Feasibility Assessment for a Houston-focused Fund to Support the Preservation of Naturally-Occurring Affordable Housing

GROUNDED SOLUTIONS NETWORK

NATIONAL HOUSING TRUST

Executive Summary

There are tens of thousands of naturally occurring affordable housing (NOAH) units in Harris County. These NOAH units are priced at rates that are affordable[1] to households making 80% of the county's area median income (AMI). However, these units are under no form of regulation to remain affordable. At any moment, their rents could be raised to a level that is no longer affordable to low-income households, or they could be demolished and replaced with higher-cost units.

This important affordable housing resource is dwindling. According to the Joint Center for Housing Studies at Harvard University, the Houston Metropolitan Statistical Area (MSA) saw a 25-49% loss of low-rent stock between 2011 and 2017. [2]

The Houston office of the Local Initiatives Support Corporation—LISC Houston—is committed to preserving Houston's NOAH stock. The organization hired Grounded Solutions Network and the National Housing Trust (NHT) to examine the feasibility of creating a Houston-focused investment fund to support the preservation of NOAH multifamily rental properties. The consultants examined the underlying local conditions for NOAH preservation and analyzed the economic feasibility of different fund models.

Underlying Local Conditions

There are two underlying local conditions that serve as key prerequisites for successful NOAH preservation.

First, there must be developers who have the infrastructure to do NOAH preservation projects. NOAH preservation presents unique challenges and requires different skillsets and systems than construction of new affordable housing or even preservation of regulated affordable housing.

Most developers in the Houston region—and nationwide—have focused their work on new construction and/or preservation of regulated affordable housing; few developers have built the needed infrastructure to engage in NOAH preservation.

The second key prerequisite is money, both for the acquisition and rehabilitation of NOAH properties and to ensure rents can remain affordable to low-income households for the long term. Interviews with potential investors indicated mixed interest in investing in NOAH preservation. There is unlikely to be significant investment in NOAH preservation without public sector champions to direct public investment toward NOAH preservation and to help attract private-sector investment.

On balance, the conditions with respect to the two prerequisites for successful NOAH preservation are not particularly promising for the immediate launch of a NOAH preservation fund in Houston. However, there are tangible steps that can be taken to improve these conditions, as outlined in the recommendations portion of this report.

Economic Feasibility

The authors analyzed three potential fund models for NOAH preservation in Houston:

1. A fund to provide short-term capital to acquire and hold a NOAH property while long-term financing is assembled.

2. A fund to provide gap financing for NOAH projects that, once acquired, will be preserved with 4% housing credits.

1. Affordable means the household pays no more than 30% of their income for housing.
2. https://www.jchs.harvard.edu/son-2019-low-rent-units-map

3. A fund to provide subordinate gap financing behind the property's first mortgage, providing long-term financing for properties not preserved with housing credits.

One challenge with this analysis was that very few Houston developers have pursued NOAH preservation projects, which meant there was very little data from actual NOAH preservation projects to use as inputs for things like acquisition and rehabilitation costs. Model outputs, after all, are only as good as their inputs.

The analysis showed that potential fund returns to investors were below expected returns for market-rate investors, and in most cases also below expected returns for most financial institutions and philanthropic program-related investments. The best potential return modeled was a 7.5% project-level return, which, assuming 2% goes toward fund management, translates to a 5.5% return to investors. However, this level of return is only possible with a 20-year investment term, which is unusually long and could make it difficult to raise capital. Funds with shorter, more typical investment terms provided 2.5% or lower returns to investors, which could also make it difficult to attract capital.

Recommendations

Given these findings, the authors recommend a phased approach to increasing NOAH preservation in the Houston area:

- Phase 1: Raise capital to provide grants to developers for exploration and infrastructure-building around NOAH preservation.
- Phase 2: While developers are building their infrastructure, engage in education and build consensus around local NOAH preservation to get commitments for significant local investment in NOAH preservation.
- Phase 3: Re-evaluate the state of the two NOAH preservation prerequisites (developer infrastructure and money). If they are more promising, revisit the economic analysis and consider launching a NOAH preservation fund.

Introduction

In recent years, lack of affordable housing has become an increasing challenge for the Houston area. As of 2017, 627,910 households in Harris County made less than 80% of HUD's area median income (AMI) for the county. However, also as of 2017, there were only an estimated 90,000 regulated affordable housing units in the county that were under some form of regulation to rent to low-income households at affordable rents.[3]

That leaves 537,910 households earning below 80% of AMI who are not in regulated affordable housing. Some of those households are housing cost-burdened, meaning they pay more than 30% of their income for housing. Others live in naturally occurring affordable housing (NOAH), which are units that are currently priced at rates that are affordable to them but are under no form of regulation to remain affordable. Many of these NOAH properties are lower-priced because they are older and in need of repairs and/or improvements.

There is not one consistent definition of NOAH across the country with respect to the rents they charge and to whom those rents are affordable. Some amount of regional variation makes sense; how NOAH is defined should fit the income and housing costs of the community. Some communities may limit their definition of NOAH to housing affordable to households making up to 60% of AMI. For others, NOAH might include housing affordable to households making up to 120% of AMI. For the purposes of this project, we define NOAH as units currently priced at rates affordable to households earning at or below 80% of AMI but under no form of regulation to remain affordable.

In late 2017, LISC Houston hired January Advisors to create a database of NOAH multifamily rental properties in Harris County. The database identifies just over 2,500 NOAH multifamily rental properties renting at less than $1,000/month for studios and one-bedroom units, less than $1,300/month for two-bedroom units, and less than $1,600/month for three-bedroom units. Those rental rates are quite close to what would be an affordable rent for a household making 80% of AMI for the county in 2019.[4] This database does not include unit count for the properties, and there is currently no simple way to estimate the total number of NOAH units in the Houston area. Regardless of precise numbers, NOAH units provide a significant source of affordable housing for low-income households in the Houston area.

3. https://midtownhouston.com/wp-content/uploads/2018/07/Midtown-Affordable-Housing-Plan-_-Final_7.7.18.pdf
4. Affordable rents for 80% of AMI households for Houston in 2019: $1,069 for studios; $1,221 for one-bedroom units; $1,374 for two-bedroom units; $1,526 for three-bedroom units. Income limits from http://www.houstontx.gov/council/committees/housing/20190820/Area-Median-Income-Chart.pdf ; rents from Grounded Solutions' calculations using 30% of income affordability standard and "one person per bedroom + one extra per unit" household size.

However, this important affordable housing resource is dwindling. According to the Joint Center for Housing Studies at Harvard University, the Houston MSA saw a 25-49% decline in low-rent stock between 2011 and 2017.[5] Because NOAH units are under no form of regulation to remain affordable, they continue to be at risk. While some property owners may simply raise rents if the housing market will bear it, other property owners sell to speculators. The new owner may make modest improvements to units and then raise rents, or they may demolish the building and build higher-cost units in its place.

Hurricane Harvey exacerbated these issues. Over 200,000 households were impacted by Harvey, meaning the household sustained some form of damage to their home or personal property, with half of those affected earning below 80% of AMI.[6] Some damaged NOAH properties that are not currently habitable are at risk of being acquired by speculators, repaired and turned into high-cost properties. Even undamaged properties are at risk of exiting the affordable stock, as owners can now raise rents in a newly constrained rental market. Neighborhoods that didn't flood—such as Third Ward, Near Northside and OST/South Union—are at particular risk, as these areas may be seen as more desirable locations for development given their resilience to future flooding.

Without intervention, these NOAH units will remain at risk of being lost from the affordable stock, which would leave residents of those units unable to afford their home and likely unable to find another affordable home as the supply of affordable housing continues to decrease.

The threat—and reality—of NOAH loss is not unique to Houston. According to Freddie Mac, the number of apartments deemed affordable for very low-income families across the United States fell by more than 60% between 2010 and 2016.[7] But while the problem is both widespread and evident, the solutions are neither. NOAH preservation presents a variety of challenges—some of which we describe in this report—and only a relatively small number of places have launched NOAH preservation programs. The programs that do exist, while promising, are relatively new and most have yet to achieve NOAH preservation at scale.

Scope of Analysis

One strategy to stem the loss of NOAH is to form a pooled investment fund through which developers can access financing to acquire NOAH properties, often perform some amount of rehabilitation work, and continue to rent some or all of the units at affordable rents.

LISC Houston hired Grounded Solutions Network and the National Housing Trust (NHT) to conduct a feasibility analysis for a potential fund to preserve multifamily NOAH rental properties in the Houston region.[8]

The consultant team set out to answer two primary questions:

1. Are the underlying local conditions right for establishing a NOAH preservation fund in Houston?
2. Do the numbers work out? In other words, is there a fund model that can meaningfully help address the financial needs of developers while also providing an acceptable return to investors?

A pooled investment fund is just one of several potential approaches to stem the loss of NOAH. Other approaches include offering property tax reductions or repair funds in exchange for continued affordability. Minneapolis's 4d Affordable Housing Incentive Program provides apartment building owners with property tax reductions if they agree to keep 20% or more of their rental units affordable to households who earn up to 60% of AMI. The Washington, D.C., Small Buildings Program provides funds for limited systems replacement and other key repairs to property owners of 5- to 20-unit buildings if they agree to keep at least 50% of units affordable to households who earn up to 80% of median family income (MFI). While there are several approaches to NOAH preservation, this project focuses exclusively on a pooled investment fund to preserve multifamily NOAH rental properties.

5. https://www.jchs.harvard.edu/son-2019-low-rent-units-map
6. https://houstontx.gov/housing/plans-reports/Local-Housing-Needs-Assessment-112818.pdf
7. https://www.washingtonpost.com/news/wonk/wp/2017/10/23/americas-affordable-housing-stock-dropped-by-60-percent-from-2010-to-2016/
8. The scope of the project did not include design or implementation of a fund.

To answer those two questions, the consultant team:

- Researched NOAH funds from other communities, and other affordable housing funds in the Houston area, to understand how the funds work and identify key factors to their success. (A narrative description of each of the other funds studied as part of this work, as well as a comparative matrix, can be found in Appendices A and B);
- Held interviews with local real estate developers, potential fund investors and other local experts to understand the Houston context; and
- Conducted economic modeling of three potential fund types and structures.

This report details the consultant team's findings.

This analysis was conducted in late 2019 and early 2020, before the COVID-19 pandemic hit. No one can predict the full breadth and depth of the economic repercussions of the pandemic in the coming years. However, the need for—and shortage of—safe, affordable housing is likely to continue to be a challenge in the Houston region and across the country. Even if housing prices drop—or increase less rapidly—in an economic downturn, unemployment and/or declining wages will mean that even lower rents may remain out of reach for many families. The pandemic may make the need to act even more urgent.

Underlying Local Conditions

The first key question for the feasibility analysis is: Are the underlying local conditions right for establishing a NOAH preservation fund in Houston?

Through our research process, we determined that there are two underlying local conditions that act as key prerequisites for successful NOAH preservation efforts. The first prerequisite is developer infrastructure to do NOAH preservation projects. We interviewed developers from eight different development companies. Of these, five are Houston-area nonprofits, one is a large multi-state nonprofit, one a large multi-state for-profit, and one a Texas-focused for-profit.

When we initially planned this project, we intended to use these interviews to find out which developers had already been doing (or pursuing) NOAH preservation projects. We would then seek more detailed information from those who had been doing NOAH preservation on the costs of these projects (to inform our economic analysis) and on what types of loan products would be most useful from a potential fund. Through the course of our interviews, we discovered that very few developers have engaged in NOAH preservation in the Houston region. Only two of the developers with whom we spoke had pursued multifamily NOAH properties for preservation; only one of them (Avenue CDC) had completed multiple transactions.

When we asked the developers who had not engaged in NOAH preservation what the main barriers were to doing those types of projects, we received high-level feedback that there was a need for fast, cheap capital to meet the acquisition prices of value-add developers and to keep rents affordable for the long term. However, when we asked for more details about costs for properties they had tried to acquire, it turned out that, outside of the two developers who had successfully acquired multifamily NOAH properties, no others had attempted it. Their business models, we learned, are oriented to doing something different—either new construction of all-affordable or mixed-income projects or acquisition of Low-Income Housing Tax Credit (Housing Credit) projects with expiring restrictions. Acquiring and preserving NOAH is not what these organizations were built to do.

Preserving NOAH is very different from building new affordable housing and even from preserving traditional regulated affordable housing. It requires a different skillset and different organizational structure from developers. While there is a known universe of existing regulated affordable housing, NOAH preservation requires identifying which properties are market-rate properties serving low-income renters and which of those properties are good candidates for preservation.

The January Advisors database described earlier in this report is a valuable resource for identifying multifamily NOAH properties in the Houston region. Identifying these properties, however, is only the beginning of the process. Next, a developer must purchase the property. Acquiring these properties requires a unique set of skills and relationships, particularly if the NOAH preservation strategy involves acquiring properties that are not for sale on the open market. In addition, when a developer is considering acquiring a property, considerable staff time is required to visit the property, analyze the property and submarket, and interact with the seller's agent. For unsuccessful pursuits, this investment of time and resources represents a "loss" for the organization.[9] This is a contributing factor that makes it challenging for developers to build a new business model for NOAH acquisition. With respect to organizational structure, traditional affordable housing developers tend to have asset management and property management systems geared toward compliance with federal affordable housing requirements. They are not set up for NOAH properties which, depending on their financing, can operate more similarly to market-rate properties.

Most of the developers we spoke with in the Houston region do not currently have the appropriate infrastructure to engage in NOAH preservation.

The second prerequisite is money for NOAH preservation. Funds are needed to acquire and rehabilitate NOAH properties, and to ensure rents can remain affordable to low-income households for the long term. Money can be provided either by individual entities or as part of a pooled investment fund, and it can take the form of grants, loans, debt or equity.

Concurrent to our interviews with developers, we interviewed potential fund investors from 11 different entities. Of these, six are philanthropic entities, three are private sector financial institutions, and two are public agencies. Not surprisingly, feedback varied, with different entities expressing different priorities for their investments, different requirements for their returns, and different familiarity with financing affordable housing. A few common themes did emerge.

The philanthropic entities expressed concern about the loss of NOAH and were motivated to make an impact. However, they were cautious about exactly how to proceed. Several have traditionally provided support through direct grants only; a program-related investment in real estate would be a new form of support to navigate. Two had questions about the concept of a pooled fund. They noted that previous efforts to start a pooled fund in Houston had not come to fruition and emphasized the need to ensure professional management of the fund.

The financial institutions were open to learning more about the potential investment opportunity. Generally, however, they were already satisfied and comfortable with the affordable housing investments they were making—mostly in new construction—and not actively seeking additional affordable housing investment opportunities in the Houston area. Financial institutions also said they prefer to see a fund with a track record of success and participation from other institutional investors before making their own investments.

The public agencies understood the problem and the need for NOAH preservation in the region. To date, public agency leaders in and around Houston have prioritized allocating affordable housing resources toward new construction. One agency mentioned having bad experiences with earlier investments in rehabilitation projects, leading them to be more cautious of these types of projects. Interestingly, two of those projects involved out-of-state developers. Building the capacity of local developers to successfully execute these types of projects could help address that concern.

The jurisdictions around the country that are having the most success preserving NOAH (including Minneapolis and Washington, D.C., described earlier in this report) are successful, in large part, because the local public entities are committed to, and investing significant resources in, NOAH preservation. In the past, Houston-area public agencies have shown a commitment to and have invested in the creation of an affordable housing fund. The Houston Permanent Supportive Housing (PSH) Capital Grant Fund, supported solely by private investors, was designed as an intentional complement to a significant planned investment of public dollars by various public entities. This reliable public funding source for PSH projects attracted donors to the fund. High-visibility champions of the fund, such as the mayor of Houston, were also key in attracting private-sector donors. Another reason for PSH Capital Grant Fund's success was the high degree of consensus in the region around the need to provide permanent supportive housing. This consensus was the result of a comprehensive and collaborative community planning initiative, *The Way Home*, which called for the creation of 2,500 PSH units. [10]

In the Houston region, there is an emerging region-wide consensus that affordable housing, in general, is an issue that needs coordinated action. However, there isn't—yet—that same consensus about NOAH preservation specifically. Similarly, there is not yet a set of high-visibility champions—including public sector leaders—for NOAH preservation locally.

Significant investment in NOAH preservation is unlikely without public sector champions to direct public investment toward NOAH preservation and to help attract private sector investment.

To further complicate things, the issues of money and developer infrastructure are intertwined. On the one hand, developers are unlikely to be interested in building an entirely new business model and infrastructure unless they

9. "The Pursuit of Multi-Family Naturally Occurring Affordable Housing (NOAH); Houston, Texas, 2017- 2019," a report from the multifamily staff of Avenue: R. Fiederlein, J. Holoubek, A. Campbell, and A. Edwards; July 2019.
10. "Aligning Private, Philanthropic & Public Funding to Magnify Community Development Impact: *The Way Home* and Houston's Permanent Supportive Housing Capital Grant Fund," Corporation for Supportive Housing; June 1, 2018.

are confident there will be significant enough investment in NOAH preservation to make it worth their while. On the other hand, it wouldn't make sense to immediately direct significant resources to NOAH preservation if there are not enough developers with the infrastructure to use the money.

On balance, the underlying local conditions are not particularly promising for the immediate launch of a NOAH preservation fund in Houston. However, there are steps that can be taken in the Houston region to improve those underlying conditions; those steps are included in the recommendations section of this report.

Economic Feasibility

The second question of this feasibility analysis is: Do the numbers work out? To find the answer, we[11] modeled various potential funds to acquire and/or rehabilitate NOAH in Houston, including:

- **Short-term acquisition fund:** Provides short-term capital to acquire and hold a NOAH property while long-term financing is assembled.
- **Gap financing for 4% Housing Credit projects fund:** Provides gap financing for NOAH projects that, once acquired, will be preserved with 4% housing credits.
- **Gap financing for non-Housing Credit projects fund:** Provides subordinate gap financing behind the property's first mortgage, providing long-term financing for properties not preserved with housing credits.

An informal survey of funds indicates that, given market standard operational costs, a fund is unlikely to sustain itself if capitalized at less than $25 million.[12] For this reason, each fund was modeled at a size of $25 million. A second standard assumption going into each model is that the cost of managing the fund itself is ~2%, meaning that for any of the funds, the return that investors see will be 2% less than the project-level returns. Lastly, each of these financial models assumes that properties are exempt from paying property taxes, per Texas state law.[13]

Before diving into the specifics of each potential fund, however, it is important to keep in mind that a model's outputs are only as valuable as the inputs. As discussed earlier in this report, there is not an extensive history of NOAH preservation in Houston, meaning that there is not a significant amount of actual data on the cost of acquiring, rehabilitating and preserving these properties. Though some proformas for NOAH preservation projects were acquired during the developer outreach part of our engagement, actual datasets available for use as model inputs were limited. The full financial analyses for each of the funds described below are included in Appendices C – G.

Each fund modeled assumes that rents are maintained as affordable in 100% of a property's units. While a mixed-income approach was considered when modeling the fund for gap financing with non-Housing Credit projects, the market data for Houston makes this difficult, as market-rate rents in Houston are already close to affordable rents. More specifically, and as is discussed at greater length later in this report, the properties acquired and preserved under the gap financing for non-Housing Credit properties model are already affordable to households earning at or below 60% of AMI at the time of acquisition. Raising rents on some of these units to create a mixed-income property would potentially create financial burdens for the 60% of AMI households already living in the property, which runs counter to the objectives of this work.

11. Financial analysis and modeling for this report was performed by HR&A Advisors.
12. For a capital pool of less than $25 million, it is likely more efficient to work directly with individual developers, rather than launching a fund.
13. Texas law allows for housing authorities to obtain a waiver of real estate taxes for multifamily properties in which they are a partner as long as at least 51% of the residents earn 80% of MFI or less. For properties to take advantage of this exemption, owners must partner with the housing authority.

Short-Term Acquisition Fund

A common challenge when aiming to acquire and preserve NOAH is the very cost of acquisition. In markets across the country, NOAH properties are prime targets for "value-add" developers—market-rate developers who seek to acquire a property, provide upgrades and increase rents beyond the reach of current residents. Because they are depending on future income from the increased rents, these developers are often willing (and able) to pay a premium to acquire the building. Additionally, because these value-add developers rely on private capital, they are unencumbered by what can sometimes be a slow process for obtaining public financing resources, and are therefore able to act much more quickly than those seeking to preserve the affordability of a property. As a result, developers who intend to keep these properties affordable and not raise rents are often unable to compete against value-add developers.[14]

To address this issue, we modeled a fund to provide developers with the fast capital needed to acquire and hold a property temporarily while securing permanent financing. Importantly, because it provides only the capital needed to purchase a property, this short-term acquisition fund itself does not impose affordability restrictions. Instead, the fund provides developers with the resources, flexibility, and time to put together a long-term financing plan that does include affordability restrictions, such as the Housing Credit. Without the availability of a long-term (likely public) subsidy to serve as a take-out and implement affordability, however, this fund is a bridge to nowhere.

To create a financial model for a short-term acquisition fund, we relied on proformas available through the Texas Department of Housing and Community Affairs (TDHCA), the statewide agency responsible for allocating the Housing Credit, LISC Houston, and some of the local developers we had engaged to estimate the cost of acquiring a NOAH property in Houston. Based on this data, this model assumes an acquisition cost of $60,000 per unit. Because this fund provides capital only for purchasing the property, this model does not consider the cost of rehabilitation.

Typical loans made through strike funds last between two and four years, at which point the developer/owner secures long-term subsidy that acts as the take-out. For the purposes of this model, we assumed a three-year average loan term and 100% loan-to-value (LTV) ratio.

Bridge financing at relatively competitive rates is often available to high-capacity affordable housing developers through conventional banks and Community Development Financial Institutions (CDFIs). Under recent market conditions, similar fixed-rate loans from conventional banks or CDFIs have been available at around 4%. Creating a fund that is competitive with other lenders requires significant below-market capital in the fund to make loans at an interest rate below 4% or offer other terms that are more advantageous than market, such as lower origination fees or higher LTV ratios. With a 4% project-level return and the 2% fund management fee, this leaves a 2% return to investors. As project-level returns decrease to increase competitiveness with other lenders, so too does the potential return to investors.

As noted previously in this report, the analysis was conducted prior to the onset of the COVID-19 pandemic. All model inputs and assumptions are based on the conditions that existed at that time, and while market conditions are always variable, it is likely that the current public health crisis will have lasting effects on the economy and housing market. Though it is impossible to predict the specifics of how this will look and how these changes will affect the inputs and outputs of our modeling, they will likely look different.

Recognizing the need to act quickly to compete with market-rate developers, short-term acquisition funds have been established in markets across the country, including the Cinnaire Indianapolis Equitable TOD Fund, the original iteration of the Denver TOD Fund, and even here in Houston, through the NALCAB Catalyst Fund. (NALCAB's fund is open only to NALCAB members.) For more information on these funds and the others examined as part of this study, please see Appendix A and B.

Capitalized at $25 million, a short-term acquisition fund could support up to 417 units at one time. Because the fund provides capital for acquisition only, the math is fairly simple:

$$\textbf{\# of units supported at one time} = \frac{\textbf{Fund size}}{\textbf{(per unit purchase price)} \times \textbf{(loan to value ratio)}}$$

14. The need for fast, cheap capital to meet the acquisition prices of value-add developers was a common theme heard throughout our engagement with affordable housing developers in Houston. However, since few local developers have fully engaged in efforts to preserve NOAH in Houston, specific details around the needs for "fast, cheap capital" (how fast is "fast" and how cheap is "cheap?") are, unfortunately, sparse.

One of the assumptions going into this model is that the average loan length is only three years, meaning that loans will be repaid relatively quickly, therefore allowing the $25 million that originally capitalized the fund to be turned over to acquire additional units. It is worth reiterating, however, that because this fund provides capital for acquisition only, long-term affordability is completely dependent on permanent financing, likely from public sources. Without permanent financing to repay the fund, not only are there no affordability restrictions on the property, but the fund will be unable to revolve to serve more projects.

Gap Financing for 4% Housing Credit Projects

Knowing that the short-term acquisition model, described above, does not itself provide the long-term affordability that is important to LISC Houston and its partners, we next modeled a fund that does. Because 4% Housing Credits serve as the primary tool available for the preservation of existing affordable housing in the United States, this model builds a fund that provides gap financing for preserving NOAH properties with this resource. This fund does not provide access to the fast, cheap capital identified as a potential need when describing the short-term acquisition fund.[15] The financial model assumes gap financing structured as a mezzanine loan and a 15-year investment—similar to existing gap financing available in the Houston market. Because the fund is paired with the Housing Credit, affordability restrictions are those required by the Credit: a mix of incomes averaged at or below 60% of AMI for 30 to 35 years.[16] At the end of that affordability period, the property would be free to convert to market rate, resyndicate or pursue any other option available in the market at that time.

To model what a rehabilitation project looks like with 4% Housing Credits in the Houston area, we again relied primarily on proformas available through TDHCA. We were also able to secure proformas of rehabilitation projects completed with the 4% Housing Credit from both LISC Houston and the local developers with whom we had engaged on this project. Based on data from these proformas, this model assumes total development costs of $152,950 per unit, which accounts for $60,000/unit in acquisition costs, $70,000/unit in rehabilitation costs, 15% developer fees and 5% transaction costs. Of this, each unit requires $40,845 in gap financing. A fund of $25 million could then support 610 units over 15 years.[17]

The challenge with this fund, however, is a low project-level return, at only 1%. Not only is this projected return below market for any investment other than short-term treasury bills, it is likely less than the cost of operating the fund, which the model assumes to be 2%. Though it may be possible to eliminate the 2% fund management fee by having a philanthropic foundation cover those operating costs, therefore allowing the full 1% project-level return to be passed on to investors, raising capital at this level of return will likely prove challenging. Due to the significant constraints placed on Housing Credit awards and the standardization of inputs, it is unlikely that changing factors such as operational costs and additional developer equity would meaningfully increase returns.

Gap Financing for Non-Housing Credit Projects – 10-Year Investment

The previous two funds modeled require long-term, likely public resources to maintain affordability. As discussed previously in this report, Houston does not have a history of public investment in preservation, more or less NOAH preservation. Capitalizing a fund that depends on it may be risky. Accordingly, the last fund modeled maintains affordability for 10 to 20 years, without additional public resources during that period, by providing gap financing for projects without Housing Credits in the form of subordinate gap financing behind the first mortgage. The financial model assumes an investment of mezzanine debt above a Freddie Mac or Fannie Mae workforce housing first mortgage loan. A similar financing structure may be created as equity investments rather than mezzanine debt. Either investment structure can work; the key function of this type of fund is to close the financing gap between first mortgage proceeds and developer equity.

Intended to provide long-term financing paired with a first mortgage, this fund provides an opportunity for fund managers and investors to dictate required affordability, rather than relying on an existing program with affordability restrictions already built in. Though some first mortgages do require affordability for a share of units at or below a certain AMI level, it is not guaranteed that developers will choose those first mortgages along with the fund unless required by the fund. For the purposes of this model, we chose to maintain rents at approximately $850, which according to CoStar data, is the average per-unit rate

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15. While some developers spoke of the need to compete with value-add developers for acquisition, others spoke of the challenges of securing resources to maintain affordability. Additional work to fully identify the specific obstacles and needs when preserving NOAH is needed to better understand the type of fund that would best serve this purpose.

16. Federal law requires properties receiving Housing Credits to remain affordable for 30 years. TDHCA's most recent Qualified Allocation Plan (QAP) provides incentive points to properties seeking 4% credits if the applicant commits to 35 years of affordability.

17. We further assumed, based on actual proformas, that 85% of the acquisition cost is the cost of the building, and therefore included in the eligible basis that is used when calculating Housing Credits. The remaining 15% are assumed to be land costs, which are not eligible. Furthermore, to increase the basis and therefore increase the amount of Housing Credits for which a project is eligible, the model assumes a 30% basis boost for locating in a DDA (Difficult Development Area) or QCT (Qualified Census Tract).
Difficult Development Areas (DDA) and Qualified Census Tracts (QCT) comprise a significant portion of the Houston region. DDAs are areas with high costs relative to area median income (AMI) while QCTs have over 50% of households at or below 60% of AMI or a poverty rate of greater than 25%. The 30% basis boost increases the total. size of the Housing Credit award by 30% because it is calculated on 130% of the eligible basis costs rather than 100% of eligible basis costs. The DDA and QCT area definitions are updated each year. A map of 2020 DDAs and QCTs can be accessed here: https://www.huduser.gov/portal/sadda/sadda_qct.html

for Class B and Class C apartments in Houston. Apartments at this rent affordably serve households earning at or below 60% of AMI. Because this model assumes there are no other sources dictating affordability, these properties would be free to convert to market rate or seek other financing sources to maintain affordability at the end of the 10- to 20-year investment period.

For this model, our assumptions regarding acquisition and rehabilitation costs came not from TDHCA 4% deals, but instead from proformas of NOAH preservation deals collected from a single developer working in this space. Here, we assumed total development costs of $95,655 per unit, which accounts for $82,000/unit acquisition costs, $5,000/unit rehabilitation costs, 5% developer fee and 5% transaction costs. This acquisition cost is significantly higher than those modeled in the previous two funds, while the rehabilitation cost is significantly less, illustrating that this fund targets different types of properties than either of the previous funds. As developers are compensated through the Housing Credit based on a developer fee—which increases based on total development costs—properties using the Housing Credit, such as those in the previous models, typically have extensive rehabilitation needs. This fund, however, which provides gap financing to non-Housing Credit projects, targets Class B and Class C market-rate buildings, which require less rehabilitation. Of the $95,655/unit total development costs, this fund provides $39,015 of financing. (This accounts for 85% of the debt remaining after the first mortgage, while the developer provides the remaining 15%.) At $25 million in capital, the fund could serve approximately 640 units over 10 years.

This type of fund is a good fit for buildings with rents that can remain affordable to workforce housing levels (roughly 60-80% of AMI) while covering the debt service to the first mortgage and the fund. Assuming a fixed first mortgage interest rate and a fixed return to the developer, the combined acquisition and rehabilitation cost is the primary driver of required rents in order to support debt service. For example, a building acquired for $82,000/unit with rehabilitation costs of $5,000/unit is functionally equivalent to a building acquired for $60,000/unit with $27,000/unit in rehabilitation costs (provided this does not cause the first mortgage to reduce in size due to a loan-to-cost constraint). For this reason, and due to the uncertainty of rehabilitation construction costs in preservation deals, some non-Housing Credit gap financing funds prefer to purchase well-maintained buildings rather than buildings with significant rehabilitation needs.

Additional assumptions built into this model include net operating income (NOI) generated from median Class B and Class C rents (based on proformas gathered for this analysis), the elimination of property taxes, and debt service based on a typical Freddie Mac workforce housing loan. After accounting for these inputs and assuming a 10-year investment, a hypothetical project fitting these characteristics could support a 4.5% return target to the fund. Assuming a 2% fund management fee, this leaves a 2.5% return to investors, which is significantly below market for real estate investments.

Gap Financing for Non-Housing Credit Projects – 20-Year Investment

Knowing that long-term affordability remains a priority for LISC Houston and its partners, a second iteration of this fund was modeled as a 20-year investment. While the inputs and assumptions are the same as those described in the 10-year fund, this significantly longer-term investment provides additional value to the project as 20 years of first mortgage amortization elapses rather than 10 years. With more time for the first mortgage to amortize, the project is able to support mezzanine debt with an interest rate of 7.5%. Again, assuming a 2% fund management fee, this leaves a 5.5% return to investors. Capitalized at $25 million, this fund could preserve 640 units over 20 years.

At face value, this may seem like the best option. At the same fund size as every other model ($25 million), this 20-year investment can preserve 640 units while offering a 5.5% return to investors. Comparing the funds only on these metrics, however, does not paint a complete picture. A 20-year investment is not typical because of the opportunity cost of having funds tied up for two decades. As such, it may be difficult to raise capital for this type of fund.

Some potential investors with whom we engaged throughout this project indicated they may be willing to accept returns below 5.5%. In this case, rather than the full 5.5% return going to investors, a portion of it could potentially be used to increase the acquisition costs of buildings or to lower rents.

Each of the funds outlined above poses various options for developers, investors and the Houston region. While ultimately the most useful fund is that which meets the needs of preservation-minded developers, perhaps the largest hurdle is the relatively low projected returns. While some local jurisdictions and institutions with program-related investments may choose to accept significantly below market returns, these sources of capital are often limited and difficult to obtain. Even if investors are willing to invest at low rates of return, two of the three funds modeled necessitate additional resources, most likely from a public source, to maintain affordability. As discussed earlier in this report, the conversation around the importance of preservation is still in its nascent stage in Houston, and the availability of public resources going toward NOAH preservation is not a certainty.

To return to our question: Do the numbers work out? It depends on the specific fund and the specific return requirements of investors. What is clear, however, is that none of the funds offer an obvious solution at the outset.

We completed additional models of both the 10-year and 20-year funds providing gap financing for non-Housing Credit projects assuming projects are not exempt from property taxes. The impact of including property tax payments increases operational expenses, directly reduces net operating income, and, holding all other inputs constant to preserve a reasonable rate of return to the developer, impacts the potential return to investors.

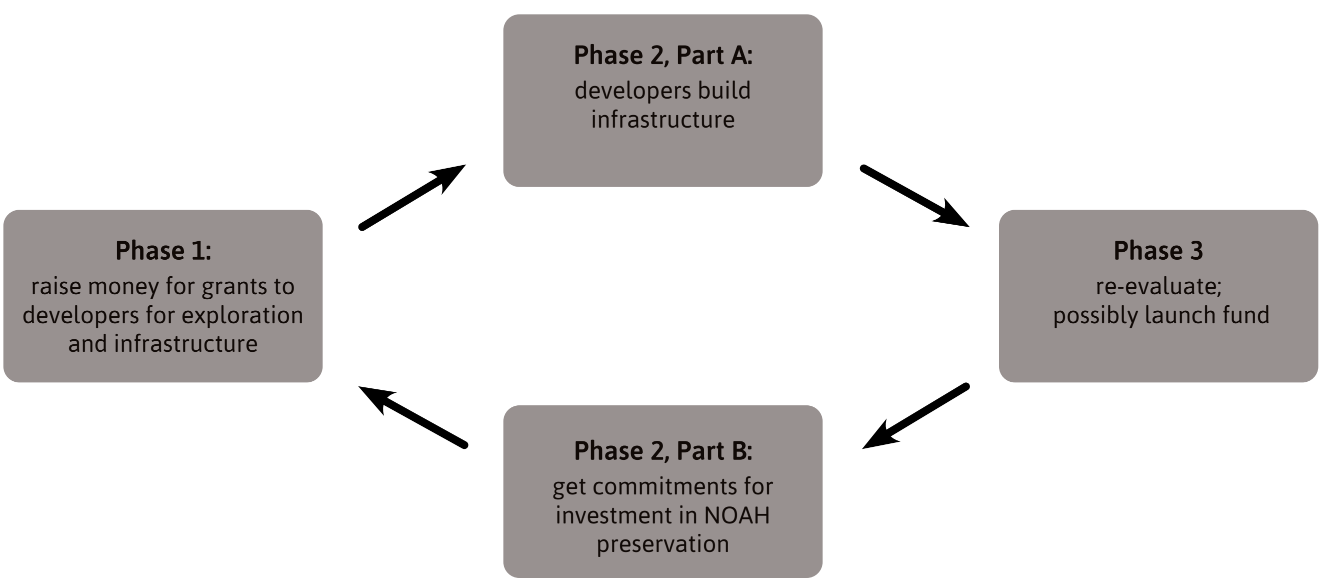
In the 10-year investment scenario, a fund that includes property taxes could support project-level returns of 0.5% (not enough to cover the fund management), while in the 20-year investment scenario, the fund could support 4.5% total returns (which, assuming 2% fund management fee, leaves 2.5% return for investors).

Higher fund returns could likely be achieved through a combination of lower acquisition and rehabilitation costs, higher rents or lower operating expenses. While each of these levers impacts achievable potential fund returns, they also represent policy tradeoffs that impact affordability or the universe of projects which can be preserved through a fund investment.

Recommendations

Neither of the answers to the original two questions are particularly promising for the immediate launch of a NOAH preservation fund in Houston. Developers lack the experience and infrastructure to preserve NOAH properties, there is not yet public consensus on the importance of NOAH preservation, and capitalizing a fund that generates required returns to investors will likely prove difficult. But NOAH properties continue to be lost as affordable in the Houston market. So, if launching a NOAH preservation fund is not the right solution at this time, what is?

While neither the underlying conditions necessary for NOAH preservation nor the economics of a potential fund are ideal at this time, there are tangible steps that can be taken to improve both. By implementing a phased approach to build the conditions necessary for NOAH preservation, LISC Houston and its partners will be in a better position to reassess the feasibility of—and potentially ultimately launch—a NOAH preservation fund.



In **phase 1**, we recommend that LISC Houston and its partners raise a modest amount of money. Rather than using these resources to capitalize a fund, however, resources should be used to provide support to developers for exploration and infrastructure building. This support could include grants for operational support around potential NOAH preservation work—including support to do business planning, participate in a working group with other interested developers, research potential properties, perform financial modeling, or even hire dedicated staff for this endeavor. Potentially, there could be a modest amount of capital for developers to try out a first NOAH preservation project.

This exact approach has proven successful in the Houston market already, where the JPMorgan Chase Foundation provided a grant to Avenue CDC to "[pursue] the acquisition of small- to medium-sized, unsubsidized apartment complexes [...] with a goal to retain their affordability for low- to moderate-income residents."[18] Over the course of the two-year grant period, Avenue CDC developed the expertise to preserve NOAH and successfully acquired two NOAH properties, as detailed in their report, "The Pursuit of Multi-Family Naturally Occurring Affordable Housing (NOAH); Houston, Texas, 2017-2019." Not coincidentally, when engaging with local Houston developers as part of this work, Avenue CDC was the only developer who was able to provide us data from a successful NOAH acquisition project,[19] highlighting that an investment in infrastructure building can meaningfully increase a developer's ability to preserve NOAH properties. Though investing in a single developer may not in itself move the needle on NOAH preservation across Houston, investing in multiple developers and creating a peer-learning environment can do exactly that.

Phase 2 gets to changing the underlying local conditions with respect to money. While developers are carrying out their infrastructure-building activities, described in phase 1, LISC Houston and others should engage in education and consensus building around NOAH preservation locally (particularly in light of the economic changes brought about by the pandemic) and secure commitments for significant investment in NOAH preservation. As discussed earlier in this report, the Corporation for Supportive Housing's launch of the Houston area's PSH Capital Grant Fund was successful, in part, thanks to significant support from the public sector. By engaging in education and consensus building, LISC Houston and its partners can build the commitment to NOAH preservation that is needed for success.

Finally in **phase 3**, we recommend that LISC Houston and its partners re-evaluate the state of the two prerequisites outlined earlier in this report: developer infrastructure and the availability of resources for NOAH preservation. LISC Houston, at this point, may even want to consider the merits of starting a modest fund and scaling up. Ideally, given the activities outlined in the previous phases, the prerequisites will have shifted significantly and created the underlying conditions needed to potentially launch a NOAH preservation fund. The next step would be to revisit the economic analysis based on new data from phase 2 and the changed national and local economic conditions. At this point, developers will have modeled NOAH preservation projects and perhaps even acquired one as part of the infrastructure-building efforts. As a result, they will be better positioned to articulate the specific products a fund must offer to be most useful. If the prerequisites have shifted and the numbers work out, the time will be right to design and launch a NOAH preservation fund with products that make sense given the national and local economic conditions at that time.

18. "The Pursuit of Multi-Family Naturally Occurring Affordable Housing (NOAH); Houston, Texas 2017- 2019," a report from the multifamily staff of Avenue: R. Fiederlein, J. Holoubek, A. Campbell, and A. Edwards; July 2019.
19. Though one other developer contacted through this work had acquired a NOAH property in Houston, they were unwilling to share the specifics of the transaction.

Appendix A: Narratives of Other Funds

Naturally Occurring Affordable Housing (NOAH) Impact Fund

Greater Minnesota Housing Fund

The NOAH Impact Fund created by the Greater Minnesota Housing Fund is a regional equity fund based in the Twin Cities and seven county area of Minneapolis–St. Paul. The NOAH Impact Fund is a CDFI, set up as a subsidiary of the Greater Minnesota Housing Fund to target investment into NOAH properties. Established in 2015, the NOAH Impact Fund targets NOAH, defined as rents at or below 60% of AMI, in opportunity areas—locations near jobs, amenities and good schools.

The fund is committed to assisting eligible preservation buyers to acquire and preserve NOAH rental property in the Minneapolis–St. Paul area that are at risk of increased rent, in order to protect low-income tenants currently occupying such housing and who are at risk of involuntary displacement. Under the program, the fund provides 90% of the equity, and operating partners are expected to invest 10% of the equity in acquiring the property. The remaining balance of acquisition financing comes from conventional lenders that provide financing up to 80% LTV.[20] Up to $100 million in debt is available for first mortgage financing through Freddie Mac, as a complement to the equity financing to be provided by the NOAH Impact Fund, through conventional lenders.The public-private partnership brings investment from local community banks in Hennepin County, including Bremer Bank, Sunrise Bank, West Bank (a division of American National Bank), and Minnesota Housing (the state's housing finance agency) as well as the McKnight Foundation and the Otto Bremer Trust.

The $32.5 million fund operates with a $7.5 million "credit enhancement" which acts as top-loss funds, lowering the risk profile of the fund and supporting $25 million of direct equity investments in NOAH properties. The Fund has fully deployed the $25 million phase I direct investment through the purchase of a five-project, $15 million deal that constitutes 701 units and another $9 million portfolio consisting of 16 properties comprising 200 units. The NOAH Impact Fund has fully invested its initial phase I of $25 million and is capitalizing a phase II of another $33.5 million (including a $25 million direct investment for NOAH properties and $8.5 million reserve of top-loss funds) to close in 2020. The intent is to do future phases, depending on the market and if the investment model continues to be viable.

The NOAH Impact Fund partners with both for-profit and nonprofit partners. A typical investment hold period is 10 years, and the fund requires at least 75% of the units to be affordable to households at or below 80% of AMI for 15 years, although when projects enter the fund, most units are affordable at or below 60% of AMI. If developers are utilizing the first mortgage financing from Freddie Mac, half of the units are to be affordable at 60% of AMI or less at the day of closing. The operating partner can increase rents after closing to meet their financial needs within the affordability limitations of the fund. With the fund as an equity partner, there is an annual process of working with the operating partner to determine rent increases that will cover costs, allow for capital expenses and continue affordability for renters at the property. After the initial 15-year affordability requirement, a project supported by the NOAH Impact Fund could convert to market rate, however, there is a preference for longer affordability and nonprofit partners who are likely to continue some measure of affordability.

Opportunity Investment Fund

Community Investment Corporation

Developed by The Preservation Compact in Cook County, IL, the Opportunity Investment Fund (OIF) recognizes the benefits and challenges of locating affordable housing in strong markets associated with greater economic and social opportunity. Relying on definitions of opportunity developed by the Chicago Housing Authority (CHA) and the Illinois Housing Development Authority (IHDA)[21], the OIF offers low-cost mezzanine debt to developers who purchase existing, functioning rental buildings in strong markets. In exchange, developers must keep at least 20% of those units affordable for at least 15 years, likely through housing choice vouchers (HCVs) or project-based vouchers (PBVs).

After maximizing private mortgage debt, developers can access the OIF to cover up to half of their equity requirement or go up to 90% LTV, whichever is less. Notably, the fund has mostly served market-rate and private developers—many of whom had an existing relationship with The Preservation Compact—rather than mission-driven, nonprofit developers who are committed to preservation. By providing appealing financing terms, as well as mezzanine debt which notably has less risk than a first mortgage loan, market-rate developers who have some

20. Preserving Naturally Occurring Affordable Housing NOAH Impact Fund, pp. 2 https://noahimpactfund.com/wp-content/uploads/2017/03/Brochure-GMHF-NOAH-Impact-Fund_031517.pdf
21. Areas of opportunity are defined by IHDA as communities with low poverty, high access to jobs and low concentrations of existing affordable rental housing. These areas are identified annually and retain the designation for at least four years as long as they continue to meet the identification criteria (from https://www.ihda.org/developers/market-research/opportunity-areas/). CHA defines opportunity areas census tracts with less than 20% of residents living below the poverty level and with less than 5% of current residents living in subsidized housing, or improving tracts with moderate neighborhood indicators (from https://cha-assets.s3.us-east-2.amazonaws.com/s3fs-public/2019-07/2018%20Opportunity%20and%20Gautreaux%20Area%20Map.pdf).

familiarity with working with lower-income households have tapped into this market. Further, as the CHA has Moving to Work authority, through the HCVs or PBVs, market-rate developers are able to continue to receive market rents and serve lower-income residents.

OIF's Next Available Unit Policy means that owners can take as long as they need to meet the requirement of 20% of units affordable, as long as they are filling units as they become available with income-eligible tenants. The Next Available Unit Policy is part of the formal deed restriction on the property, so failing to meet those requirements would technically represent a default. To date, owners have been proactive in meeting this requirement. Furthermore, there is no formal requirement that owners receive an allocation of PBVs or formally commit that HCV households will rent units. The fund gives owners maximum flexibility to draw on a variety of local and national subsidy sources. While most owners have elected to use HCVs to fill their affordable units, others have worked with the Chicago Low-Income Housing Trust Fund or homeless service organizations.

On December 4, 2018, The Preservation Compact and the Community Investment Corporation officially closed on the $35 million fund. A total of $10.5 million comes from public sources, including the City of Chicago, the Illinois Housing Development Authority, and the U.S. Department of Treasury Capital Magnet Fund. Private bank investors receive guaranteed returns of 6% and social impact investors receive 3%. The fund is hoping to support the preservation of 300 affordable units in strong and strengthening markets, and 1,500 mixed-income units overall.

In February 2020, the Opportunity Investment Fund celebrated its first anniversary, having closed on 13 loans to nine developers, with 274 units financed so far, of which 62 are affordable at 50% of AMI. With its first loans closed in the last two years, no projects have reached the 10-year loan term limit.

Austin Strike Fund

Affordable Central Texas

In Austin, various layers of local government have been active in the affordable housing conversation since the early 2010s. Many have worked alongside the private real estate and affordable housing development industry to address affordability challenges that, by 2017, left just 12% of homes affordable to a median income earning household in Austin.[22] Many of Austin's teachers, first responders, medical professionals and other vital community members struggled to pay rents but earned too much to quality for most publicly assisted affordable housing. In 2017, recognizing the need to serve this missing middle, Affordable Central Texas (ACT)—a nonprofit organization that has been working in this space for many years—formed the Austin Housing Conservancy Fund, or Austin Strike Fund.

ACT acts as the sponsor and investment manager of the Austin Strike Fund. Moving beyond traditional subsidies, but using an old idea, the fund is an open-ended private equity real estate fund. This structure allows the fund to have no specific length of term and to continuously solicit additional capital into a single financial pool.[23] The fund covers the equity portion of the property acquisition capital stack with the remaining 80% debt to be loaned from conventional lenders. By providing the equity to purchase existing market affordable multifamily housing, the Fund enables developers to access private investment and offers a steady, low-risk financial return for investors.

The investment into tangible real-estate assets demonstrates a strategy to maximize cash flow over the long term rather than focus on short- or medium-term capital gains.[23] The Fund seeks to both preserve long-term affordability and maximize the total number of affordable units in its portfolio. For example, the fund would consider redeveloping a property to increase the number of affordable units. Alternatively, the fund would also consider selling properties after a short hold period if the revenue generated allowed for the purchase of another property that yielded a greater number of affordable units. The fund works with both for-profit and nonprofit developers and operating partners, based upon their track record in affordable housing and an alignment of missions and interests. Partners must align their profit motives and compensation requirements to allow for long-term ownership of affordable housing.

As of December 2018, the fund had deployed roughly $105 million targeting existing multifamily affordable housing within a 60-120% of AMI range in Austin. With local support of high-net-worth investors—as well as institutional investors, banks and foundations such as Texas Capital Bank, Wells Fargo and the U.S. Conference of Mayors—the fund hopes to deploy around $500 million between 2018 and 2028. The fund offers investors a cash-on-cash return with modest appreciation over time—currently a quarterly distribution of 3%, with a target of 5% returns. As a relatively new fund, returns are lower as reserves are being established.

22. Christopher Neely, March 27, 2018, "*Central Austin Homes Unaffordable for Area's Middle Class*". Community Impact Newsletter. https://communityimpact.com/austin/central-austin/development-construction/2018/03/27/central-austin-homes-unaffordable-for-areas-middle-class/
23. Timothy M Clark and Alicja I Biskupska-Haas, Spring 2017, "*Open-End vs. Closed-End Real Estate and Infrastructure Funds*". Thomson Reuters, Real Estate Finance Journal. https://www.omm.com/~/media/pdfs/Real-estate-finance-journal.ashxindicators (from https://cha-assets.s3.us-east-2.amazonaws.com/s3fs-public/2019-07/2018%20Opportunity%20and%20Gautreaux%20Area%20Map.pdf)
24. ibid

The Austin Strike Fund maintains affordability within the 60-120% of AMI range once properties have been purchased. Each purchase deal has a formal operating agreement that defines the affordability for each property, while at least 50% of the residents in the fund's total portfolio will earn at or below 80% of AMI. Deed restrictions may be placed on a property, but this does not occur at the initial screening, providing flexibility for properties that may need some market-rate unit component to make the deal financially viable. Additionally, if at least 51% of units in an individual property are affordable to households earning at or below 80% of AMI, the property is able to take advantage of real estate tax waiver mechanisms in the Texas law.[25] With long-term property ownership as a goal, the fund mandates a three-year lockout on the liquidation of equity for partners from the date of investment. ACT also has the first right to buy out the development partner if they are choosing to leave the property. The fund has no defined exit period. [26]

The Austin Strike Fund currently holds three properties in its portfolio, totalling 792 affordable housing units with a 10-year goal to preserve over 10,000 rental units. As of January 2020, the fund is looking to expand its model into additional Texas markets.[26]

Housing Partnership Equity Trust (HPET)

Housing Partnership Equity Trust

As the only nationwide fund profiled in this research, the Housing Partnership Equity Trust (HPET) is a private real estate investment trust (REIT) that helps nonprofit developers compete with market-rate purchasers by offering long-term, low-cost equity to its members, all of whom are committed to maintaining housing affordability. The HPET members are mission-driven affordable housing groups that turned to their peers to expand and create an alternative to the reliance on deep federal subsidies to provide affordable housing and expand their impact. The REIT raises long-term, well-priced capital from institutional and impact investors and deploys that capital to enable nonprofit developers to compete with market-rate purchasers to acquire and preserve affordable rental housing.

Launched in 2013 with a $100 million investment, HPET is a private resource available only to its members. HPET targets housing with government subsidies or rent regulations in place, as well as those without, serving populations within the 50 – 80% range. The fund focuses on three main types of housing:

- Housing with LIHTC that has completed its compliance period, but where use restrictions remain.
- Naturally occurring affordable housing, where additional financing is procured, and use restrictions can be applied to maintain affordability.
- Targeted housing, including housing for the elderly or disabled, housing in neighborhoods of opportunity or mixed-income housing.

To date, HPET has been used to purchase and preserve nearly 3,100 units across the country. A wide geographic footprint allows HPET to mitigate any geographic risk and serve its national nonprofit affordable housing developer members. All 15 HPET members contributed capital to the initial fund and now have access to the REIT. Members are high-performing nonprofit developers: Aeon, AHC Inc, BRIDGE Housing. Chicanos Por La Causa Inc, CPDC, Eden Housing, Hispanic Housing Development Corporation, Homes for America, Housing Partnership Network, LINC Housing, Mercy Housing, Nevada HAND, The NHP Foundation, NHT Communities, and POAH. The Fund also received institutional investment from the Ford Foundation, MacArthur Foundation, Citi Bank, Prudential, Charles Schwab Bank and Morgan Stanley. Institutional investors receive a 4.5% dividend return paid quarterly.

HPET is intent on making an impact in neighborhoods that are at risk of becoming unaffordable to working households, and some that are already on their way up and out of reach. The fund targets properties in communities that have critical amenities for household success—good schools, public transportation, key retail like grocery stores and access to jobs—all with the goal of providing affordable housing for families of modest means. By researching the property rates, neighborhood demographics and using the Department of Housing and Urban Development Opportunity Score, HPET funds can be ensured to provide access to a strong community for the future as its members are committed to maintaining housing affordability.

Access to timely capital is essential for nonprofit developers to be able to compete with market-rate developers, who customarily access private capital that allows them to move from offer to closing relatively quickly. HPET allows its nonprofit members to compete with market-rate developers because its funds can be accessed with relative speed compared to traditional affordable financing through conventional lenders, which can take months if not years to gather. HPET also allows its nonprofit developers flexibility on the terms of a loan, as well as the fund's long-term

25. Sec. 303.042. (d) (2) of the Texas Public Facility Corporation Act, allows for housing authorities to obtain a waiver of real estate taxes for multifamily properties if at least 50%of the units in the multifamily residential development are reserved for occupancy by individuals and families earning less than 80% of the area median family income. Housing authorities must comply with this provision annually to keep the real estate tax waiver. - Public Facility Corporation Act (1999) https://statutes.capitol.texas.gov/Docs/LG/htm/LG.303.htm

26. Timothy M Clark and Alicja I Biskupska-Haas, Spring 2017, "*Open-End vs. Closed End Real Estate and Infrastructure Funds*". Thomson Reuters, Real Estate Finance Journal. https://www.omm.com/~/media/pdfs/Real-estate-finance-journal.ashx hold strategy. The REIT structure of the fund incentivizes a longer-term holding strategy, aligned with the goals of HPET, and acting as a long-term bridge to resyndication of property, HPET can hold its equity stake in a property for as long as 10-15 years.

Denver Transit-Oriented Development (TOD) Fund

Enterprise Community Loan Fund

While the Austin Strike Fund has a broad mandate for tackling the affordability crisis in Austin, the Denver Transit-Oriented Development (TOD) Fund was created in response to a very specific local need. With a multibillion-dollar public transportation plan under construction within the seven-county metropolitan area of Denver, including commuter rail, train and bus networks, Enterprise Community Partners and the City of Denver understood that such a large expansion of the region's transit systems would result in negative consequences for the housing market. The development of public transit often leads to increased value in nearby homes and land, as has been seen around the country.

As such, the Denver TOD Fund provides financing for the acquisition of property or vacant land alongside transit corridors for the preservation or development of affordable housing. The City and County of Denver initially invested $2.5 million of Federal Community Development Block Grant dollars, in addition to Enterprise CDFI capital and two additional local CDFI's that provide 50% of the financing in each transaction. The fund has also received capital investments from the Colorado Division of Housing, Colorado Housing and Finance Authority, Wells Fargo, U.S. Bank, FirstBank, The Denver Foundation, The Ford Foundation, The Gates Family Foundation, The MacArthur Foundation, The Rose Community Foundation, Mercy Loan Fund and the Mile High Community Loan Fund.[27] The city funds are regarded as top loss, with the fund providing eligible developers up to a $5 million loan at a maximum 90% LTV for a maximum loan term of five years. Investors receive returns of 1-5%.

The TOD Fund relies on developers receiving a permanent financing source, such as the Low-Income Housing Tax Credit, to ensure permanent affordability after the loan term ends. Thus, the fund does not impose affordability restrictions, assuming permanent financing resources will do so. Urban Land Conservancy (ULC) was the fund's primary and only developer when the fund opened in 2014, and in acting as a land trust, acquired eight sites. Noting the success of the fund, in phase II, the fund was opened up to all developers and expanded to the seven-county area around Denver. As of January 2020, the fund has made nine more loans for a grand total of $34 million with more than 1,450 affordable homes created or preserved.

Indianapolis Equitable Transit-Oriented Development (TOD) Fund

Cinnaire Lending

A partnership between Cinnaire and the Indianapolis Neighborhood Housing Partnership (INHP), the Indianapolis Equitable Transit-Oriented Development (ETOD) Fund is a land acquisition revolving loan fund modeled after the Denver TOD Fund that aims to offer $15 million to preserve or develop affordable housing near planned transit.

In 2015, the City of Indianapolis was updating its comprehensive plan. Through research conducted as part of this process, there was a realization and concern that key strategic land along transit routes would be acquired for commercial real estate or market-rate housing. The idea for Indianapolis' ETOD initiative originated through the Greater Indianapolis Progress Committee's Collective Impact Plan 2020 visioning process. With the aim to maintain long-term affordability, INHP began developing the fund structure with Cinnaire.

Today, the Indianapolis ETOD Fund is used to acquire vacant land or land with underutilized building structures located near transit corridors; purchases are made when prices are relatively inexpensive. The fund provides loans up to $3 million, with INHP currently serving as the sole borrower from the fund. The fund then sells the land to developers with land use restrictions in place once developers have secured permanent financing, ensuring equitable housing needs are met around transit-oriented developments (TOD). Land may be sold for a profit with no requirement for profits to be reinvested into the fund, but INHP is required to repay the loan principal and interest.

The fund initially struggled to raise investment, facing two main obstacles: 1) the fund offered only a 2% return on investment which was perceived to be too low of a return, and 2) a number of commercial banks viewed the land banking model as potentially high risk. With an original goal of 90% LTV, the fund compromised on 80% LTV to make the fund a more attractive investment to banks with no first loss funds. By December 2018, the fund has closed on $5 million from four banks, with an additional three banks confirmed, raising the total capital amount to $8.1 million. INHP raised an additional $1 million from CBDG loans from the City of Indianapolis and $500,000 from JP Morgan Chase.

27. *Denver Transit-Oriented Development Fund, Urban Land Conservancy 2020 -* https://www.urbanlandc.org/denver-transit-oriented-development-fund/

Investors of the loan fund are paid a quarterly interest rate, which varies by institution, with many banks committing to a 2% interest rate. INHP is required to pay a 3.75% interest rate on its loan, receiving a five-year loan term with the option for a five-year renewal. With a 20% equity investment as first loss funds, INHP invests primarily in projects that are located within half a mile of a transit stop. To date, INHP has acquired six properties using the fund—four vacant land, and two that have unused commercial structures. As of January 2020, the first piece of land is in the pipeline to be sold for development.

Catalyst Fund
The National Association for Latino Community Asset Builders (NALCAB)

Similar to the Denver and Indianapolis models, the National Association for Latino Community Asset Builders (NALCAB) Catalyst Fund also acquires and holds assets until permanent financing can be obtained. The NALCAB Catalyst Fund is committed to strengthening underserved communities by directly acquiring and holding existing affordable housing real estate assets for developers within its network. While NALCAB is a national organization, the Catalyst Fund is based in the Houston and San Antonio area and asset managed locally by NALCAB subsidiary company, Escalera Community Investments. The fund invests in single family and small multifamily properties, targeting appreciating neighborhoods for a five-year term before selling to nonprofit developers to maintain permanent affordability.

After receiving a JP Morgan Chase Pro Neighborhoods grant in 2013, NALCAB formed the Catalyst Fund in 2015. Sensing an opening in the market to support smaller "mom and pop" multifamily properties between zero and 50 units, NALCAB noticed limited structured capital in this space, rather, lots of smaller investors transacting. With the guidance of its members, NALCAB aims to deploy $25 million[28] to acquire properties at the speed required to compete with market-rate developers and hold these until their network partners are able to pull together their permanent financing over five years. Target properties are often naturally occurring affordable housing ranging 60-100% of AMI, around 20-40 years old with limited immediate rehabilitation required. Properties that require major immediate rehabilitation at the time of NALCAB's purchase are often not selected. The fund does not have the capacity to fund major rehab at the time of purchase. During the hold period, NALCAB completes minor renovations to bring the property up to standard living conditions. Properties that require major rehab at a later date are considered, and if purchased through the Catalyst Fund, rehabilitation is undertaken only when the nonprofit partner buys out the property from NALCAB. During the five-year hold period, the partner has the first right to purchase and is expected to purchase the property from NALCAB at the appreciated price.

The Catalyst Fund also benefits from equity investors who receive a 3-5% per annum cash on cash return, for the five- to seven-year investment.

The fund acquisition strategy aims to preserve 470 units of affordable housing. In July 2018, the Fund closed on $960,000 in new equity, which will allow the fund to make further investments in the cities of Houston and San Antonio.[29] As of March 2020, the $5.3 million fund has preserved 47 rental or co-op units (and one community-serving commercial space) affordable to low-income households in gentrifying neighborhoods, developed 94 single-family lots and developed approximately 0.9 acres of land in a traditionally low-income minority neighborhood.

Permanent Supportive Housing (PSH) Capital Grant Fund
The Corporation for Supportive Housing (CSH)

In 2013, the City of Houston, in partnership with Harris County and the Houston Housing Authority, established an initiative to end chronic homelessness in Houston by 2016. The initiative included a community plan identifying the need to create 2,500 units of permanent supportive housing (PSH) to assist those who are chronically homeless. The city, county and Houston Housing Authority provided limited public gap financing, operating subsidies and case management services to support private developers in meeting this goal.[30]

To further assist meeting this goal, the Corporation for Supportive Housing (CSH) introduced its Permanent Supportive Housing (PSH) Capital Grant Fund in 2016, providing grants (rather than loans or equity investments) to developers creating permanent supportive housing. Prior to the formation of the PSH Capital Grant Fund, philanthropic funds for PSH in Houston were being directly invested into real estate development without coordinated efforts, with no standard procedures or processes to ensure quality and correct investments were being made. CSH stepped in to create a fund that would pool these philanthropic dollars and create a standard and streamlined process for underwriting and quality standards. CSH acts as a pass through for philanthropic grant funding; the organization assesses the capital risk for each supportive housing proposal, conducts due diligence,

28. *The NALCAB Catalyst Fund,* The Clinton Foundation 2020 https://www.clintonfoundation.org/clinton-global-initiative/commitments/nalcab-catalyst-fund
29. The National Association for Latino Community Asset Builders Fiscal year 2018 Annual Report pp. 25 https://nalcab.org/wp-content/uploads/2019/06/Annual-Report_2018.pdf
30. City of Houston, Houston Housing Authority and Harris County Funding Collaborative, 2013 Permanent Supportive Housing (PSH) Request for Proposals pp. 1-2 https://houstontx.gov/housing/pdf/PSH_RFP.pdf

provides detailed analyses, and serves as the fiscal agent for the combined pool of private funding that is needed to complete development projects.

The Capital Grant Fund received a total of $15 million—with $7 million from the Houston Endowment, Hearst Foundation, David Weekly Family Foundation, MD Anderson and JP Morgan Chase—and the remaining $8 million from smaller investors. By providing permanent supportive housing, the fund serves the lowest income households at or below 30% of AMI. CSH provides 150% LTV for developers who tap into the fund. Given its extensive work in this field, CSH understands that developers need up-front liquidity and the terms of the grant must be aggressive to compete with other developers.

Through four important new construction projects, the Capital Grant Fund has added 256 units of permanent supportive housing into the development pipeline with an additional 124 units of affordable housing part of mixed-use developments. A fifth and final project is pending for closing in 2020. As a grant fund, once the final project is completed in 2020, the fund will be depleted with no further projects in the pipeline.

Appendix B: Fund Table

	NOAH Impact Fund	Chicago Opportunity Investment Fund	Austin's Strike Fund	Housing Partnership Equity Trust (HPET)	Denver TOD Fund	Indianapolis Equitable TOD Fund	Catalyst Fund	PSH Capital Grant Fund
Fund Administrator / Manager	Greater Minnesota Housing Fund, a nonprofit CDFI	Community Investment Corporation, a nonprofit CDFI	Affordable Central Texas, nonprofit	Housing Partnership Equity Trust, a real estate investment trust	Enterprise Community Loan Fund, a nonprofit CDFI	Cinnaire Lending, a nonprofit CDFI	The National Association for Latino Community Asset Builders (NALCAB), a nonprofit CDFI	The Corporation for Supportive Housing (CSH), a nonprofit CDFI
Summary	The NOAH Impact Fund is based in the Twin Cities and seven-county area of Minneapolis and St. Paul. Targets naturally occurring affordable housing (NOAH) in opportunity areas that are at risk of increased rent, in order to protect low-income tenants currently occupying such housing, and who are at risk of involuntary displacement.	The Opportunity Investment Fund provides low-cost mezzanine debt to developers who purchase existing multifamily rental buildings in strong markets, and in exchange, developers must ensure at least 20% of units are affordable for at least 15 years.	The Austin Strike Fund is sponsored and managed by Affordable Central Texas. It provides long term financing for existing multifamily affordable housing.	HPET is a private national real estate investment trust for mission-driven nonprofit members who need quick capital to compete with market-rate developers to purchase and preserve affordable housing in neighborhoods of opportunity.	The TOD Fund was created in response to the Denver public transit expansion and the resulting increase in home and land prices. It provides short-term financing for the acquisition of property alongside transit corridors to ensure the preservation or development of affordable housing along the transit routes.	The Equitable TOD Fund is used to acquire vacant land or land with underutilized building structures near transit corridors. With the Indianapolis Neighborhood Housing Partnership (INHP) as the sole borrower, the fund finances the purchase and holding of land until the sites are ready for development and sold with land use restrictions to developers who have secured permanent financing for the construction of affordable housing or site rehabilitation.	The Catalyst Fund is based in Houston and San Antonio. It purchases and holds naturally occurring affordable housing, on the advice of the in-network developer, until the developer is able to purchase the property, with permanent financing in place to maintain long-term affordability.	The Capital Grant Fund funnels external foundation grants into one pool, acts as the pass-through body, and provides grants for projects in Houston area. CSH's role has been to assess the capital risk for each supportive housing proposal, conduct due diligence, provide detailed analyses, and serve as the fiscal agent for the combined pool of private funding that is needed to complete the remaining development projects.

	NOAH Impact Fund	Chicago Opportunity Investment Fund	Austin's Strike Fund	Housing Partnership Equity Trust (HPET)	Denver TOD Fund	Indianapolis Equitable TOD Fund	Catalyst Fund	PSH Capital Grant Fund
Problem Statement	Established to assist eligible preservation buyers to acquire and preserve NOAH rental property in Minneapolis that is at risk of increased rents in order to protect low-income tenants occupying such housing who are at risk of involuntary displacement.	Established after recognizing fierce competition to acquire existing buildings and maintain them as affordable in stronger markets. Sought new ways to create affordability by utilizing housing choice vouchers (HCVs) or project-based vouchers (PBVs).	Created to address the missing middle housing challenges, moving beyond traditional subsidies to provide long-term stability of affordable housing assets.	Aimed to preserve housing that is affordable in opportunity areas—areas that are about to gentrify or have recently begun to gentrify. Difficult for nonprofits to compete with market-rate developers who have access to quick capital.	Designed to assist in the acquisition of land or property needed to create or preserve affordable housing located near mass transit.	Created to maintain long term affordability along transit corridors where key strategic land along was being acquired for commercial real estate or market-rate housing. Purchases land when it is cheaper and sells it to developers to build affordable housing.	Established to help developers, especially those in the smaller property size NOAH market, access to quick capital. NALCAB holds the property until the developer can get permanent financing in order to purchase the property.	Created because many different foundations were awarding grant funding to Houston developments but with no quality control or organization. CSH stepped in to create a fund where the money could be held and a process for underwriting and project quality standards could be developed.
Type of Fund	Equity	Debt	Equity	Equity	Debt	Debt	Equity	Grant
Size of Fund	Phase I total capitalization is $32.5 million, with $7.5 million used as a reserve. Phase II total capitalization will be $33.5 million, with $8.5 million used as a reserve. Each phase is separate with new capital - no revolving funds.	$34 million	Total investments at $105 million. Planning to deploy $500 million over the next 10 years (from 2018-2028)	$100 million	$15 million	$8.1 million (with a goal of $12 million by Cinnaire and $3 million by INHP)	Currently $5.3 million (goal is $25 million)	$15 million

	NOAH Impact Fund	Chicago Opportunity Investment Fund	Austin's Strike Fund	Housing Partnership Equity Trust (HPET)	Denver TOD Fund	Indianapolis Equitable TOD Fund	Catalyst Fund	PSH Capital Grant Fund
Type of Housing Acquired	NOAH located in the seven-county area of Minneapolis and St. Paul, in opportunity areas; NOAH properties are typically Class B and Class C rental buildings or complexes with 50+ units, built between 1940 and 1990, located in opportunity areas, where affordability is at risk. NOAH classified as rents affordable to households with incomes at or below 60% of the AMI, and/or rental housing units that previously received local subsidy or low-income housing tax credits, and are no longer subject to income and/or rent restrictions.	Multifamily rental housing—usually market-rate with affordable units made so through HCVs or PBVs.	Purchases existing market affordable multifamily housing.	Three buckets: 1) Housing with LIHTC that has completed its compliance period, but where use restrictions remain 2) Naturally occurring affordable housing, where additional financing is procured and use restrictions can be applied to maintain affordability 3) Targeted housing, including housing for the elderly or disabled, housing in neighborhoods of opportunity or mixed- income housing.	Mostly land acquisition and new construction of affordable housing; preservation is harder and more expensive to do. Does not specifically target NOAH (but preservation is an eligible use of the fund). Projects must be; 1) Located in the seven-county Denver Metro Area including incorporated cities; and 2) Within ½ mile of an existing or future fixed rail station or within ¼ mile of a high- frequency bus corridor 3) Multifamily affordable rental housing (homeownership may be considered) 4) Mixed-use projects that provide community facility and/or nonprofit space (e.g. childcare centers, health clinics, charter schools, fresh food markets) in addition to housing 5) Vacant/ underutilized land that will be acquired for the purpose of producing either of the above.	Not specifically purchasing housing (NOAH or otherwise), but the intent is to do so. Right now purchasing land and developers will build new construction affordable housing. Properties must be located within ½ mile of a transit stop.	Most of the multifamily is small properties, naturally occurring affordable housing—older housing stock with limited, if any, rehab since first construction: -"Mom and pop" operators - Below 50 units - All unsubsidized (affordability ranging from 60-100% of AMI)	Permanent supportive housing, with some affordable housing in mixed-income housing projects

	NOAH Impact Fund	Chicago Opportunity Investment Fund	Austin's Strike Fund	Housing Partnership Equity Trust (HPET)	Denver TOD Fund	Indianapolis Equitable TOD Fund	Catalyst Fund	PSH Capital Grant Fund
Affordability Requirements	For 15 years, 75% or more units must serve households at 80% of AMI or less with rents affordable to households at 80% of AMI or less (25% can be market rate). Nonprofit partner expected to hold affordability in perpetuity.	At least 20% of units must be affordable for at least 15 years. Affordable units paired with HCVs or PBVs or another source of operating subsidy. As building turnover occurs, voucher tenants will move into vacant units.	Targeting existing affordable housing within the 60–120% of AMI range for preferred affordability in perpetuity. Individual operating agreements define how each property will be operated in line with the following: - At least 51% of units must be at or below 80% of AMI, measuring the affordability requirements across the portfolio - Understand that some properties will need market-rate units component to make the deal work - Deed restrictions are instituted, often after the initial screening	Does not directly apply affordability restrictions. However, development-members often purchase tax credit properties at the end of their compliance period, where no credits are flowing, but use restrictions remain intact. Members might acquire properties that are subject to previous local programs that ran their course but still have use restrictions.	Does not directly apply affordability restrictions. Relies on developers getting permanent financing source that often comes with affordability restrictions such as Low-Income Housing Tax Credits.	Land is sold with land-use restrictions to ensure that the affordability is kept. Focus on mixed-income communities with mix of units at 40–50% of AMI, 120% of AMI and also market rate with no specified length of time.	Does not directly apply affordability restrictions. However, the nonprofit developer that advises and eventually purchases the property will often do so with a subsidy through public funds. Those funds will have affordability restrictions.	Does not directly apply affordability restrictions. However, CSH targets projects and will fund projects at or below 30% of AMI (which is classified as permanent supportive housing).
Fund Structure	Public private partnership, that has NOAH Impact Fund as a 90% equity investor and 10% operating partner relationship.	Low-cost mezzanine debt fund. Fund provides loans and creates more affordable units using revolving funds.	Private equity fund (open-ended private equity institutional real estate fund). Institutional Real Estate Fund—allows for long term investment into real estate assets and a reasonable return on investment.	REIT - public purpose real estate investment trust	Acquisition Fund. Phase I: Enterprise Community Partners serving as administrative agent and the Urban Land Conservancy designated as the sole borrower—intermediary that acquired the land. Property had to be located in the City of Denver. Phase II: Expanded to include all developers, and the seven-county region surrounding City of Denver.	Land Acquisition Fund. Indianapolis Neighborhood Housing Partnership (INHP) is the sole borrower from the Loan Fund. Purchases land and then sells to developers for affordable housing development with land use restrictions in place. Modeled closely after Denver TOD Fund phase I.	Catalyst Fund aims to be an in-and-out fund. Equity owner of property until they sell the property to a developer.	Grants

	NOAH Impact Fund	Chicago Opportunity Investment Fund	Austin's Strike Fund	Housing Partnership Equity Trust (HPET)	Denver TOD Fund	Indianapolis Equitable TOD Fund	Catalyst Fund	PSH Capital Grant Fund
Eligibility Requirements for Developers	Nonprofit housing owner operators with a mission to provide long-term affordable housing opportunities and demonstrated experience and capacity in owning and operating high-quality and well-managed affordable housing.	Must maximize private mortgage debt, developers can then access the fund to cover up to half of their equity requirement, or go up to 90% LTV, whichever is less. Owners can be eligible to refinance existing portfolio if they enter into the minimum 15-year affordability commitment.		Eligible developer must be a nonprofit partner.	No eligibility requirements for developer.	INHP is the sole borrower.	Developers must be in-network partners.	No eligibility requirements for developers, although CSH actively reached out to developers but many already had connections with the City of Houston or the foundation funders.
Type of Investors	Local community banks in Hennepin County and Minnesota Housing–State of Minnesota Housing Finance Agency. Investors: Bremer Bank, Sunrise Banks, Western Bank – A Division of American National Bank, Minnesota Housing Finance Agency, Hennepin County, The McKnight Foundation, and Otto Bremer Trust.	$21 million from private bank investors, $5 million from a social impact investor, $5 million from the City of Chicago, and $3 million from the CDFI Fund's Capital Magnet Fund. $5.5 million comes from other public sources, including the Illinois Housing Development Authority, and the U.S. Department of Treasury Capital Magnet Fund.	Local support. High-net-worth investors, now progressing to institutional investors/banks and foundations. First CRA investor at the end of 2019. $500k from Texas Capital Bank, Wells Fargo and US Conf of Mayors. Other investors include Sweet Leaf Tea founder Clayton Christopher, Amherst Holdings CEO Sean Dobson, and philanthropists Michael and Jeanne Klein.	Nonprofit development members; Aeon, AHC Inc, BRIDGE Housing. Chicanos Por La Causa, Inc, CPDC, Eden Housing, Hispanic Housing Development Corporation, Homes for America, Housing Partnership Network, LINC Housing, Mercy Housing, Nevada HAND, The NHP Foundation, NHT Communities and POAH. Ford Foundation, MacArthur Foundation, Citi Bank, Prudential, Charles Schwab Bank and Morgan Stanley also invested.	Private entities as investors such as banks, CDFIs foundations as well as public sector partners such as the state and City of Denver. City and County of Denver initially invested $2.5 million of federal Community Development Block Grant dollars.	Private institutional lenders. In December 2019, closed $5 million from four banks. Have since brought in three more banks (First Financial Bank, First Merchants, National Bank of Indianapolis, Lake City Bank, First Internet Bank of Indiana, Regions, Huntington Bank).	Raised equity through the JP Morgan Chase Pro Neighborhoods grant (2013 grantee). Other investors are NALCAB members as well as impact investors.	Foundations that were already passing out grants in Houston, CSH consolidated them. (Foundations were Houston Endowment, Hearst Foundation, David Weekley Family Foundation, MD Anderson, JPMC).

	NOAH Impact Fund	Chicago Opportunity Investment Fund	Austin's Strike Fund	Housing Partnership Equity Trust (HPET)	Denver TOD Fund	Indianapolis Equitable TOD Fund	Catalyst Fund	PSH Capital Grant Fund
Success of Fund	Closed on one project of $15 million, another project in the pipeline of $9 million (portfolio of 16 properties, 200 units) Total: • 700 units + (701) • 5 projects that have closed that constitute the 701 units Social impact of NOAH Impact Fund: • 35% of households in phase I properties are occupied by Section 8 voucher holders • 43% of households in phase I properties have incomes at or below 30% of AMI	Fund is expected to generate 300 affordable units in strong and strengthening markets, and 1,500 mixed-income units overall. As of today, the fund has financed 274 units, of which 62 are affordable at 50% of AMI, working with nine owners across 13 properties.	Fund has acquired three multifamily properties totaling 792 units. The 10-year goal is to preserve around 10,000 rental units.	3,100 units since inception.	17 loans have been made for a total of $34 million. More than 1,450 affordable homes have been created or preserved. In 2014, during phase I, a line of credit was made to the Urban Land Conservancy which acquired eight sites. During phase II, the fund has issued nine more loans.	Fund has acquired six properties (four of the six are vacant land; two are land with a commercial structure that is not being used). No land has been sold for development, however the first one is close.	$5.3 million fund has preserved 47 rental or co-op units (and one community-serving commercial space) affordable to low-income households in gentrifying neighborhoods, developed 94 single-family lots and developed approximately 0.9 acres of land in a traditionally low-income minority neighborhood.	Four projects have received grants, with a fifth expected to receive one in 2020; then the grant fund will be fully depleted. Fund has created 256 units of permanent supportive housing with an additional 124 units of affordable housing part of mixed-use developments.
Exit Strategy	10-year investment of NOAH Impact Fund in equity, 15-year hold on property and affordability.	10-year loan term with interest only payments. Full repayment of principal at close.	Liquidation of equity—three-year lock out for partners from when the money is invested; ACT has first right to buy out the developer partners if a partner is leaving the property.	Hold periods are preferred for 10-15 years but there is no specific timeline; allows for flexibility for development partners. Aims to serve as a "long-term bridge to resyndication."	No finite term period. Monthly interest-only payments; principal due at maturity or upon receipt of a repayment source. Borrower must maintain sufficient unrestricted liquidity to support repayment. At lender's discretion, interest payments may be made from a capitalized interest reserve funded through loan proceeds. No pre-payment penalty.	Five-year loan term with quarterly interest payments, principal due at maturity of at the sale of the property.	Three- to five-year hold term where the developer partner has first right of purchase over the course of five years.	

	NOAH Impact Fund	Chicago Opportunity Investment Fund	Austin's Strike Fund	Housing Partnership Equity Trust (HPET)	Denver TOD Fund	Indianapolis Equitable TOD Fund	Catalyst Fund	PSH Capital Grant Fund
Fund Management		There is a staff of four who all pitch in to help manage the fund: the senior VP of lending, the director of The Preservation Compact, a loan officer, and a program officer. The program officer spends 25% of time and the loan officer spends 60% of time on the Opportunity Investment Fund. The director of the Preservation Compact spends ~10% of time on the fund. The senior VP of lending spends ~10% of time on the fund.	Seven staff members in total; two full time, five are either part time or contractors.	Eight full-time staff members. Working with nonprofit developers allows the staff to run lean with no need to directly provide asset management.	The Denver TOD Fund is one product of the Enterprise Community Loan Fund. Managed both by the national Loan Fund and the local office. Enterprise is the fund manager, administrator and sole originating CDFI.	Fund has acquired six properties (four of the six are vacant land; two are land with a commercial structure that is not being used). No land has been sold for development, however the first one is close.	$5.3 million fund has preserved 47 rental or co-op units (and one community-serving commercial space) affordable to low-income households in gentrifying neighborhoods, developed 94 single-family lots and developed approximately 0.9 acres of land in a traditionally low-income minority neighborhood.	Four projects have received grants, with a fifth expected to receive one in 2020; then the grant fund will be fully depleted. Fund has created 256 units of permanent supportive housing with an additional 124 units of affordable housing part of mixed-use developments.

	NOAH Impact Fund	Chicago Opportunity Investment Fund	Austin's Strike Fund	Housing Partnership Equity Trust (HPET)	Denver TOD Fund	Indianapolis Equitable TOD Fund	Catalyst Fund	PSH Capital Grant Fund
Other		Developers are able to accept Public Housing Authority (PHA) tenants into buildings.	In November 2018, Austin voters approved Proposition A, a $250 million affordable housing bond for the city to invest into the development and maintenance of affordable housing. This package contained $100 million for land acquisition for affordable housing development, $98 million for rental housing development assistance, $28 million for a homeownership program and another $28 million for home repairs and rehabilitation.	Hold periods are preferred for 10-15 years but there is no specific timeline; allows for flexibility for development partners. Aims to serve as a "long-term bridge to resyndication."	No finite term period. Monthly interest-only payments; principal due at maturity or upon receipt of a repayment source. Borrower must maintain sufficient unrestricted liquidity to support repayment. At lender's discretion, interest payments may be made from a capitalized interest reserve funded through loan proceeds. No pre-payment penalty.	Five-year loan term with quarterly interest payments, principal due at maturity of at the sale of the property.		

Appendix C: Gap Financing for 4% Housing Credit Projects

April 2020

Development Budget

Budget Line Item	Assumptions	Per Unit	Eligiible Basis	Source
Costs				
Acquisition Cost	$60,000	$60,000	$51,000	*Recent 4% Preservation Projects*
Transaction Costs	5%	$3,000	$3,000	*HR&A Assumption*
Rehab Costs	$70,000	$70,000	$70,000	*Recent 4% Preservation Projects, Highly Variable*
Developer Fee	15%	$19,950	$19,950	*Recent 4% Preservation Projects*
Total Costs		**$152,950**	**$143,950**	
Development Capital Stack				
LIHTC	4%			
Floating Rate	3.23%			*Recent 4% Preservation Projects*
Tax Credit Pricing per credit	$0.95			*Recent 4% Preservation Projects*
Ownership Ratio	99.99%			*Recent 4% Preservation Projects*
LIHTC credit pay-in up front	30.00%			*Recent 4% Preservation Projects*
Land %	15.00%			*Recent 4% Preservation Projects*
Basis Boost	Yes			*Recent 4% Preservation Projects*
Eligible Basis (with basis boost)	$187,135			
Annual Credit	$6,044			
Credit Years	10			
Total Credit	$60,445			
Credit Equity	$57,417			
Tax Exempt Bond				
Term	15			*Recent 4% Preservation Projects*
Amoritization	30			*Recent 4% Preservation Projects*
DSCR	1.15			*Recent 4% Preservation Projects*
LTV	0.8			*Recent 4% Preservation Projects*
Interest	4.00%			*Recent 4% Preservation Projects*
Loan To Cost Constraint	0.8	$48,000		*Recent 4% Preservation Projects*
Loan To Value Constraint	0.7	$44,714		*Recent 4% Preservation Projects*
DSCR Contraint	1.15	$72,036		*Recent 4% Preservation Projects*
Maximum First Mortgage Amount		**$44,714**		
Remaining Capital Stack				
Loan Amount % of Maximum	100%	$44,714		*Assumes Maximum First Mortgage Amount*
Required Additional Investment		$108,236		
Fund Mezzanine Debt Investment	38%	$40,845		*HR&A Assumption Based on Developer Equity Requirements*
Developer Equity Investment	9%	$9,975		*Assumes 50% Deferral of Fee*
LIHTC Equity	53%	$57,417		*Calculation*
Mezzanine Debt Investment				
Current Interest Rate	1.0%			*Recent 4% Preservation Projects*
Accrual Interest Rate	1.0%			*Recent 4% Preservation Projects*
Other Inputs				
Currrent Capitalization Rate	7.5%			*CoStar average cap rate for Class B/C buildings*
Forward Capitalization Rate	8.0%			*CoStar + 50 bps expansion*
Recapitalization Year	15			*HR&A Assumption*
Discount Rate	4.0%			*HR&A Assumption*
Rent Escalator	2.0%			*HR&A Assumption*
Operational Expenses Escalator	2.0%			*HR&A Assumption*

These tables, and the financial analysis that went into them, were created and performed by HR&A Advisors

Appendix C: Gap Financing for 4% Housing Credit Projects

April 2020

Cashflows per Unit	Assumptions	Year 0	1	2	3	4	5	6	7
Average Rental Revenue	$850	*Recent 4% Preservation Projects*	$10,200	$10,404	$10,612	$10,824	$11,041	$11,262	$11,487
Parking Revenue	$0		$0	$0	$0	$0	$0	$0	$0
Other Revenue	3%		$306	$312	$318	$325	$331	$338	$345
Gross Potential Revenue			$10,506	$10,716	$10,930	$11,149	$11,372	$11,599	$11,831
Vacancy Loss	5%	*Recent 4% Preservation Projects*	($525)	($536)	($547)	($557)	($569)	($580)	($592)
Total Revenue			**$9,981**	**$10,180**	**$10,384**	**$10,592**	**$10,803**	**$11,019**	**$11,240**
Operating Expenses									
Operating Expenses excluding taxes	-52.0%	*Recent 4% Preservation Projects*	($5,190)	($5,294)	($5,400)	($5,508)	($5,618)	($5,730)	($5,845)
Taxes	$0	*Assumes tax exemption*	$0	$0	$0	$0	$0	$0	$0
Total Operating Expenses			**($5,190)**	**($5,294)**	**($5,400)**	**($5,508)**	**($5,618)**	**($5,730)**	**($5,845)**
Net Operating Income			**$4,791**	**$4,887**	**$4,984**	**$5,084**	**$5,186**	**$5,289**	**$5,395**
First Mortgage Payment		$44,714	($2,586)	($2,586)	($2,586)	($2,586)	($2,586)	($2,586)	($2,586)
Remaining Cashflow			**$2,205**	**$2,301**	**$2,398**	**$2,498**	**$2,600**	**$2,704**	**$2,809**
Mezzanine Debt Investment									
Mezzanine Debt Investment	37.7%		$40,845	$40,845	$40,845	$40,845	$40,845	$40,845	$40,845
Current Interest	1.0%		**($408)**	**($408)**	**($408)**	**($408)**	**($408)**	**($408)**	**($408)**
Accured Interest	1.0%		**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**
End of Period		$40,845	$40,845	$40,845	$40,845	$40,845	$40,845	$40,845	$40,845
Mezzanine Debt Accrued Interest and Principal		($40,845)	($40,845)	($40,845)	($40,845)	($40,845)	($40,845)	($40,845)	($40,845)
Mezzanine Debt Cashflow		$40,845	($408)	($408)	($408)	($408)	($408)	($408)	($408)
Mezzanine Debt Cashflow for NPV Calculation		($40,845)	$408	$408	$408	$408	$408	$408	$408
Remaining Cashflow Per Unit			**$1,796**	**$1,892**	**$1,990**	**$2,090**	**$2,191**	**$2,295**	**$2,401**
Recapitalization by Equity Partner									
After First Mortgage Loan Proceeds			$0	$0	$0	$0	$0	$0	$0
After Mezzanine Debt Accrued Interest and Principal			$0	$0	$0	$0	$0	$0	$0
Developer Equity Investment	14.8%		$0	$0	$0	$0	$0	$0	$0
Equity Partner Cashflow									
Developer Equity		($9,975)	$266	$280	$295	$309	$324	$340	$355

Cashflows per Unit	8	9	10	11	12	13	14	15
Average Rental Revenue	$11,717	$11,951	$12,190	$12,434	$12,682	$12,936	$13,195	$13,459
Parking Revenue	$0	$0	$0	$0	$0	$0	$0	$0
Other Revenue	$351	$359	$366	$373	$380	$388	$396	$404
Gross Potential Revenue	$12,068	$12,309	$12,556	$12,807	$13,063	$13,324	$13,591	$13,862
Vacancy Loss	($603)	($615)	($628)	($640)	($653)	($666)	($680)	($693)
Total Revenue	**$11,465**	**$11,694**	**$11,928**	**$12,166**	**$12,410**	**$12,658**	**$12,911**	**$13,169**
Operating Expenses								
Operating Expenses excluding taxes	($5,962)	($6,081)	($6,202)	($6,327)	($6,453)	($6,582)	($6,714)	($6,848)
Taxes	$0	$0	$0	$0	$0	$0	$0	$0
Total Operating Expenses	**($5,962)**	**($6,081)**	**($6,202)**	**($6,327)**	**($6,453)**	**($6,582)**	**($6,714)**	**($6,848)**
Net Operating Income	**$5,503**	**$5,613**	**$5,725**	**$5,840**	**$5,957**	**$6,076**	**$6,197**	**$6,321**
First Mortgage Payment	($2,586)	($2,586)	($2,586)	($2,586)	($2,586)	($2,586)	($2,586)	($2,586)
Remaining Cashflow	**$2,917**	**$3,027**	**$3,140**	**$3,254**	**$3,371**	**$3,490**	**$3,612**	**$3,735**
Mezzanine Debt Investment								
Mezzanine Debt Investment	$40,845	$40,845	$40,845	$40,845	$40,845	$40,845	$40,845	$40,845
Current Interest	**($408)**	**($408)**	**($408)**	**($408)**	**($408)**	**($408)**	**($408)**	**($408)**
Accured Interest	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**	**$0**
End of Period	$40,845	$40,845	$40,845	$40,845	$40,845	$40,845	$40,845	$40,845
Mezzanine Debt Accrued Interest and Principal	($40,845)	($40,845)	($40,845)	($40,845)	($40,845)	($40,845)	($40,845)	$0
Mezzanine Debt Cashflow	($408)	($408)	($408)	($408)	($408)	($408)	($408)	($40,845)
Mezzanine Debt Cashflow for NPV Calculation	$408	$408	$408	$408	$408	$408	$408	$40,845
Remaining Cashflow Per Unit	**$2,509**	**$2,619**	**$2,731**	**$2,846**	**$2,962**	**$3,082**	**$3,203**	**$3,327**
Recapitalization by Equity Partner								
After First Mortgage Loan Proceeds	$0	$0	$0	$0	$0	$0	$0	$50,266
After Mezzanine Debt Accrued Interest and Principal	$0	$0	$0	$0	$0	$0	$0	$9,421
Developer Equity Investment	$0	$0	$0	$0	$0	$0	$0	$1,394
Equity Partner Cashflow								
Developer Equity	$371	$388	$404	$421	$438	$456	$474	$1,887

Project Returns	NPV	IRR
Developer Equity	-$4,970	-3.3%
Mezzanine Debt Investment	-$13,318	0.9%

Note: Developer Equity can have a negative return because LIHTC developers make money through developer fees rather than earned revenue through the project

These tables, and the financial analysis that went into them, were created and performed by HR&A Advisors

Appendix D: Gap Financing for non-Housing Credit Projects

10 year investment (Tax Exempt)

April 2020

Development Budget

Budget Line Item	Assumptions	Per Unit	Source
Costs			
Acquisition Cost	$82,000	$82,000	*CoStar median unit price for Class B/C units*
Transaction Costs	5%	$4,100	*HR&A Assumption*
Rehab Costs	$5,000	$5,000	*Highly variable based on building condition*
Developer Fee	5%		*HR&A Assumption*
Total Costs		**$95,655**	
Development Capital Stack			
First Mortgage			
Term	15		*Freddie Mac Term Sheet*
Amoritization	30		*Freddie Mac Term Sheet*
DSCR	1.25		*Freddie Mac Term Sheet*
LTV	0.8		*Freddie Mac Term Sheet*
Interest	4.60%		*Freddie Mac Term Sheet*
Loan To Cost Constraint	0.8	$65,600	*Freddie Mac Term Sheet*
Loan To Value Constraint	0.7	$49,755	*Freddie Mac Term Sheet*
DSCR Contraint	1.25	$68,658	*Freddie Mac Term Sheet*
Maximum First Mortgage Amount		**$49,755**	
Remaining Capital Stack			
GSE Loan Amount % of Maximum	100%	$49,755	*Assumes Maximum First Mortgage Amount*
Required Additional Investment		$45,900	
Fund Mezzanine Debt Investment	85%	$39,015	*HR&A Assumption Based on Developer Equity Requirements*
Developer Equity Investment	15%	$6,885	*HR&A Assumption Based on Developer Equity Requirements*
Additional subsidy (0% loan for hold period)	0%	$0	*Assumes no additional subsidy outside of the Fund*
Mezzanine Debt Investment			
Current Interest Rate	2.0%		*JBG Impact Fund Model minus 200 bps*
Accrual Interest Rate	4.5%		*JBG Impact Fund Model minus 450 bps*
Other Inputs			
Currrent Capitalization Rate	7.5%		CoStar average cap rate for Class B/C buildings
Forward Capitalization Rate	8.0%		CoStar + 50 bps expansion
Recapitalization Year	10		HR&A Assumption
Discount Rate	4.0%		HR&A Assumption
Rent Escalator	2.0%		HR&A Assumption
Operational Expenses Escalator	2.0%		HR&A Assumption

These tables, and the financial analysis that went into them, were created and performed by HR&A Advisors

Appendix D: Gap Financing for non-Housing Credit Projects

10 year investment (Tax Exempt)

April 2020

Cashflows per Unit	Assumptions		Year 0	1	2	3	4	5	6	7	8	9	10
Average Rental Revenue	$850	*CoStar Class B/C Average Rent per Unit*		$10,200	$10,404	$10,612	$10,824	$11,041	$11,262	$11,487	$11,717	$11,951	$12,190
Parking Revenue	$0			$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Other Revenue	5%			$510	$520	$531	$541	$552	$563	$574	$586	$598	$609
Gross Potential Revenue				$10,710	$10,924	$11,143	$11,366	$11,593	$11,825	$12,061	$12,302	$12,548	$12,799
Vacancy Loss	10%	*CoStar Average Vacancy*		($1,017)	($1,038)	($1,059)	($1,080)	($1,101)	($1,123)	($1,146)	($1,169)	($1,192)	($1,216)
Total Revenue				**$9,693**	**$9,886**	**$10,084**	**$10,286**	**$10,492**	**$10,701**	**$10,915**	**$11,134**	**$11,356**	**$11,583**
Operating Expenses													
Operating Expenses excluding taxes	-45.0%	*HR&A based on pro formas*		($4,362)	($4,449)	($4,538)	($4,629)	($4,721)	($4,816)	($4,912)	($5,010)	($5,110)	($5,213)
Taxes	$0	*Assumes tax exemption*		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Total Operating Expenses				**($4,362)**	**($4,449)**	**($4,538)**	**($4,629)**	**($4,721)**	**($4,816)**	**($4,912)**	**($5,010)**	**($5,110)**	**($5,213)**
Net Operating Income				**$5,331**	**$5,438**	**$5,546**	**$5,657**	**$5,770**	**$5,886**	**$6,003**	**$6,124**	**$6,246**	**$6,371**
First Mortgage Payment			$49,755	($3,091)	($3,091)	($3,091)	($3,091)	($3,091)	($3,091)	($3,091)	($3,091)	($3,091)	($3,091)
Remaining Cashflow				**$2,240**	**$2,347**	**$2,456**	**$2,567**	**$2,680**	**$2,795**	**$2,913**	**$3,033**	**$3,155**	**$3,280**
Mezzanine Debt Investment													
Mezzanine Debt Investment	85%			$39,015	$39,990	$40,990	$42,015	$43,065	$44,142	$45,245	$46,376	$47,536	$48,724
Current Interest	2%			**($780)**	**($800)**	**($820)**	**($840)**	**($861)**	**($883)**	**($905)**	**($928)**	**($951)**	**($974)**
Accured Interest	5%			**($975)**	**($1,000)**	**($1,025)**	**($1,050)**	**($1,077)**	**($1,104)**	**($1,131)**	**($1,159)**	**($1,188)**	**($1,218)**
End of Period			$39,015	$39,990	$40,990	$42,015	$43,065	$44,142	$45,245	$46,376	$47,536	$48,724	$49,942
Mezzanine Debt Accrued Interest and Principal			($39,015)	($39,990)	($40,990)	($42,015)	($43,065)	($44,142)	($45,245)	($46,376)	($47,536)	($48,724)	$0
Mezzanine Debt Cashflow			$39,015	($780)	($800)	($820)	($840)	($861)	($883)	($905)	($928)	($951)	($49,942)
Mezzanine Debt Cashflow for NPV Calculation			($39,015)	$780	$800	$820	$840	$861	$883	$905	$928	$951	$49,942
Remaining Cashflow				**$1,460**	**$1,547**	**$1,636**	**$1,726**	**$1,818**	**$1,912**	**$2,008**	**$2,105**	**$2,205**	**$2,306**
Recapitalization by Equity Partner													
After First Mortgage Loan Proceeds				$0	$0	$0	$0	$0	$0	$0	$0	$0	$39,781
After Mezzanine Debt Accrued Interest and Principal				$0	$0	$0	$0	$0	$0	$0	$0	$0	($10,162)
Developer Equity Investment	100.0%	*100% of equity from developers after mezzanine debt. No other equity investors*		$0	$0	$0	$0	$0	$0	$0	$0	$0	($10,162)
Equity Partner Cashflow													
Developer Equity			($6,885)	$1,460	$1,547	$1,636	$1,726	$1,818	$1,912	$2,008	$2,105	$2,205	($7,856)

Project Returns	NPV	IRR	ROC
Developer Equity	$1,146	11.6%	5.6%
Mezzanine Debt Investment	$1,058	4.3%	

These tables, and the financial analysis that went into them, were created and performed by HR&A Advisors

Appendix E: Gap Financing for non-Housing Credit Projects

20 year investment (Tax Exempt)

April 2020

Development Budget

Budget Line Item	Assumptions	Per Unit	Source
Costs			
Acquisition Cost	$82,000	$82,000	*CoStar median unit price for Class B/C units*
Transaction Costs	5%	$4,100	*HR&A Assumption*
Rehab Costs	$5,000	$5,000	*Highly variable based on building condition*
Developer Fee	5%		*HR&A Assumption*
Total Costs		**$95,655**	
Development Capital Stack			
First Mortgage			
Term	20		*Freddie Mac Term Sheet*
Amoritization	30		*Freddie Mac Term Sheet*
DSCR	1.25		*Freddie Mac Term Sheet*
LTV	0.8		*Freddie Mac Term Sheet*
Interest	4.60%		*Freddie Mac Term Sheet*
Loan To Cost Constraint	0.8	$65,600	*Freddie Mac Term Sheet*
50.44	0.7	$49,755	*Freddie Mac Term Sheet*
DSCR Contraint	1.25	$68,658	*Freddie Mac Term Sheet*
Maximum First Mortgage Amount		**$49,755**	
Remaining Capital Stack			
GSE Loan Amount % of Maximum	100%	$49,755	*Assumes Maximum First Mortgage Amount*
Required Additional Investment		$45,900	
Fund Mezzanine Debt Investment	85%	$39,015	*HR&A Assumption Based on Developer Equity Requirements*
Developer Equity Investment	15%	$6,885	*HR&A Assumption Based on Developer Equity Requirements*
Additional subsidy (0% loan for hold period)	0%	$0	*Assumes no additional subsidy outside of the Fund*
Mezzanine Debt Investment			
Current Interest Rate	4.0%		*JBG Impact Fund Model*
Accrual Interest Rate	7.5%		*JBG Impact Fund Model minus 150 bps*
Other Inputs			
Currrent Capitalization Rate	7.5%		*CoStar average cap rate for Class B/C buildings*
Forward Capitalization Rate	8.0%		*CoStar + 50 bps expansion*
Recapitalization Year	20		*HR&A Assumption*
Discount Rate	4.0%		*HR&A Assumption*
Rent Escalator	2.0%		*HR&A Assumption*
Operational Expenses Escalator	2.0%		*HR&A Assumption*

These tables, and the financial analysis that went into them, were created and performed by HR&A Advisors

Appendix E: Gap Financing for non-Housing Credit Projects

20 year investment (Tax Exempt)

April 2020

Cashflows per Unit	Assumptions	Year 0	1	2	3	4	5	6	7	8	9	10
Average Rental Revenue	$850	*CoStar Class B/C Average Rent per Unit*	$10,200	$10,404	$10,612	$10,824	$11,041	$11,262	$11,487	$11,717	$11,951	$12,190
Parking Revenue	$0		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Other Revenue	5%		$510	$520	$531	$541	$552	$563	$574	$586	$598	$609
Gross Potential Revenue			$10,710	$10,924	$11,143	$11,366	$11,593	$11,825	$12,061	$12,302	$12,548	$12,799
Vacancy Loss	10%	*CoStar Average Vacancy*	($1,017)	($1,038)	($1,059)	($1,080)	($1,101)	($1,123)	($1,146)	($1,169)	($1,192)	($1,216)
Total Revenue			**$9,693**	**$9,886**	**$10,084**	**$10,286**	**$10,492**	**$10,701**	**$10,915**	**$11,134**	**$11,356**	**$11,583**
Operating Expenses												
Operating Expenses excluding taxes	-45.0%	*HR&A based on pro formas*	($4,362)	($4,449)	($4,538)	($4,629)	($4,721)	($4,816)	($4,912)	($5,010)	($5,110)	($5,213)
Taxes	$0	*Assumes tax exemption*	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Total Operating Expenses			**($4,362)**	**($4,449)**	**($4,538)**	**($4,629)**	**($4,721)**	**($4,816)**	**($4,912)**	**($5,010)**	**($5,110)**	**($5,213)**
Net Operating Income			**$5,331**	**$5,438**	**$5,546**	**$5,657**	**$5,770**	**$5,886**	**$6,003**	**$6,124**	**$6,246**	**$6,371**
First Mortgage Payment		$49,755	($3,091)	($3,091)	($3,091)	($3,091)	($3,091)	($3,091)	($3,091)	($3,091)	($3,091)	($3,091)
Remaining Cashflow			**$2,240**	**$2,347**	**$2,456**	**$2,567**	**$2,680**	**$2,795**	**$2,913**	**$3,033**	**$3,155**	**$3,280**
Mezzanine Debt Investment												
Mezzanine Debt Investment	85%		$39,015	$39,990	$40,990	$42,015	$43,065	$44,142	$45,245	$46,376	$47,536	$48,724
Current Interest	2%		**($780)**	**($800)**	**($820)**	**($840)**	**($861)**	**($883)**	**($905)**	**($928)**	**($951)**	**($974)**
Accured Interest	5%		**($975)**	**($1,000)**	**($1,025)**	**($1,050)**	**($1,077)**	**($1,104)**	**($1,131)**	**($1,159)**	**($1,188)**	**($1,218)**
End of Period		$39,015	$39,990	$40,990	$42,015	$43,065	$44,142	$45,245	$46,376	$47,536	$48,724	$49,942
Mezzanine Debt Accrued Interest and Principal		($39,015)	($39,990)	($40,990)	($42,015)	($43,065)	($44,142)	($45,245)	($46,376)	($47,536)	($48,724)	$0
Mezzanine Debt Cashflow		$39,015	($780)	($800)	($820)	($840)	($861)	($883)	($905)	($928)	($951)	($49,942)
Mezzanine Debt Cashflow for NPV Calculation		($39,015)	$780	$800	$820	$840	$861	$883	$905	$928	$951	$49,942
Remaining Cashflow			**$1,460**	**$1,547**	**$1,636**	**$1,726**	**$1,818**	**$1,912**	**$2,008**	**$2,105**	**$2,205**	**$2,306**
Recapitalization by Equity Partner												
After First Mortgage Loan Proceeds			$0	$0	$0	$0	$0	$0	$0	$0	$0	$39,781
After Mezzanine Debt Accrued Interest and Principal			$0	$0	$0	$0	$0	$0	$0	$0	$0	($10,162)
Developer Equity Investment	100.0%	*100% of equity from developers after mezzanine debt. No other equity investors*	$0	$0	$0	$0	$0	$0	$0	$0	$0	($10,162)
Equity Partner Cashflow												
Developer Equity		($6,885)	$1,460	$1,547	$1,636	$1,726	$1,818	$1,912	$2,008	$2,105	$2,205	($7,856)

Project Returns	NPV	IRR	ROC
Developer Equity	$1,146	11.6%	5.6%
Mezzanine Debt Investment	$1,058	4.3%	

These tables, and the financial analysis that went into them, were created and performed by HR&A Advisors

Appendix F: Gap Financing for non-Housing Credit Projects

10 year investment (without tax exemption)

April 2020

Development Budget

Budget Line Item	Assumptions	Per Unit	Source
Costs			
Acquisition Cost	**$82,000**	$82,000	*CoStar median unit price for Class B/C units*
Transaction Costs	**5%**	$4,100	*HR&A Assumption*
Rehab Costs	**$5,000**	$5,000	*Highly variable based on building condition*
Developer Fee	**5%**		*HR&A Assumption*
Total Costs		**$95,655**	
Development Capital Stack			
First Mortgage			
Term	**15**		*Freddie Mac Term Sheet*
Amoritization	**30**		*Freddie Mac Term Sheet*
DSCR	**1.25**		*Freddie Mac Term Sheet*
LTV	**0.8**		*Freddie Mac Term Sheet*
Interest	**4.60%**		*Freddie Mac Term Sheet*
Loan To Cost Constraint	**0.8**	$65,600	*Freddie Mac Term Sheet*
Loan To Value Constraint	**0.7**	$43,222	*Freddie Mac Term Sheet*
DSCR Contraint	**1.25**	$59,642	*Freddie Mac Term Sheet*
Maximum First Mortgage Amount		**$43,222**	
Remaining Capital Stack			
GSE Loan Amount % of Maximum	**100%**	$43,222	*Assumes Maximum First Mortgage Amount*
Required Additional Investment		$52,433	
Fund Mezzanine Debt Investment	**85%**	$44,568	*HR&A Assumption Based on Developer Equity Requirements*
Developer Equity Investment	**15%**	$7,865	*HR&A Assumption Based on Developer Equity Requirements*
Additional subsidy (0% loan for hold period)	**0%**	$0	*Assumes no additional subsidy outside of the Fund*
Mezzanine Debt Investment			*Assumes no additional subsidy outside of the Fund*
Current Interest Rate	**0.5%**		*JBG Impact Fund Model minus 350 bps*
Accrual Interest Rate	**0.5%**		*JBG Impact Fund Model minus 850 bps*
Other Inputs			
Currrent Capitalization Rate	**7.5%**		*CoStar average cap rate for Class B/C buildings*
Forward Capitalization Rate	**8.0%**		*CoStar + 50 bps expansion*
Recapitalization Year	**10**		*HR&A Assumption*
Discount Rate	**4.0%**		*HR&A Assumption*
Rent Escalator	**2.0%**		*HR&A Assumption*
Operational Expenses Escalator	**2.0%**		*HR&A Assumption*

These tables, and the financial analysis that went into them, were created and performed by HR&A Advisors

Appendix F: Gap Financing for non-Housing Credit Projects

10 year investment (without tax exemption)

April 2020

Cashflows per Unit	Assumptions	Year 0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Average Rental Revenue	$850	*CoStar Class B/C Average Rent per Unit*	$10,200	$10,404	$10,612	$10,824	$11,041	$11,262	$11,487	$11,717	$11,951	$12,190	$12,434	$12,682	$12,936	$13,195	$13,459	$13,728	$14,002	$14,282	$14,568	$14,859
Parking Revenue	$0		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Other Revenue	5%		$510	$520	$531	$541	$552	$563	$574	$586	$598	$609	$622	$634	$647	$660	$673	$686	$700	$714	$728	$743
Gross Potential Revenue			$10,710	$10,924	$11,143	$11,366	$11,593	$11,825	$12,061	$12,302	$12,548	$12,799	$13,055	$13,317	$13,583	$13,855	$14,132	$14,414	$14,703	$14,997	$15,297	$15,602
Vacancy Loss	10%	*CoStar Average Vacancy*	($1,017)	($1,038)	($1,059)	($1,080)	($1,101)	($1,123)	($1,146)	($1,169)	($1,192)	($1,216)	($1,240)	($1,265)	($1,290)	($1,316)	($1,343)	($1,369)	($1,397)	($1,425)	($1,453)	($1,482)
Total Revenue			**$9,693**	**$9,886**	**$10,084**	**$10,286**	**$10,492**	**$10,701**	**$10,915**	**$11,134**	**$11,356**	**$11,583**	**$11,815**	**$12,051**	**$12,292**	**$12,538**	**$12,789**	**$13,045**	**$13,306**	**$13,572**	**$13,843**	**$14,120**
Operating Expenses																						
Operating Expenses excluding taxes	-45.0%	*HR&A based on pro formas*	($4,362)	($4,449)	($4,538)	($4,629)	($4,721)	($4,816)	($4,912)	($5,010)	($5,110)	($5,213)	($5,317)	($5,423)	($5,532)	($5,642)	($5,755)	($5,870)	($5,988)	($6,107)	($6,230)	($6,354)
Taxes	$0	*Assumes tax exemption*	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Total Operating Expenses			**($4,362)**	**($4,449)**	**($4,538)**	**($4,629)**	**($4,721)**	**($4,816)**	**($4,912)**	**($5,010)**	**($5,110)**	**($5,213)**	**($5,317)**	**($5,423)**	**($5,532)**	**($5,642)**	**($5,755)**	**($5,870)**	**($5,988)**	**($6,107)**	**($6,230)**	**($6,354)**
Net Operating Income			**$5,331**	**$5,438**	**$5,546**	**$5,657**	**$5,770**	**$5,886**	**$6,003**	**$6,124**	**$6,246**	**$6,371**	**$6,498**	**$6,628**	**$6,761**	**$6,896**	**$7,034**	**$7,175**	**$7,318**	**$7,465**	**$7,614**	**$7,766**
First Mortgage Payment		$49,755	($3,091)	($3,091)	($3,091)	($3,091)	($3,091)	($3,091)	($3,091)	($3,091)	($3,091)	($3,091)	($3,091)	($3,091)	($3,091)	($3,091)	($3,091)	($3,091)	($3,091)	($3,091)	($3,091)	($3,091)
Remaining Cashflow			**$2,240**	**$2,347**	**$2,456**	**$2,567**	**$2,680**	**$2,795**	**$2,913**	**$3,033**	**$3,155**	**$3,280**	**$3,408**	**$3,538**	**$3,670**	**$3,806**	**$3,943**	**$4,084**	**$4,228**	**$4,374**	**$4,523**	**$4,676**
Mezzanine Debt Investment																						
Mezzanine Debt Investment	85%		$39,015	$40,380	$41,794	$43,257	$44,771	$46,337	$47,959	$49,638	$51,375	$53,173	$55,034	$56,961	$58,954	$61,018	$63,153	$65,364	$67,651	$70,019	$72,470	$75,006
Current Interest	4%		**($1,561)**	**($1,615)**	**($1,672)**	**($1,730)**	**($1,791)**	**($1,853)**	**($1,918)**	**($1,986)**	**($2,055)**	**($2,127)**	**($2,201)**	**($2,278)**	**($2,358)**	**($2,441)**	**($2,526)**	**($2,615)**	**($2,706)**	**($2,801)**	**($2,899)**	**($3,000)**
Accured Interest	8%		**($1,366)**	**($1,413)**	**($1,463)**	**($1,514)**	**($1,567)**	**($1,622)**	**($1,679)**	**($1,737)**	**($1,798)**	**($1,861)**	**($1,926)**	**($1,994)**	**($2,063)**	**($2,136)**	**($2,210)**	**($2,288)**	**($2,368)**	**($2,451)**	**($2,536)**	**($2,625)**
End of Period		$39,015	$40,380	$41,794	$43,257	$44,771	$46,337	$47,959	$49,638	$51,375	$53,173	$55,034	$56,961	$58,954	$61,018	$63,153	$65,364	$67,651	$70,019	$72,470	$75,006	$77,631
Mezzanine Debt Accrued		($39,015)	($40,380)	($41,794)	($43,257)	($44,771)	($46,337)	($47,959)	($49,638)	($51,375)	($53,173)	($55,034)	($56,961)	($58,954)	($61,018)	($63,153)	($65,364)	($67,651)	($70,019)	($72,470)	($75,006)	$0
Mezzanine Debt Cashflow		$39,015	($1,561)	($1,615)	($1,672)	($1,730)	($1,791)	($1,853)	($1,918)	($1,986)	($2,055)	($2,127)	($2,201)	($2,278)	($2,358)	($2,441)	($2,526)	($2,615)	($2,706)	($2,801)	($2,899)	($77,631)
Mezzanine Debt Cashflow		($39,015)	$1,561	$1,615	$1,672	$1,730	$1,791	$1,853	$1,918	$1,986	$2,055	$2,127	$2,201	$2,278	$2,358	$2,441	$2,526	$2,615	$2,706	$2,801	$2,899	$77,631
Remaining Cashflow			**$680**	**$732**	**$784**	**$836**	**$889**	**$942**	**$995**	**$1,047**	**$1,100**	**$1,153**	**$1,206**	**$1,259**	**$1,312**	**$1,365**	**$1,417**	**$1,470**	**$1,522**	**$1,573**	**$1,624**	**$1,675**
Recapitalization by Equity Partner																						
After First Mortgage Loan Proceeds			$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$72,741
After Mezzanine Debt Accrued Interest and Principal			$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	($4,890)
Developer Equity Investment	100.0%	*100% of equity from developers after mezzanine debt. No other equity investors*	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	($4,890)
Equity Partner Cashflow																						
Developer Equity		($6,885)	$680	$732	$784	$836	$889	$942	$995	$1,047	$1,100	$1,153	$1,206	$1,259	$1,312	$1,365	$1,417	$1,470	$1,522	$1,573	$1,624	($3,215)

Project Returns	NPV	IRR	ROC
Developer Equity	$5,755	12.1%	5.6%
Mezzanine Debt Investment	$22,813	7.4%	

These tables, and the financial analysis that went into them, were created and performed by HR&A Advisors

Appendix G: Gap Financing for non-Housing Credit Projects

20 year investment (without tax exemption)

April 2020

Development Budget

Budget Line Item	Assumptions	Per Unit	Source
Costs			
Acquisition Cost	**$82,000**	$82,000	*CoStar median unit price for Class B/C units*
Transaction Costs	**5%**	$4,100	*HR&A Assumption*
Rehab Costs	**$5,000**	$5,000	*Highly variable based on building condition*
Developer Fee	**5%**		*HR&A Assumption*
Total Costs		**$95,655**	
Development Capital Stack			
First Mortgage			
Term	**20**		*Freddie Mac Term Sheet*
Amoritization	**30**		*Freddie Mac Term Sheet*
DSCR	**1.25**		*Freddie Mac Term Sheet*
LTV	**0.8**		*Freddie Mac Term Sheet*
Interest	**4.60%**		*Freddie Mac Term Sheet*
Loan To Cost Constraint	**0.8**	$65,600	*Freddie Mac Term Sheet*
50.44	**0.7**	$43,222	*Freddie Mac Term Sheet*
DSCR Contraint	**1.25**	$59,642	*Freddie Mac Term Sheet*
Maximum First Mortgage Amount		**$43,222**	
Remaining Capital Stack			
GSE Loan Amount % of Maximum	**100%**	$43,222	*Assumes Maximum First Mortgage Amount*
Required Additional Investment		$52,433	
Fund Mezzanine Debt Investment	**85%**	$44,568	*HR&A Assumption Based on Developer Equity Requirements*
Developer Equity Investment	**15%**	$7,865	*HR&A Assumption Based on Developer Equity Requirements*
Additional subsidy (0% loan for hold period)	**0%**	$0	*Assumes no additional subsidy outside of the Fund*
Mezzanine Debt Investment			*Assumes no additional subsidy outside of the Fund*
Current Interest Rate	**3.0%**		*JBG Impact Fund Model minus 100 bps*
Accrual Interest Rate	**4.5%**		*JBG Impact Fund Model minus 450 bps*
Other Inputs			
Currrent Capitalization Rate	**7.5%**		*CoStar average cap rate for Class B/C buildings*
Forward Capitalization Rate	**8.0%**		*CoStar + 50 bps expansion*
Recapitalization Year	**20**		*HR&A Assumption*
Discount Rate	**4.0%**		*HR&A Assumption*
Rent Escalator	**2.0%**		*HR&A Assumption*
Operational Expenses Escalator	**2.0%**		*HR&A Assumption*

These tables, and the financial analysis that went into them, were created and performed by HR&A Advisors

Appendix G: Gap Financing for non-Housing Credit Projects

20 year investment (without tax exemption)

April 2020

Cashflows per Unit	Assumptions	Year 0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Average Rental Revenue	$850	*CoStar Class B/C Average Rent per Unit*	$10,200	$10,404	$10,612	$10,824	$11,041	$11,262	$11,487	$11,717	$11,951	$12,190	$12,434	$12,682	$12,936	$13,195	$13,459	$13,728	$14,002	$14,282	$14,568	$14,859
Parking Revenue	$0		$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0
Other Revenue	5%		$510	$520	$531	$541	$552	$563	$574	$586	$598	$609	$622	$634	$647	$660	$673	$686	$700	$714	$728	$743
Gross Potential Revenue			$10,710	$10,924	$11,143	$11,366	$11,593	$11,825	$12,061	$12,302	$12,548	$12,799	$13,055	$13,317	$13,583	$13,855	$14,132	$14,414	$14,703	$14,997	$15,297	$15,602
Vacancy Loss	10%	*CoStar Average Vacancy*	($1,017)	($1,038)	($1,059)	($1,080)	($1,101)	($1,123)	($1,146)	($1,169)	($1,192)	($1,216)	($1,240)	($1,265)	($1,290)	($1,316)	($1,343)	($1,369)	($1,397)	($1,425)	($1,453)	($1,482)
Total Revenue			**$9,693**	**$9,886**	**$10,084**	**$10,286**	**$10,492**	**$10,701**	**$10,915**	**$11,134**	**$11,356**	**$11,583**	**$11,815**	**$12,051**	**$12,292**	**$12,538**	**$12,789**	**$13,045**	**$13,306**	**$13,572**	**$13,843**	**$14,120**
Operating Expenses																						
Operating Expenses excluding taxes	-45.0%	*HR&A based on pro formas*	($4,362)	($4,449)	($4,538)	($4,629)	($4,721)	($4,816)	($4,912)	($5,010)	($5,110)	($5,213)	($5,317)	($5,423)	($5,532)	($5,642)	($5,755)	($5,870)	($5,988)	($6,107)	($6,230)	($6,354)
Taxes	-$700		($700)	($714)	($728)	($743)	($758)	($773)	($788)	($804)	($820)	($837)	($853)	($870)	($888)	($906)	($924)	($942)	($961)	($980)	($1,000)	($1,020)
Total Operating Expenses			**($5,062)**	**($5,163)**	**($5,266)**	**($5,371)**	**($5,479)**	**($5,588)**	**($5,700)**	**($5,814)**	**($5,931)**	**($6,049)**	**($6,170)**	**($6,294)**	**($6,419)**	**($6,548)**	**($6,679)**	**($6,812)**	**($6,949)**	**($7,088)**	**($7,229)**	**($7,374)**
Net Operating Income			**$4,631**	**$4,724**	**$4,818**	**$4,914**	**$5,013**	**$5,113**	**$5,215**	**$5,319**	**$5,426**	**$5,534**	**$5,645**	**$5,758**	**$5,873**	**$5,991**	**$6,110**	**$6,233**	**$6,357**	**$6,484**	**$6,614**	**$6,746**
First Mortgage Payment		$43,222	($2,685)	($2,685)	($2,685)	($2,685)	($2,685)	($2,685)	($2,685)	($2,685)	($2,685)	($2,685)	($2,685)	($2,685)	($2,685)	($2,685)	($2,685)	($2,685)	($2,685)	($2,685)	($2,685)	($2,685)
Remaining Cashflow			**$1,946**	**$2,039**	**$2,133**	**$2,230**	**$2,328**	**$2,428**	**$2,530**	**$2,635**	**$2,741**	**$2,850**	**$2,960**	**$3,073**	**$3,188**	**$3,306**	**$3,426**	**$3,548**	**$3,672**	**$3,800**	**$3,929**	**$4,062**
Mezzanine Debt Investment																						
Mezzanine Debt Investment	85%		$44,568	$45,237	$45,915	$46,604	$47,303	$48,013	$48,733	$49,464	$50,206	$50,959	$51,723	$52,499	$53,287	$54,086	$54,897	$55,721	$56,556	$57,405	$58,266	$59,140
Current Interest	3%		**($1,337)**	**($1,357)**	**($1,377)**	**($1,398)**	**($1,419)**	**($1,440)**	**($1,462)**	**($1,484)**	**($1,506)**	**($1,529)**	**($1,552)**	**($1,575)**	**($1,599)**	**($1,623)**	**($1,647)**	**($1,672)**	**($1,697)**	**($1,722)**	**($1,748)**	**($1,774)**
Accrued Interest	5%		**($669)**	**($679)**	**($689)**	**($699)**	**($710)**	**($720)**	**($731)**	**($742)**	**($753)**	**($764)**	**($776)**	**($787)**	**($799)**	**($811)**	**($823)**	**($836)**	**($848)**	**($861)**	**($874)**	**($887)**
End of Period		$44,568	$45,237	$45,915	$46,604	$47,303	$48,013	$48,733	$49,464	$50,206	$50,959	$51,723	$52,499	$53,287	$54,086	$54,897	$55,721	$56,556	$57,405	$58,266	$59,140	$60,027
Mezzanine Debt Accrued		($44,568)	($45,237)	($45,915)	($46,604)	($47,303)	($48,013)	($48,733)	($49,464)	($50,206)	($50,959)	($51,723)	($52,499)	($53,287)	($54,086)	($54,897)	($55,721)	($56,556)	($57,405)	($58,266)	($59,140)	$0
Mezzanine Debt Cashflow		$44,568	($1,337)	($1,357)	($1,377)	($1,398)	($1,419)	($1,440)	($1,462)	($1,484)	($1,506)	($1,529)	($1,552)	($1,575)	($1,599)	($1,623)	($1,647)	($1,672)	($1,697)	($1,722)	($1,748)	($60,027)
Mezzanine Debt Cashflow		($44,568)	$1,337	$1,357	$1,377	$1,398	$1,419	$1,440	$1,462	$1,484	$1,506	$1,529	$1,552	$1,575	$1,599	$1,623	$1,647	$1,672	$1,697	$1,722	$1,748	$60,027
Remaining Cashflow			**$609**	**$682**	**$756**	**$831**	**$909**	**$988**	**$1,068**	**$1,151**	**$1,235**	**$1,321**	**$1,409**	**$1,498**	**$1,590**	**$1,683**	**$1,779**	**$1,876**	**$1,976**	**$2,077**	**$2,181**	**$2,287**
Recapitalization by Equity Partner																						
After First Mortgage Loan Proceeds			$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$63,190
After Mezzanine Debt Accrued Interest and Principal			$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$3,163
Developer Equity Investment	100.0%	*100% of equity from developers after mezzanine debt. No other equity investors*	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$0	$3,163
Equity Partner Cashflow																						
Developer Equity		($7,865)	$609	$682	$756	$831	$909	$988	$1,068	$1,151	$1,235	$1,321	$1,409	$1,498	$1,590	$1,683	$1,779	$1,876	$1,976	$2,077	$2,181	$5,450

Project Returns	NPV	IRR	ROC
Developer Equity	$10,580	12.9%	4.8%
Mezzanine Debt Investment	$2,524	4.4%	

These tables, and the financial analysis that went into them, were created and performed by HR&A Advisors