Department of Commerce

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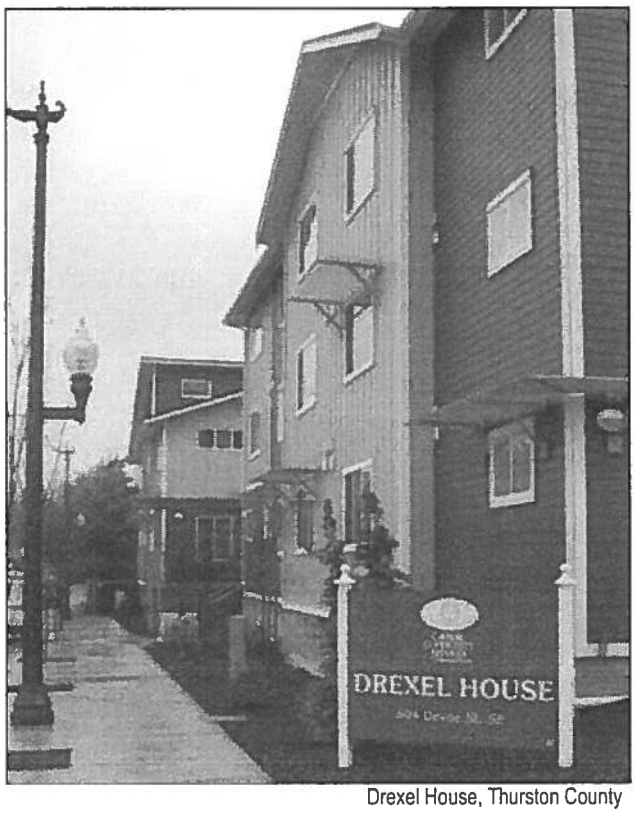
Affordable Housing Cost Study

Provided as directed by ESHB 2765, Section 1005, (Chapter 328, Laws of 2008) Capital Budget Supplemental Appropriations



Drexel House, Thurston County

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Report to the Legislature
Rogers Weed, Director

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EXECUTIVE SUMMARY

Overview

This report responds to a legislative directive, ESHB 2765, Section 1005, Chapter 328, Laws of 2008, Capital Budget Supplemental Appropriations, to examine the costs associated with projects that receive financing from the Washington State Housing Trust Fund (HTF).

The report:

- Provides an in-depth analysis of the costs associated with affordable housing[1] projects financed through the Housing Trust Fund.
- Explores the main factors that influence the development costs of affordable housing projects throughout the state.
- Analyzes the specific development costs of 65 recent affordable housing projects.
- Recommends cost-reduction strategies and associated performance measures.

The report is based on an analysis of cost and finance data from both quantitative and qualitative sources including data from 65 recent affordable housing projects, input from the Affordable Housing Cost Study Steering Committee, the Affordable Housing Advisory Board, and the Policy Advisory Team, a statewide stakeholder survey, and a literature review.

This study found that there is not just one major issue or factor that can lower costs. Instead, many factors contribute to the costs of developing affordable housing.

As a result, effective cost-reduction strategies must address a variety of factors, recognize the diverse types of affordable housing that are built, and be implemented within a complex system in association with the partners, sponsors and developers, contractors, and other professionals who all contribute to how effectively a project is built.

[1] Affordable housing is housing built using public funding. See Appendix 3.

This study is focused on the development costs associated with affordable rental housing that received financing from the Housing Trust Fund. It is not a life-cycle cost analysis or a complete assessment of all types of affordable housing. Therefore, it should be considered as a partial review of development costs focused on state funded multi-family affordable housing.

> *Report Highlight:* Market Rate Case Study illustrating a development cost comparison between an affordable housing project and a market rate housing project. See Chapter 4 and Appendix 6.

Four Research Questions and Associated Key Findings

1. **What costs are associated with affordable housing development projects financed through the Washington State Housing Trust Fund?**
   - **On average, construction costs account for more than half (62%) of the development costs.** Construction costs are primarily composed of labor and materials and are influenced by market conditions, prevailing wage requirements, project management, and other factors.
   - **Following construction costs, the three other primary cost categories are:** 1) acquisition (15%); 2) project management, which includes architects, developers and other consultants (14%); and 3) costs associated with financing, permitting, impact fees and reserve requirements (9%).

2. **What are the primary market factors, public benefit requirements, policies, and other conditions that contribute to development costs?**
   - **Developer, legal, and permitting fees.** Based on a statistical analysis of project costs, the amount of these fees were not found to be linked to, nor a statistically valid indicator of more expensive projects.
   - **Contingency requirements and other discretionary policies unique to the Housing Trust Fund were estimated to account for approximately 4% of a project's development cost.** The majority of Housing Trust Fund requirements and associated costs are related to federal, state, or local government regulations such as prevailing wage, zoning, green building standards, and local government parking and design standards.

3. **Is there significant variation between the development costs of market-rate projects and projects that receive financing from the Housing Trust Fund?**

- **Construction costs for affordable and market-rate housing are similar**, but affordable housing has more "soft costs" associated with financing and project management. Sponsors are required to maintain certain levels of contingencies and reserves, often hire outside expertise to develop or manage the project, and face more finance and regulatory requirements.
- **On average, affordable housing requires an average of five financing sources and takes twice as long to complete.** Because local, state and federal subsidy sources often require leveraging and are awarded through separate competitive funding processes, it generally takes twice as long to assemble the financing as market-rate projects, and contributes to increased legal and other transaction costs.[2]
- **Sponsors must often take out bridge loans to get interim financing** while they are trying to secure permanent funds. They generally have limited internal capital and higher pre-development costs.

4. What are possible strategies and associated performance measures to reduce the development costs of affordable housing that receives financing from the Housing Trust Fund?

This is a period of declining government funding, including reduced Housing Trust Fund appropriations and a tight capital market which has shrunk levels of federal Low-Income Housing Tax Credit equity, the largest single source of affordable housing subsidy. Stakeholders and design and construction professionals were both cooperative and motivated to generate recommendations regarding cost containment. Cost containment recommendations were developed by reviewing the results of the costs analysis, input from the Affordable Housing Cost Study Steering Committee and the Policy Advisory Team, in-depth interviews with construction and development experts, and a stakeholder survey of more than 200 funders, developers and related professionals.

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[2] Please reference Appendix 4, page 73 for further explanation on funding and Capital sources.

Policy Recommendations and Performance Measurement

The Department of Commerce will continue to track costs and trends over time. Comparing cost prior to and following the implementation of these initial strategies, will provide the main measure of the effectiveness and potential cost savings realized.

The following strategies focused primarily on internal policies and procedures can be implemented in the short term, with nominal financial impact:

1. **Place increased emphasis on cost control as a funding decision factor.** Place greater importance and priority on project budget cost submitted as part of the decision making process in awarding state resources. This would help give developers and their teams responsibility and incentives for cost containment.
   Performance Measurement: Develop per unit and per project measures to compare past awards round to current award round with goal of achieving cost reduction. Document efforts by the Housing Trust Fund to publicize cost-reduction and cost-effectiveness strategies. Track and report on costs of projects funded each funding cycle.

2. **Reduce contingency to 5% on new construction and 10% on rehabilitations.** Contingency requirements accounted for an average of 2% of the construction cost and 1% of the overall project cost (Table 8).[3] Currently set at 15% for rehabilitation projects and 10% for new construction, the contingences are required by the Housing Trust Fund to address potential cost overruns the project may experience due to increased construction costs, site challenges, and other unanticipated conditions. Through the process of this study, stakeholders shared that once contingency is budgeted, it is spent and that this could be an area of cost reduction.
   Performance Measurement: Develop per unit and per project measures to compare past awards round to current award round.

3. **Create a design and construction benchmark work group.** Benchmark reasonable land cost, developer consultant cost, construction cost, cost of housing, average cost of unit, taking into account regional and sub-market differences.

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[3] Please reference Table 8, Chapter 4, page 27.

Performance Measurement: After group develops and implements benchmarks, collect data to compare past award round to current award. Document differences and reasons if funding projects outside of the established benchmarks.
Performance Measurement: Document, track and analyze specific costs related to type of bidding procurement.

4. **Cost-control project management workshops.** During in-depth interviews, experts identified a number of best practices for project managers to follow in site selection, design, and construction monitoring. For modest cost, the Housing Trust Fund could sponsor two to three workshops for affordable housing development teams led by experienced practitioners.
Performance Measurement: Develop per unit and per project measures to compare past awards round to current award round. Evaluate the effectiveness of sessions through attendee evaluations.

5. **Create a bridge loan option to reduce sponsor acquisition and holding costs.** Although the legislature specifically included language in the current capital budget bill prohibiting this activity, stakeholders strongly urged that the use of bridge loans with Housing Trust Fund dollars should be further explored. There is a time lag between funding award and disbursement, so the Housing Trust Fund has balances which could be used to make prudent bridge loans for site acquisition and construction at reduced interest rates. This would enable sponsors to negotiate more competitive acquisition prices and/or lower the interest costs of holding a site until construction begins and during construction. Although Housing Trust Fund staff can develop internal policies, procedures, and program guidelines, approval of this type of financing mechanism may require legislation. In addition, current appropriation levels are committed, so action by the Legislature would be needed to provide additional resources to make a bridge loan tool available.
Performance Measurement: Track and document acquisition and holding costs prior to developing this tool and then after.

An additional list of longer-term higher-cost recommendations from stakeholders, addressing local jurisdictional policies and procedures can be found in Chapter 5.

CHAPTER 1: STUDY SCOPE AND METHODS

Legislative Proviso

The 2007 Legislature directed the Department of Community, Trade and Economic Development (now the Department of Commerce) to complete an analysis of development costs associated with projects that receive financing from the Washington State Housing Trust Fund, to assess factors that influence costs, and to recommend cost-reduction strategies and associated performance measures.

The Legislative budget proviso reads as follows:
(a) $100,000 of the appropriation from the Washington housing trust account is provided solely for the department to work in consultation with the affordable housing advisory board and representatives from nonprofit housing development organizations and affordable housing advocacy groups in the state to:(i) Identify and analyze all costs associated with affordable housing development projects financed through the Washington Housing Trust Fund under chapters 43.185 and 43.185A RCW, which may include, ESHB 2765.SL p. 10 but are not limited to, costs associated with legal and architectural services, permitting and impact fees, land acquisition, and general construction costs;(ii) Make recommendations for strategies, which must include recommendations for changes to public policy and department procedures, to reduce the costs identified in (a)(i) of this subsection; and(iii) Make recommendations for potential performance measures appropriate for each strategy identified.

(b) In developing recommendations for strategies to reduce costs, the department shall analyze and address the fiscal impact of public policies of the state and of local governments, Washington Housing Trust Fund policies, and general market forces on affordable housing development.

(c) The department shall report its findings and recommendations to the governor and to the appropriate committees of the legislature by September 30, 2009. [4]

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[4] ESHB 2765, Chapter 328, Laws of 2008. Capital Budget Supplemental Appropriations. Sec 1005.

Research Questions

The following research questions were developed to address the proviso and establish the scope of the study:

- What are costs associated with affordable housing development projects financed through the Washington State Housing Trust Fund?
- What are the primary market factors, public benefit requirements, policies, and other conditions that contribute to development costs?
- Is there significant variation among the development costs of projects financed by the Housing Trust Fund? Is there significant variation between the development costs of market-rate projects and projects that receive financing from the Housing Trust Fund?
- What are possible strategies and associated performance measures to reduce the development cost of affordable housing that receives financing from the Housing Trust Fund?

Methodology

The methodology was designed to ensure the study used diverse data sources, incorporated the ideas and experiences of affordable housing stakeholders and was completed on time and on budget. The core research components included:

- An overview of the Housing Trust Fund's mission and role in providing affordable housing;
- An assessment of market conditions, public benefit polices, and discretionary practices that influence affordable housing development costs;
- A quantitative analysis that examined development costs of 65 recently completed affordable housing projects that received funding from the Housing Trust Fund;
- A case study comparing the development costs of a market-rate project to an affordable housing project;
- Identification of strategies for reducing development costs through consultations with stakeholders and a review of the analytical findings of the cost study.

Data Sources

Data sources that helped complete the research components include the following.

- **Literature review**. Recent affordable housing cost studies and construction and finance trade journals were reviewed. This research helped shape the study's scope and provide data on development, finance, and market conditions.
- **Cost study steering committee.** Thirteen professionals with extensive experience in designing, building, financing, or sponsoring affordable housing formed the Cost Study Steering Committee. The committee helped shape the scope of work, reviewed preliminary findings, and drafted cost-reduction strategies. Members also provided cost data and participated in interviews.
- **Examine development costs of recent projects**. Development cost data for 65 recent affordable housing projects was gathered and analyzed. The projects represented all multi-family projects the Housing Trust Fund helped finance within the past year and that were 90% occupied as of February 2009 when data collection was initiated.
- **Case study.** A case study was developed to compare the development costs of an affordable housing project with a similar market-rate project.
- **Public presentations and discussions.** The study and associated findings were discussed at public presentations in Everett, Olympia, Seattle, Spokane, and Tacoma. The draft recommendations were presented and refined by the Affordable Housing Advisory Board and the Policy Advisory Team at their July 2009 meeting.
- **Personal interviews**. Thirteen professionals who build, design, finance, or sponsor affordable or market-rate housing in Washington State were individually interviewed. The results were compiled into themes and shared with the Cost Study Steering Committee to help develop recommendations for reducing development costs.
- **Survey.** A statewide survey was conducted and generated 213 responses from affordable housing sponsors, developers, elected officials, advocates, and other stakeholders.

Limiting Conditions

This study is focused on the development costs associated with affordable rental housing that received financing from the Housing Trust Fund. It is not a life-cycle cost analysis or a complete assessment of all types of affordable housing. Therefore, it should be considered as a partial review of development costs focused on state funded multi-family

affordable housing. Multi-family projects represent 85% of the Housing Trust Fund portfolio and the Cost Study Steering Committee suggested that they should be the primary focus of the analysis.

The study examines market conditions, public policies, and other factors that influence development costs. However, in some cases it was not possible to ascribe specific policies to specific development costs. Many of the cost factors are interrelated and would require a larger data set and additional project information to fully assess.

The data gathered for the 65 projects had the following attributes:

- The projects were all completed within the past year and represent the conditions and associated costs during this recent period.
- The cost figures used to define development costs were taken from the project's final development budget data. This data is self reported by project sponsors to the Housing Trust Fund.
- In some cases final project data was not available (e.g., unit size) and data from the initial application was used. However, all cost data was taken from the project's Final Development Budget as submitted to the Housing Trust Fund once the project was scheduled to be completed.
- The size of various tenant amenities such as child care centers or counseling areas is often not reported separately but instead is considered as part of the overall square footage and cost per unit.
- No specific differential, data collection or analysis has been done specifically on the impact of transactions costs related to Low Income Housing Tax Credit projects.

CHAPTER 2: HOUSING TRUST FUND OVERVIEW

Legislative Findings (RCW 43.185, 43.185A)

The legislature finds that current economic conditions, federal housing policies and declining resources at the federal, state, and local level adversely affect the ability of low and very low-income persons to obtain safe, decent, and affordable housing.

The legislature further finds that members of over one hundred twenty thousand households live in housing units which are overcrowded, lack plumbing, are otherwise threatening to health and safety, and have rents and utility payments which exceed thirty percent of their income.

Program Purpose

The Housing Trust Fund was created in 1986 and charged with supporting community efforts to ensure the availability of safe, decent, and affordable housing by providing loans and grants for construction, acquisition, and rehabilitation of low-income, multi-family and single-family housing.

The Housing Trust Fund is directed to give preference to affordable housing projects based on the extent to which the sponsors:

- Leverage other funds;
- Secure a commitment from programs to provide habilitation and support services for projects that are intended to house special needs populations;
- Generate local government project contributions in the form of infrastructure improvements and others items;
- Encourage ownership, management, and other project-related responsibility opportunities;
- Demonstrate a strong probability of serving the original target group or income level for a period of at least 25 years;
- Have the demonstrated ability, stability and resources to implement the project;
- Demonstrate serving the greatest need;
- Provide housing for persons and families with the lowest incomes;
- Serve special needs populations which are under statutory mandate to develop community housing;

- Ensure access to employment centers;
- Provide employment and training opportunities for disadvantaged youth; and
- Provide proximity to available public transportation services.

Eligible organizations include:

- Cities and counties;
- Local housing authorities;
- Regional support networks;
- Nonprofit community or neighborhood-based organizations;
- Federally recognized Tribes; and
- Regional or statewide nonprofit housing assistance organizations. Nonprofits must be registered with the Secretary of State and provide documentation from the IRS designating them as tax-exempt.

Eligible project types include:

- Assisted living facilities;
- Boarding homes;
- Community land trusts;
- Emergency shelters, including shelters for survivors of domestic violence;
- Group homes;
- Down payment assistance for low-income homebuyers;
- Multi-family rental housing;
- Seasonal and year-round housing for farmworkers; and
- Transitional housing.

Project elements can include the following:

- Housing units can only serve people with incomes up to 80% or below the local area's median income.
- New construction, rehabilitation, or acquisition of low- and very low-income housing units;
- Acquisition of real property;
- Acquisition to preserve low-income or very low-income housing;
- Down payment or closing cost assistance for eligible low-income buyers; and
- Site improvements (on-site only).

Past Investments and Finance Partners

By statute, 30% of the funding is targeted to projects in rural areas of the state of Washington, provided there are enough applications and viable projects in the pipeline.[5] It is an internal policy that the remaining 70% of Housing Trust Funds are split, with approximately 35% going to Seattle/King County and 35% going to other urban areas.

The distribution of funds is also guided by legislative provisos (set asides) that direct the Housing Trust Fund to appropriate funds to specific populations or geographic areas. The set-aside amount has ranged from $19.8 million (1999-2001 biennium) to $78.5 million (2007-2009).

Since 1989, the Housing Trust Fund has committed dollars to 1,576 projects comprised of 39,000 homes and apartments, representing a state investment of more than $600 million.

Financing Partners

Historically, for every dollar of Housing Trust Fund investment, four dollars of other private and public funding are leveraged, and the extent of leveraging has been increasing since 1989.

Based on the cost data collected for this report, $5.80 of public and private funds are leveraged for every $1 of Housing Trust Fund investment. This increase in leveraging will be challenging to maintain because market conditions have changed and the value of federal Low-Income Housing Tax Credits has diminished.

Project financing now commonly includes resources administered through the Washington State Housing Finance Commission, including tax exempt bonds and the federal Low-Income Housing Tax Credits. Although these sources bring complexity due to the fine points of tax law and involvement of private investors, it is largely the increasing use of federal Low-Income Housing Tax Credits and tax-exempt financing by affordable housing developers that has allowed the Housing Trust Fund to increase its

[5] RCW 43.185.050

leverage and thus produce more affordable units than would otherwise have been possible.

Although financing through federal programs has decreased substantially over the years, USDA Rural Development and the Department of Housing and Urban Development are still important funding partners with the Housing Trust Fund.

Private sources include banks, foundations, corporations and individuals. Local governments at the city and county levels provide financial support through land donations, fee waivers, local funds and federal pass-through dollars. Based on the cost analysis presented in Chapter 4 it was determined that, on average, approximately 10% of capital financing was from local funds.[6] For the projects within the City of Seattle, local funds provided an average of 20% of the capital funding. This is likely due to the local housing levy. In certain areas of the state, local housing authorities provide significant support to projects through land donations, provision of Section 8 vouchers, and bond issuances.

[6] See Appendix 4a(4) for table summarizing capital sources.

CHAPTER 3: FACTORS THAT INFLUENCE DEVELOPMENT COSTS

Overview

Three primary factors influence the developments costs associated with affordable housing:

- The development process and associated market conditions
- Public benefit policies and associated legal requirements
- Discretionary policies and practices of the Housing Trust Fund, affordable housing sponsors, developers, architects, financial institutions, and other stakeholders.

This section discusses these factors and their influence on the development costs. It draws from the results of the cost analysis, the stakeholder surveys, and the literature review completed for this report. The results of the cost analysis are further discussed in Chapter 4.

Development Process and Associated Market Conditions

Development Process

The development process refers to how a project is initiated, financed, and built. In a **market-rate process**, the project is often initiated by a developer who sees an opportunity to create a product to satisfy a demand for a certain type of multi-family housing. After analyzing the demand, the developer and investors acquire a site, hire an architect, line up financing, and retain a contractor to develop the project.

During the development process for both market-rate and affordable housing projects, significant risk exposures exist for the developer and other parties. This is because the project must be completed before income and anticipated profit is generated. To compensate for this risk, the market-rate developer, investor, and other capital providers establish a minimum expected rate of return on their investment that must be achieved before they agree to go forward with the project. Thus the market-rate developer applies a market demand approach. The developer's challenge is to manage development costs and the cost of capital to be able to deliver a housing product at a rent level that households are willing to pay.

An affordable housing sponsor takes a somewhat different approach. Although affordable housing developers also identify unmet demand in a community, they face the added challenge of needing to deliver housing at rents typically well below what the market will provide. To meet this challenge, the affordable housing developer must obtain subsidized sources of capital or on-going sources of operating subsidy to supplement what low-income households are able to pay.

The Housing Trust Fund is an example of a capital subsidy used by a majority of affordable housing projects serving households between 0% and 50%[7] of median income in the state. Because capital subsidies are limited, affordable housing developers are not able to produce housing wherever they identify unmet need. In addition, since funding sources are allocated competitively and projects require an average of five funding sources, much of the focus of "feasibility" for an affordable housing developer is on securing the sources of subsidized financing. This process adds time and additional cost to a project.

Market Conditions

During 2005 to 2007, the time period from which the 65 projects in the cost analysis were drawn, the real estate and capital markets were stable and extremely positive for market-rate and affordable development. This environment had an upward effect on the cost of land and construction. Since late 2007, the situation has dramatically changed, with multi-family development facing challenges reminiscent of the collapse of the single-family residential market. These changes have reduced access to equity such as loans and other financing sources and, as a result, development activity has declined.

In many markets, vacancy rates have risen and rents have declined, putting downward pressure on income. In addition to an oversupply of the total housing stock, some of the weakness in the apartment sector can be attributed to continued declines in employment, which has sapped demand. Symptomatic of the difficult times faced by the apartment sector, delinquency and foreclosure rates have both trended upward.

These changes have been particularly acute for affordable housing development. Affordable housing projects face challenges raising capital in relatively stable times and

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[7] 50% of AMI in King County is $38,950 for a family of four. See http://www.hud.gov/.

are dependent on multiple sources of funding that are typically locked in to maximum awards. As a result, affordable housing projects have little ability to absorb cost increases or delays. This vulnerability to changing market conditions is especially true when affordable projects are targeted to lower-income residents with fixed incomes, and when they are designed to serve special needs residents. Affordable housing projects targeted to such users often require special design features and may face a prolonged approval and development process. Finally, they are subject to market forces, fees and approval processes that in some cases are not sensitive to, or flexible enough, to accommodate low-cost development of affordable housing.

For example, since 2002, building material costs per square foot have increased approximately 50% for multi-family and office buildings (Table 1). These cost increases are not unique to affordable housing projects. Instead, they reflect general market conditions that impact construction development costs.

Table 1: Estimated Building Material Cost Per Square Foot[8]

Year	Multi-family	Elementary School	Office Low rise	Office High rise
2002	$58.98	$90.08	$63.90	$102.72
2008	$123.49	$142.50	$128.62	$174.30
2002-2008	52%	37%	50%	41%

The cost of some construction materials, such as lumber, is projected to drop by up to 7% during 2009. Other materials are projected to increase. These include steel (5%), concrete (4%) and asphalt (33%).[9] Asphalt prices are directly related to the price of crude oil and could be less if the price of crude oil stabilizes or drops. While reduced lumber prices offer short-term benefits, affordable housing developers are often not in position to take advantage of them because they can't proceed with construction until all necessary capital subsidies are secured, and they generally do not have access to large purchasing contracts and associated economies of scale.

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[8] Compiled from The Guide – Building Construction Materials Prices. RS Means. Appendices C and D, years 2002, 2004, and 2008 for Seattle region. Costs are building costs only and do not include the cost of land, parking, landscaping, and other site improvements. Thus, these figures should not be confused with construction costs.

[9] Raday, Jeff. "Construction Costs in 2009." REJournals.Com. Commercial Real Estate News. May 12, 2009.

Credit Markets

Since the average affordable housing sponsor must secure five sources of capital,[10] they must also satisfy the funding requirements and timelines associated with each funding source. Securing these funding sources adds time and requires different reserves or contingency plans, with no clear guarantee the funding will be secured. As with the market-rate side of the industry, affordable housing projects have experienced a significant decline in access to capital, as well as to specialized sources of funding upon which they have become dependent.

This is especially true in the case of the dramatic decline in the market for the federal Low-Income Housing Tax Credits, which have been one of the mainstays of financing affordable projects. The consolidation of banks has tightened the market even more. Fannie Mae and Freddie Mac were the nation's two largest federal Low-Income Housing Tax Credit investors, and they have pulled completely out of the market. Several banks that were large federal Low-Income Housing Tax Credit investors no longer exist.

On the national level, it is estimated that available equity for affordable housing has dropped from $9 billion to $3 billion or less.[11] In Washington, a drop of 33% is expected in the number of multi-family units to be built through year end 2009, many of which were targeted for seniors and low-income citizens.[12] The long-term impact to affordable housing projects in Washington State may not be known until market conditions stabilize.

Public Policy Benefits and Associated Legal Requirements

Through interviews with affordable housing professionals, a stakeholder survey, and a review of recent studies on affordable housing development costs a number of policies and associated legal requirements that contribute to development costs were identified. The following discussion is a brief overview of these public benefit policies and their impact on the development costs of affordable housing.

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[10] Please refer to Chapter 4, page 27.
[11] Pristen, Terry."Shovel-Ready, but Investor-Deprived." New York Times. May 5, 2009.
[12] Grind, Kirsten, "Bond Market Chill May Freeze Out Multi-family Developers in Washington State." Puget Sound Business Journal. October 31, 2008.

Federal Low-Income Housing Tax Credit Financing

The Low-Income Housing Tax Credit (LIHTC) Program, often referred to as "tax credits," reduces the tax liability of property owners and investors who agree to provide low-income housing for up to 40 years. In exchange for these tax benefits, private investors provide equity to low-income housing. On average, federal Low-Income Housing Tax Credits accounted for 48% of the capital required by the 65 affordable housing projects examined for this study. Created in 1986 as part of the federal tax code, the federal Low-Income Housing Tax Credits are secured and then sold in order to create equity. The federal Low-Income Housing Tax Credits are used to offset the income tax liability of the entities that invested in the affordable housing project.[13]

In order to be eligible for federal Low-Income Housing Tax Credits and remain in compliance, the projects must meet various state and federal regulations relating to rent restrictions and tax laws, meet minimum set asides, and meet other associated requirements administered by the Washington State Housing Finance Commission. As a result, along with the finance benefits to projects, the program also generates costs associated with higher legal, development, and financing fees. Of significant difference with this financing source, are the transaction costs related to the transfer of tax credits into equity. No specific differential or data analysis has been done on the development cost impact. In addition, according to development professionals interviewed for this study, because of the way the federal program is structured, once a federal Low-Income Housing Tax Credit allocation and investor has been secured, there are limited incentives to reduce development costs because doing so would mean not using the full appropriated federal Low-Income Housing Tax Credits issued for the project. These conditions both contribute to development costs.

State and Federal Prevailing Wages

Most affordable housing projects that receive public funding are required to pay prevailing wages in accordance with state and federal prevailing wage regulations. This is because they receive federal funds, are of a type and scale that trigger federal prevailing wages, or are managed as public works projects and are subject to Washington's prevailing wages. In addition, some sponsors and developers voluntarily

[13] Washington State Housing Finance Commission. See http://www.wshfc.org.

choose to pay prevailing wages as part of their business practices. State prevailing wages are established for each region of the state by the Department of Labor and Industries.[14]

In cases where federal prevailing wages may also be required, such as when projects use federal funds, state law mandates workers receive the higher of the state and federal prevailing wages. In the past, this often meant paying the state prevailing wage. However, with recent federal wage adjustments, the federal wage for carpenters and laborers is now higher than the state prevailing wage rates in most regions. The federal Department of Labor completed new wages surveys and made adjustments to wages that in some cases had not been adjusted since 1996. In King County for example, carpenters wages and benefits have gone from $16.34 to $43.88 per hour.[15]

As the federal Department of Labor updates other surveys, federal wages are expected to increase in other regions and for other trends. According to affordable housing developers interviewed for this study, the new federal prevailing wage regulations are estimated to add 7% to 13% to *construction* costs. Actual construction cost impacts will vary depending on the project's location, the type of construction, labor needs, and other factors. In terms of long-term costs and benefits, other studies have concluded that prevailing wages can increase state tax revenues, industry income, non-wage benefits for workers, and help to increase the pool of skilled construction workers.[16]

Apprenticeship Program

As required by RCW 39.04.300, for Housing Trust Fund contracts where the total project construction costs are $1 million or more, the contractor is required to ensure that 15% of the total labor hours are completed by workers who are participating in apprenticeship programs through the Washington State Apprenticeship and Training Council (WSATC). The program is intended to help provide wage progression to family wage careers and help expand the pool of skilled construction workers. However, according to affordable housing stakeholders consulted for this study, there is currently an insufficient pool of

[14] State prevailing wages are defined by RCW 39.12 and regulated by the Washington State Department of Labor and Industries. See http://www.lni.wa.gov/TradesLicensing/PrevWage.
[15] This is based on review of the past wages compared to the new wages as summarized by the Department of Labor in General Decision Number: WA080033, WA33 (King County). For a listing of current wage decisions see http://www.wdol.gov/wdol/scafiles/davisbacon/wa.html
[16] Mahalia, Nooshin. Economic Policy Institute. Prevailing Wages and Government Contracting Costs, A Review of the Research. July 2008.

union labor and WSATC approved apprentices trained for multi-family carpentry and construction work at competitive prices. This is especially the case in framing, siding, landscaping, and drywall activities, which are common labor needs for affordable housing projects.

Because some trade activities cannot provide apprentice hours, there is added pressure on other trades to provide higher hours of apprentice labor in order to meet the 15% goal. As a result, for some projects the Apprenticeship program has increased costs associated with efforts to target subcontractors that can meet the apprenticeship requirement. In one recent case, it added $150,000 to a $5 million project (3%) and the developer was still not able to reach the required 15% participation rate.[17] In this particular case the requirement resulted in a selection of subcontractors whose pricing was higher than the lowest responsible bidder.

Evergreen Standard

Effective July 2008, the Evergreen Sustainable Development Standard was applied to all projects that receive funding from the Housing Trust Fund per RCW 39.350.080. In order to administer this requirement, the trust fund worked with stakeholders to define 70 criteria. Of this total, 33 are mandatory and 37 are optional. New construction projects must earn 50 points, rehabilitation projects must earn 40 points, and all projects must meet the applicable mandatory criteria.[18]

Because most of the projects in the cost study sample were developed prior to the standard being required, limited data was available regarding cost impacts. Data from the stakeholder survey indicates the Evergreen standard is not anticipated to be a major cost driver, although the impacts are anticipated to be greater for rehabilitation, rural, and smaller projects. In addition, through stakeholder interviews, the standard was generally regarded as one to be evaluated after it has been applied to more projects and more data is available to assess cost/benefit of the standard. Some limited information is available from a nationwide study of 16 projects, including two in Seattle. The study concluded that sustainable building practices added approximately 5% to the project's development

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[17] Results of interview with affordable housing developer who was a member of the Cost Study Steering Committee.

[18] See criteria as posted at http://commerce.wa.gov/site/1027/default.aspx.

costs and based on a life-cycle cost analysis, green affordable housing was more cost-effective in net present value than conventional affordable housing.[19]

Local Government Requirements

As part of public benefit policies associated with land use, environmental quality, infrastructure services, design review, parking, and other related needs, local governments define a series of requirements and standards that impact housing development costs. The cost impacts vary depending on the community, the project, and other local factors. Due to time and data limitations, it was not possible to fully analyze the cost impact of each local government policy.[20] Instead, the costs associated with local government requirements were explored through the stakeholder survey and analysis of development costs of 65 recent projects. The survey results indicate that in the experience of stakeholders, local government regulations often contribute to increased development costs.[21] This stems from a variety of factors, including prolonged and often unpredictable design review, which may require more expensive exterior finishes; limited availability of sites with sufficient infrastructure; and parking requirements. These requirements often vary from region to region and in some cases make it difficult for affordable housing developers to reduce design costs by replicating design or other features used successfully in other communities.

In terms of cost impacts, the analysis of development costs discussed in the following chapter found that on average, permit and impact fees accounted for 1.7% of total project costs in rural areas and 2.2% in urban areas (Chapter 4). In some cases, projects reported a cost savings due to a local government's relaxation of parking or impact fee requirements. However, this data was limited and it was not possible to quantify or summarize how often local governments exercised their option to provide flexibility to affordable housing projects in order to help achieve the community's affordable housing goals.

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[19] New Ecology and the Tellus Institute. The Costs and Benefits of Green Affordable Housing. 2005.
[20] For additional discussion of these cost impacts see Affordable Housing Advisory Board. 2009 Affordable Housing Advisory Board Annual Progress Report. February 11, 2009.
[21] See Appendix 7.

Discretionary Policies and Practices

Project Sponsors and Local Governments

In addition to market forces and public benefit policies, affordable housing costs are affected by discretionary policies and practices. Discretionary policies and practices refer to actions encouraged or part of a standard practice but not required by law.

The Housing Trust Fund, affordable housing sponsors, developers, architects, and other professionals each have discretionary policies and practices that influence development costs. Examples include the Housing Trust Fund's application process and evaluation methods, the project and management methods used by affordable housing sponsors and their project team, and the policies and practices of financial institutions that provide loans for affordable housing projects.

Input from the Cost Study Steering Committee and the stakeholder survey indicates the sponsor's discretionary practices influence development cost in many ways. For example, some affordable housing professionals identified a number of practices for reducing costs by: 1) using integrated project management teams to involve contractors early on in the process; 2) minimizing design features that add significant cost but are not vital to the project; 3) ensuring the contracts used by the sponsor have appropriate incentives for cost savings; and 4) defining and documenting the long-term cost savings achieved by incorporating specific durability and maintenance features into affordable housing projects.

The discretionary practices of local governments also influence development costs. Examples include the extent to which local governments exercise their authority to relax various standards (e.g., zoning, parking, impact fees) in order to help achieve their affordable housing goals. Because local governments often negotiate flexibility on a case by case basis, it was not possible to quantify or fully profile how some of their decisions have contributed to reduced development costs. Further research in this area could help to document success stories and outcomes benefitting both the local community and the affordable housing sponsors.

Housing Trust Fund Policies and Practices

Table 2 lists the major cost components for housing projects, identifies the common elements, and isolates the cost implications of requirements generated by, and unique to,

the Housing Trust Fund. As summarized below, it is estimated that these requirements account for approximately 3.8% of the development costs for each project. This estimate does not include costs associated with applying for Housing Trust Funds, the indirect costs associated with potential delays associated with the award cycle, or having to re-apply again to a future cycle.

Table 2: Public Policies Associated with Acquisition and Construction Costs (77%)

Percent of Total Development Cost[22]	Requirement(s) that Impact Development Costs and Are Not Unique to the Housing Trust Fund (HTF)	Requirements Unique to HTF
Acquisition (15%)		
Land purchase Holding costs Liens, Closing Costs	Local government zoning influences cost and availability of land suitable for affordable housing. Length of time for land use approvals	
Construction (62%)		
Basic Construction Contract **(53%)**	1) Federal and state prevailing wage regulations; 2) Apprenticeship requirements; 3) Evergreen Sustainable Development Standard; 4) Affordability requirements (RCW 43.185.070(3)); 5) Local government regulations	
Bond Premium (<1%)	Standard practice if required	
Infrastructure Improvements **(2%)**	Federal, state, and local regulations and policies	
Hazardous abatement, Monitoring **(<1%)**	Federal, state, local regulations	
Construction Contingency **(1%)**	Often part of standard practice but may not always be required	HTF Policy 204.2 (10% for new, 15% for rehabilitation)
Sales Taxes **(3%)**	State law	
Other Testing **(<1%)**	Varies depending on site location and conditions	
Other Construction and Other Costs (2%)		

[22] Figures regarding the percent of total development costs are derived from the analysis of the development costs of 65 recently completed projects as discussed in Chapter 4 of this report.

Table 3: Public Policies Associated with Development Costs (14%)

Percent of Total Development Cost[23]	Requirement(s) that Impact Development Costs and Are Not Unique to the Housing Trust Fund (HTF)	Requirements Unique to HTF
Development (14%)		
Appraisal (<1%)	Standard practice	
Architect/Engineer (4%)	State regulations require certain actions to be completed by a licensed engineer or architect	
Environmental Assessment (<1%)	Standard practice	
Geotech. (Studies <1%)	Standard practice	
Boundary/Topo Survey (<1%)	Standard practice	
Legal Fees (1%)	Generated by the need to meet specific funding requirements	
Developer and or Project Management fees (7%)	Finance structure for affordable projects means that developers earn fee when project is completed, not in the future when project is sold	
Technical Assistance Fee (<1%)		
Consulting (1%)	Depends on site conditions and project needs	
Other Fees (<1%)		

[23] Figures regarding the percent of total development costs were derived from an analysis of the development costs of 65 recently completed projects.

Table 4: Public Policies Associated with Other Development Costs (9%)

Percent of Total Development Cost[24]	Requirement(s) that Impact Development Costs and Are Not Unique to the Housing Trust Fund (HTF)	Requirements Unique to HTF
Other Development (9%)		
Real Estate Excise Tax (<1%)	State law, there are some exemptions for affordable housing per RCW 82.45.010	
Insurance (<1%)	Standard practice. Insurance is required in order for developers to get construction financing. Some carriers do not ensure affordable housing or charge high premiums[25]	
Relocation (<1%)	Often part of standard practice	HTF Policy 203.3
Bidding (<1%)	Standard practice for certain types of projects	
Permits, Fees, Hookups (2%)	Local government service standards and associated fees	
Impact Fees (1%)	Local government service standards and associated fees	
Utilities (<1%)	Local government service standards and associated fees	
Construction Loan Fees (<1%)	Financial institution, lender requirements	
Construction Interest (2%)	Financial institution, lender requirements	
Equity Closing (<1%)		
Bridge Loan Interest (<1%)		
Other Loan Fees (1%)	Financial institution, lender requirements	HTF Policy 201.3
LIHTC Fees (1%)	Federal and state policies associated with the use of federal Low-Income Housing Tax Credits	
LIHTC Donation (<1%)		
Accounting Audit (<1%)	Financial institution, lender requirements	
Marketing Leasing (<1%)	Standard practice	HTF policy 205.1
Carrying Costs at Rent up (<1%)	Standard practice	
Operating Reserves (1%)	Some lenders may require this, depends on the lender and the project, negotiated	HTF policy 205.1
Replacement Reserves (<1%)	Some lenders may require this, depends on the lender and the project, negotiated	HTF policy 205.1
Other Costs (<1%)		

[24] Figures regarding the percent of total development costs were derived from an analysis of the development costs of 65 recently completed projects.
[25] Affordable Housing Advisory Board. 2009 Affordable Housing Advisory Board Annual Progress Report. February 11, 2009.

CHAPTER 4: ANALYSIS OF DEVELOPMENT COSTS

Purpose and Approach

This chapter addresses the element of the legislative proviso directing the Department of Commerce to define and analyze all costs associated with affordable housing development projects financed by the Housing Trust Fund. It summarizes the methodology for the analysis and presents the key findings of the statistical analysis and the case study.

The analysis included data gathering, testing, statistical analysis, and development of a case study. These elements are summarized as follows.

Define the Sample Population and Associated Development Costs. Data regarding the costs and characteristics of 65 recently completed projects was collected and used to describe costs associated with four main categories: 1) acquisition, 2) construction, 3) project management and related development fees, and 4) other development costs associated with fees and reserve requirements.

Complete Preliminary Analysis and Testing for Relationships Among Project Attributes. These phases helped define the methodology for the statistical analyses. The results are provided in Appendix 4 along with other supplementary data tables.

Assess Differences Among Groups of Projects. The data was grouped into several categories and analyzed to define cost patterns within each group.

Conduct Regression Analysis to Test for Differences Among the Full Data Set. This analysis looked at the entire data set at once, as opposed to in groups. It provides insights into various factors that are linked to increased costs.

Develop a Case Study Comparing Market-Rate Project and Affordable Housing Development Costs. The case study presents cost data associated with two recent projects and is preceded by a brief discussion of some of the key factors that contribute to the costs of developing affordable housing.

The Sample Population and Associated Development Costs

Sample Population and Data Sources

The project sample focused on all projects the Housing Trust Fund helped finance within the past year that: 1) are multi-family rentals; 2) were 90% occupied by tenants as of February 2009 when the data collection was initiated; and 3) had submitted a Final Development Budget.

These criteria resulted in a sample of 65 projects. The sample includes projects from three award cycles spanning from 03-05 to 05-07 to 07-09. The majority, 78% of the 65 projects, are from the 05-07 award cycle. This sample represents approximately 35% of the program's portfolio of affordable housing projects in the development or construction phase at any given time.

Cost and project characteristic data was gathered from three primary sources, including: 1) the project's Final Development Budget; 2) the Placed in Service Form for the project; and 3) application data submitted to the Housing Trust Fund. Data was pulled from these forms and entered into a database of over 280 variables.

As summarized by Table 5, the 65 projects had an average of 38 units each and cost an average of $160,359 per unit to develop.

Table 5: Snapshot of the 65 Projects in the Cost Analysis[26]

Attribute	Average	Total
Total Residential SF	34,315	2,230,498
Number of Units	38.0	2,473
Number of Bedrooms	1.7	4,297
Unit Size in SF	887	
Housing Trust Fund $	$983,736	$63,942,867
Total Residential Cost	$6,649,710	$432,231,122
Total Cost/Unit	$160,359	
Total Cost/Bedroom	$101,653	
Total Cost/SF	$183	
Construction Cost/SF	$102	

Other project characteristics of the sample include the following

Size and cost:

- The units were an average of 887 square feet.[27]
- Of the total units, 52% were targeted for special needs populations such as senior citizens, persons with developmental disabilities, the homeless, and veterans.
- The average cost per bedroom was $101,653 and the cost per square foot was $183.
- The average construction cost was $102 per square foot.

Financing characteristics:

- Of the total $432.2 million invested in the 65 projects, the Housing Trust Fund financed $63.9 million, which represented 14.6% of the total capital.
- For every dollar of trust fund support, sponsors raised another $5.80 from other sources.
- On average, the Housing Trust Fund provided $983,736 per project.

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[26] See Appendix 4 for additional data tables profiling the 65 projects.

[27] Data on the unit sizes was derived from the Project Profile data sheet which defines the residential square footage of the project. This figure was then divided by the number of units in the project. Thus, for projects that include significant common areas, the square footage data of the units is higher than the actual unit size.

Development Costs

Overview

On average, construction costs accounted for more than half (62%) of a project's total cost and required over $4 million per project.

As summarized by Table 6, the remaining costs were for acquisition (15%); development costs associated with project management and consultants (14%); and other costs relating to finance fees, permit and impact fees (9%).

Table 6: Total and Average Residential Costs[28]

Cost Category	Total Cost of All 65 Projects	Average Cost/Project	
		Cost	Share
Acquisition	$64,837,871	$997,506	15%
Construction	$268,653,863	$4,133,136	62%
Development	$59,800,768	$920,012	14%
Other Development	$38,945,795	$599,166	9%
Total Residential	**$432,247,847**	**$6,649,967**	**100%**

Acquisition Cost Category

The costs of obtaining the land and/or buildings averaged 15% of the project cost. As summarized by Table 7, the purchase price accounted for almost the entire acquisition costs.

In the case of rehabilitation projects, the purchase price included the cost of land, existing buildings, and other improvements on the site. Land costs varied by market, as well as by the quality of the sites in terms of location, accessibility and surrounding developments. In some cases, the costs of site preparation were reported by sponsors as part of the purchase price while the cost of entitlements, permits, impact fees, and other costs were included in "other development" cost category.

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[28] Total residential costs were defined by the Final Development Budget for the project. See Appendix 3 for a list of the Final Development Budget data fields and the associated definitions.

Table 7: Acquisition Costs – 15% of Total Project Cost

Acquisition Cost Components	Total Cost For All 65 Projects	Project Averages		
		Dollars	Percent	
			Acquisition Cost	Total Cost
Purchase Price	$62,695,206	$964,542	97%	15%
Liens	$98,135	$1,510	<1%	<1%
Closing Costs	$622,698	$9,580	1%	<1%
External Payment	$66,025	$1,048	<1%	<1%
Other Costs	$1,355,808	$20,859	2%	<1%
Acquisition Subtotal	**$64,837,871**	**$997,506**	**100%**	**15%**

Construction Cost Category

On average, construction costs comprised the highest proportion of cost (62%). The majority of the construction costs (85%) were for materials and labor. The amount of cost associated with labor versus materials varies depending on the type of project. This level of data is not currently available and so was not included in the analysis.

Contingency requirements accounted for an average of 2% of the construction cost and 1% of the overall project cost (Table 8). Currently set at 15% for rehabilitation projects and 10% for new construction, the contingences are required by the Housing Trust Fund to address potential cost overruns the project may experience due to increased construction costs, site challenges, and other conditions that were not possible to anticipate. Through the process of this study, stakeholders shared that once contingency is budgeted, it is spent and that this could be an area of cost reduction.

Table 8: Construction Costs - 62% of Total Project Cost

Construction Cost Components	Total Cost For All 65 Projects	Project Averages		
		Dollars	Percent	
			Construction Cost	Total Cost
Construction Cost	$227,907,578	$3,506,270	85%	53%
Bond	$1,536,243	$23,635	1%	<1%
Infrastructure Cost	$10,077,909	$155,045	4%	2%
Hazard Abatement	$429,117	$6,602	<1%	<1%
Contingency	$4,825,157	$74,233	2%	1%
Sales Tax	$13,110,168	$201,695	5%	3%
Other Construction	$6,204,650	$95,456	2%	1%
Testing	$94,895	$1,582	<1%	<1%
Other Costs	$4,468,146	$68,741	2%	1%
Construction Subtotal	**$268,653,863**	**$4,133,136**	**100%**	**62%**

Development Cost Category[29]

Development costs comprised 14% of total cost. Development costs relate to professional fees for project management and consultation. In general, the professional fees depend on the nature of services provided, as well as on the size and complexity of a project. The largest component of development costs was development fees, which on average comprised 44% of the project's development costs and 6% of total costs. Taken together, developer fees and project management fees accounted for 53% of the development costs and 7% of the total project costs. Architectural fees averaged 30% of development costs and 4% of the total project cost (Table 9).

[29] The term development cost as used in this report generally refers to the cost of acquisition, construction, development fees, and other development costs such as permitting and financing. Development costs are also considered a cost category as listed on the Final Development Budget.

Table 9: Development Costs - 14% of Total Project Cost

Development Cost Components	Total Cost For All 65 Projects	Project Averages		
		Dollars	Percent	
			Development Cost	Total Cost
Appraisal Fee	$405,613	$6,240	1%	<1%
Architect Fee	$17,762,427	$273,268	30%	4%
Environ. Assessment	$550,126	$8,463	1%	<1%
Geotechnical Fee	$195,682	$3,010	<1%	<1%
Boundary and Survey	$529,129	$8,140	1%	<1%
Legal Fee	$2,928,255	$45,050	5%	1%
Development Fee	$26,249,900	$403,845	44%	6%
Project Manager Fee	$5,105,041	$78,539	9%	1%
Tech Assistance Fee	$1,217,890	$18,737	2%	<1%
Consulting Fee	$3,031,990	$46,646	5%	1%
Other Fees	$1,824,716	$28,073	3%	<1%
Development Subtotal	**$59,800,768**	**$920,012**	**100%**	**14%**

Other Cost Category

Other development costs comprised 9% of the total cost. They include a wide range of expenditures such as financing and legal fees, carrying costs, and permitting and impact fees.

As summarized by Table 10, on average, financing costs were the largest component of this category. When the various financing costs are combined (i.e., construction loan fee, construction interest, equity closing, bridge loan interest, other loan fees, federal Low-Income Housing Tax Credit fees, and federal Low-Income Housing Tax Credit donations), they account for 43% of "other costs" and 4% of total costs.

The other major cost category was permits/hookups, which together accounted for 24% of the other costs. Operating reserves and replacement reserves comprise 12% and 4% respectively, and an average of 2% of the total project cost.

Fiscal Impact of Bridge Loans

Private lender or intermediary lender bridge loans are commonly used by affordable housing sponsors to help initiate and finance their project while they are working to secure permanent financing. Because they are part of what distinguishes affordable housing from market-rate projects, their prevalence and cost impact was briefly reviewed.

Of the 65 projects in the sample for the cost analysis, over 70% of them planned to use bridge loans as part of their financing and many listed the Housing Trust Fund as a primary source to help pay off the loan.[30] Based on the data from the 65 projects in the cost analysis, the average cost per project for bridge loans was $32,042 (See Table 10). In order to supplement the data from the 65 projects in the cost analysis sample, loan data from a local financial institution was reviewed. The review examined 57 bridge loans provided to publicly fund affordable housing projects. The findings are summarized as follows:

- The amount of interest-bearing bridge loans ranged from $150,000 in pre-development loans to $2,000,000 loans for acquisition, and the average cost for interest and fees was $54,670.

[30] Based on a review of Form 1 from the application data for each of the 65 projects in the sample.

- Of these 57 loans, eight were for more than $1,000,000 and could be considered outliers. Excluding these outliers, the average cost for interest and the associated finance fees was $33,000.
- The length of the loan period ranged from three months to 2.5 years and averaged 11 months. This is an indicator of how long it took these project sponsors to secure permanent financing.

Table 10: Other Costs - 9% of Total Project Cost

Other Development Costs	Total Cost For All 65 Projects	Project Averages		
		Dollars	Percent	
			Other Development Cost	Total Cost
Real Estate Tax	$246,809	$3,797	1%	<1%
Insurance	$1,511,772	$23,258	4%	<1%
Relocation Costs	$1,030,886	$15,860	3%	<1%
Bidding Costs	$155,105	$2,386	<1%	<1%
Permits/hookup	$6,573,180	$101,126	17%	2%
Impact Fee	$2,712,706	$41,734	7%	1%
Utilities	$470,140	$7,233	1%	<1%
Construction Loan Fee	$1,262,284	$19,420	3%	<1%
Construction Interest	$7,876,249	$121,173	20%	2%
Equity Closing	$100,121	$1,540	<1%	<1%
Bridge Loan Interest	$2,082,757	$32,042	5%	<1%
Other Loan Fees	$2,864,966	$44,076	7%	1%
Low-Income Housing Tax Credit Fee	$2,637,289	$40,574	7%	1%
Low-Income Housing Tax Credit Donation	$66,529	$1,024	<1%	<1%
Accounting	$604,458	$9,299	2%	<1%
Marketing/leasing	$989,141	$15,218	3%	<1%
Rent-up Costs	$693,719	$10,673	2%	<1%
Reserves	$4,663,672	$71,749	12%	1%
Replacements	$1,400,820	$21,551	4%	<1%
Other Costs	$1,012,743	$15,581	3%	<1%
Total Other Development	**$38,945,795**	**$599,166**	**100%**	**9%**

Differences Among Groups of Projects

Because the projects are diverse, data on the "averages" for the 65 projects can result in averages that represent the data set but may not truly represent individual characteristics of certain types of projects. In order to address this and make comparisons of costs related to similar projects, the 65 projects were grouped into seven categories to allow for a more "apples to apples" comparison. Once the projects were grouped, the *average values* for various costs were calculated and statistical analysis was used to determine whether the differences in the values were random or significant.[31] The findings are summarized below and on the series of data tables provided in Appendix 4c along with the preliminary analysis used to help design the statistical tests to assess differences among several project types.

Summary of Key Findings

Size of the Project

- Larger projects cost more per unit, are located in urban markets in western Washington, and are highly dependent on federal Low-Income Housing Tax Credits both in terms of the number of projects financed with federal Low-Income Housing Tax Credits and the amount of total capital the credits provided (44%).
- Housing Trust Fund support for larger projects is greater in dollars but significantly lower as a percent of the project's total capital funding. The smaller projects rely more heavily on Housing Trust Funds and operating subsidies. In terms of "intent to go green," larger projects are more likely to incorporate specific green features.

Urban versus Rural Locations

- The 41 urban projects tended to be larger (an average of 46 versus 24 units), and have a higher construction cost per square foot ($103 versus $76).

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[31] A univariate t-test was applied to look for significant differences among the various project pairs. The test was adjusted based on whether the assumption of equal variance was satisfied as revealed in the preliminary analysis.

- Urban projects rely more heavily on federal Low-Income Housing Tax Credit financing (73% versus 46% for rural projects), and tend to be more concentrated in western Washington. In addition, they depended more on local funds (13% versus. 4%), and equity investment (7% versus 1%).
- Rural areas were more dependent on Housing Trust Fund support (32% versus 22% for urban projects) and federal grants and loans (29% versus 12%).

Type of Sponsor

- Although government-sponsored projects tended to be larger than nonprofit sponsored projects, there were few statistically significant differences.
- The exceptions were nonprofit sponsors had statistically lower development costs as a percent of the total project costs (12% and 15%), and they used a higher percentage of local funds[32] (12%) compared to government sponsors (4%).

New Construction versus Rehabilitation Projects

- The 41 new construction projects tended to have larger units (958 square feet per unit compared to 765 square feet in rehabilitation projects).
- The rehabilitation projects cost less per unit ($131,400 versus $177,313) and had lower construction costs per square foot ($63 versus $111).
- Acquisition costs for rehabilitation projects were significantly higher in dollar and percent terms, while construction costs were higher in dollar and percent terms for new construction projects.
- In terms of fees, new construction had significantly higher architect fees as a percentage of total cost (4% versus 2.1%), and rehabilitation projects had significantly higher operating reserves (2.5% versus 1.2%).

[32] Local funds generally refer to housing levies, bonds, and other revenue sources generated by local governments.

Use of Federal Low-Income Housing Tax Credit Financing

- Of the 65 projects in the sample, 41 used federal Low-Income Housing Tax Credit financing. In general, the federal Low-Income Housing Tax Credit projects were significantly different from the non-federal Low-Income Housing Tax Credit projects for most variables.
- Federal Low-Income Housing Tax Credit projects were larger in terms of size, the amount of the Housing Trust Fund award, the cost per unit, and the cost per square foot.
- Federal Low-Income Housing Tax Credit deals had higher development costs (14% versus 11%) and "other development" costs (10% versus 6%). With respect to fees, federal Low-Income Housing Tax Credit deals had higher legal fees, development, and financing fees. Of significant difference with this financing source, are the transaction costs related to the transfer of tax credits into equity. No specific differential or data analysis has been done specifically on the development cost impact of these fees.

Use of a Developer or Sponsor Acted as the Developer

- Of the 65 projects, 35 of them were managed by sponsors that hired a third-party developer. Whether a sponsor hired a developer or acted as the developer themselves did not result in many significant cost differences. The exception was in legal fees, which were higher for projects where the sponsor hired a developer. An analysis of multiple projects by a sponsor or developer did not indicate a "learning" curve in terms of cost reduction. However, experience may have improved the efficiency and quality of construction, as well as the ability to satisfy the design requirements of special needs or other targeted tenants.

Intent to Include Green or Sustainable Features

- Although the Evergreen standard had not yet been required for the 65 projects in the sample, 17 of the projects indicated their intent to meet the Evergreen standard or a related sustainable standard, and all applicants defined some level of green or sustainable features they planned to incorporate.
- The projects where the sponsor's application stated intent to incorporate green or sustainable features tended to be larger projects located in urban areas. Because the data on intent to incorporate green or sustainable features was from the application and not post-construction, further analysis was not completed on this

element. For projects constructed after July 2008, there will be additional information available to assess how projects have incorporated the Evergreen Standard and at what cost.

Regression Analysis to Test for Differences Among the Full Data Set

Summary of Results

To explore some of the factors that influence development costs, a stepwise linear regression analysis was developed and applied to data from the 65 projects. Stepwise linear regression examines multiple factors all at once and thus differs from the paired analysis summarized in the previous discussion.[33]

The stepwise linear regression was designed to examine the four metrics listed below. The model and associated data did not meet statistical standards for looking at the total development cost per square foot, and so this metric was not assessed.

1. **Total development cost per unit** is commonly used by affordable housing funders to quantify and compare costs between different projects. It provides a useful indication of the overall cost. However, it measures not only the cost per unit but also the cost of parking, tenant meeting rooms, and other facilities that are part of the project – but not the unit.
2. **Total development cost per bedroom** provides insights regarding densities and how many people can live in the unit. Affordable housing units built for families, tend to be larger and to have more bedrooms in each unit.
3. **Construction costs per unit** can help examine the major cost component of projects. This is because construction costs generally represent 60-70% of the total project cost. For the 65 projects in this data sample, construction costs represented 62% of the total project cost.
4. **Construction costs per bedroom** can also help isolate factors involved in the efficiency of housing construction.

[33] See Appendix 5 for additional information on the methodology used.

The following section summarizes the results of the statistical analysis, presents a summary table, and briefly describes the findings associated with each of the cost metrics or dependent variables listed above.

Results of the Stepwise Linear Regression Analysis

- **Depending on which cost metric is used, different projects appeared to be more or less cost effective than others and different factors appeared to influence costs.** This suggests the need to apply more than one metric when assessing a project's cost and comparing it to other similar projects.
- **Variables determined not to have a statistically significant correlation to higher development costs were the amount of the developer and project management fees, and the project sponsor or developer**.
- **Variables determined to have a statistically significant correlation to higher development costs are summarized as follows.**
- **Architect fees as percent of construction costs**. In all models, architect fees had the strongest correlation to costs, meaning the higher the architect fee, the higher the cost. This could be because the fees are an indicator of the complexity of design and construction, the efficiency of the project team, based on construction cost, or other factors the model was not able to assess.
- **Urban effects**. In all models and for each of the metrics, urban projects were associated with higher costs. This could be due to a number of factors such as land costs, parking costs ($20,000-30,000 per stall), or tenant service areas.
- **Size and Economies of scale**. New construction projects in rural areas had lower project costs than urban areas. In addition, for rural areas, construction costs per bedroom decreased as the number of bedrooms increased. This effect was not seen in urban areas for new construction projects that used Low-Income Housing Tax Credits. For these projects, the construction costs per unit increased as the project had more units. This could be related to parking and other projects costs not specific to the actual unit, but considered as part of the unit cost.
- **Capital effects.** In general, projects financed with federal Low-Income Housing Tax Credits cost more per unit, had higher construction costs, and tended to be larger projects.
- **Special needs populations.** Projects for special needs populations were correlated with higher costs per bedroom.

Discussion of Cost Metrics

The following discussion summarizes the results for each of the four cost metrics presented on Table 11.

The lower numbers in the table mean the factor was more significant than others. For example, for the total cost per bedroom, the strongest factors were whether the project was urban or rural (1), and the amount of the architect fees (2).

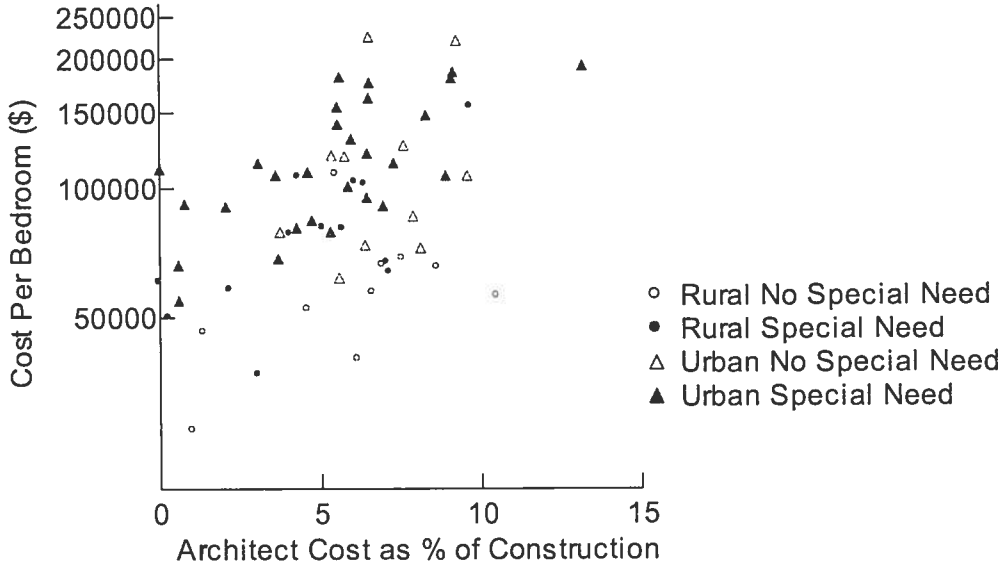
Table 11: Rank of Significance for Variables Tested in the Model

Cost Metric	N	R^2	Architect Fee / Con-struction Cost	Urban / Rural	Gov/ Non-profit	Develpr Type	Tax Credit	Special Needs	Number of Bed-rooms	No. of Units	Project Type (New vs Rehab)	HTF / Total Project
Total Cost / Bedroom	62	70%	2	1	-	-	-	4	3	x	5	-
Total Cost / Unit	61	65%	1	3	-	-	2	-	x	-	4	-
New construction Only												
Construction Cost / Bedroom	37	58%	2	4	3	-	-	1	-	x	x	-
Construction Cost / Unit	38	49%	2	-	-	3	1	-	x	-	x	-
Rehab Construction Only												
Construction Cost / Bedroom	19	57%	-	1	2	-	-	-	-	x	x	-
Construction Cost / Unit	18	64%	2	1	3	-	-	-	x	-	x	-

N = number of projects. **R^2** = variance explained by the model. **A "-"** = No effect **X** = not included in the model

Total cost per bedroom. This was the strongest model and explained 70% of the variance in the data (70%). The model found four factors that had a significant relationship to the cost: 1) the architect fee as percent of construction costs, 2) whether the project was urban or rural, 3) whether or not it served a special needs population, and 4) the number of bedrooms.

Figure 1: Relationship of architect cost to total cost per bedroom. The triangles are all urban sites; filled symbols are projects that were primarily for special needs populations.



As summarized by Figure 1, (above) the architect fees as a percent of the construction cost were most strongly linked to higher project costs. Urban projects with special needs populations were linked to higher costs per bedroom.

Total cost per unit. Three factors with the most significant correlation to the cost per unit were the architect fees, whether the project was rural or urban, and whether the project was financed with federal Low-Income Housing Tax Credits or not. The architect fees had the strongest correlation to higher cost per unit. Rural projects not financed with federal Low-Income Housing Tax Credits were correlated with a lower cost per unit.

Total cost per bedroom by architect fees by urban versus rural. In order to assess economies of scale and whether or not the cost/bedroom *decreased* as the number of bedrooms *increased,* the data was divided by urban versus rural. The results indicate that as the number of bedrooms increased, the total cost/bedroom *decreased* for rural projects but did not decrease for projects in urban areas. This relationship was not seen on a total cost per unit basis.

Construction costs only. Because construction costs account for the majority of development costs (62% for this data set), the data was analyzed by looking at *construction costs only* for projects that were new construction and then for rehabilitation

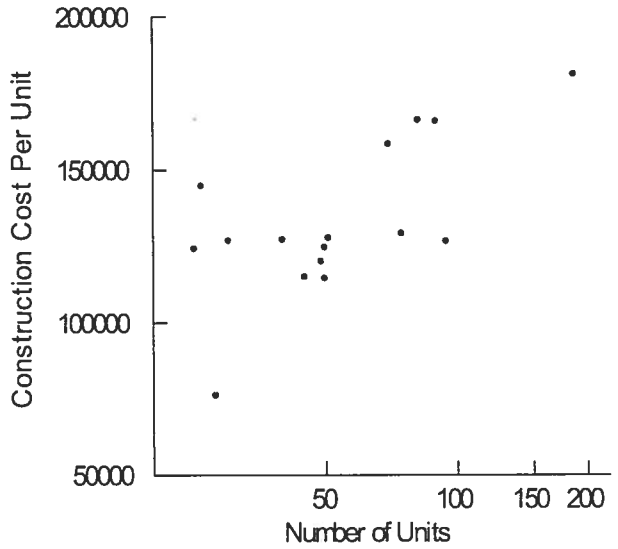
projects. For each group, the construction costs per unit, per bedroom, and per square foot were analyzed. For new construction projects, the factors that had a significant correlation to construction costs included the architect fee, whether the project was financed with federal Low-Income Housing Tax Credits or not, and whether it served a special needs population or not. Higher costs were associated with projects with higher architect fees that were financed with federal Low-Income Housing Tax Credits, and in urban areas.

To assess economy of scale, the model examined how the cost per unit changed as the number of units increased. The model found the location and federal Low-Income Housing Tax Credit status were strongly correlated to cost and as the number of units increased, the cost did not decrease. This was also the result of the paired statistical analysis previously discussed.

In order to better understand the relationship between construction costs and the number of units in the project, the model was limited to examining *only* projects in urban areas that used federal Low-Income Housing Tax Credit financing and were new construction. When these projects were graphed, the results indicated that as these projects had more units, the cost per unit increased and there was no apparent economy of scale (Figure 2). This could be due to the fact that the cost per unit includes costs for parking, infrastructure needs, and other costs that are part of the project but part are not part of the actual cost of the unit.

For rehabilitation projects, the cost per bedroom model showed urban versus rural to be the most significant effect on cost with rural areas being less expensive. The small sample size didn't allow further testing of economies of scale on these projects.

Figure 2: Construction costs per unit for new construction projects built with federal Low-Income Housing Tax Credits in urban areas. The x scale is logarithmic because the model used log-transformed values.



Stepwise Linear Regression Conclusions

The stepwise linear regression found higher development costs were most significantly correlated with the project location, finance structure, architect fees, and special needs tenant populations. Overall, these findings confirm the paired analysis previously summarized in this chapter and suggest the need to develop cost metrics and benchmarks that are sensitive to the diversity of project types and associated factors that influence development costs.

Case Study Comparing Market-rate and Affordable Housing Costs

Overview

The previous section explored cost differences between 65 projects that received financing from the Housing Trust Fund and defined factors that may influence development costs *within* Housing Trust Fund projects. This section presents some of the primary differences *between* market-rate and Housing Trust Fund projects and presents a case study comparing two similar projects – one market-rate and one affordable housing project.

Figure 3 provides an overview of some of the main factors that distinguish multi-family affordable housing from market-rate housing projects. These factors were drawn from the cost analysis, survey summaries, and interviews completed for this study.

Figure 3: Ten Factors that Influence Affordable Housing Development Costs[34]

1. **Affordable housing is a long-term public asset.** The housing is required to remain in the affordable housing stock for at least 40 years. Unlike market-rate housing, it is not built to maximize financial returns, but to help achieve the State of Washington's affordable housing goals.
2. **Projects must comply with federal, state, and local government public benefit policies and regulations.** These policies contribute to increased costs for construction, labor, legal fees, and other project elements.
3. **On average, projects require at least five funding sources and take twice as long as market-rate projects to complete** due, in part, to the finance complexities.
4. **Available land often has conditions that make it expensive to develop.** Examples include infrastructure needs, density limits, variable and unpredictable design requirements, and other factors. Affordable housing projects generally have less available capital to cover pre-development costs and are less able to raise the capital through rents.
5. **Affordable housing sponsors often pay a higher premium for land** because they must pay the seller for an option to "hold" the land while they secure the funds to buy it. This can take two years or more.
6. **Sponsors must often take out bridge loans to get interim financing** while they are trying to secure permanent funds. They generally have limited internal capital coupled with higher pre-development costs.
7. **The projects tend to be smaller scale and have fewer units than market-rate projects.** In some cases, this can make it harder to achieve economies of scale.

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[34] These factors were identified by the analysis presented in Chapters 3 and 4, input from the Affordable Housing Cost Study Steering Committee, and a review of the cost studies summarized in Appendix 2 of this report.

8. **Tenant service areas such as** childcare, treatment facilities, and other co-located services are often considered part of the cost per unit and can appear to inflate the cost per unit.
9. **Construction costs can be higher** due to the need to comply with public benefit policies and the use of design and materials features to ensure the units meet the requirements of special needs populations.
10. **Costs for project management, financing, and other needs tend to be higher than for market-rate projects**. Sponsors are required to maintain certain levels of contingencies and reserves, often hire outside expertise to develop or manage the project, and face more finance and regulatory requirements.

Case Study Results

To illustrate how some of these factors influence costs, a case study was developed based on two similar projects.[35] Both projects were 100-unit, multi-family housing developments located in the Seattle region during the first quarter of 2009. Cost data for the two projects was collected independently, compiled, and reviewed by the Cost Study Steering Committee. As a result of their review, several cost categories were combined in order to provide a clearer comparison. Because the case study is based on looking at two projects only, it is not intended to define cost benchmarks or to definitively describe cost. Instead, it provides an illustration of cost differences and the associated factors contributing to cost differentials.

As summarized by Tables 12-15, the primary findings from the case study are as follows:

- **Overall, the cost of affordable housing project was relatively comparable to the cost of the market-rate project.** Although the affordable housing project cost $14,804 more per unit than the market-rate project, it had 11,480 more square feet. When this is taken into account, the affordable project had slightly lower costs per square foot.
- **Requirements unique to the affordable housing project were estimated to cost $14,560 per unit.**

[35] The development cost data was provided by two members of the Cost Study Steering Committee who reviewed recent projects and associated costs.

- **Soft costs associated with project management, reserves, and fees, were $486,371 higher for the affordable housing project** primarily due to higher operating reserves, permitting, and finance fees.
- **Due to different site locations, the affordable project had lower land acquisition costs.** This is because it was an urban infill project and was not located in downtown Seattle.
- **Both projects required structured parking for an average cost of $29,000 per stall.** This accounted for about 12.5% of the cost of each unit.

Table 12: Overall Cost Differences - Market-rate Versus Affordable Housing

Cost Center	Market-rate	Affordable	Difference
Total Residential Project Cost	22,959,199	24,564,644	(1,480,445)
Cost Per Unit	229,592	245,646	(14,804)
Total Cost Per SF	335	307	29
Construction Cost Per SF	234	229	4

Table 13: Differences in Land and Construction Costs - Market-rate versus Affordable Housing

	Cost Center	Market-rate	Affordable	Difference
Location		Seattle	Urban Infill	
Unit Size		686 SF	800 SF	+114 SF/unit
Land and Construction				
a	Land	3,000,000	1,681,454	1,318,546
	Land Cost/Unit	30,000	16,815	13,185
b	Predevelopment Costs	25,000		25,000
	Garage Construction Costs	2,805,000	3,067,062	(262,062)
	Building Construction Costs	10,837,750	12,198,698	(1,360,948)
	Prevailing Wage - Cost Impact	Not Required	348,200	
	Payment and Performance Bond	Not Required	126,736	
	Furniture, Fixtures & Equipment	20,000		20,000
	Parking Equipment	10,000		10,000
	Tenant Improvements	245,000		245,000
	Construction Contingency	694,388	1,101,849	(407,461)
	Sales Tax	1,388,153	1,495,366	(107,213)
	Subtotal for Construction Only (b)	16,025,291	18,337,911	(2,312,620)
	Percent of Total Costs (Excluding Land)	69.80%	74.65%	
	Subtotal (Land + Construction)	**19,025,291**	**20,019,365**	**(994,074)**

Table 14: Differences in Project Management and Fees - Market-rate versus Affordable Housing

Project Management and Fees - Soft Costs	Market-rate	Affordable	Difference
Pre-Development	45,000	See proj mg	
Project Management	767,000	900,000	(133,000)
Design Costs (Architect, Engineer)	819,000	701,100	117,900
Design Reimbursable	27,000		27,000
Consultants(e.g., Market Study)	136,000	10,000	126,000
Construction Testing	76,000	115,000	(39,000)
Water Meter & Installation	95,000	75,000	20,000
Utility Hook-up/Impact Fees	190,000	435,000	(245,000)
Permits	133,000	142,000	(9,000)
Builders Risk Insurance	114,000	115,000	(1,000)
General Liability Insurance		15,000	(15,000)
Operating Reserves		440,000	(440,000)
Legal Fees	152,000	85,000	67,000
Promotion, Leasing, Rent Up Reserves	190,000	151,000	39,000
Real Estate Taxes	75,000	2,500	72,500
Loan and Financing Costs			
Bank-Loan Fees, Counsel, Escrow, Title, Inspection	156,926	310,305	(153,379)
Interest During Construction	758,032	761,999	(3,967)
Low-Income Housing Tax Credit Fees	0	87,875	(87,875)
Reimbursable	20,000		20,000
Site Survey	10,000	16,000	(6,000)
Traffic Study	5,000	10,000	(5,000)
Appraisal	10,000	13,500	(3,500)
Miscellaneous	10,000	14,000	(4,000)
Soft Cost Contingency	144,950	20,000	124,950
Subtotal Soft Costs	**3,933,908**	**4,420,279**	**(486,731)**
Soft Costs as a Percent of Total Cost	**17.13%**	**18.09%**	**(0.01)**
Difference in Loan and Finance Costs	**914,958**	**1,160,179**	**(245,221)**

Table 15: Estimated Cost of Five Requirements Unique to Affordable Housing As Defined by the Market versus Affordable Housing Case Study

Cost Center	Cost
Construction Contingency	$407,000
Prevailing Wage - Estimated Cost Impact	$348,200
Operating Reserves	$440,000
Tax Exempt Finance Costs - Federal Low-Income Housing Tax Credits	$172,903
Low-Income Housing Tax Credit Fees - Federal Tax Credits	$87,875
Total Estimated Cost to the Project	$1,455,978
Estimated Additional Cost/Unit	**$14,560**

CHAPTER 5: COST-REDUCTION STRATEGIES

Overview

This is a period of declining government funding, including reduced Housing Trust Fund appropriations and a tight capital market which has shrunk levels of federal Low-Income Housing Tax Credit equity, the largest single source of affordable housing subsidy. Given this climate, stakeholders and professionals working in the design and construction field were both cooperative and motivated to generate recommendations regarding cost containment.

Cost containment recommendations were developed in collaboration with the Affordable Housing Cost Study Steering Committee, and the Policy Advisory Team by reviewing the results of the costs analysis, in-depth interviews with construction and development experts, and a stakeholder survey of more than 200 funders, developers and related professionals.

Principles

Principles to help **guide** the strategies recommended:

- Recognize the diversity of projects the Housing Trust Fund helps to finance and avoid a "one size fits all" approach.
- Promote Housing Trust Fund investments that result in good quality, durable housing in communities throughout the state.
- Recognize cost as an important variable, work to control cost, and learn from the market to better control development cost.

Process

Process to **implement** the strategies recommended:

- Best efforts will be made to implement internal Housing Trust Fund policy recommended strategies as soon as possible, beginning with the fall 2009 funding round.
- Five areas of recommendations are being put forward to address the cost of acquisition, construction costs, and sponsor capacity. Four of the five are policy or technical assistance steps that do not require legislation, but may require

further discussion among funding partners and technical experts to develop appropriate benchmarks and/or consensus.

- One of the five may need legislative action, but further research and work will be conducted before making specific legislative recommendation.

Additional tracking, documentation, and analysis of the potential impact of these initial five identified strategies are being recommended as the priorities to pursue at this time.

Performance Measurement

The department will continue to track costs and trends over time. Comparing cost prior to the implementation of these initial strategies, and then after these strategies have been implemented will provide the main measure of the effectiveness and potential cost savings realized.

Two main themes affect the ability to document and track performance related to cost:

- Data collection and data tracking is an ongoing challenge. Several changes have been made to the Housing Trust Fund application as a direct result of this study, in order to help facilitate the collection of appropriate data to help analyze costs and impacts of the proposed strategies.
- As discussed in previous sections of the report, determining the appropriate metrics to track and analyze is extremely important to achieving desired outcomes. Interpreting the data is complex and more work is needed to ensure effective metrics are developed.

Policy Recommendations

The following strategies can be made in the short term and have nominal financial impact and are mostly focused on internal policies and procedures:

1. **Place increased emphasis on cost control as a funding decision factor.** Place greater importance and priority on project budget cost submitted as part of the decision making process in awarding state resources. This strategy would help give developers and their teams responsibility and incentives cost containment.

   Performance Measurement: Develop per unit and per project measures to compare past awards round to current award round with goal of achieving cost reduction. Document efforts by the Housing Trust Fund to publicize cost-reduction and cost-effectiveness strategies. Specifically track and report on costs of projects funded each funding cycle.

2. **Reduce contingency to 5% on new construction and 10% on rehabilitations.** Contingency requirements accounted for an average of 2% of the construction cost and 1% of the overall project cost (Table 8).[36] Currently set at 15% for rehabilitation projects and 10% for new construction, the contingences are required by the Housing Trust Fund to address potential cost overruns the project may experience due to increased construction costs, site challenges, and other conditions that were not possible to anticipate. Through the process of this study, stakeholders shared that once contingency is budgeted, it is spent and that this could be an area of cost reduction.

   Performance Measurement: Develop per unit and per project measures to compare past awards round to current award round.

3. **Create a design and construction benchmark work group.** Benchmark reasonable land cost, developer consultant cost, construction cost, cost of housing, average cost of unit, taking into account regional and sub-market differences.

   Performance Measurement: After group develops and implements benchmarks, collect data to compare past award round to current award. Document differences and reasons if funding projects outside of the established benchmarks.

   Performance Measurement: Document, track and analyze specific costs related to type of bidding procurement.

4. **Cost-control project management workshops.** During in-depth interviews, experts identified a number of best practices that project managers could follow in site selection, design, and construction monitoring. For relatively modest cost, the Housing Trust Fund could sponsor two to three workshops for affordable housing development teams featuring experienced practitioners of these best practices.

   Performance Measurement: Develop per unit and per project measures to compare past awards round to current award round. Evaluate the effectiveness of sessions through attendee evaluations.

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[36] Please reference Table 8, Chapter 4, page 27.

5. **Create a bridge loan option to reduce sponsor acquisition and holding costs.** Although the legislature specifically included language in the current capital budget bill prohibiting this activity, stakeholders strongly urged that the use of bridge loans with Housing Trust Fund dollars should be further explored. There is a time lag between funding award and disbursement, so the Housing Trust Fund has balances which could be used to make prudent bridge loans for site acquisition and construction at reduced interest rates. This would enable sponsors to negotiate more competitive acquisition prices and/or lower the interest costs of holding a site until construction begins and during construction. Although Housing Trust Fund staff can develop internal policies, procedures, and program guidelines, approval of this type of financing mechanism may require legislation. In addition, current appropriation levels are committed, so action by the Legislature would be needed to provide additional resources to make a bridge loan tool available.

   Performance Measurement: Track and document acquisition and holding costs prior to developing this tool and then after.

List of additional, longer-term strategies from stakeholders by category:

1. Construction Cost Benchmarks
   - Develop more precise cost benchmarks: cost per unit by project size, location, development type.
   - Establish durability benchmarks and easily document features. Quality assurance and control of the built improvements is essential to long-term operations and maintenance.
   - Provide feedback loop between building maintenance and developer: flooring types, gutters for multi-family or dishwashers for Farmworker housing.
2. Land Cost Financing Tools
   - Create land banking revolving loan account.
   - Create acquisition revolving loan account.
   - Use bridge/float loan option when there is a good opportunity to purchase land.
3. Process Cost Time Reductions
   - Integrate process, schedules and requirements: shorten finance assembly time, shorten compliance to one process, application review within a six-month time period.
   - Coordinate applications, awards, reporting requirements and available resources efficiently to help keep down land holding cost, cost for consulting with lawyers, and cost to redo cost estimates and market studies.
   - Share reporting information to minimize fees.

4. Tool Box Resources:

Design:

- Improve cost-effective building by ensuring design team is experienced in cost-effective construction.
- Employ more rigorous cost-reduction review early in the project (site selection and analysis of structural placements and site risks, compare cost estimate associated with initial drawings against benchmarks).
- Engage experienced multi-family affordable housing architect.

Project Management:

- Track cost data and make it available to developers. Ensure project management team has the requisite skill set: construction knowledge, ability to manage contractor and architect, ability to manage to a development schedule, and experience managing cash flow.
- Engage contractors early in the process: estimating, constructability reviews and value engineering.
- Further evaluate and analyze impacts of the type of bidding process utilized, through tracking and documenting costs associated with competitive bidding versus negotiated bidding practices.

Constituency Collaboration:

- Provide training for nonprofit housing developers: evaluate sites, work with architects, negotiate fees, and inject cost containment into their projects while still meeting project and service goals.
- Organize utility/infrastructure collaboration between city/public partners to plan in advance overlapping construction and avoid unaccounted cost at the beginning of the project ultimately reducing infrastructure cost.
- Underwrite the project team track record.

State and Local Policies:

- Further research to document the success stories and outcomes of local governments exercising their authorities to relax various standards (e.g. zoning, parking, sales tax, impact fees).
- Encourage flexible zoning requirements for mixed use buildings.
- Allow funding for commercial space in mixed-use projects.
- Create some waivers for labor requirements and prevailing wages especially for smaller projects.
- Strengthen affordability requirements of the GMA; provide incentives/requirements for local utilities to provide infrastructure and support to affordable housing.