

How CHIP supports capital stacks for much-needed housing

April 2025

Project Background

AARP Vermont partnered with Smart Growth America (SGA), through AARP's <u>Livable</u> <u>Communities</u> Technical Assistance Program (LC-TAP), to study the proposed CHIP program and its potential impact on housing development. The LC-TAP program provides capacity to help AARP State Offices guide policies and projects to support communities to be vibrant and accessible for people of all ages. Addressing housing needs is a vital goal for the Livable Communities Program, including supporting the delivery of homes appropriate for multi-generational living, aging in place and meeting accessibility needs.

SGA is also working with AARP VT through LC-TAP on a forthcoming review of the state's current approach to Tax Increment Financing (TIF) in comparison to other states across the US that have successfully leveraged infrastructure funding to enable smart growth and increased housing production. The goal of this effort is to compare key policy elements and requirements to Vermont's current approach, and to support exploration of new approaches to fund infrastructure for housing, such as CHIP.

SGA has supported AARP VT in an analysis of VTrans' efforts to reclassify state highways, and has worked directly with Vermont's Department of Housing and Community Development on <u>Designation 2050</u>, an assessment of Vermont's state-level designation program which informed Act 181.

Vermont Economic Overview for Housing

Vermont faces a confluence of challenges in its housing sector as a Vermont Agency of Commerce and Community Development (ACCD) report from summer 2024 highlights:¹

- Vermont is likely to need an additional 24,000 to 36,000 homes by 2029.
- Between 2019 and 2023, the purchase price for single-family homes increased 38%.
- Between 2019 and 2023, the purchase price for mobile homes with land increased by 37%.

https://accd.vermont.gov/press-releases/department-housing-and-community-development-releases-latest -vermont-five-year.





¹ Department of Housing and Community Development. (2024, August 29). Department of Housing and Community Development releases the latest Vermont five-year housing needs assessment. Vermont Agency of Commerce and Community Development.

- Half of all Vermont renters spend more than 30% of their income on housing.
- One quarter of all Vermont renters spend more than 50% of their income on housing.
- The portion of Vermont households that own their homes has remained fairly constant since 2010 at 70-72%.

For the housing construction sector, several challenges arise stemming from demographic shifts, escalating material costs, and land acquisition hurdles. A significant portion of the construction workforce is aging; over 20% are 55 or older, and Vermont's 15,600 construction labor pool would have to grow substantially to meet its needs. With increased workloads from FEMA flood repairs,² many housing producers face pipeline delays in finding the labor necessary to complete projects.³

This demographic trend is exacerbated by the state's high cost of living, ranked as the 10th most expensive in the U.S., which can deter potential in-migrants.⁴ The state has only a limited influx of younger workers, as Vermont's net migration remains modest, with only 26,743 people moving to the state in 2023 according to the US Census.

The financial viability of new housing projects is further strained by rising construction material costs, influenced by recent federal tariffs. Tariffs on imported building materials, such as lumber and steel, have increased the cost of constructing a single-family home by \$7,500 to \$10,000.⁵ As of 2024, the total cost to construct a modest apartment or small home in Vermont has surged to approximately \$500,000, up from about \$370,000 in 2022, according to the Vermont Housing Finance Agency. This increase is attributed to rising expenses in land acquisition, labor, materials, and lending.⁶ For multi-family housing projects, hard costs—which encompass labor, materials, and permitting—ranged between \$350,000 and \$400,000 per unit in 2023–2024. When factoring in soft costs, such as design, financing, and regulatory compliance, the total per-unit cost escalates to between \$400,000 and \$500,000, with more complex sites incurring even higher expenses.⁷

https://www.ecosproject.com/wp/wp-content/uploads/2024/10/Data_BuildingHomesTogether_FINAL_20 241027.pdf.



² U.S. Bureau of Labor Statistics. (n.d.). All employees: Construction in Vermont (VTCONS). FRED, Federal Reserve Bank of St. Louis. Retrieved April 29, 2025, from https://fred.stlouisfed.org/series/VTCONS ³ Peters, O. (2024, June 9). Vermont's contractors are busy but many are constrained by workforce and cost

increases. Vermont Business Magazine. https://vermontbiz.com/news/2024/june/09/vermonts-contractors-are-busy-many-constrained-workforce -and-cost.

⁴ Flynn, J., & Vorrasi, E. (2024, November 21). Moving to Vermont statistics (2025 data). ConsumerAffairs. https://www.consumeraffairs.com/movers/moving-to-vermont.html.

⁵ The Associated Press, WCAX. (2025, March 17). Tariffs on lumber and appliances set stage for higher costs on new homes and remodeling projects. WCAX.

https://www.wcax.com/2025/03/17/tariffs-lumber-appliances-set-stage-higher-costs-new-homes-remodel ing-projects/.

⁶ Allen, A. W. (2023, September 6). Amid soaring construction costs, developers consider building modular homes. Seven Days.

https://www.sevendaysvt.com/news/amid-soaring-construction-costs-developers-consider-building-modul ar-homes-39042788.

⁷ Champlain Housing Trust, Chittenden County Regional Planning Commission, & Evernorth. (2024, October). Building Homes Together 2.0: Annual Progress Report. ECOS Project.

These financial pressures are compounded by Vermont's rural geography, which limits economies of scale, and by regulatory challenges that can delay projects and inflate costs. For instance, a 25-unit mixed-income housing development that was delayed by permit appeals experienced significant cost increases due to construction loan interest rates more than doubling between 2022 and 2025, resulting in an overall project cost of \$15.4 million.⁸ Such economic and regulatory factors create a complex environment for housing development in Vermont, necessitating strategic solutions to address the intertwined issues of labor shortages, rising costs, and land availability.

These additional expenses are particularly burdensome in Vermont, where land acquisition costs are already high, and the state's rural nature limits economies of scale. The topography of many developed areas, as well as challenging seasonal conditions, can make construction even more unpredictable. Together, these factors create a complex environment for housing development in Vermont, requiring strategic solutions to address the intertwined issues of labor, cost, and land availability.

Real Estate Investments and Capital Markets

In evaluating housing development feasibility, it is also critical to understand the return expectations that drive investment decisions. While it may appear that developers are "making plenty of money," the reality is more nuanced: real estate developers typically require projected internal rates of return (IRR) in the range of 12% to 18%, depending on project risk, timing, and capital stack. Projects with more public funding or guaranteed tenancy may fall on the lower end of that spectrum, while market-rate or speculative developments often require even higher returns— especially in rural or high-cost contexts like Vermont.

Why such high expectations? The answer lies in the principles of opportunity cost and risk-adjusted capital allocation. Capital—whether it comes from individual developers, investment funds, or lenders—flows to where it can achieve the best combination of return and risk. If a developer cannot reasonably project a return in the low- to mid-teens, they (or their capital partners) will often choose to deploy their money elsewhere—such as into equities, REITs, or U.S. Treasuries—where liquidity is higher, risk is more diversified, and returns can still be competitive. Unlike passive investments, real estate development involves significant upfront risk: entitlement delays, permitting risk, construction cost volatility, environmental exposure, lease-up uncertainty, and illiquidity. These risks necessitate a potential return premium above "safe" or "liquid" investments to justify the effort and exposure.

This calculus has become even more difficult in early 2025, as the cost of capital has risen sharply due to macroeconomic instability. Interest rates on construction and permanent financing have climbed, with bank loan rates ranging from 6.5% to 8.5% for even well-underwritten projects. At

⁸ Kurrle, L. (2025, March 21). Column: Appeals too often delay housing construction. Valley News. https://www.vnews.com/Column-How-appeals-drive-up-the-cost-of-housing-60104844.







the same time, the bond market has sent mixed signals: in April 2025, yields on U.S. Treasuries surged following weak demand at several major auctions, forcing the federal government to offer higher returns to attract investors. This has led to broader upward pressure on all forms of debt, making private lending more expensive and pushing equity investors to demand higher real estate yields to compete with 5.5%+ US Treasury returns.

For developers, this means that baseline return expectations have shifted upward, even for relatively conservative deals. A project that previously might have been viable with a projected 10%–12% IRR now needs to clear 13%–15% just to compete for capital. Without the CHIP program public participation—such as infrastructure cost offsets through CHIP—these higher hurdles can render many Vermont housing projects financially infeasible, particularly those with an affordable housing component that limits rental income. Meanwhile, housing demand and costs have continued to climb in Vermont.

Multifamily 60-unit Project

Project Overview and Assumptions

This first analysis considers a 60-unit multifamily housing development in a higher density setting in Vermont, with a mix of market-rate and affordable rental units. The total development cost is approximately \$25 million, consistent with Vermont's current construction costs (roughly \$400k-\$500k per unit when all costs are included).⁹. For example, a recent affordable project in Middlebury reported about \$500,000 per unit in development cost.¹⁰.

Assuming some efficiencies from a mixed-income approach, a \$25 million budget is projected to produce on the order of ~60 units (\approx \$416k per unit).

In this model, we assume ~25% of the units (\approx 15 units) are affordable (eligible for Low-Income Housing Tax Credits at 60% AMI), and ~75% (\approx 45 units) are market-rate units.

Rent and Income Assumptions:

- The affordable units are targeted to households at or below 60% Area Median Income (AMI), translating to rents roughly in the \$1,100-\$1,300 range (depending on unit size).
- Market-rate units are assumed to achieve higher rents aligned with rents in Vermont's most competitive housing markets, roughly \$1,800-\$2,200 per month for 1-2 bedroom

https://www.middleburycampus.com/article/2024/04/first-units-of-new-middlebury-affordable-housing-d evelopment-expected-to-alleviate-housing-burden-for-staff. ¹⁰ Ibid.







⁹ Wagner, B. (2024, April 4). First units of new Middlebury affordable housing development expected to alleviate housing burden for staff. The Middlebury Campus.

apartments (for context, a new 1-bedroom in the Burlington area rents around \$1,735).¹¹ We assume a 5% vacancy rate at stabilization (95% occupancy).

• Lease-up (absorption) is expected to occur over a 4–6 month period post-construction, leasing ~10-15 units per month until stabilized.

Operating Cost Assumptions:

- Operating expenses (maintenance, management, insurance, property taxes, etc.) are estimated at about \$7,000-\$8,000 per unit per year, in line with Vermont multifamily averages.¹²
- This equates to roughly \$420k-\$480k annual operating costs for the 60 units. At stabilized occupancy, the project's Net Operating Income (NOI) is expected to support a conventional permanent mortgage on roughly 50% of the development cost (details in capital stack below), assuming a debt coverage ratio ≥1.20.

Development Costs (Uses of Funds)

The table below summarizes the total project uses (the development budget) for the 60-unit project, sourced from interviews with developers working in Vermont. These figures include all hard and soft costs necessary to build and deliver the housing:

Use of Funds	Amount (USD)	Description	
Land Acquisition	\$1.0 million	Purchase of site/land for development	
Site Infrastructure & Prep	\$2.0 million	Roads, water/sewer lines, excavation, etc.	
Hard Construction (Building)	\$15.0 million	Vertical construction costs for 60 units (materials, labor, contractor)	
Soft Costs (Arch, Eng, Legal)	\$3.0 million	Architecture, engineering, permits, legal, and other professional fees	
Developer Fee	\$1.5 million	Developer's fee (potentially partly deferred as equity)	
Financing & Carry (Interest, Fees)	\$1.0 million	Construction loan interest, origination fees, permits, insurance during construction	

¹¹ Blake, K., Kho, E., & Finch, S. (2024, December 2). Cost of living in Vermont [2025]. Apartment List. https://www.apartmentlist.com/renter-life/cost-of-living-in-vermont.

¹² Vermont Housing Finance Agency. (2020, March). Operating expense guidelines.

 $https://vhfa.org/documents/developers/operating_expense_guidelines_2020.pdf.$







Contingency	\$1.5 million	~6% contingency for unforeseen costs
Total Development Cost	\$25.0 million	

Cost Basis:

The hard construction cost of ~\$15M (60% of total) equates to \$250k/unit for direct building costs. The remaining 40% covers land, infrastructure, soft costs, fees, and financing. This breakdown is in line with typical multifamily development pro formas in Vermont.

High construction and labor costs have driven per-unit prices up significantly in recent years, with significant recent volatility due to tariffs and U.S. policy changes.¹³ This market environment has necessitated substantial soft funding or equity to fill financing gaps for affordable units.

Scenario 1: Financing Without CHIP Support

In the base scenario (no CHIP support), the project's \$25M cost must be financed through conventional means: private debt, equity (including any tax credit equity for affordable units), and possibly other housing subsidies.

Source of Funds – No CHIP	Amount (USD)	% of Total	Details
Construction/Permanent Loan	\$12.5 million	50%	First mortgage from bank or VHFA. Sized on project's NOI (covers ~50% of cost).
LIHTC Equity (Tax Credit Investment)	\$3.0 million	12%	Equity from Low-Income Housing Tax Credits sold to investors (supports affordable units). ¹⁴
Developer Equity & Deferred Fee	\$9.5 million	38%	Developer's cash equity, plus any deferred developer fee or gap funding from other sources.

Below is the Sources of Funds table for this scenario:

https://www.ncsha.org/hfa-news/vhfa-awards-40-million-for-affordable-housing/.







¹³ NHCA, Vermont Housing Finance Agency. (2024, April 18). VHFA awards \$40 million for affordable housing. National Council of State Housing Agencies.

https://www.ncsha.org/hfa-news/vhfa-awards-40-million-for-affordable-housing/.

¹⁴ NHCA, Vermont Housing Finance Agency. (2024, April 18). VHFA awards \$40 million for affordable housing. National Council of State Housing Agencies.

Housing Infrastructure (CHIP)	\$O	0%	No CHIP support in this scenario.
Total Sources	\$25.0 million	100%	

Capital Stack (No CHIP):

In this scenario, the capital stack is comprised of roughly 50% debt, 12% tax credit equity, and 38% sponsor equity.

The permanent loan of \sim \$12.5M is assumed at a competitive interest rate (e.g. \sim 5–6%) and 30-40 year amortization, which the projected NOI can *just* support with a \sim 1.20 debt coverage ratio. A larger loan is likely not obtainable due to loan-to-value and debt coverage ratio limitations.

The LIHTC equity of ~\$3M comes from a 4% LIHTC allocation tied to the 15 affordable units (e.g. via tax-exempt bond financing); this injection covers about 12% of total costs – far less than a 9% LIHTC deal would cover, but still a critical program for the affordable units.

The remainder—nearly \$9.5M (38%)—must be covered by the developer's equity, which may include cash, a deferred developer fee, or potentially other gap financing (such as state housing trust fund grants or local contributions).

Without a dedicated infrastructure program, the \$2M infrastructure cost is effectively borne by the developer (either directly or via additional local subsidies), adding significantly to the equity gap.

Feasibility (No CHIP):

This financing structure is at best challenging and likely not feasible – the developer must invest (or obtain from investors) a large equity stake, which would reduce project return on investment, likely below a level that would attract the necessary investment and risk whether any units would be built at all (a common scenario in Vermont).

The heavy equity requirement is largely due to the inclusion of affordable units (which limit rent revenue and the size of the mortgage) combined with the lack of outside infrastructure funding. The project likely relies on the market-rate units' income to improve viability.

If no additional subsidies are available, the developer's return would be tight, and they may need to defer a portion of their fee or seek alternative public funds to make the numbers work. A likely scenario is simply the inability to attract capital and the project does not move forward.

In summary, without CHIP the project's feasibility is strained at best and likely would not proceed, as a significant portion of the \$25M must come from high-cost capital (equity) with insufficient return on investment, rather than low-cost financing.



Scenario 2: Financing With CHIP Support

In the CHIP-supported scenario, the project leverages Vermont's Community Housing Infrastructure Program (CHIP) to finance the critical infrastructure components of the development. The CHIP program allows a municipality to use up to 80% of the new property tax increment generated by the project for up to 20 years to repay debt for infrastructure improvements.

In effect, this operates like a targeted tax-increment financing mechanism to cover roads, water/sewer, and other public infrastructure needed for housing. By tapping CHIP, the project can fill the infrastructure funding gap with future tax revenue, reducing the immediate burden on the developer's budget. The revised Sources of Funds are as follows:

Source of Funds – With CHIP	Amount (USD)	% of Total	Details
Construction/Permanent Loan	\$12.5 million	50%	First mortgage loan (similar sizing as no-CHIP scenario, based on project NOI).
LIHTC Equity (Tax Credit Investment)	\$3.0 million	12%	4% LIHTC equity from investors (unchanged, still tied to affordable units).
Housing Infrastructure (CHIP) Financing	\$2.0 million	8%	CHIP funds (TIF-backed municipal or developer loan) to cover infrastructure costs, repaid by future property tax increment.
Developer Equity & Deferred Fee	\$7.5 million	30%	Developer's equity and deferred fee (reduced due to CHIP filling part of the gap).
Total Sources	\$25.0 million	100%	

Capital Stack (With CHIP):

With CHIP support, the overall capital stack shifts to 50% debt, 12% LIHTC equity, 8% CHIP/tax-increment financing, and 30% developer equity. The CHIP contribution of ~\$2M (around 8% of total development cost) specifically offsets the site infrastructure expenses.

Practically, this could be executed by the municipality issuing a bond or the developer taking on a loan for the \$2M infrastructure, with debt service paid down via the project's future property tax revenues over 20 years.



Developer equity is correspondingly lowered to ~\$7.5M (from \$9.5M), since the CHIP funds fill that portion of the budget. Notably, the primary mortgage and LIHTC equity remain about the same as before – CHIP does not directly increase rent or reduce operating costs, so the project's NOI and tax credit allocation are unchanged. Instead, CHIP replaces a chunk of high-cost capital with a dedicated infrastructure funding stream backed by taxes.

Impact on Feasibility:

The CHIP program significantly improves the project's feasibility and financing structure.

By covering \$2M of costs that would otherwise fall on the developer, CHIP *lowers the upfront capital needed* and thus improves the developer's and investors' return on equity. In other words, the project can be undertaken with less private capital at risk. This can make the difference between a project that is financially marginal at best versus one that is attractive enough to proceed.

The CHIP financing effectively acts as a form of public participation in the project's infrastructure, without an outright grant – the developer benefits from reduced costs, and the debt is serviced by the project's own property tax generation over time. The result is a more robust capital stack: the developer's equity share drops to 30%, which is more typical for mixed-income projects (and could potentially be further reduced if combined with other grants or a larger tax credit allocation).

The lower equity requirement means the developer could, for example, charge more affordable rents or accept a slightly lower profit and still move forward, because the financial gap is smaller. But the value of a reduced equity burden extends beyond feasibility. Depending on the development team's mission and local priorities, this added flexibility could be reinvested in the project itself—for instance:

- Adding more units than initially planned, or shifting the mix to include more affordable homes
- Incorporating enhanced design features, such as ADA-accessible units, energy-efficient upgrades, or EV charging infrastructure
- Improving site amenities like streetscaping, green infrastructure, or transportation demand management (TDM) elements that support walkability and reduce car dependence
- Meeting higher thermal or sustainability standards, such as Passive House or all-electric construction, which might otherwise be value-engineered out

Overall, the CHIP-supported scenario has a stronger likelihood of securing financing and reaching financial close, as both lenders and investors will view the project as less risky with public infrastructure support. It demonstrates how CHIP can "unlock" housing projects that would be infeasible otherwise by covering infrastructure costs through future tax revenue—while also creating the breathing room to deliver broader **public value** consistent with Vermont's smart growth, climate, and equity goals.



Return on Investment

To understand how CHIP impacts the financial viability of the 60-unit project, we can evaluate the effect on the developer's return using a simplified cash-on-cash approach. In the base scenario without CHIP, the developer must contribute approximately \$9.5 million in equity. With an estimated annual net operating income (NOI) of \$1.5 million, this yields a cash-on-cash return of about 15.8% before financing costs. If we introduce CHIP, which offsets \$2 million in site infrastructure expenses, the required developer equity drops to \$7.5 million. With the same NOI, the return on equity increases to 20.0%—a meaningful boost in investor yield.

This 4.2 percentage point improvement may be the difference between a marginal deal and one that clears an investor's hurdle rate. For example, if the project was previously hovering near a 10% internal rate of return (IRR) after accounting for financing costs, the addition of CHIP could raise the return to 12–13%, bringing it in line with the levels typically required by equity investors. In a high-cost, high-risk environment like Vermont, this kind of incentive program can be essential to unlocking projects that otherwise would not attract sufficient capital.

Bottom Line: CHIP's Impact on Return

Scenario	Developer Equity	Cash-on-Cash Return (before debt)	Estimated ROI After Debt
No CHIP	\$9.5M	15.8%	~10%
With CHIP	\$7.5M	20.0%	~12-13%

Summary: Multifamily 60 Unit CHIP vs. No CHIP

In summary, both scenarios deliver a 60-unit mixed-income housing community with a total development cost of \$25 million. The Uses of Funds (land, construction, etc.) are identical, but the Sources of Funds differ markedly:

- Without CHIP: The developer must finance the full cost with conventional loans, LIHTC equity (for the affordable portion), and a large equity contribution. This scenario has a higher financial burden on the developer (nearly \$2M more equity required), squeezing project returns and making the deal unlikely to proceed.
- With CHIP: A portion of the capital stack is replaced by the Community Housing Infrastructure Program funding, which uses the project's own future property tax increment to pay for infrastructure. This lowers the required developer equity and improves the financial feasibility. The project can support the same first mortgage and tax



credit equity, but now has an \$2M public-private funding component that strengthens the deal.



Capital Stack Comparison - 60-unit Project

The inclusion of CHIP thus enhances project viability by addressing one of the key cost components – infrastructure – that often poses a barrier to housing development. By easing the financing load on that portion, the project is more likely to proceed on schedule and deliver both market-rate and affordable homes, helping to address Vermont's pressing housing needs. In essence, the CHIP-supported scenario illustrates a feasible path forward for the project, whereas the non-CHIP scenario might struggle without additional subsidies or cost reductions. The impact of CHIP is a more balanced capital stack and an improved chance that the development can secure funding and ultimately be built.

This outcome supports broader Smart Growth and livability goals, including:

- Efficient land use by facilitating infill or higher-density development near jobs, schools, and services
- Reduced vehicle miles traveled (VMT) by enabling housing in walkable, transit-accessible areas
- Mixed-income communities that foster economic integration and housing choice
- Environmental resilience through reuse of already-serviced land and infrastructure
- Stronger local tax base generated from new housing without burdening general funds up front



By improving feasibility at the front end, CHIP doesn't just support a single project—it helps ensure that needed housing is delivered in the right places, with long-term community benefits that align with Vermont's smart growth principles.

Adaptive Reuse and Small-Scale Development: Fairlee Small-Scale Affordable Housing Conversion

Project Overview

This case examines a small-scale adaptive reuse housing project in downtown Fairlee, Vermont, where a dilapidated single-family home and attached barn were redeveloped into six new affordable rental apartments. The total development cost was approximately \$1.32 million, reflecting an average per-unit cost of about \$220,000—a figure notably lower than typical new construction costs in Vermont's rural towns. The project timeline included site acquisition, design, permitting, and construction, undertaken by a local developer motivated by a desire to expand affordable housing options in Fairlee. These data are sourced from publicly available Substack posts written by the developer himself, who emphasizes community revitalization and long-term value over short-term profits.

The project showcases the unique challenges and importance of small-scale, community-based infill housing development in rural Vermont. It also underscores the funding gaps that such projects face without creative capital stacking and public sector support.



Development Costs (Uses of Funds)

Use of Funds	Amount (USD)	Description
Land and Building Acquisition	~\$150,000	Purchase of a deteriorated house and barn
Environmental Testing & Due Diligence	~\$20,000	Site assessments, limited remediation work
Hard Construction Costs	~\$950,000	Gut rehab and reconstruction to create six apartments
Soft Costs (Design, Legal, Permits, Fees)	~\$150,000	Architecture, engineering, legal, insurance
Contingency	~\$50,000	Construction and environmental contingency (~5%)
Total	~\$1,320,000	Inclusive of all phases and contingencies

Notes:

- Hard construction included full structural rehabilitation, new systems (HVAC, plumbing, electrical), and ADA-compliant units.
- Environmental costs were relatively modest compared to brownfield sites but still required upfront due diligence.
- Like other rural Vermont projects, construction loan interest rates were a significant burden due to recent increases.

Scenario 1: Financing Without CHIP Support

In the actual case, the developer relied on a blend of conventional debt, local grant support, and private equity to fund the project. Due to the small project size, rural location, and mission-driven nature of the development, traditional financing sources were limited, and creative solutions were required to bridge funding gaps. Despite a relatively low per-unit cost compared to statewide averages, the project faced significant financial constraints because of rising construction interest rates, moderate rent ceilings, and the upfront costs of rehabilitating an aging structure.

Below is an illustrative capital stack for the project without CHIP infrastructure support:



Source of Funds	Amount (USD)	% of Total	Details
Local/State Grants	~\$250,000	~19%	Small grants for affordable housing and historic preservation
Private Loan	~\$800,000	~61%	Conventional bank loan (~7% interest, 20-year amortization)
Developer Equity	~\$270,000	~20%	Cash equity and deferred developer fee
Total	~\$1,320,000	100%	

Capital Stack (No CHIP):

In this baseline scenario, the capital stack relies heavily on conventional private debt (~61%) and developer equity (~20%), with a modest contribution from local and state grant programs (~19%). The relatively large loan size created pressure on project cash flow, especially given conservative rural rent assumptions and the need to maintain affordability standards.

Additionally, the developer bore full responsibility for covering site improvements and utility upgrades—costs that, while moderate compared to larger brownfield projects, still strained the available equity and contingency budgets. The reliance on significant debt financing increased project risk, and feasibility was maintained only through the developer's willingness to accept tight margins and through careful cost containment during construction.

Scenario 2: Financing With CHIP Support

If the CHIP program had been available for this project at the time—even scaled to fit a small-scale rural infill project—it could have directly financed key infrastructure elements such as utility tie-ins, ADA site upgrades, minor road/paving work, and environmental mitigation. By using future property tax increment revenues to repay infrastructure costs, CHIP would have reduced the immediate capital burden on the developer and substantially improved project feasibility.

Source of Funds	Amount (USD)	% of Total	Details
Local/State Grants	~\$250,000	~19%	Same local/state grant support for affordable housing

Below is an illustrative CHIP-supported capital stack:





CHIP Infrastructure Financing	~\$150,000	~11%	Covers eligible infrastructure costs (utility, ADA, paving)
Private Loan	~\$650,000	~49%	Smaller conventional loan due to lower hard costs
Developer Equity	~\$270,000	~21%	Cash equity and deferred developer fee (similar contribution)
Total	~\$1,320,000	100%	

Capital Stack (With CHIP):

Under this structure, approximately \$150,000 of hard-to-cover infrastructure costs would be financed through CHIP and repaid gradually via the project's future property tax generation. This adjustment allows the private loan to shrink by roughly \$150,000 compared to the no-CHIP scenario, reducing monthly debt service obligations and improving project resilience.

Importantly, this structure would not have reduced the developer's equity contribution but would have made that equity more powerful: the project would experience better debt service coverage, lower financial risk, and a higher probability of absorbing modest unexpected costs without endangering overall feasibility.

Return on Investment

To understand how CHIP participation would affect the return on investment (ROI) for this small-scale multifamily housing project, we adjust the financing structure to account for lower debt service and improved cash flow stability. Based on the project's modest affordable rent assumptions and rural location, a realistic baseline ROI without CHIP support is estimated at approximately 8–10%, reflecting tight margins typical for mission-driven affordable housing projects in Vermont.

In the no-CHIP scenario, the developer carries a loan of roughly \$800,000, resulting in relatively high annual debt service requirements. Combined with modest rental income, this structure yields a constrained ROI—around 8–10%—which is viable only because the developer is willing to accept reduced returns for community benefit.

In the CHIP-supported scenario, the loan amount would shrink to approximately \$650,000, thanks to ~\$150,000 in infrastructure costs being offset by future property tax increment (TIF-like repayment). This smaller loan improves debt coverage ratios and preserves more of the net operating income for return on equity. As a result, the project ROI could increase to approximately 12–13%, reflecting a stronger and more sustainable financial footing.



The addition of CHIP would thus bring the project's ROI closer to the thresholds typically needed to attract financing and developer interest—even for small, rural projects where margins are inherently tight.

Scenario	Developer Equity	Loan Size	Estimated ROI
No CHIP	~\$270,000	~\$800,000	~8-10%
With CHIP	~\$270,000	~\$650,000	~12-13%

Bottom Line: CHIP's Impact on ROI (Small-Scale Housing Project)

Summary: Small-Scale Multifamily CHIP vs. No CHIP

In summary, both the no-CHIP and CHIP-supported scenarios deliver the same fundamental physical outcome: the adaptive reuse of a deteriorated single-family house and barn into six high-quality affordable rental apartments, revitalizing an important property near downtown Fairlee. However, the financial structures required to achieve that outcome differ substantially.

Without CHIP, the project relies on a patchwork of small grants, conventional debt, and a meaningful private equity contribution from the developer. The result is a higher debt burden—roughly \$800,000—and a constrained ROI of ~8–10%, barely meeting the thresholds needed for financial viability. Even with mission-driven motivations, the project carried elevated risks tied to cash flow tightness, construction contingencies, and rental absorption.

With CHIP, the project replaces about \$150,000 of upfront infrastructure spending with future tax increment-backed financing. This reduces the developer's conventional loan to approximately \$650,000, improves cash flow coverage, and elevates the ROI to ~12–13%—a return level more aligned with what is needed to reliably attract private financing, even for community-oriented developments.

The impact of CHIP in this case is not merely academic: it directly improves project resilience, reduces risk, and strengthens the overall capital structure, making it much more likely that small-town affordable housing efforts can succeed and be replicable.

Factor	No CHIP	With CHIP
Total Project Cost	~\$1.32M	~\$1.32M
Developer Equity Needed	~\$270,000	~\$270,000
Loan Size	~\$800,000	~\$650,000







Public Sector Support Type	Patchwork grants	Layered grants + CHIP infrastructure financing
Infrastructure Financing Gap	Covered by private debt and equity	Covered by CHIP
Estimated ROI	~8-10%	~12-13%
Likelihood of Success	High risk, tight margin	Moderate risk, sustainable margin

Capital Stack Comparison - Small Scale Housing



Follow-up

For more information on this study, contact AARP Vermont or Smart Growth America.

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