent construction defects, environmental problems, inadequate ownership, inadequate management, and impending expiration of the affordable use period.

- **2.4.3 Asset Management Action Strategies.** For each at-risk property, develop a strategic approach designed to mitigate the risk. Action strategies would include resyndication, refinancing, transfer of ownership, change of management, workout / recapitalization, renovation, redevelopment, removal of the property from the portfolio, coordinated action with other at-risk parties, and reliance on action by other at-risk parties.
- **2.4.4 Workout / Restructuring Capacity.** Develop capacity (internal and/or external) to analyze, structure, negotiate, and implement financial restructuring of properties to achieve sustainability.

Section 3. The Underwriting Task

3.1 Task Definition. The following is an excerpt from our scope of work: *"VHCB requests an analysis which compares the underwritten pro forma of properties, with the actual operating results of the same properties. This analysis will inform VHCB whether their projections for property performance are generally accurate, or whether their approach to underwriting of properties should be modified."*

3.2 Our Sample. Our sample portfolio for this task consists of the 15 expiring-use properties identified by VHCB, plus an additional 55 properties selected at random from VHCB's portfolio (excluding properties of less than 3 units and excluding mobile home parks)[9]. The total universe of VHCB's 3+ unit non-mobile-home properties is 240 properties. Accordingly, we believe our sample of 70 properties is large enough to provide reasonable confidence that the results of our study accurately reflect conditions across the portfolio[10].

3.3 Our Data. We obtained underwriting data from VHCB's files during a visit to Vermont in early August 2005. Typically, underwriting data are in the form of a detailed financial pro forma, completed either by VHCB or Housing Vermont at the time that the funding decisions were made. We also obtained actual operating results for 2004 from VHCB and from Housing Vermont.

3.4 Summary of Our Analytical Approach.[11] We adjusted the underwriting data for inflation (we "trended" the data) from the time of underwriting to the project's 2004 fiscal year.[12] We then compared the trended underwriting data to the actual results for 2004. The key measurements we made were:

- Gross Potential Rental Income[13] ("GPR") actual vs. underwritten (i.e., did the property achieve its underwritten rents)

[9] Originally, VHCB identified 17 expiring-use properties, and we selected an additional 62 properties randomly (limiting the sample only on the basis that properties should have had a full year of post-lease-up operations in 2004). Of these 79 properties, 1 was eliminated due to lack of original underwriting data and 8 were eliminated due to lack of 2004 actual revenue and expenses. Two of the properties that were eliminated were expiring-use properties.

[10] For a universe of 240 properties, proportions derived from a random sample of 69 properties (smaller than our sample of 70 properties) should be accurate, plus or minus 10 percentage points, at a 95% statistical level of confidence (http://calculators.stat.ucla.edu/sampsize.php). Accordingly, although our sample is not entirely random, we believe that the results reported here are very likely to accurately reflect the entire VHCB portfolio.

[11] See Appendix 2 for a more complete discussion of our analytical methods.

[12] If, for example, the underwritten cash flow is dated November 1, 1988, then it reflects the year from November 1, 1998 through October 31, 1999. In order to accurately compare the underwritten cash flow to actual results during the project's fiscal year from January 1 to December 31, 2004, the underwritten results must be trended forward 5 years and 2 months. Whether this is conceptualized as '11/1/98 to 1/1/2004' or as '10/31/99 through 12/31/2004' is immaterial, because both approaches yield the same result.

[13] GPR is the rents the property would have collected if all units were occupied, the full scheduled rent were charged, and all tenants paid the rent in full.

- Rent Loss[14] as a percentage of GPR, actual vs. underwritten (i.e., did the property achieve its underwritten occupancy level)
- Total Operating Expenses[15], actual vs. underwritten (i.e., did the property's actual expense fall below or above the expected level)
- Net Operating Income[16] ("NOI"), actual vs. underwritten
- Operating Cash Flow[17], actual vs. underwritten
- Sustainability Gap, that is, the amount of funding the property owner would require today, to restructure the property financially so that it would be very unlikely to require further external financial support. See the "Highly Sustainable" standard in Table 3.7, and Appendix 2, for more information on the underwriting standards that we used to make this determination.

We also interviewed Vermont-based experts, and national experts, to obtain their views on underwriting standards and practices for affordable rental housing.

3.5 Results From Economic Analysis. We compared actual results for Net Operating Income to underwritten results. We also estimated ("sustainability gap") whether properties will be able to meet their needs through internal resources for the next 20 years.

On average, on a Net Operating Income basis, most properties are performing at least as well as originally projected. On average, properties are achieving greater revenue than projected, incurring higher expenses than projected, and funding reserves at a lower level than projected.[18] On balance, the original underwriting was neither too aggressive nor too conservative, at the Net Operating Income (NOI) level. We make a series of recommendations for improving underwriting at the NOI level, but we stress that these recommendations are a package designed to maintain NOI underwriting at its current balance point.

However, reserves for replacement are not adequate to meet likely future capital needs. Almost all properties will need to supplement their reserves (from excess cash flow, refinancing, or both) in order to remain viable. Our analysis suggests that 53% of properties will have adequate resources (cash flow, reserves, and refinancing potential) to meet their financial needs for the next 20 years. On the other hand, 47% of properties appear to need outside financial assistance in order to maintain viability over the next 20

[14] Rent loss is comprised of vacancy loss (for vacant units), bad debt loss (for residents who do not pay), and concession loss (where the full scheduled rent was not charged).
[15] Administrative expenses, owner-paid utilities, maintenance and operations expense, real estate taxes and property insurance. Operating expenses do not include depreciation and do not include debt service.
[16] Net operating income = collected revenue, minus operating expenses, minus reserve deposits.
[17] Operating cash flow = NOI minus debt service on "hard" debt (i.e., loans that require specific monthly payments that must be paid irrespective of the amount of revenue collected that month).
[18] The lower level of reserve funding is problematic. If, for example, an owner is not making a reserve deposit, that would show up in Table 3.5.A as a positive variance, though obviously it is not favorable in terms of the property's viability. Similarly, if an owner has not increased the original reserve deposit, that too would produce a favorable variance in the Table and an unfavorable result for the property.

years (that is, these properties cannot meet their 20-year needs even taking refinancing into account).

The following Table 3.5.A presents the average results for the sample portfolio, in dollars per unit per month. This table shows that the favorable variance in revenue is (on average) more than sufficient to overcome unfavorable variances elsewhere:

Table 3.5.A Illustration of Bottom-Line Impact of Typical Variances

Actual vs. Underwritten ($ per unit per month)	Underwriting (Trended)	2004 Actual	Favorable (Unfavorable) Variance	
Gross Potential Rental Income	$545	$589	$44	8.0%
Rent Loss	($29)	($19)	$9	33.3%
Other Income	$40	$35	($5)	-13.3%
Commercial Income	$47	$30	($16)	-35.1%
Effective Gross Income	$604	$635	$32	5.2%
Operating Expenses	$380	$419	($38)	-10.1%
Reserve Deposits	$37	$35	$2	6.2%
Net Operating Income	$186	$182	($5)	-2.4%
Hard Debt Service	$109	$109	($0)	-0.4%
Operating Cash Flow	$78	$73	($5)	-6.4%

Effective Gross Income, Net Operating Income and Operating Cash Flow are calculated. The remaining amounts represent average results for the sample portfolio. The table illustrates the impact that these average results would have on the bottom line of a hypothetical property.

It should be noted that, because properties are separate economic entities, a negative variance at one property cannot be offset by a positive variance at a second property.

The following are highlights of results from our economic analysis. See Appendix 4 for additional results from our economic analysis.

Highlights from Analysis of NOI vs. Underwriting

- Gross Potential Rent – 63% of properties achieved higher, and 37% of properties achieved lower, rents than projected.
- Rent Loss Percentage – on average, properties lost less rent than projected.
    - The average rent loss underwritten was 5.3%, and the average actual rent loss in 2004 was 3.5%.

- 50% of all properties had rent loss below 3%, and only 11% of properties had rent loss of 10% or more. See also Table 3.5.B below.
- However, 29% of properties had higher rent loss than underwritten, and 10% of properties had rent loss at least five percentage points higher than underwritten.

- Commercial and Other Income – although 67% of properties achieved higher commercial / other income than underwritten, 20% of properties had large unfavorable variances of $50 per unit per month or greater. These high-negative-variance properties caused the average variance to be negative across the sample portfolio.
- Effective Gross Income – on average, properties achieved better (higher) collected revenue than projected.
- Operating Expenses – on average, properties experienced operating expenses that were worse (higher) than projected. Only 13% of properties achieved better (lower) operating expenses than projected.
  - On average, administrative expenses (administrative salaries, non-housing service costs, management fees, legal and accounting, office costs, marketing, training, …) were 31% higher than underwritten.
  - On average, utilities expenses (including trash removal) were 33% higher than underwritten.
  - On average, operations and maintenance expenses were 22% higher than underwritten.
  - On average, insurance expenses were 46% higher than underwritten.
  - On average, real estate taxes were 32% higher than underwritten.
- Net Operating Income –
  - 54% of properties had actual NOI that was better (higher) than underwritten, and 46% of properties had actual NOI below the level underwritten.
  - 9% of properties had actual NOI that was $2000 per unit, or more, better (higher) than underwritten, and 7% of properties had actual NOI that was $2000 per unit, or more, worse (lower) than underwritten.
  - 4% of properties had negative NOI (that is, had negative cash flow before mortgage payments).
- Operating Cash Flow (NOI minus "hard" debt service) --
  - 51% of properties had actual operating cash flow that was better (higher) than underwritten, and 49% of properties had actual cash flow below the level underwritten.
  - 9% of properties had actual cash flow that was $2000 per unit, or more, better (higher) than underwritten, and 7% of properties had actual cash flow that was $2000 per unit, or more, worse (lower) than underwritten.
  - 26% of properties had negative cash flow in 2004[19].

[19] Negative operating cash flow is relatively common (though painful and unfortunate) in affordable rental housing (and, for that matter, in market-rate rental housing). A property can cover an operating cash flow deficit through additional cash investment by its owner, by deferring payments to vendors, by making withdrawals from reserves built up in prior successful years, or through financially restructuring its

- 3% of properties had negative cash flow of $100 per unit per month or higher.

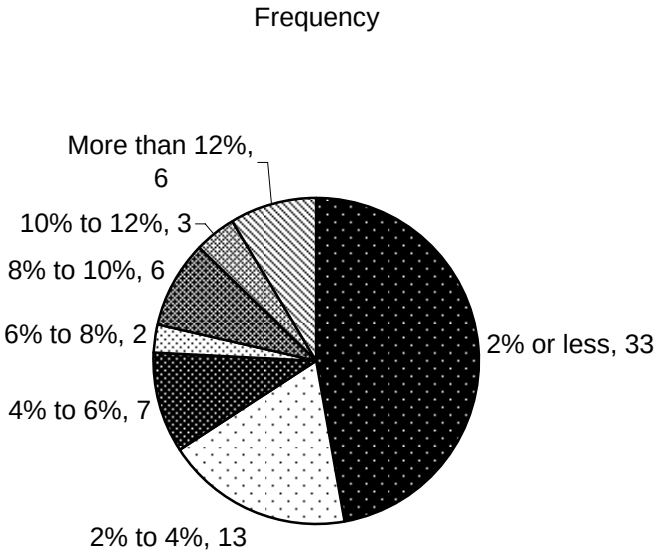
Highlights of Analysis of the Sustainability Gap. A sustainability gap means that the property cannot meet its capital needs, and weather modest fluctuations in vacancy losses and operating expenses, unless additional government subsidies are provided. The sustainability gap is our estimate of the amount of government subsidy that the property needs, today, in order to be viable for the next 20 years. If a property has no sustainability gap, it means that through a combination of cash flow, reserves, and refinancing, the property appears capable of meeting its financial needs for the next 20 years. If a property has a sustainability gap, it means that even when all of those internal resources are utilized fully, the property will be unable to meet its needs.

- 53% of properties had no sustainability gap. Of this 53%, 47% appear to be viable without needing to refinance. The remaining 6% will need to refinance their hard debt, and defer any soft debt, in order to be viable.
- 33% of properties had a sustainability gap exceeding $5,000 per unit. A sustainability gap of $5,000 per unit means that the property needs $5,000 per unit in additional public or private subsidy today, in order to be well positioned for financial viability for 20 years.

Also see Appendix 4 which presents key results from our economic analysis.

mortgage debt. It should also be noted that cash flow is volatile; a property that has negative cash flow in one year may have positive cash flow the next year.

Table 3.5.B Actual Rent Loss as a Percentage of Gross Potential Rental Income



Most properties in the VHCB portfolio have rent loss at or below 4% of GPR. Only a few have rent loss higher than 10% of GPR.

We also conducted limited research into data that may be useful in estimating future growth in revenues and expenses. That research suggests a 2.5% trending rate for revenues, and a 3.0% trending rate for expenses. However, as noted elsewhere, implementing this change without at the same time underwriting higher operating expenses and larger reserves would be inappropriate.

- Trending Rate for Revenues (Typical Properties with Rents Regulated Under LIHTC and/or HOME) – we tabulated the two-bedroom HUD Fair Market Rents for Vermont, for 1987 through 2005. This suggested an underlying rent-growth rate of roughly 2.5%. We also tabulated median incomes for Vermont, for 2000 through 2005. This suggested recent income-growth rates in the 6% to 7% per year range.
- Trending Rate for Revenues (Properties With HUD-regulated or USDA-regulated Rents) – HUD Section 202, HUD Section 811, HUD Section 236, and USDA Section 515 properties have little or no hard debt service and rents based on costs to operate. For these properties, revenues can be expected to rise at (or perhaps very slightly slower than) general inflation. A few HUD Section 8 properties with long-term Section 8 contracts and above-market rents have had their rents "frozen" in recent years; however, this cohort of properties is small and generally not relevant to future underwriting decisions.
- Trending Rate for Expenses – we tabulated the national Consumer Price Index for 1980 through 2005. This suggested an underlying expense-growth rate of roughly 3.0%.

3.6 Observations. The following are observations on underwriting issues in general, from ourselves and from interviewees. Text in *italics* represents our observations about areas in which there is a difference of opinion between ourselves and interviewees. The discussion that follows presents our views about the components of good underwriting policy generally. To the extent that we believe VHCB and VHFA need to make adjustments in these areas, we include recommendations in Sections 3.8 and 3.9 below.

- **3.6.1 Vermont is Diverse.** Inflexible underwriting standards driven by one-size-fits-all rules of thumb will be inadequate to meet the needs of the wide variety of property types and the wide variety of market conditions that VHCB has encountered. One implication of this principle is that underwriting standards are a much easier task for sponsors that work in only one locality, as opposed to VHCB / VHFA / Housing Vermont who work state-wide.
- **3.6.2 Recognize Market and Real Estate Risks.** Nationally and in Vermont, affordable rental housing is very much subject to macro-economic factors such as population growth and job growth, to market pressures from current and future competing properties, and to normal real estate risks such as utility rates, insurance rates, real estate tax rates, environmental issues, long-term capital needs, and latent construction defects. Underwriting standards must take these market risks and real estate risks into consideration. For example, in HUD's Mark-to-Market program, because spikes in vacancy of 3% and spikes in operating expenses of 7%-10% are common, HUD created underwriting standards to ensure that properties had at least enough debt service coverage in order to be able to absorb income and expense shocks of that magnitude.
- **3.6.3 Competition from Sub-Standard Housing.** Interviewees report that is very difficult to "make the numbers work" in those Vermont communities where there is a large supply of sub-standard housing at low rents. There are special risks involved in developing in such communities. One risk is that customers may tolerate what we might regard as unacceptable housing quality, in exchange for lower rent. Another is that market rents may actually fall, as a result of injecting additional supply into an already unbalanced market.
- **3.6.4 Slow-Growth, No-Growth, and Negative-Growth Areas.** For those communities in Vermont that are not growing, underwriting standards should make more conservative assumptions regarding occupancy rates and regarding growth in rents. Similar to the preceding discussion, these communities present additional risks. One risk is that the housing may not reliably achieve sufficient occupancy to be viable. Another is that expenses will grow faster than rents.
- **3.6.5 Assume That Rents Grow Slower Than Expenses.** Nationally and in Vermont, for affordable rental housing, underwriters should assume that expenses will grow roughly at the rate of general inflation, and that revenues will grow slower than the rate of general inflation. There are two reasons for slower revenue growth. The first is that, unlike owners of market-rate apartments, mission-driven owners of affordable rental housing do not expect to increase rents at every opportunity. The second is that the incomes of target households may not increase as fast as general inflation (in part because residents may choose to move to market-rate housing as their incomes increase).

- **3.6.6 National Trend Toward Sound Underwriting.** Interviewees who are active developers reported that they cannot support their staffing costs unless their portfolios are generating significant amounts of positive cash flow. Accordingly, there is an increased focus on assuring that newly developed properties will generate reliable cash flow after debt service and capital needs. This is in contrast to earlier attitudes that were focused on achieving developer fees and ribbon-cuttings, planning on working out cash flow problems later.
- **3.6.7 National Trend Toward Performance-Based Soft Debt.** Similarly, funders are shifting away from grants, and away from soft debt with no immediate repayment, toward soft debt with payments based on the property's performance.
  - The most prominent example is the Mark-to-Market program's subordinate debt, which generally bears interest at 1% and captures (by statute) 75% or more of Surplus Cash.[20] However, we believe that capturing that large a share of excess cash is likely to result in disincentives to owners to operate properties effectively; we recommend capturing 25% to 50% of excess cash.
  - Sponsors sometimes worry about performance-based debt, but because payments are made only from cash that is not needed for property operations, performance-based debt has no downside risk for the sponsor. *To the contrary; if funders' utilization of performance-based debt is coupled with a commitment to sustainable underwriting, the result is properties that will have an excellent likelihood of generating positive cash flow and adequate reserves, as opposed to the status quo in which affordable rental housing rarely is financially viable over the long term.*
  - A powerful advantage of performance-based soft debt is that, if a property receives more government subsidy than is actually needed, the property will generate positive cash flow, and government will receive a share of that cash flow as a recovery of its investment. This acts as a bulwark against the concern about whether sustainability practices will over-allocate subsidies to some properties.
- **3.6.8 Underwrite the Sponsor.** Because development is difficult and risky, even the best developers will have some incidence of troubled properties. A sponsor that is financially capable of supporting a few struggling properties, and that can be expected to do so, is superior to a sponsor that does not have the capacity and/or inclination to do so. Similarly, a sponsor whose existing portfolio is healthy and sustainable is a better risk than a sponsor whose existing portfolio is less healthy. Higher-risk properties should be reserved for stronger sponsors. When working with weaker sponsors, structure each additional property so that it can be self-supporting.
- **3.6.9 Underwrite Transition Periods Carefully.** For example, in many acquisition / rehab transactions, rents will increase after rehab while still remaining affordable. Experience has shown that these higher rents are often more difficult to achieve than underwriters typically assume.

[20] Surplus Cash is a HUD term of art and refers to cash in excess of short term obligations. See Appendix 2.

- **3.6.10 Use Peer Properties to Benchmark Operating Expenses.** Rather than using rules of thumb, use recent actual results from comparable properties.
- **3.6.11 Funders' Standards Drive Sponsors' Actions.** Nationally and in Vermont, sponsors seek to propose projects that are responsive to funders' perceived standards. By adopting and publicizing revised underwriting standards, VHCB / VHFA / Housing Vermont can have a powerful effect on the way sponsors pursue, prioritize, and structure development opportunities. Conversely, because sponsors know that reserve deposits will be limited to inadequate levels, sponsors are incentivized to build cushions into other parts of their proposals.
- **3.6.12 Expense Cushion.** Traditional underwriting measures debt service coverage as a percentage of debt service. Nationally, though not yet in Vermont, in affordable rental housing, leading professionals are also measuring debt service coverage as a percentage of total operating expenses. This "expense cushion" measures the ability of the property to absorb expense shocks.
- **3.6.13 Properties with High Operating Cost Ratios.**[21] If, for example, a property has rents of $650 per unit per month and operating expenses of $500 per unit per month, there is very little margin for vacancy loss, debt service, and a margin of safety. In general, properties with high operating cost ratios should be structured with 100% equity and "soft" debt and no "hard" debt.[22] Also see Table 3.6 below, which illustrates an extreme example of high operating cost ratio.
- **3.6.14 Benefits of Sustainability.** When properties are sustainable, a number of positive outcomes occur. The owner has an economically valuable asset, rather than an economic liability. This strengthens the financial viability of Vermont's affordable housing sponsors. Similarly, VHCB and VHFA would not need to devote as much of their future funding to shoring up existing properties. A sustainable property is a better asset to its neighborhood and surrounding community, because it has sufficient resources to fund proper upkeep. Vacancy losses may be reduced, because there are sufficient funds to make vacant units rent-ready promptly. Operating expenses may be reduced, as a result of vendors being paid timely rather than late, and because the property can afford to shift maintenance to a more preventive / proactive approach. A sustainable property can afford to make investments for efficiency, such as installation of water-saving devices, and installation of sophisticated boiler controls.
- **3.6.15 Primary Findings.** We offer the following primary findings regarding VHCB's underwriting standards and practices:
  - **On Average, Properties Are Achieving Their Underwritten NOI.** This is a favorable finding that suggests that VHCB's underwriting of revenues and operating expenses has overall been accurate rather than too conservative or too aggressive. However, underlying these overall results

[21] An operating cost ratio compares operating expenses to revenues (either gross potential income or collected "effective gross" income). Operating cost ratios of 40% to 50% are common for market-rate apartments, but affordable rental housing often has operating cost ratios that are much higher, largely as the result of lower rents.

[22] "Hard" debt has "must pay" payments, and "soft" debt has payments that are either deferred or, more commonly, contingent on property performance (for example, payments might be a percentage of positive cash flow).

is the fact that properties, on average, achieve higher revenues than projected but also higher expenses than projected.

- **Underwriting of Operating Expenses.** The largest single issue in VHCB's underwriting standards and practices is the fact that original estimates of operating expenses are consistently too low in relation to actual operating expense incurred (on average, actual operating expenses are 16.2% higher than underwritten), Our data did not allow us to determine why this is the case. Because we believe that it is important to underwrite operating expenses accurately (as opposed to deliberately under-stating expenses and making more conservative assumptions elsewhere in the underwriting), we believe that VHCB should change its underwriting standards and practices so as to make more generous estimates of operating expenses for future developments. See our recommendation in 3.8.4 below.

Regarding VHCB's underwriting of reserve deposits, see our findings in Section 5 of this report.

Table 3.6 Illustration of Minimum Rents Consistent With Sustainability.

The following table illustrates the lowest (most affordable) rents that can be achieved, consistent with sustainability, if there is no hard debt service (i.e., if all funding is in the form of grants or soft loans). The table assumes no commercial / other income (the median result for the VHCB portfolio), the average actual operating expenses for the VHCB portfolio, a reserve deposit sufficient to fund the average annual capital needs for the VHCB portfolio, and an operating cash flow cushion equal to 10% of operating expenses.

Zero-Debt-Service Rents	**$ Per Unit Per Month**
Gross Potential Rental Income	$567
7% Rent Loss	($40)
Commercial / Other Income	$0
Effective Gross Income	$527
Operating Expenses	$420
Sustainable Reserve Deposit	$65
Net Operating Income	$42
Hard Debt Service	$0
Cushion = 10% of Expenses	$42

Rents lower than shown would generate an inadequate cushion against operating expense fluctuations. Similarly, if hard debt service were added, the sustainable rent would have to rise proportionately. One implication of this sort of analysis is that, to achieve affordability for those hardest to house, not only does government have to fund the entire development cost, but also some form of operating subsidy (such as Section 8) will be needed.

3.7 Illustrative Examples of Underwriting Standards in the Context of Sustainability. As discussed earlier, different organizations will choose to incur different levels of sustainability risk. This is partially a "pay me now or pay me later" issue: an organization that funds properties more generously at the outset is much less likely to have to restructure those properties later (and conversely).

It is, however, also an issue of incentives and accountability: an owner that is very likely to need additional subsidy later is not really the owner of the property in any substantive sense and should not be expected to be as entrepreneurial or as accountable as an owner whose property is likely to be a long-term asset as opposed to a long-term liability.

The underwriting standards illustrated below in Table 3.7 span the range between underwriting that was typical for market-rate rental housing in the 1980s (and that has since proved to be inadequate for affordable rental housing), and highly sustainable underwriting.

Table 3.7 – Alternative Sets of Underwriting Standards

Category	1980s Market-Rate Standards	1990s Affordable Standards	Moderately Sustainable Standards	Highly Sustainable Standards
Rents	Market study + inflation to construction completion	Market study	5% below market study	10% below market study
Rent Loss	5%	5%	Higher of 5% or market level	Higher of 7% or market level
Operating Expenses (trended to end of construction)	Best-case scenario	Best-case scenario	Taxes / utilities / insurance verified	Based on similar properties in typical years
Reserve Deposit	$150 per unit per year (PUPA)	$250 PUPA	$400 PUPA	Based on CNA prepared during underwriting
Debt Service Coverage Ratio	At least 1.15:1	At least 1.10:1	At least 1.20:1	Higher of 1.20:1 or 8% of operating expenses
Income and	Income rate	Equal rates	Income rate	Income rate

Expense Trending Rates	higher than expense rate		0.5% below expense rate	1.0% below expense rate
Incidence of Troubled Properties	**Highest**	**High**	**Moderate**	**Lowest**

Relatively aggressive underwriting results in lower subsidy at the outset but a higher risk of future problems. Relatively conservative underwriting requires more up-front subsidy but minimizes the risk of future problems.

Aggressive vs. Conservative Underwriting Standards. More aggressive underwriting would seem, on the surface, to support greater current production, but that is only true if one ignores the higher incidence of troubled properties, and the higher level of follow-on (workout) funding that such an approach involves. A more accurate statement would be that *more aggressive initial underwriting can support greater current production but, in the process, creates significant downstream liabilities for the funding agency, and significant downstream risks for the portfolio, its residents, and the communities in which the properties are located.*

Compensating for Aggressive Underwriting. However, it could be reasonable for a funding agency to adopt moderately aggressive initial underwriting, combined with setting aside sufficient funding for future workouts, and with a sophisticated asset management approach that identifies stressed properties early and makes robust interventions to resolve problems before they become serious.

Sustainable Underwriting. Conversely, if an agency adopted and followed sustainable underwriting principles, it would need to earmark smaller amounts of funds for future workouts, and would need to devote far fewer resources to asset management and interventions.

Underwriting Standards and Asset Management. It is clear from the preceding discussion that an agency's underwriting standards (and existing portfolio) have a profound impact on the agency's asset management needs and workload.

3.8 Primary Recommendations for VHCB and VHFA Underwriting Standards and Practices. Based on the preceding, we recommend that VHCB and VHFA consider the following adjustments to underwriting standards and practices:

- **3.8.1 Make a Sustainability Decision.** In this report, we do not recommend any specific underwriting standard; rather, we encourage VHCB and VHFA to make a conscious choice of underwriting standards, to understand the level of sustainability risk inherent in those standards, and to formally incorporate the appropriate level of financial restructuring activity in their long-range portfolio management strategy. If possible, VHCB, VHFA and Housing Vermont should adopt the same set of underwriting standards (we understand that VHCB and VHFA already use substantially the same underwriting standards). *We believe that underwriting standards in the Moderately Sustainable to Highly Sustainable*

range (see Table 3.7 above) would be appropriate. Standards closer to Highly Sustainable would involve relatively low levels of additional future investment in properties; standards closer to Moderately Sustainable would involve relatively higher levels of additional future investment. Both would involve lower levels of future investment – for properties funded in the future -- than this report indicates for properties funded in the past.

- **3.8.2 Make Corresponding Modifications to Asset Management Practices.** To the extent that VHCB and VHFA choose to incur sustainability risk, they will need early warning systems and workout / restructuring capacity commensurate with the level of risk undertaken.
- **3.8.3 Make Greater Use of Performance-Based Soft Debt.** Similarly, to the extent they choose to minimize sustainability risk by funding properties more generously at the start, VHCB and VHFA should negotiate for a reasonable share of excess cash so as to recapture funding that – in reality – exceeds the amount necessary to produce a viable property. *We believe that 25% to 50% of excess cash (measured on a balance-sheet basis) would be reasonable.*
- **3.8.4 Revise Operating Expense Underwriting Standards to Reflect Actual Results for Comparable Properties.** We recommend developing a high quality database of actual operating results, organized by property type (e.g., elevator buildings for seniors, walkup buildings for families), and using that database when underwriting future developments. *We understand that Housing Vermont and VHFA have taken steps in this direction already.*

3.9 Secondary Recommendations for VHCB / VHFA / Housing Vermont Underwriting Standards and Practices. In general, we favor underwriting standards and practices that seek to estimate all relevant factors accurately. The existing standards and practices include a number of significant inaccuracies: actual revenue tends to be higher than underwritten, actual expenses tend to be higher than underwritten, and revenue tends to grow faster than underwritten. Fortunately, these inaccuracies tend to offset each other, and properties generally achieve their underwritten results for Net Operating Income. Recommendations 3.9.1 through 3.9.6 below, if adopted as a package, should result in underwriting that continues to be accurate at the NOI level but also is accurate for each of the components. In particular, recommendation 3.9.6 should not be adopted unless recommendations 3.9.1 through 3.9.5 are adopted at the same time.

- **3.9.1 Commercial and Other Income.** A relatively small number of properties had actual commercial / other income that was dramatically lower than underwritten. Determine why these properties failed to achieve underwritten results, and utilize that information in underwriting future properties.
- **3.9.2 Property Insurance (average actual expense was 46% higher than underwritten).** When underwriting, focus on the level of expected future insurance premiums rather than on the level of recent premiums. Develop contacts in the insurance industry who can provide advice on expected insurance cost trends. *VHCB notes that insurance rates increased after 2001, and that insurance rates are volatile. In the past, underwriters typically assumed that current insurance rates would persist in the future. VHCB and VHFA should consider whether some different assumption might be appropriate for future underwriting.*

- **3.9.3 Real Estate Taxes (average actual expense was 32% higher than underwritten).** Develop the capability to estimate real estate taxes based on actual taxes charged for comparable properties in the same taxing jurisdiction. *VHCB now requires sponsors to meet with local taxing authorities and obtain an estimate of taxes. VHCB should review results for projects underwritten under the current policy to determine whether the current policy produces acceptable results.*
- **3.9.4 Utilities (Including Trash Removal; average actual expense was 33% higher than underwritten).** Develop a database of actual consumption data (kwh of electricity, BTUH of natural gas, gallons of heating oil, …) for use in the underwriting of future properties. *VHCB notes that utility rates have increased recently and are volatile. In the past, underwriters typically have assumed that the then current utility rates would persist in the future. VHCB and VHFA should consider whether some different assumption might be appropriate for future underwriting.*
- **3.9.5 Administrative Expenses[23] (average actual expense was 31% higher than underwritten).** Determine why actual administrative expenses are higher than underwritten, and feed that knowledge back into the underwriting process. *VHCB reports that property management fees were under-estimated in early transactions, and that early underwriting did not include certain compliance fees. VHCB should review results for projects underwritten under the current policy to determine whether the current policy produces acceptable results.*
- **3.9.6 Trending.** VHCB uses trending assumptions only for purposes of a stress-test (to satisfy VHCB that the proposed project is likely to be viable even if revenues grow more slowly, and expenses more rapidly, than general inflation). For this stress-test, VHCB often assumes 1.5% for annual revenue growth and 3.0% for annual expense growth. This is a reasonable approach, and we recommend that VHCB continue this approach in the future. The stress-test also assumes that positive cash flow is reserved for use in covering future cash flow deficits. *Key project-level legal documents require that positive cash flow be escrowed against possible out-year deficits, and prohibit distributions until VHCB has been satisfied that reserves and operating deficit escrows have been adequately funded. The legal documents are not clear on the standards and requirements VHCB applies in this regard, however. VHCB should also consider providing modest economic incentives to encourage additional efficiency, in particular allowing nonprofit sponsors to retain a portion of positive cash flow.*
- **3.9.7 Difficult Markets.** Develop a second, more conservative, set of underwriting standards, for use in areas of low growth and/or prevalence of sub-standard housing. Such standards should assume slower growth in revenues and higher levels of rent loss, should require greater debt service coverage / expense cushion, and perhaps should require additional market research (to verify that the

[23] Administrative expenses include the property management fee, administrative staffing, legal and accounting fees, office supplies, telephone, training, and advertising / marketing costs. For some properties, administrative expenses may also include the cost of providing non-housing services such as a computer learning center or before/after school programs.

units will be supported by local demand, and that the planned rents will be readily achievable).

- **3.9.8 Develop an "Expense Cushion" Standard.** Evaluate debt service coverage not only in the traditional way (compared to debt service) but also compared to total operating expenses. The resulting "expense cushion" percentage reflects the property's ability to absorb expense shocks such as spikes in utility costs. Underwriters may rely on the expense cushion (rather than the debt service coverage) because it directly reflects the relationship between operating costs and the excess cash flow available to meet those costs. For example, a property with $100 in expenses and $10 in net cash flow has a 10% expense cushion. Larger cushions (>10%) are generally considered appropriate for smaller properties or those with owner-paid utilities, whereas smaller cushions (7% - 10%) are relied upon for larger properties or those with tenant-paid utilities.
- **3.9.9 Publicize New Standards.** This will better insure that sponsors' future proposals will be more in line with funders' evolving standards.

3.10 Reference Materials on Sustainability. The following reference materials may be helpful in introducing sustainability principles into underwriting standards:

- **Millennial Housing Commission.** The Commission took a strong stand in favor of sustainability (for example, MHC final report, page 11, "All affordable housing needs to be designed, financed, and managed to be sustainable over the long term.") In addition, the MHC deliberations produced the following background papers relevant to this topic.
  - **Long Term Sustainability and Affordability.** A concept paper that introduces the topic. Available at http://compassgroup.net/articles/sustain.pdf.
  - **Sustainable Underwriting.** Illustrates sustainable underwriting vs. traditional underwriting. Available at http://compassgroup.net/articles/sup.pdf.
- **"Advanced HOME" Course.** This course has been recently revised to include a final chapter on Sustainability.

Section 4. The Expiring Use Task

4.1 Task Definition. We understand that early transactions generally included an option by the nonprofit general partner to purchase the property at a favorable price through roughly year 15 ("option properties"). We understand that subsequent transactions use a different structure – a "right of refusal" under which VHCB has strong rights to control all sales of the property ("ROR properties"), and under which the nonprofit general partner has the ability to purchase the property at the price offered by a third party. In addition, we understand that all transactions include a Subsidy Covenant providing for perpetual affordability. Consistent with its mission, VHCB intends to facilitate purchases of properties by the current nonprofit general partners, or by acceptable nonprofit purchasers, and anticipates that general partners and purchasers will ask VHCB for some portion of the funding needed to complete these purchases. The following is an excerpt from our scope of work: *"As properties reach expiration of their original 15-year LIHTC compliance periods, VHCB wants to understand the likely costs associated with transferring the properties out of their existing limited partnerships and into the control of their existing general partners. Costs may include partners' exit taxes, unfunded capital needs and/or unsupportable debt."*

4.2 Our Sample Portfolio. We studied 15 expiring-use properties selected by VHCB. We understand that these are 15 of the 17 VHCB properties whose 15-year LIHTC initial compliance periods will mature between 2005 and 2010. We obtained underwriting data during our visit to Vermont in early August 2005. For 14 of these properties, VHCB provided us with CNAs (for the remaining property, we used average capital needs). VHCB provided us with relevant excerpts from limited partnership agreements. The 15 properties have GP purchase options maturing in the following years:

- 2005 or earlier – 3
- 2006 – 1
- 2007 – 4
- 2008 – 3
- 2009 – 3
- 2011 – 1

By definition, the expiring-use portfolio is older than average. The 15 expiring-use properties are also slightly larger than average (26 vs. 22 units).

4.3 Typical Terms of Expiring-Use Protections. All properties have a Subsidy Covenant, plus either a Right of Refusal or an Option.

- **4.3.1 ROR Properties: VHCB's Rights to Approve Sales, General Partner's Right of First Refusal.** 3 of the 15 expiring-use properties we studied structured the restrictions on sale in terms of a requirement that VHCB approve any sale of the property. VHCB has broad authority to refuse approval,[24] and the effect of

[24] "VHCB shall approve the Offer unless the terms or conditions of the Offer are materially inconsistent with VHCB policy, including but not limited to such terms or conditions as the identity of the Offeror, the offered purchase price, the terms of any financing or security for any financing, the preservation of the Development as perpetually affordable housing for low- and moderate-income households, and any other

VHCB's rights is that properties will remain in nonprofit control, properties will remain subject to the Subsidy Covenant, and excessive sales prices will be avoided. For these 3 properties, the general partner also has a right to purchase the property if a third party offer is received:

- Two options were defined as the greater of the bona fide offer, the exit taxes (see Section 4.8.4), or the amount necessary (over and above amounts received in prior years) to provide the limited partner's defined Target Return.
- The remaining option was defined as the sum of outstanding debt, exit taxes, and (if the limited partner had not received its defined Target Return) the amount necessary to provide the Target Return.

The first two options basically describe a right to match the third party offer. The third basically describes a right to purchase at a favorable formula price that is triggered by the third party offer.

- **4.3.2 Option Properties: General Partner's Option to Purchase.** For the remaining properties, the general partner has an option to purchase the property based on a formula stated as the greater of two to three of the following (partnership agreements differ):
  - The then (i.e., at the option date) outstanding debt.
  - The then appraised value of the property (taking into account the affordable rents that typically will be below fair market levels).
  - The then outstanding debt, plus an additional amount necessary to provide at least a stated level of return to the investors.
  - The statutory LIHTC "minimum purchase price" (outstanding debt, plus an amount that will cover the investors' income tax liability).[25]

  These options describe favorable prices that we estimate will always be lower than the LIHTC statutory "qualified contract" price.
- **4.3.3 All Properties: Subsidy Covenant.** All properties have a perpetual affordability restriction that is junior to a commercial first mortgage but senior to all soft debt, including VHCB's investments. The Subsidy Covenant allows VHCB to ensure that any sale of the property is to a nonprofit §501c3 based in Vermont, or to another purchaser acceptable to VHCB. The Subsidy Covenant is not "foreclosure proof"; that is, if a commercial lender completed a foreclosure (and VHCB, in its role as secondary secured lender, did not redeem the property by paying off the amount due the foreclosing lender), the Housing Subsidy Covenant would no longer be applicable. If, for example, a property had a fair market value of $2 million, and the 1st mortgage balance were $3 million, if the 1st mortgagee initiated foreclosure, VHCB would face a difficult choice between paying $3 million ($1 million above fair value) to protect its Housing Subsidy Covenant, or allowing its Housing Subsidy Covenant to be canceled (which, if HOME funds had been invested and the foreclosure occurred during the HOME

matters relating to housing policy that VHCB has established either explicitly or by its course of conduct." (Rutland West ROR, December 3, 2003)

[25] Internal Revenue Code section 42(i)(7)(B). This is a lower amount than the "qualified contract" price described in sections 42(h)(6)(F) and (G).

affordability period, would subject VHCB to the requirement to repay the funds to HUD). See the related discussion in 4.8.5 below.

4.4 Other Costs for the General Partner to Purchase and Preserve the Property. In addition to the purchase price, the general partner would need funds for the following:

- To pay off (or otherwise satisfy) outstanding debt that exceeds what the property can afford to carry.
- To cover immediate repairs (for example, to replace a leaking roof).
- To make any needed improvements or upgrades to the property (if needed to give good assurance that the property will remain viable for the extended affordability period).
- To supplement an inadequate replacement reserve balance.
- To cover transaction costs (legal, accounting, recordation costs, transfer taxes, deed stamps…).

We assumed that no government funding would need to be made available for compensation to the general partner (developer fee or similar fee). Of course, if a general partner could exercise its option without needing government funding, the general partner might well earn and collect a developer fee or similar compensation.

4.5 Our Analytical Approach. Using the data gathered in the Underwriting and Capital Needs tasks, we made a 20-year projection of cash flow, value, and ability to refinance. We then used that information to estimate the "other costs" described above. We also reviewed relevant provisions of each property's limited partnership agreement, and relevant portions of each property's financial projections, to estimate the likely option price to the general partner. We also interviewed Vermont-based organizations, and nationally-based organizations, regarding their plans for their own expiring-use portfolios.

4.6 Findings from Financial Estimates.

- **Few Properties Have Value Above Debt.** Our analysis of 2004 actual cash flows suggests that 43% of properties in the VHCB portfolio have likely value as much as $5000 per unit above hard debt. Even fewer have likely value above the combination of hard and soft debt. None of the expiring use properties has likely value as much as $25,000 per unit above hard debt. *Thus, the general partner's purchase option typically will be at, or modestly above, existing debt (hard and soft). The GP option price is a bargain because it is typically defined in terms of value assuming continued affordable housing use.*
- **We Generally Expect Zero "Exit Tax" At Year 15.** When corporate investors (i.e., LIHTC investors) hold investment real estate over an extended period of time, the potential exists that they would have to pay income tax if the property were sold for $1 above the debt or were foreclosed. This tax is termed "exit tax". In Appendix 2, we estimated whether there would be an exit tax liability at year 15 for a typically structured VHCB property, and we determined that (using assumptions we believe are reasonable) no exit tax would be incurred. *Properties with unusual financial structures, or properties held for longer than 15 years, might, however, face exit tax liability. See also Section 4.8.4.*

- **The Option Price Accounts for Most of the Preservation Cost.** The primary financial barrier to the general partner exercising its option to purchase is the option price itself.
- **Cost to Preserve.** We estimate that the nonprofit general partners would need to assemble a total of roughly $4.3 million in order to exercise their options and provide for long-term sustainability. Of that amount, $1.9 million is to cover the option price, $1.9 million is to cover the sustainability gap, and $0.5 million is to cover transaction costs. VHCB and VHFA might be asked to provide some or all of this funding (see Section 4.7.8 "Who Pays The Sustainability Gap"). Funding would be needed at the time the general partner actually exercised the purchase option for each individual property. Also see the discussions of sustainability gap in Appendix 2 and Section 3.5.

Also see Appendix 4 which presents key results from our economic analysis, and Appendix 5 which summarizes the results of our economic analysis for the expiring-use portfolio.

4.7 Other Findings. The following are issues that should be addressed in a good expiring-use policy. If we believe that VHCB and VHFA should make adjustments in these areas, we make recommendations in Sections 4.10 and 4.11 below.

- **4.7.1 Preservation is Cost-Effective Compared to New Development.** All else equal, VHCB should seek to preserve existing affordable housing that is at-risk, rather than develop new affordable housing. Appendix 5 suggests that the average cost to preserve an existing VHCB unit through exercise of the nonprofit general partner's purchase option will be under $11,000 per unit. By comparison, VHCB reports that its last 12 developments averaged $196,000 per unit in total development cost.
- **4.7.2 Candidate Properties Should be Evaluated for Preservation-Worthiness.** However, not all existing affordable housing will be worthy of preservation. Considerations include, in no particular order:
    A. The degree to which rents can be held below the level prevailing in the market for similar, but unregulated, rental housing.
    B. The cost to make the property sustainable.
    C. The length of time for which the property can be made sustainable.
    D. Level of demand. One interviewee mentioned 3rd floor walk-up apartments for which there is little demand, suggesting that these units not be preserved long-term.
    E. Quality of ownership and management. Relevant factors include compliance performance and operating performance in comparison to peer properties.
    F. The degree to which the property is (or, as improved, can become) regarded by the community as a positive resource.

  This evaluation should take place as the property is approaching the GP option exercise date.
- **4.7.3 Need for Coordination Among VHCB / VHFA / Housing Vermont.** The mix of types of public funds that is optimum for any given preservation transaction will vary. Similarly, the amount of public funding per unit that is

needed will vary also. Accordingly, VHCB / VHFA / Housing Vermont need to coordinate so that each transaction is funded in the most appropriate and efficient way possible.

- **4.7.4 National Trend Toward Set-Asides for Preservation.** An increasing number of LIHTC allocating agencies are including a formal set-aside for preservation transactions in their QAPs.[26] The Vermont HFA includes a preference for expiring-use preservation transactions, and the Vermont Housing and Conservation Board has a statutory priority for preservation of federally-subsidized at-risk housing.
- **4.7.5 Nationally, Some Properties Are "Over-Missioned".** National expert interviewees who have been acquiring portfolios of existing affordable rental housing report that some properties have taken on a level of mission commitment that goes beyond what the property can afford. That is, as a result of keeping rents low and agreeing to bear increased expenses (for example, for a before- and after-school program or a computer learning center), such a property does not have enough revenue to cover its costs. Mission-intensive properties are necessary, especially to serve the "hardest to house" populations. Additional funding from VHCB and others can allow any given property to be viable at lower rents and/or to be viable while providing a range of non-housing services. However, there is a limit to the level of affordability (and non-housing services) that a given property can provide while remaining viable (unless additional government subsidy is provided). Yet, there is a tendency of nonprofit sponsors generally to serve the mission now at the expense of longer-term sustainability. In order to make such properties sustainable, generally either additional government funding needs to be obtained, the excess mission costs need to be funded with non-housing funds, or the level of mission commitment needs to be reduced. *Our data do not allow us to evaluate whether this is a problem in the VHCB portfolio, but we expect that this national pattern affects Vermont as well. When underwriting a proposed development, or when deciding whether to preserve an existing development, VHCB and VHFA should ensure that the level of government funding and the level of mission commitment are in balance.*
- **4.7.6 Leadership Role of VHCB and VHFA.** Local interviewees look to VHCB and VHFA to create general partner purchase options that minimize the amount of scarce funds that will have to be paid to limited partners. VHCB and VHFA have more leverage with LIHTC investors than individual sponsors have. Conversely, to the extent that potential investors believe that Vermont transactions have less "back end" profit potential, that will adversely affect the LIHTC syndication proceeds[27]. In an ideal world, the VHCB and VHFA will select a level of "back end" compensation to LIHTC investors that strikes an appropriate balance

[26] The National Housing Trust surveys allocating agencies and reports trends. See NHT's working paper at http://www.nhtinc.org/documents/State_Pres.pdf

[27] The earlier ICF study concluded that LIHTC syndication prices for Vermont properties were higher than for similar properties outside Vermont. Evidently, any discount because Vermont properties involve less "back end" profit potential is more than overcome by other premiums associated with the Vermont LIHTC delivery system.

between maximizing LIHTC syndication proceeds up front, and minimizing preservation costs 15 years later.[28]

- **4.7.7 Opportunities for Coordination.** Because Housing Vermont already does expiring-use analysis, to estimate the general partner's option price plus ancillary costs of preservation (for example, to perform needed repairs, supplement inadequate reserves, and to discharge unsupportable "hard" debt[29]), VHCB may be able to rely on Housing Vermont for this analysis rather than building this capacity in-house.
- **4.7.8 Who Pays the Sustainability Gap?** It is useful to regard the sustainability gap as *the minimum funding necessary to make the property worth owning from an economic standpoint.* For example, if the sustainability gap is $5,000 per unit, the property (as an economic asset) is worth negative $5,000 per unit "as is," because an owner who received the property by donation would have to invest $5,000 per unit up front in order to have a reasonable expectation of not having to make further investments over the next 20 years. Accordingly, an economically rational purchaser (in particular, the nonprofit GP considering exercising its option) would want to assemble that amount of financial concessions (from government, from the existing owner, and from existing lenders) in order to have a viable purchase. From the standpoint of each of those potential contributors:
  - Government might provide financial support (e.g., HOME funds, or a LIHTC allocation) if an existing affordability commitment were at risk, if there were a strong public-purpose reason to extend existing affordability commitments, or possibly if there were a strong public-purpose reason to support a change of ownership.
  - It should be mentioned that, currently, 4% LIHTCs (via tax-exempt bond financing) are an under-subscribed resource today in Vermont and involve no incremental cost to the State.
  - For certain properties, some of the sustainability gap could be closed by increasing rents, while holding those rents below regulatory maximums (e.g., if rents are $100 below the maximums, rents could be increased up to $100 without violating regulatory requirements). It should be noted, however, that doing so compromises affordability and, in effect, makes low-income tenants pay for closing the sustainability gap.
  - The existing owner might provide funds (by asking only a nominal purchase price, or by contributing cash or services) if selling the property (with concessions) was superior to continued ownership.

[28] Economic principles suggest that corporate investors, having relatively high costs of capital, will pay relatively little up front for the opportunity to earn uncertain "back end" profits 15+ years later. Conversely, government, having a relatively low cost of capital, should be willing to make up the small shortfall in LIHTC syndication proceeds, so as to minimize the level of public subsidy that will be required later to support preservation transactions. Accordingly, we believe it is generally good policy to restrict investors' "back end" profit potential in the interest of facilitating long-term preservation.

[29] In real estate parlance, "hard" debt is debt whose debt service payments (principal, interest, and "credit enhancement" such as guarantee fees) are not contingent on property operations. Sometimes, this "must pay" debt service is more than an affordable rental property can reliably pay while providing required affordability and providing required housing quality.

- An existing lender might provide funds (by renegotiating the terms of the existing loan, or by accepting payoff at less than 100 cents on the dollar) if by doing so the lender would avoid a larger loss (e.g., via foreclosure).

Because, in general, a property with a sustainability gap typically poses risks of financial loss to its existing owner and lenders, it may often be the case that the nonprofit GP can assemble some of the required funding from parties other than government.

4.8 National Issues. We identified the following over-arching expiring-use issues. The following are issues that should be addressed in a good expiring-use policy. If we believe that VHCB and VHFA should make adjustments in these areas, we include recommendations in Sections 4.10 and 4.11 below.

- **4.8.1 Risk of Excessive Sales Prices.** It should be mentioned that, nationally, many expiring-use properties are not protected by an option to purchase the property at a reasonable price. For these properties, often the owner calculates a sales price based not on the property's value as real estate, but as the value a purchaser might be able to afford if LIHTCs were awarded. If the purchaser and State LIHTC allocators do not resist, this strategy by sellers leads to purchases that are not sustainable – not only do purchasers pay too much, but resources that were needed to supplement reserves and otherwise pay for sustainability are diverted unfairly and wastefully to sellers' pockets.
- **4.8.2 HOME Program Issues.**
  - **Affordability Period.** The HOME program affordability period for rental housing typically differs from the affordability period imposed by the LIHTC program. The minimum HOME affordability periods[30] are 20 years for new construction and 5-15 years for rehabilitation (depending on the amount of HOME funding for each HOME-assisted rehabbed unit).
  - **Additional Investment.** The HOME program regulations prohibit additional investment of HOME funds in a rental project during the affordability period (except during the first year). Accordingly, unless HUD grants a waiver, the HOME program is not a resource for the workout / restructuring of troubled properties during the HOME affordability period. HUD expects to issue guidance outlining when HUD would consider waiving this prohibition.
- **4.8.3 LIHTC Qualified Contract Process.** Beginning in year 14, investor limited partners have the ability to request a "qualified contract" from the state LIHTC allocating agency. *The VHCB Subsidy Covenant / Right of Refusal / Option structures appear to effectively guard against qualified-contract problems. Nationally, however, the QC process is likely to lead to problems.* Because the QC formula will virtually always lead to a higher price than the nonprofit GP purchase option, triggering the QC process would be almost always be a poor

[30] HOME Participating Jurisdictions have the discretion to negotiate longer affordability periods.

outcome from a preservation standpoint. A highly simplified outline of the QC process follows:[31]

- Background -- when the tax credit affordability period was extended to 30 years by Congress, Congress provided a "qualified contract" process that allows the owner to be bought out at a formula price, after year 15.
- If the owner requests a QC, and the State allocating agency (within one year) does not come up with a preservation buyer willing to pay that price and continue affordability, the owner gains the right to transition out of the affordability restrictions over a three year period. *The VHCB Right of Refusal structure appears to trump the QC process. The VHCB Option structure appears not to trump the QC process; however, the Subsidy Covenant appears to provide a backstop so that affordability will be preserved, and the property will remain in nonprofit control.*
- The owner can request a QC at any point starting in year 14. The owner's qualified contract option does not expire. *In VHCB "option" properties, the general partner's purchase option generally expires around year 15; that is, the general partner's option has a much shorter life than the QC option process. We agree that the current ROR structure is a better structure than the earlier option structure.*
- The QC price equals the sum of existing debt, original equity, other capital contributions, and equity adjustments (for example, reductions for cash distributions made). Basically, the original total development cost, which is likely to be a high price in relation to underlying value. *Our data suggest that the LIHTC QC price will exceed the nonprofit GP's option price by more than $30,000 per unit, on average.*
- It is tempting to conclude that because the QC option price is relatively high, properties are safe, but that would be incorrect. If the QC option price is too high, the owner could trigger the process, wait one year, and if no buyer appears, transition out of affordability. Said differently, a high option price is probably the worst outcome from a preservation standpoint. *This is the reality outside Vermont; for Vermont transactions, the combination of the Subsidy Covenant plus either the ROR or option structure appears to effectively guard against QC-related problems.*

- **4.8.4 Investor "Exit Taxes".** Because corporate LIHTC investors are allowed to recognize losses in excess of their cash investments, frequently at year 15, investors will have "negative basis". For example, if an investor made an original capital contribution of $1 million, received $100K in cash distributions over 15 years and recognized $1.3 million in losses over 15 years, that investor's tax basis

[31] For more information on the QC process, see http://www.recapadvisors.com/pdf/wu50.pdf. We would amend the author's conclusion that "a fair QC process preserves affordable housing" to point out that, although the QC process can lead to preservation, that outcome typically will require large expenditures of public funds, often to pay a price that exceeds the reasonable value of the property. In summary, we believe that the QC process elevates the interests of LIHTC investors over the interests of low-income renters and, for that matter, over the interests of taxpayers. We happen to believe that was a poor policy choice by the Congress. We also believe it is in the institutional interests of VHCB and VHFA to ensure that the QC process is not applicable to Vermont LIHTC transactions.

would be negative $400K at year 15.[32] If such an investor donated its limited partner position to a charity, or sold its investment for a penny, or lost its investment to foreclosure, the investor would have $400K of taxable income and, in a 35% tax bracket, would owe $140K of income taxes. This "exit tax" ($140K in the example) creates a barrier to preservation, because it makes the investor reluctant to relinquish its partnership interest, even though selling may otherwise be the optimum strategy. *Whatever one's views on the wisdom of this approach from the standpoint of tax policy, undeniably "exit tax" is a factor to be reckoned with in expiring-use properties generally. Because VHCB transactions include a general partner purchase option (limiting the investor's ability to reap "back end" profits), the impact of investor exit taxes likely is felt in reduced initial LIHTC syndication proceeds, which no doubt are modestly lower than if the general partner purchase option were not included.[33] We believe these modest reductions in LIHTC syndication proceeds are far outweighed by reductions in future costs to preserve these same properties long-term (future preservation costs would be much higher without the nonprofit GP purchase option).*

- **4.8.5 Is the Affordability Commitment Foreclosure-Proof?** If the owner's commitment to affordability would survive a foreclosure, government's troubled-property risk is relatively limited. If, conversely, a foreclosure would wipe out the affordability commitment, government's troubled-property exposure could be quite high. For example, if HOME funds were invested, and affordability is not provided for the full affordability period, the participating jurisdiction (PJ) would have to repay the HOME funds to HUD. *Nationally, relatively few HOME PJs have negotiated for foreclosure-proof affordability commitments. The VHCB Housing Subsidy Covenant is not foreclosure-proof.*

4.9 Recent Expiring Use Preservation Transactions

- **4.9.1 Northgate (336 units)** was one of VHCB's earliest affordable rental housing developments. The property will soon need recapitalization for extended affordability and viability. The City of Burlington provided $301,250 ($900/unit) in additional HOME funds during 2005. VHCB and the nonprofit sponsor expect that a refinancing of the mortgage debt, when the underlying HUD Section 236 loan will have been paid off in 2011, is likely to be sufficient to fund any repairs and/or additional replacement reserve deposits necessary to extend affordability and viability for another 15-20 years. Accordingly, VHCB expects that long-term preservation of this large property will be accomplished with relatively little additional funding from the State.
- **4.9.2 Heineberg Senior Housing (81 units)** underwent a transfer and recapitalization in early 2005 to extend affordability and viability for another 15-20 years. The nonprofit purchaser negotiated an acquisition price only modestly higher ($100,000 or $1,235/unit) than the outstanding debt balance. VHCB's

[32] $1.0 million initial basis, minus $0.1 million in cash distributions treated as return of capital, minus $1.3 million in losses, equals negative $0.4 million basis at year 15.

[33] The existence of the GP option puts a tight cap on the LIHTC investor's residual profit opportunity. All else equal, investors would pay more if the residual profit opportunity were greater.

deferred loan (original amount $625,000, plus accrued interest of $1.4 million) was assumed by the purchaser, as was the VHFA loan. The City of Burlington provided $150,000 in HOME funds for accessibility modifications. This transfer and recapitalization required no additional funding from the State.

4.10 Primary Recommendations on Expiring Use.

- **4.10.1 Consider Requiring that the Housing Subsidy Covenant be "Foreclosure-Proof".** When the Subsidy Covenant was created in the 1980s, commercial lenders were not willing to accept a foreclosure-proof subsidy covenant (that is, a subsidy covenant that would survive a foreclosure and that would thus be binding on a lender who foreclosed). Today, however, lenders have much more experience with foreclosure-proof affordability requirements. For example, HUD's Mark-to-Market program has restructured over 1300 properties utilizing a foreclosure-proof affordability agreement, and we understand that some states use foreclosure-proof LIHTC LURAs. VHCB should consider shifting to a requirement that the Housing Subsidy Covenant be structured so that it would continue in effect after a foreclosure.
- **4.10.2 Prune the Portfolio via GP Purchase Option.** VHCB and VHFA should use the purchase-option process to weed out properties, owners, and managing agents that are not making positive contributions (defined broadly) to the overall portfolio. For this purpose, options that can be exercised by VHCB or its designee are to be preferred over options that can be exercised only by the existing sponsor.

4.11 Secondary Recommendations on Expiring Use.

- **4.11.1 Preparations for First Exercise Date for Nonprofit GP Purchase Option.**
  - **Assess Preservation-Worthiness.** Determine the extent to which it would be good public policy to preserve the property for long-term affordable housing use.
  - **Assess Ownership and Management.** Determine whether the existing owner and/or manager should be replaced, in the context of an expiring-use preservation transaction.
  - **Estimate Nonprofit GP's Purchase Option.** VHCB and Housing Vermont should coordinate well prior to the first exercise date. Housing Vermont already makes these estimates.
  - **Estimate Sustainability Gap.** As the first exercise date approaches, begin developing estimates of the sustainability gap, using methods similar to those we used for this report.
- **4.11.2 Option Properties: If Nonprofit GP Purchase Option Is Not Exercised.** Determine whether the QC process is applicable to these properties. If so, make contingency plans on how to respond if the LIHTC Qualified Contract process is triggered. These plans will vary depending on the specifics of the nonprofit GP's purchase option, and on the relationship between the likely QC option price for the property and the property's likely appraised value. (For ROR properties, the QC process appears to be moot)

- **4.11.3 "Over-Missioned" Properties.** When evaluating properties that have sustainability gaps or otherwise are facing financial stress, determine whether the sponsor has taken on a mission that goes beyond what the property and sponsor can reasonably support.

Section 5. The Capital Needs Task

5.1 Task Definition. VHCB is well aware that existing reserve deposit levels are inadequate to fully fund long-term capital needs. VHCB asked us to form an estimate of the portion of long-term capital needs that cannot be funded from the reserve, and to estimate what portion of that gap might be covered from other internal resources (i.e., future excess cash flow / refinancing proceeds). The remaining portion, of course, would likely have to be funded from new subsidies. The following is an excerpt from our scope of work: *"VHCB requests an analysis which estimates the portfolio-wide capital needs and compares this with an estimate of the financial resources available to address these needs. Financial resources can include replacement reserve accounts and excess cash flow (which can either be used to pay for needs directly, or which can be capitalized through a refinancing)"*.

5.2 Our Sample Portfolio. Our Capital Needs analysis uses the 70 properties in the Underwriting task.

5.3 Our Analytical Approach.

- **5.3.1 Capital Needs Data.** VHCB provided us with CNAs for 45 sample properties. For the remaining 25 properties, we estimated that long-term capital needs (per unit per year) would be equal to the average capital needs for the CNAs that were provided to us.
- **5.3.2 Capital Needs Surplus or Deficit.** We then made 20-year cash flow projections for all properties, but instead of assuming that capital needs would equal the current actual reserve deposit, we assumed that capital needs would be equal to the average annual capital needs (that is, we assumed that the owner would simply pay – from annual cash flow – a relatively level amount of capital needs).
- **5.3.3 Meaning of Capital Needs Surplus or Deficit.** If, on this basis, a property's 20-year cash flow projection is net positive (say, by $50K), that indicates that, over that 20-year period, the property is likely to be able to fund its capital needs internally, without even drawing on its current reserve balance.[34] Conversely, if a property's 20-year cash flow projection is net negative $50K, that indicates that the property needs at least $50K in its reserve account today (or needs to receive $50K in future additional funding, or needs to increase rents so

[34] Whether such a property could be expected to add $50K to its current reserve balance depends on the extent to which the owner is permitted to distribute excess cash flow vs. retain it inside the ownership entity. We caution that both extremes are to be avoided. If an owner can distribute excess cash without regard to the property's long-term prospects, owners will be motivated toward short-term profits to the detriment of the property's long-term viability (and to the detriment of VHCB's long-term financial and policy interests). Conversely, if the owner has no stake in excess cash flow, the owner will not have any substantial economic motivation to operate the property efficiently, which also is counter to VHCB's interests). Public bodies similar to VHCB typically resolve this dilemma by negotiating for a share of excess cash flow that is meaningful but that also gives the owner a substantial economic motivation for efficiency. In general, we believe that a governmental share between 25% and 50% of excess cash flow is likely to provide adequate but not excessive incentive.

as to generate $50K in additional cash flow, or needs to generate $50K in net refinancing proceeds), in order to have a reasonable likelihood of self-funding its 20-year needs. This approach allows us to estimate which properties, from our sample portfolio, are likely to need additional subsidies (from VHCB, VHFA or elsewhere) in order to meet their 20-year capital needs. That, in turn, when expanded to the level of the entire VHCB portfolio, also allows us to estimate the magnitude of the sustainability risk that VHCB has incurred in developing its current portfolio.

- **5.3.4 Interviews.** We also interviewed Vermont-based organizations, and nationally-based organizations, regarding their capital planning approaches.

5.4 What Is A Capital Needs Assessment?

- **5.4.1 CNA Defined.** Conceptually, a CNA is a spreadsheet. The rows are building systems (e.g., refrigerators, roofs, parking lots…). The columns are years. The cells contain the dollar amount the owner likely will have to spend in that year, to maintain that building system. For example, if the owner likely will have to replace three refrigerators in year 3, and refrigerators cost $500 each, the year 3 cell in the refrigerator row would contain $1500.
- **5.4.2 CNA Analysis Process.** In order to produce an accurate CNA, the analyst visits a sample of units and assesses the age and condition of each major building system. The analyst estimates the remaining useful life of existing components, which then indicates the number of each type of component that will need replacement or major repair in each year. The analyst develops estimated replacement costs from experience, research, and from interviewing the owner and manager.
- **5.4.3 CNA Analysis Period.** Typically CNAs use a long analysis period such as 20 years, so as to encompass at least one replacement of each major system. Of course, it is not possible to accurately predict in exactly which year a component will need replacement, but as long as the estimate is reasonable, the results will be reliable for the purpose of setting a new reserve deposit funding level.
- **5.4.4 Using CNAs to Determine Reserve Adequacy.** Once one knows the total the owner will have to spend each year, and the current balance of the reserve account, one can calculate the amount the owner will need to deposit monthly into the reserve account going forward, so that the reserve will be adequate to fund the anticipated capital needs.
- **5.4.5 Periodic Updates.** After five to ten years, a new CNA is obtained, and the reserve deposit is re-sized accordingly.

5.5 Results from Economic Analysis.

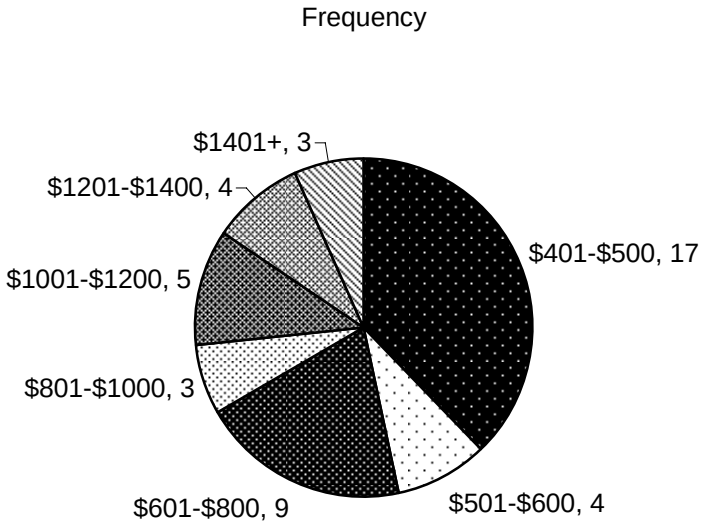
- **Capital Needs from CNAs.**
  - Annual capital needs averaged $756 per unit but with a wide range as shown below in Table 5.5. *This is consistent with the capital needs of other portfolios we have studied. As noted below, we believe that this amount may actually understate capital needs.*
  - 27% of CNAs indicated capital needs in excess of $1000 per unit per year.

  - 38% of CNAs indicated capital needs below $500 per unit per year; as noted below Table 5.5, we are surprised by this finding and believe that actual needs likely are somewhat higher for these properties.
  - It should be noted that some capital needs are funded through the operating budget rather than through the reserve for replacements. The information we reviewed does not allow us to estimate the extent to which this may be occurring.
  - Some CNAs were performed several years ago, and most CNAs covered less than the 20-year period we recommend. It should also be noted that capital needs tend to rise as properties age.
  - Taking all factors into account, we believe that the capital needs (to be funded from the reserve) for the VHCB portfolio in the next 20 years should be at least as high as we have assumed for purposes of this study.
- **CNA Analysis Period.** 4% of CNAs were for periods of 10 years or less, 62% were for 11-15 years, 30% were for 16-20 years, and 4% were for 21+ years.
- **Existing Reserve Deposits.** On average, properties are depositing $527 per unit per year to the replacement reserve. Although higher than the $258 national average from Ernst & Young's recent study[35], this is still well below the $756 per unit average capital needs being accrued at Vermont properties.
- **Ability to Meet Capital Needs Via Reserves and Cash Flow.** At VHCB's request, we estimated whether properties might be able to meet their capital needs for the next 20 years, utilizing a combination of reserves and cash flow, and assuming that future capital needs will match those in past CNAs. *It should be noted that this is an optimistic assumption, because capital needs tend to increase as properties age.* We found that 47% of properties could fund that level of capital needs from operations, without relying on refinancing or new subsidies.
- **Ability to Meet Capital Needs Via Reserves and Cash Flow and Refinancing.** We found that 53% of properties appear to be able to fund the level of capital needs discussed above, if in addition to reserves and cash flow, the potential to refinance existing hard debt is also considered. *For this analysis, we assumed that providers of soft debt would agree to defer repayment indefinitely as necessary.*

Also see Appendix 4 which presents key results from our economic analysis.

Table 5.5 Capital Needs Per Unit Per Year Indicated by CNAs

[35] "Understanding the Dynamics III", Ernst & Young, December 2005. Data are for 2004 operations.



Our experience with CNAs suggests that a material fraction of the CNAs that reported needs under $500 per unit per year were flawed, and that actual needs are higher than reported. We recommend that VHCB verify that these low-needs CNAs included all appropriate building systems and that appropriate unit costs were used. To the extent these low-needs CNAs used analysis periods shorter than 20 years, we recommend that VHCB ask the sponsors to extend the analysis periods to 20 years.

5.6 Other Findings. The following represent our opinion of the components of a good capital planning policy. If we believe that VHCB and VHFA should make adjustments in these areas, we include recommendations in Sections 5.7 and 5.8 below.

- **5.6.1 When to Obtain a CNA.** There was agreement among interviewees that a CNA should be obtained in all preservation transactions, widespread agreement that a CNA should be obtained in all rehab transactions, and some agreement with our position that a CNA should be obtained in new construction transactions.
- **5.6.2 CNAs As Part of Original Underwriting.** However, we firmly recommend CNAs as part of original underwriting.
  - Without a CNA, there is no good method for determining whether the property is likely to be able to meet its capital needs over the desired period of affordability.
  - We believe that, typically, sponsors and their builders, with guidance from VHCB and VHFA, could prepare CNAs for new construction / substantial rehabilitation properties, without the need to engage a third party CNA specialist.
  - The total annual capital needs from this pre-development CNA would then be incorporated into VHCB's and VHFA's existing underwriting pro forma. In this way, the optimum reserve deposit could be determined for each to-be-developed property, taking into account that property's likely

capital needs, likely future cash flow, likely future refinancing potential, and taking into account the time frame during which VHCB and VHFA want the property to be able to meet its capital needs.

- For example, suppose that analysis indicated that a property would have average annual capital needs of $800 per unit. If that property had no ability to pay for capital needs through cash flow or refinancing, the reserve deposit should be set at a level that will fund 100% of those capital needs (likely near $800 per unit per year, or perhaps less if a generous initial deposit to the reserve could be funded). However, if that property had good potential to cover some capital needs from cash flow or refinancing, the reserve deposit needed could be well below the average annual capital needs.

- One reason for placing more emphasis on right-sizing the reserve deposit as part of original underwriting is that, typically, it will not be possible to increase the reserve deposit later without increasing the rent burden on low-income tenants. In other words, the reserve deposit has to be set correctly at the beginning.

- **5.6.3 Immediate vs. Longer Term Repairs.** In the past, funders tended to require a large scope of immediate repairs and to require only a minimal ongoing reserve deposit. The national expert interviewees are coming to question this approach, which has at least these disadvantages: (a) it creates perverse incentives to throw away functioning components that have not approached the end of their useful lives; and (b) it tends to result in financial stress as properties age. The national expert interviewees recognize that budgets may not be able to support both a large up-front rehab scope and an appropriately large reserve deposit but are beginning to think that a mix of less up-front rehab and more reserve funding over time may be superior.
- **5.6.4 Critical Mass for Ownership and Management.** The national expert interviewees suggested that, all else equal, VHCB should prefer to have fewer sponsors / management companies with larger portfolios. Accordingly, VHCB could use its participation in expiring-use transactions as a way of weeding out small or inefficient sponsors and management companies. This is not a suggestion that consolidation is always and everywhere a good thing; small sponsors may bring benefits not available through larger sponsors. It is, however, a suggestion that when making preservation decisions, VHCB and VHFA should carefully consider whether a change of sponsor would enhance the property's ability to deliver the desired public-purpose outcomes.
- **5.6.5 Third Party CNAs versus In-House.** Opinions were mixed. Some organizations rely exclusively on third party CNA providers (valuing the greater objectivity and, generally, greater expertise this method offers). Other organizations have developed internal specialists (offering the benefits of lower costs and capacity-building). *We address this question in our secondary recommendations below.*

- **5.6.6 Unplanned Expenditures.** Generally, it is a bad idea to use reserve funds for items that were not included in the most recent CNA, unless there is a very good reason to believe that the funds can be repaid quickly.
- **5.6.7 Perverse Incentives.** An alternative to building in adequate reserve deposits as part of underwriting is to provide additional funding for capital needs at, say, year 15. One downside risk to this alternative approach is that it may have the perverse result of making sponsors less attentive to developing adequate reserves and to doing good capital planning, and more likely to divert funds from the reserve to other uses such as service programs and staffing costs.
- **5.6.8 Past Approaches Lead To Unfortunate Results.** Nationally, the funding approaches of the past have led to high levels of financial stress, and large numbers of properties needing significant additional funding for long-term viability. *The Vermont portfolio appears better positioned to meet its long-term capital needs, though a significant minority of properties appear unable to meet their long-term capital needs.*
- **5.6.9 "One Bite At The Apple"?** VHCB and VHFA have a policy of seeking permanent affordability. A threshold question is whether VHCB and VHFA want a high degree of certainty that no further government subsidy will be needed in order to achieve permanent affordability. If so, a "highly sustainable" underwriting and funding approach would be called for. If, alternatively, it is acceptable to make additional funding commitments after, say, 15 years, a lower level of up-front funding would be needed to provide sustainability for that shorter time horizon, and a further funding decision could be made based on affordable housing needs when the property is, say, 13 to 14 years old.
- **5.6.10 Alternative Future Funding Approaches.** Potential alternative funding approaches, that would result in higher rates of property success, would include at least the following:
  - **5.6.9.1 Maximum Sustainability.** Fund properties initially so that they can afford a reserve deposit that, with no reliance on excess cash flow, future refinancing, or future public subsidies, will fund 100% of foreseeable capital needs for a long period such as 50 years. *The advantages are obvious. The disadvantages include cost, potentially over-funding properties, and potentially perverse incentives by having large sums of cash sitting in reserve accounts for years until needed.*
  - **5.6.9.2 Supplemental Reserve, Property-Specific.** VHCB and VHFA would fund properties initially so that they can meet their capital needs for a period such as 20 years, from a combination of reserves, foreseeable excess cash flow and foreseeable refinancing. VHCB and VHFA would also fund – on a one-time basis, at the time each property was developed -- a supplemental reserve that will be available at, say, year 20, to augment the replacement reserve. For example, this supplemental reserve could contain zero-coupon bonds with a 20-year term.[36] *This approach*

[36] If there is a possibility that some funds might be needed earlier, the portfolio should be structured with an appropriate mix of maturities.

recognizes that long-term capital needs do not really "hit" until after year 20. The advantages, again, are obvious.

- **5.6.9.3 Supplemental Reserve, At a Portfolio Level.** This is the same strategy as the preceding approach, except that the supplemental (one-time, up-front, State-funded) reserve is not held in the name of the property but, instead, is controlled by VHCB and VHFA for the benefit of the entire Vermont portfolio. *This approach provides for sustainability equally as well as the two preceding approaches but preserves greater flexibility for VHCB and VHFA. For example, under this approach, it would be much easier for VHCB and VHFA to engineer a change of ownership or change of management, and there is less risk of over-funding particular properties.*

There is an analogy in the ways that parents provide for their children's college educations. Some parents plan to borrow at the time their children enter college (similar to 1990s-style underwriting of affordable rental housing). Some parents set up a Uniform Gifts to Minors trust in the name of the child (this approach, not dissimilar to the first and second approaches above, is often disparagingly described by investment professionals as the "new car fund", because of the temptation to the child to spend the money for short-term pleasure instead of for education). Other parents set up a "529 Plan" earmarked for the child's education (and transferable to other children in the same generation) but controlled by the parents (similar to the third alternative above).

5.7 Primary Recommendations. The current policy of VHCB and VHFA is to require a replacement reserve contribution of $35 per unit per month ($420 per unit per year). This contribution is not required to be adjusted annually for inflation. For new construction and substantial rehabilitation projects (the majority), a capital needs assessment is required within 6 months after construction completion. Periodic updates to the capital needs assessment are also required.

- **5.7.1 Funding for Capital Needs.** VHCB and VHFA should make a conscious decision on a funding strategy for long-term capital needs. If VHCB and VHFA expect to make multiple funding commitments to a property over the property's useful life, it is not necessarily appropriate or desirable to provide up-front all of the resources likely to be needed to sustain the property long-term. *We believe that funding properties at initial development so that they are sustainable to (or modestly past) the point of the nonprofit GP's option exercise date, and providing additional funding at that time for long-term sustainability, might be an excellent option.*
- **5.7.2 Capital Planning in the Underwriting Stage.** VHCB, VHFA and Housing Vermont should enhance the role of capital planning in their underwriting practices. They should determine, on a property by property basis, the percentage of long-term capital needs that should be funded via the reserve. We expect that, frequently, this percentage will be 100%. *This percentage will depend on the extent to which the property will have future foreseeable excess cash flow and/or refinancing potential. This is a property-specific determination. As generalizations:*

- *The higher the operating expense ratio, the less likely a property will be to have future excess cash flow.*
- *Similarly, if a property has no hard debt or only modest hard debt, its opportunity to refinance will be limited.*
- *The longer the amortization term of a property's debt, and the lower its interest rate, the less likely a property will be to have future refinancing potential.*
- *Some properties will not have refinancing potential as a result of financing via bonds that are not callable, or via mortgage loans with long-term prepayment lockouts.*

- **5.7.3 Update CNAs Periodically.** CNAs should be updated periodically (VHCB and VHFA recently began requiring periodic updates). The results of updated CNAs should be reflected in changes to the ongoing reserve deposit levels. *We recommend updating not sooner than 5 years and not later than 10 years, after the most recent CNA.* Between periodic updates, the reserve deposit should be increased annually to adjust for inflation.
- **5.7.4 CNAs to Support Transactions.** A CNA should be obtained whenever an existing property is to be purchased or refinanced.
- **5.7.5 Capital Planning Horizon.** VHCB, VHFA and Housing Vermont should standardize on a 20-year capital needs analysis period. *Because many major building systems have 20-30 year useful lives, a shorter analysis period risks ignoring major building systems that call for few if any replacements during the analysis period but will need significant replacements soon after the analysis period.*

5.8 Secondary Recommendations.

- **5.8.1 Third Party vs. In-House CNAs: Initial CNAs.** We recommend that all initial CNAs be performed by third parties. *An exception could be made for CNAs that are part of the initial underwriting process; sponsors and their construction contractors could prepare these CNAs using information they already have for purposes of estimating initial development costs. We recommend that the first periodic update after initial development should be by a third party.*
- **5.8.2 Third Party vs. In-House CNAs: Periodic Updates.** If the original CNA was provided by a third party, we believe that one or two periodic updates could be performed by suitably qualified in-house staff.
- **5.8.3 Importance of Guidance from VHCB and VHFA.** In the absence of guidance from VHCB and VHFA, the following sorts of inappropriate results could occur:
  - Sponsors might regard the reserve as a resource for all sorts of purposes other than providing for the specified capital needs.
  - Providers who are used to assessing rehab needs for initial underwriting purposes often tend to assume, incorrectly, that aging but functional components should routinely be discarded before the ends of their useful lives.

- When faced with older properties, inexperienced analysts often overlook long-lived systems such as brick tuckpointing, elevator refurbishing, in-wall utility pipes, and underground utility pipes.
- Providers often assume, inappropriately, that an equal number of components (for example, water heaters) will wear out each year, when a more thoughtful analysis would conclude otherwise.
- The owner and manager of the property may have inadequate communication with the analyst, leading (for example) to unit costs that are not accurate for this particular property.

- **5.8.4 Verify CNAs Reporting Needs Below $500 PUPA.** As noted above, based on experience reviewing other CNAs, we expect that average annual capital needs for typical Vermont properties will exceed $500 per unit per year. We recommend that VHCB ask sponsors to verify CNAs reporting low needs.

5.9 Reference Materials on Capital Planning.

- **On-Site Insight Materials.** See the following, from the website of On-Site Insight at www.on-site-insight.com:
  - **Sample Capital Needs Assessment.** This sample report illustrates the components typically found in a CNA.
  - **Report on the Condition of Affordable Housing.** An analysis of 183 CNAs for older affordable rental housing.
- **Fannie Mae Materials.** Fannie Mae's Guide to the Property Evaluator can be found at http://www.efanniemae.com/mf/guidesforms/pdf/forms/III-12.PDF. Fannie Mae calls its reports "Physical Needs Assessments."
- **HUD Mark-to-Market Materials.** The Physical Condition Assessment standards for the Mark-to-Market program are found in Chapter 4 (guidance) and Appendix I (statement of work).

Section 6. Other Findings and Recommendations

6.1 Overview. Our research and interviews led to a few additional findings and recommendations that do not fit neatly into the three formal tasks discussed above. Those findings and recommendations are discussed in this section of our report. Because VHCB, VHFA and Housing Vermont have such a high overlap of properties, they should collaborate on these recommendations.

6.2 Asset Management Database. Develop a database on the portfolio that contains information sufficient to support a variety of asset management purposes. *The data elements we assembled for this analysis would be an appropriate starting point.*

6.3 Asset Management Risk Assessment. Identify properties that are at-risk, identified by type and severity of risk. Risks would include excessive "hard" debt, weak markets, latent construction defects, environmental problems, inadequate ownership, inadequate management, cash flow problems, and impending expiration of the affordable use period.

6.4 Asset Management Action Strategies. For each at-risk property, develop a strategic approach designed to mitigate the risk. Action strategies could include re-syndication, refinancing, transfer of ownership, change of management, workout / recapitalization, renovation, redevelopment, removal of the property from the portfolio, coordinated action with other at-risk parties, and reliance on action by other at-risk parties.

6.5 Workout / Restructuring Capacity. Develop the capacity (internal and/or external) to analyze, structure, negotiate, and implement financial restructuring of properties to achieve sustainability.

6.6. Role of VHCB. We offer the following as observations on the role that VHCB plays in the production and funding of affordable rental housing in Vermont.

- **Funding Role.** The fact that VHCB allocates HOME funds plus State trust funds is noteworthy and important, if only because this allows VHCB to fund initiatives that are difficult or impossible to fund with private debt and Low Income Housing Tax Credits. Interviewees complimented VHCB on its willingness to make the first financial commitment to a proposed development.
- **Technical Assistance Role.** Interviewees value the technical assistance that they receive from VHCB. As one interviewee put it, "There are times when you need someone that's outside and who is removed but who has worked with organizations with the same issues".
- **Leadership Role.** Interviewees appreciate VHCB's commitment to being part of the leading edge in affordable rental housing. VHCB's 2004 seminar on expiring-use issues was mentioned in particular. Interviewees also complimented VHCB for monitoring proposed new developments, and for discouraging developments that would overbuild the local demand.

Appendices

1. List of Interviewees
2. Economic Assumptions, Methodology, and Terminology
3. Limiting Conditions
4. Key Results from Economic Analysis
5. Key Results from Expiring-Use Task

In addition, we provide a separate Property-Specific Addendum containing detailed output from our economic model for the 70 properties for which we received data for both underwritten cash flow and actual cash flow.

Appendix 1. List of Interviewees

Local Organizations

Andy Broderick, Housing Vermont
Sam Falzone, Vermont Housing Finance Agency
Elisabeth Kulas, Rutland County Community Trust
Connie Snow, Brattleboro Land Trust
Ed Stretch, Gilman Housing Trust

National Organizations / Experts

Amy Anthony, Preservation of Affordable Housing Inc.
Michael Bodaken, National Housing Trust
Conrad Egan, National Housing Conference
Matt Perrenod, Housing Partnership Network
Peter Richardson, Consultant
Tom White, Consultant (formerly Senior VP for Multifamily, Fannie Mae)

Appendix 2. Economic Assumptions, Methodology and Terminology

Key Definitions

- Administrative Payroll – salary, payroll taxes, and benefits for front-line administrative staff (e.g., on-site manager, leasing assistant, office assistant) who lease units, collect rent, receive resident service requests, and perform other day to day tasks.

- Bad Debts – rental revenue lost because residents fail to pay rent that is due.

- Capital Expenditure – a Capital Need, for accounting purposes, is treated as an addition to the owner's investment rather than as an immediate expense. For example, replacement of a single refrigerator often would be expensed, whereas replacement of ten refrigerators typically would be capitalized.

- Capital Need – a major repair or replacement cost. For example, roof replacement, exterior painting, parking lot resurfacing, appliance replacement, HVAC replacement, flooring replacement.

- Capital Needs Assessment ("CNA") – an estimate of Capital Needs for an extended period such as 20 years, by building system by year.

- Concessions – rental revenue lost because residents are not charged the full rent (e.g., during a slow leasing period, residents are offered $100 off the first month's rent).

- Credit Enhancement – mortgage insurance charges, guarantee fees, and other fees paid to third parties to provide the lender with additional assurance of repayment, in exchange for which the lender provides a lower mortgage interest rate.

- Debt Service – required payments for principal, interest, and credit enhancement.

- Debt Service Coverage – the margin between Net Operating Income and Debt Service.

- Effective Gross Income – property revenue successfully collected. Equal to Gross Potential Rent, minus Rent Loss, plus Other Income.

- Expense Cushion – An expression of cash flow as a percentage of expenses. For example, a property with $100 in expenses and $10 in cash flow, has an 'expense cushion' of 10%.

- Gross Potential Rent – the rental income the property would receive if all units were occupied, all rent were collected, and all tenants were charged the full rent.

- "Hard" and "Soft" Debt – "hard" debt is debt with payments that must be made without regard to the cash flow of the property. "Soft" debt involves either deferred payments, or payments that are contingent on property performance (e.g., payments equal to a percentage of positive cash flow).

- Net Operating Income – Effective Gross Income, minus Operating Expenses, minus Reserve Deposits. In other words, the cash flow return that an owner would receive after having paid cash for the property.

- Operations and Maintenance Payroll -- salary, payroll taxes, and benefits for front-line operations staff (e.g., maintenance supervisor, maintenance technician, porter) who respond to resident service requests, perform preventive maintenance, perform inspections, coordinate contract maintenance, and perform other day to day tasks.

- Operating Expenses – the owner's out of pocket costs of operating the property (excluding Reserve Deposits and Debt Service). Major categories include Administrative Payroll, Operations and Maintenance Payroll, Other Administrative Expense, Other Operations and Maintenance Expense, Property Insurance, Property Management Fee, Real Estate Taxes, Security, and Utilities Expense.

- Other Administrative Expense – for example, telephone expense, office supplies, copying and printing, audit expense, training, and legal expense (typically, assistance with difficult evictions and contractor disputes).

- Other Operations and Maintenance Expense – for example, pest control, trash removal, grounds maintenance, maintenance supplies, and minor contract maintenance. Major maintenance is typically classified as a Capital Expenditure.

- Property Insurance – casualty insurance (e.g., fire, wind damage) and liability insurance (e.g., slip-and-fall) covering the property owner.

- Property Management Fee – a fee paid to a professional management firm, to operate the property on behalf of the owner. Typical tasks include hiring, training, and supervising the front-line staff, arranging for insurance and utilities, arranging for contract maintenance, accounting, and reporting.

- Real Estate Taxes – payments to the local government to cover government services. In affordable rental housing, often real estate taxes are assessed at lower than normal rates (a partial or full "abatement"), or are assessed according to a non-standard formula (a "payment in lieu of taxes" or "PILOT").

- Rent Loss – Vacancy Loss plus Bad Debts plus Concessions.

- Reserve Deposit / Replacement Reserve Deposit – a monthly deposit made to a fund to be used for future Capital Needs.

- Security – expenses for security systems (e.g., buzzer-entry or entry-card systems, video surveillance systems) or personnel.

- "Surplus Cash" – a defined term used by HUD-Multifamily in regulating properties with FHA-insured mortgage loans. Surplus Cash represents the excess of operating cash balances, over and above short-term obligations such as accounts payable. See Form HUD-93486 Computation of Surplus Cash, Distributions and Residual Receipts, HUD Handbook 4370.1 REV-1 Appendix 2.

- Utilities Expense – costs for utilities borne by the property owner. Includes utilities for common areas, utilities for vacant units, and any utilities for occupied units for which the owner has agreed to bear the cost.

- Vacancy Loss – rent revenue lost because units are not occupied.

Data Entry and Data Integrity

We received from VHCB and Housing Vermont data from the original underwriting, the 2004 actual revenue and expenses, and available capital needs studies. We entered that data into an Excel workbook in electronic form, using consistent categories. We performed a number of data validation tests, for example:

- Verifying properties whose underwritten results indicated an inadequate margin between revenues and costs.
- Researching discrepancies in unit counts.
- Researching discrepancies in debt service costs (principal and interest, for "must pay" debt).

Capital Needs Methodology and Assumptions

We used the results of property-specific capital needs studies where available, with the exception that if the studies suggested average annual capital needs below $400 per unit per year, we used $400 per unit per year instead. The portfolio average for the property-specific capital needs studies (including the adjustment just described) was $775 per unit per year.

We estimated annual capital needs for a 2005-2034 (30 years). Typical capital needs studies had 15 or 20 year terms. For years past the end of the property's capital needs study period, we used the average annual needs during the study period.

When no property-specific study was available, we assumed $800 per unit per year of capital needs.

Methodology for Missing Underwritten Inflation / Trending Rates

For most properties, we were provided with the original underwriting assumptions for income and expense inflation rates ("trending" rates). Where those assumptions were missing, we used 1.5% for income and 3.0% for expenses.

Methodology for Cash Flow Comparisons: Actual vs. Underwriting

Our actual results were from 2004. We compared 2004 actual cash flow to the first-year underwritten cash flow. Before making this comparison, we restated the first-year underwritten cash flow in 2004 dollars by applying the trending assumptions from the original underwriting.

The actual 2004 reported debt service did not distinguish between debt service on "hard" loans (i.e., "must pay" debt service) and accruing interest on "soft" loans. Accordingly, for purposes of this cash flow comparison, we assumed that the 2004 actual "hard" debt service was equal to the "hard" debt service that we derived for 2005 based as discussed below.

Methodology for Determining "Hard" Debt Service and Loan Balances

We determined which loans were "hard" and which were "soft" by reviewing the original underwriting information.

Almost all of the "hard" loans were normal fixed-rate, fixed-payment, self-amortizing loans. The few remaining "hard" loans had payments that varied over the life of the loan; for those loans, we captured the actual year by year payments and used those in our cash flow estimates.

For each "hard" loan, we calculate the amount that would be outstanding at the end of each of the next 20 years.

Methodology for Sustainable Underwriting Estimates

For each property, we adjusted the 2004 actuals to adjust the replacement reserve deposit to a "sustainable" level corresponding to the average annual capital needs that we assumed for the period 2005-2024. This provided an estimate of what 2004 cash flow would have been, had a sustainable reserve deposit been in effect.

We then estimated the level of "hard" debt that would be supportable, if a sustainable reserve deposit were in effect. In making this estimate, we made the following additional adjustments to 2004 actual cash flow:

1. We estimated sustainable rent loss (vacancy plus bad debts plus concessions) at the greater of the 2004 actual rate, or 7.0%.

2. We assumed that a sustainable level of operating cash flow (NOI minus hard debt service) would be equal to 10% of total operating expenses.

We also estimated the rent increase that would be necessary to support existing "hard" debt service, while providing sustainable levels of rent loss and operating cash flow.

Methodology for Sustainability Gap

We use the term "sustainability gap" to mean the amount of funding that would be necessary now, to restructure a property so that its ongoing operations would be sustainable. We estimated this "sustainability gap" in two different ways:

1. (Refinance Later) What it would cost to fund negative cash flow for the next 20 years, assuming that the property is refinanced at year 11.
2. (Restructure Now) What it would cost to write down the property's hard debt to sustainable levels today, increased by any cash flow deficits (offset by any positive cash flow) that would remain after the debt reduction (typically, however, cash flow would be positive once hard debt was reduced to sustainable levels).

We concluded a sustainability gap that was the smaller of these two calculations. We used a 20 year net present value calculation (using a 10% discount rate), so that the sustainability gap represents today's cost to stabilize each property.

Methodology for Long Term Cash Flow Projection (2005-2024)

We projected each property's cash flow based on 2004 actuals with these adjustments:

1. Rent loss at the greater of the 2004 actual rate, or 5.0%.
2. Sustainable reserve deposit.

Our projections trend income at 2.5% and expenses at 3.0%.

For each year, we estimated the value of the property assuming continuation of affordable housing use, using an appraisal-style reserve deposit of $400 per unit per year, and a capitalization rate of 8.0%.

We also estimated, for each year, the maximum refinancing proceeds that the owner might be able to obtain. We assumed the following lending parameters: 80% maximum loan-to value, 1.30:1 minimum debt service coverage ratio, 6.50% interest rate, 30 year amortization. We assumed 3.0% transaction costs would have to be paid from the proceeds of the refinancing. We then compared the remaining proceeds to the amount of hard debt we estimated the project would then owe, to determine whether the project owner might have a profitable refinancing opportunity in that year.

Methodology for Expiring Use Analysis

We first estimate the amount of the nonprofit general partner's purchase option, using the formula provided in the limited partnership agreement.

Our estimate of outstanding debt is discussed above under Amortization (we ignored soft debt for purposes of this calculation).

Our estimate of appraised value (if applicable to a particular property's option price) is discussed above under Long Term Cash Flow Projection.

For properties where the option price is partially based on an additional amount necessary to provide the Target Return to the investor, we estimated that amount at $5000 per unit, derived as follows:

a. The average underwritten cash flow in the VHCB portfolio is roughly $1000 per unit per year.
b. We assumed that one-third of that amount was projected to be distributed to the investor (the remainder representing fees or reserves).
c. We assumed conservatively that none of the projected amount would have been distributed from operations
d. Thus $1000 per unit x 15 years ÷ 3 x 100% = $5000 per unit.

For properties where the option price is partially based on investor exit taxes, we estimated that amount using the hypothetical scenario illustrated in Table A-2 below, and assuming the lowest possible sales price (thus the greatest possible likelihood that income taxes due might exceed the net proceeds of sale). We believe that the parameters of this scenario are typical for the VHCB portfolio. Under this scenario, no exit tax would be expected at year 15. For conservatism, however, we estimated exit taxes at $1000 per unit.

Table A-2: Exit Tax Estimate via Balance Sheets (Amounts Are Per Unit)

	Original	Year 15		
Cash	$0	$0		
Land	$4,000	$4,000		
Buildings	$90,000	$90,000		
Accumulated Depreciation		($49,091)	27.5	Year straight line
Financing Costs	$6,000	$6,000		
Accumulated Amortization		($3,000)	30	Year straight line
Total Assets	$100,000	$47,909		
Hard Mortgage Debt	$15,000	$11,103	7%	30 year
Soft Mortgage Debt	$25,000	$29,024	1%	accruing + compounding
LIHTC Equity	$60,000	$60,000		
Accumulated Losses		($52,218)		
Cash Distributions		$0		
Total Liabilities & Equity	$100,000	$47,909		
Sales Price = Debt		$40,127		
Less Tax Basis		($47,909)		
Gain (Loss) on Sale		($7,782)		
Exit Tax		$0	40%	combined federal + State

Our estimates are based on our projections for the property's operations for the year in which the option is first exercisable.

We then estimated the gross amount of funding that a nonprofit general partner would need to assemble in order to exercise its option. This consists of the following:

3. The cash portion of the option price (that is, the amount over and above assumption of the existing debt).
4. Repair costs, which we ignored because they are taken into account in our calculation of the sustainability gap (see below).
5. Transaction costs (e.g. legal fees), which we estimated at $20,000.
6. Sustainability gap (i.e., the amount of funding, if any, needed to restructure the property so that its ongoing operations will be sustainable). Our approach for determining the sustainability gap is discussed above under Sustainable Underwriting Estimates.

We categorized the expiring use portfolio by cost to preserve. Properties with total costs to preserve of $12,500 per unit or more were termed High Cost, properties with total costs to preserve of $7,500 per unit or less were termed Low Cost, and remaining properties were termed Moderate Cost.

Appendix 3. Limiting Conditions

Our findings and recommendations represent our best judgment of the status of the portfolio as of December 31, 2004. The following should be kept in mind when interpreting our findings and recommendations.

1. We are not appraisers.

2. We reviewed only a limited amount of data for each property.

3. We made no site visits.

4. We received a variety of data from VHCB, most of which was in hard copy. In the process of building and testing our economic model, we performed a number of data validation checks on data elements received from VHCB. VHCB has been responsive to our requests for clarification and data correction. However, it is possible that we made data entry errors that we did not discover, and that the hard copy data we reviewed contained errors that we did not discover.

5. This report assumes that there are no gains in efficiency from stabilizing the portfolio. However, for example, it is possible that:
   a. With adequate reserves, operating expenses may decline.
   b. If property conditions improve, vacancy losses may decrease.

6. As discussed in Section 2, our data sample was largely though not entirely random. Our data sample appears large enough that our findings are likely to represent accurately the status of the entire VHCB portfolio, but it is possible that the properties we did not sample are sufficiently different from those we did sample that our results may not be accurate at a portfolio level.

7. If one divides our data sample into sub-samples (for example, by county), the reliability of the conclusions at the sub-sample level will be less than the reliability at the level of the full sample. For small sub-samples, the loss of reliability could be very significant. Accordingly, in this report we do not make statements about sub-samples. Similarly, our estimates should not be regarded as definitive with respect to individual properties; any property-specific follow-up action should be preceded by analysis that, at a minimum, verifies the data that we used in arriving at our findings and recommendations.

8. Our data do not allow us to determine the causes of variances versus underwriting. For example, causes might include poor underwriting, poor operations, market deterioration, and unforeseeable increases in operating costs.

Appendix 4: Summary Results of Economic Analysis

70 Properties in sample
70 Properties with underwriting cash flow data
70 Properties with actual cash flow data for 2004
70 Properties with both actual and underwritten cash flow data
45 Properties with capital needs data
15 Expiring-use properties

45 properties with capital needs data

$756 per unit per year average capital needs
$527 per unit per year current Reserve deposits
26.7% had average capital needs exceeding $1000 per unit per year
37.8% had average capital needs below $500 per unit per year
4.3% of CNAs were for periods of 10 years or less
61.7% of CNAs were for periods of 11-15 years
29.8% of CNAs were for periods of 16-20 years
4.3% of CNAs were for periods of 21+ years
47.1% could meet 20-year capital needs through reserves and cash flow alone
52.9% could meet 20-year capital needs through reserves, cash flow, and refinancing

70 Properties with both underwriting and actual cash flow data

Gross Potential Income Performance
62.9% had greater GPR than underwritten
37.1% had lower GPR than underwritten
On average, GPR was 10.3% higher (lower) than underwritten*

Rent Loss Performance (Vacancy, Bad Debts, Concessions)
On average, rent loss was 5.3% (underwritten)
and 3.5% (actual)
50.0% had actual rent loss below 3.0%
11.4% had actual rent loss above 10%
28.6% had actual rent loss greater than underwritten
10.0% had actual rent loss more than 5 percentage points greater than underwritten
58.6% had actual rent loss less than underwritten

Commercial and Other Income Performance
67.1% had actual commercial / other income greater than underwritten
20.0% had actual commercial / other income below underwriting by $50 PUPM or more

Effective Gross Income Performance
On average, EGI was 9.9% higher (lower) than underwritten*

Operating Expense Performance
On average, expenses were 16.2% higher (lower) than underwritten*
12.9% had lower operating expenses than underwritten
On average, expenses were $4,563 PUPA (underwritten)
and $5,025 PUPA (actual)
On average, administrative expense was 30.7% higher (lower) than underwritten*
On average, utility / trash expense was 32.7% higher (lower) than underwritten*
On average, O&M expense was 21.6% higher (lower) than underwritten*
On average, insurance expense was 45.7% higher (lower) than underwritten*
On average, real estate taxes were 31.6% higher (lower) than underwritten*

Net Operating Income Performance

	On average, NOI was	5.9%	higher (lower) than underwritten*
	On average, NOI was	$2,058	per unit per year (underwritten)
	and	$2,179	per unit per year (actual)
4.3%	had negative NOI		
54.3%	had actual NOI greater than underwritten		
8.6%	had actual NOI at least $2000 per unit greater than underwritten		
45.7%	had actual NOI lower than underwritten		
7.1%	had actual NOI at least $2000 per unit lower than underwritten		

Operating Cash Flow Performance

	On average, Cash Flow was	-6.8%	higher (lower) than underwritten*
	On average, Cash Flow was	$932	per unit per year (underwritten)
	and	$869	per unit per year (actual)
51.4%	had actual operating cash flow greater than underwritten		
8.6%	had actual operating cash flow at least $2000 per unit greater than underwritten		
48.6%	had actual operating cash flow lower than underwritten		
7.1%	had actual operating cash flow at least $2000 per unit lower than underwritten		
25.7%	had negative operating cash flow in 2004		
2.9%	had negative operating cash flow in 2004, above $100 per unit per month		
0.0%	had negative operating cash flow in 2004, above $200 per unit per month		

Sustainability Gap

52.9%	had no sustainability gap
32.9%	had a sustainability gap exceeding $5,000 per unit
47.1%	are sustainable without needing a refinance or debt restructuring
5.7%	are sustainable via refinance but not via debt restructuring
0.0%	are sustainable via debt restructuring but not via refinance
0.0%	are sustainable via either debt restructuring or refinance
47.1%	have a sustainability gap that cannot be eliminated via internal financial resources

Expiring-Use Analysis

42.9%	have current value (assuming continuation of affordability) that exceeds hard debt by $5000 per unit or more
5.7%	have current value (assuming continuation of affordability) that exceeds hard debt by $25,000 per unit or more
$4.0	million estimated funds to exercise nonprofit GP options to purchase (15 properties)
$1.4	million to cover the sustainability gap
$2.2	million to cover the option exercise price
$0.4	million to cover transaction costs

* Average of percentage variance for the sample portfolio. This will not agree with Table 3.5.A, which uses a different calculation. That is, this sheet reports the average of the variances, and Table 3.5.A reports the variance of the average dollar amounts.

Appendix 5: Costs to Preserve The Expiring-Use Portfolio

(Funding that the Nonprofit GP Would Have to Assemble, to Exercise its Option and Achieve Sustainability)

#	Property Name	Number of Units	Cash Option / Unit	Sustainability Gap Per Unit	Other Costs Per Unit	Cash to Close, Per Unit	Cost Category
7	Abbott Block	19	$2,209	$5,107	$1,050	$8,367	Moderate
11	Battenkill Drive	8	$5,000	$11,589	$2,536	$19,125	High
13	Bristol- New construction	9	$6,696	$239	$2,206	$9,141	Moderate
14	Caledonia Housing Partnership	28	$5,000	$3,969	$710	$9,679	Moderate
18	Congress & Park Streets	12	$5,000	$5,243	$1,674	$11,917	Moderate
25	Franklin Homestead Elderly Hou	23	$5,000	$2,278	$853	$8,130	Moderate
41	Mountain View Apts (1989)	72	$5,000	$0	$278	$5,278	Low
42	Newport, Derby Line Scattered	22	$5,000	$7,184	$907	$13,091	High
43	North Branch Apts (Elm St/Barr	39	$5,000	$11,313	$508	$16,821	High
46	Pine Meadow Family Housing	30	$5,000	$6,451	$682	$12,133	Moderate
52	Salmon Run	80	$9,207	$0	$250	$9,457	Moderate
58	Spring & Elliott Street	16	$0	$0	$1,250	$1,250	Low
60	Thayer House/Brandon	9	$5,000	$5,609	$2,169	$12,778	High
64	Tricor Village Apts.-Swanton	16	$5,000	$0	$1,250	$6,250	Low
66	Waterbury Housing & Senior	14	$5,000	$13,332	$1,454	$19,786	High
15	Properties	397	$4,874 average	$4,821 average	$1,185 average	$10,880 average	

#	Property Name	Number of Units	Cash Option	Sustainability Gap	Other Costs	Cash to Close
7	Abbott Block	19	$41,968	$97,042	$19,958	$158,968
11	Battenkill Drive	8	$40,000	$92,708	$20,292	$153,000
13	Bristol- New construction	9	$60,267	$2,147	$19,853	$82,267
14	Caledonia Housing Partnership	28	$140,000	$111,124	$19,876	$271,000
18	Congress & Park Streets	12	$60,000	$62,915	$20,085	$143,000
25	Franklin Homestead Elderly Hou	23	$115,000	$52,383	$19,617	$187,000
41	Mountain View Apts (1989)	72	$360,000	$0	$20,000	$380,000
42	Newport, Derby Line Scattered	22	$110,000	$158,055	$19,945	$288,000
43	North Branch Apts (Elm St/Barr	39	$195,000	$441,193	$19,807	$656,000
46	Pine Meadow Family Housing	30	$150,000	$193,542	$20,458	$364,000
52	Salmon Run	80	$736,580	$0	$20,000	$756,580
58	Spring & Elliott Street	16	$0	$0	$20,000	$20,000
60	Thayer House/Brandon	9	$45,000	$50,479	$19,521	$115,000
64	Tricor Village Apts.-Swanton	16	$80,000	$0	$20,000	$100,000
66	Waterbury Housing & Senior	14	$70,000	$186,642	$20,358	$277,000
15	Properties	397	$2,203,815	$1,448,229	$299,771	$3,951,815

Summary by Cost Category (High Cost = $12,500 per unit or more, Low Cost = $7500 per unit or less)

5 High	7 Moderate	3 Low
33% High	47% Moderate	20% Low