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A Study Sponsored by

State of New Jersey

Department of Community Affairs

October, 1989

Preface

Two landmark decisions by the New Jersey Supreme Court radically altered housing policy in the State of New Jersey. The first case was brought by the NAACP against Mount Laurel Township, charging that the town's zoning policies prevented the construction of low-cost housing. Similar large-lot zoning policies were common in many suburban communities throughout the state. The so-called Mount Laurel I decision of 1975 held that a municipality may not use land use regulations to make it physically or economically impossible to build affordable housing in the community. The town of Mount Laurel appealed this decision and the Supreme Court's Mount Laurel II decision of 1983 reaffirmed that "every municipality in a growth area has a constitutional obligation to provide through its land-use regulations a realistic opportunity for a fair share of its region's ... needs for housing for low and moderate income families."

The court made the state legislature responsible for determining how each town would satisfy its obligation, so that this issue would not be fought out in prolonged battles in the courts. In response, the legislature passed the Fair Housing Act of 1985, which created the Council On Affordable Housing (COAH) to be responsible for "the establishment of reasonable fair share guidelines." The Act directed each municipality to submit to COAH a plan for the provision of its fair share of affordable housing. A municipality which receives certification by COAH of its housing plan achieves a six-year respite from "builder's remedy" suits by developers, which claim the right to higher density zoning. The law also allows a municipality to transfer up to 50 percent of its fair share quota to another municipality by means of a Regional Contribution Agreement (RCA).

The Fair Housing Act also established a trust fund within the Department of Community Affairs (DCA), financed through a surcharge on the real estate transfer fee on the sale of all homes over \$150,000. By means of this fund, DCA administers the Neighborhood Preservation Balanced Housing Program, the purpose of which is to assist municipalities to meet their fair share housing obligations. Eligible activities are new construction and renovation of low- and moderate-income housing. The New Jersey Housing and Mortgage Finance Agency (HMFA) received a one-time appropriation of \$15,000,000 for similar activities.

In its first four years of existence, the Balanced Housing (BH) program has built up considerable momentum. During its first year of operations, BH did fund many projects. The program was not yet known among developers and the five BH staff members were faced with the difficult task of building an organization. The staff wrote guidelines for applicants, established procedures for evaluation and management of contracts and spread the word among the housing development community: private developers, local housing agencies and community organizations. During the next two years, \$18 million worth of funds were committed. Since 1985 BH has committed \$55 million to fund 125 projects producing 3,800 units of affordable housing. This past year's commitment alone totaled \$38 million dollars. An additional 65 applications are currently pending for an additional \$35 million. Today, eleven project managers handle over 25 projects each and there are many more applicants than available funds. As a result, the BH program is in a position to leverage the use of limited State resources to invest in affordable housing. It is now a good time for the DCA and BH staff to take stock of how far they have come, and where they are heading.

Introduction

BH project manager in each case. We also visited the project site and met with members of the development team. In many cases the BH project manager participated in these meetings. Follow up research included phone interviews with consultants or other key players in the project and analysis of architectural drawings, specifications and cost estimates, if this information was available. We analyzed each case history and came up with a general checklist of critical issues and factors affecting the group.

Throughout this process, we refined our thinking through discussions with the BH staff and others, such as representatives of LISC and The Enterprise Foundation, financial consultants, leaders of nonprofit organizations not included in the study, and municipal officials. We also developed techniques to analyze the time and cost factors for each project. The results of this can be seen in the Comparative Cost Charts (see pp. 25-29) and the timelines which accompany each Project Profile. Based on this field work and analysis we were able to establish what we believe to be a fair sense of what transpired in each project, which is documented in the Project Profiles. The Profiles should be referred to by those interested in a detailed, step by step account of problems and solutions. The key observations regarding the case study information are discussed in the Findings section of this report.

As the work progressed the research team became caught up in the enthusiasm of the BH staff and the commitment of the sponsor organizations. There is a special spirit surrounding the BH program, with its team of dedicated people making such a mixed bag of projects happen. It soon became apparent that the real finding of this study is not so much to discover what is wrong with the system and how to fix it, but acknowledge the considerable list of success stories, given the many obstacles and constraints. We believe that it is crucial at this stage for the

BH program to reflect on its past experience as a source of guidance for how to improve the program, and so achieve an even higher success rate in the future.

Credits

Principal investigators for the study were Professor Ezra Ehrenkrantz, Chairman of the Department of Architecture and Building Science, and Ellen Shoshkes, Senior Researcher, the project director and primary author of the text. Members of the research team included Steve Bales, Peter Elliot, John Simko, Maria Petrakaki and Jennifer Howgate, graduate students in the School of Architecture at NJIT.

Valuable assistance was provided by Peggy Huchet, Administrator of the Balanced Housing Program Administrator, and members of the Balanced Housing staff, including Gary Altomara, Rhoda Miller, Meyer Pincelli, William Rainwater, George Shaeffer, Joel Silver, and Ruth Smith. Richard Binetsky, and William Connelly, who are, respectively, Chief and Director of the Division of Housing and Development also made important contributions to the study.

Findings

1. BH Program Management

The first category of findings is the management of the Balanced Housing program itself, the area for which DCA has the most direct control. Practically everyone we interviewed praised the BH staff for their flexibility, dedication and responsiveness. Yet predictably, there were also complaints about some of the program's rules and procedures. To put this observation in context, note that the nine projects studied parallel Balanced Housing's own brief existence: Vermont Plaza in Atlantic City was the first new construction project to be funded, in 1987. Delavan Court in New Brunswick, funded by BH in 1988, was the first use of RCA funds for major new construction. Many administrative problems surfaced and were ironed out during this start-up period. Everyone — the State as well as the sponsors — was learning at the same time how to do this new thing.

We feel, however, that it is useful to state the nature of the early problems, to serve as a baseline for measuring the program's growth. They included a perceived lack of clearly defined rules, the difficulty of meeting funding criteria (relative to affordability and confirming additional financing), the potential for snags in working through the two-tiered state/municipal process and delays in obtaining funds once a commitment has been made. BH has addressed these problems by rewriting its rules and application forms, creating a more flexible commitment system (including a six-month conditional grant) and somewhat streamlining the "paper trail" through the State system.

As the program became better known, the role of BH has evolved as well. Initially, the BH staff responded to "what came through the door" and the subsidy was frequently used to bail out

weak projects. Early projects were often those which did not fit into any other program, such as Whitesboro in Cape May, or which needed gap funding, such as Loantaka Way in Madison. Now the situation has shifted. Whereas before there was a greater supply of funds than projects, now there are more projects than available funds. For the first time, the BH staff can selectively support projects and guide their development to achieve higher standards of performance.

There is such a range of projects and conditions that it is hard to establish one set of rules which would apply across the board. As a result, BH staff must be flexible in the administration of the program's regulations. The Whitesboro project in Cape May is one example of how small, understaffed sponsors (public agencies or nonprofits) may find the sheer amount of paperwork involved in applying for State funds to be overwhelming. This is not as much of an issue for many larger organizations, however. The effect of the complexities of the application process could be to discourage small cities or groups from applying, thereby favoring larger groups in the distribution of State funds. Another type of problem arises when there is disagreement over the justification for compliance with a rule. Jonathan Justice, project manager for Jersey City's Monticello Model Block project, seems to sum up how many sponsors feel: "BH has so many conditions, if they were all enforced we would have lost the money by now."

Since the BH program was created to help municipalities meet their Mt. Laurel obligation, local governments are an active partner in the initiation and administration of projects. Therefore, the role of the sponsoring municipality is a critical factor determining both the efficiency and effectiveness of the distribution of BH funds. We found that there are both pros and cons to this arrangement. Among the drawbacks are that working through a municipality adds

Findings

once there is a strong development team (able to make reasonable decisions in a timely fashion) and solid community support for a project. The three categories of sponsor types represented in these nine case studies — nonprofit organizations, public housing authorities and for-profit developers — illustrate the range of participants, their motivation, technical expertise, and organizational effectiveness. These groups, in partnership with BH at the state level, are attempting to fill the gap left by the shrinking federal role in the building of housing. Although the management practices vary widely among these groups, each has a role to play and can be successful.

Type of Sponsor

Nonprofit Organizations The most significant observation in this area is that nonprofit groups have joined the ranks of the traditional providers of low-income housing — the public sector and private developers — and now play a vital role both in creating affordable housing and in providing the necessary management and social services to support it. Approximately 90 percent of all BH projects are developed by nonprofit groups. Nonprofits are an important channel for housing subsidy, since their mission is focused on aiding the poor and serving the community. They are also the focus of current and proposed housing legislation. The advantages of working with nonprofits include their high level of initiative, altruistic motivation, broad community acceptance and political support. Among the nine projects studied here, MEND in Moorestown and Princeton Community Housing are good examples of the strengths that may be embodied in such groups.

Many nonprofit groups were initially organized around the delivery of social services, however, and decided to “get into” housing within the past decade. Frequently they take on their first projects without acquiring the necessary technical know-how, in response to oppor-

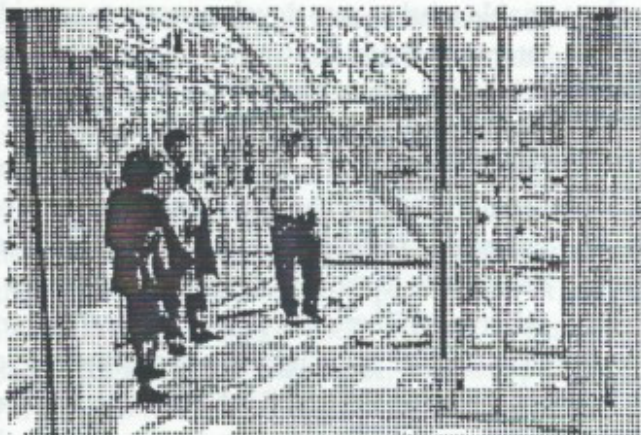


Delavan Court is an example of a successful public-private partnership. Builder Hugh DeFazio (left) is shown with John A. Lynch, Mayor of New Brunswick.

tunities such as “when the mayor gives them a building.” While learning-by-doing may be the only option, this approach has its own intrinsic cost. Inexperienced groups frequently pay a high penalty for making poor decisions, for their inability to pay for qualified professionals and for a lack of stability in personnel as more experienced staff move on to better jobs. Such projects also require closer attention from BH staff, who are excellent program administrators but may not be qualified to give technical advice. But, like BH, nonprofit groups are maturing as a player in the affordable-housing industry and there is a growing network of foundations, such as LISC, The Enterprise Foundation and Habitat for Humanity, working to build their capacity to produce. La Casa de Don Pedro is a good example of a social-services based community group which is being groomed by this support network to improve its effectiveness as a housing developer.

Local Housing Authorities Local housing authorities have expanded their traditional role to fill the gap left by the federal government. One advantage of these groups is their ability to mobilize resources such as land or Community Development Block Grant (CDBG) funds and waive restrictive conditions, such as zoning, sewer or parking requirements. However, as the nine projects profiled here show, municipal

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James Laessle (center) managed the construction process for MEND during his term as director of that organization.

Team Capability

While each project has its own logic, the nature of the overall development process is the same for all of them and demands certain skills that every sponsor's team should include: financial, construction and organizational expertise, and, where possible, an understanding of design. These skills are essential to run projects within tight budgets and schedule restraints. The problem is that many nonprofit organizations simply cannot afford to pay the salaries people with these skills can command, especially in areas where there is a lot of construction such as much of urban New Jersey. But as Robert Santucci, a consultant with the Enterprise Foundation, commented: "It is simply not cost effective to save on key development-team personnel. Project development has a certain cost, and to hire less qualified people at a lower salary may only mean that the pre-development planning takes twice as long as it should." We observed that sometimes understaffed organizations become overextended with ambitious housing programs which stretch their limited resources, by taking on too many jobs at the same time. The complexity of running multiple jobs is challenging for experienced developers, let alone nov-

ices, and under such circumstances the chances for making costly errors in judgement multiply. This finding underscores the need to provide technical support for nonprofits and small municipal agencies, in order to build their capacity as housing developers.

It is a real advantage for the sponsor's team to be in control of the construction process. Sponsors can achieve this either by acting as the general contractor, as in the case of Villa Santa Maria and Society Hill, or by hiring a construction manager, as occurred in Linden Place. An alternative approach, which also strengthens the project, is for the general contractor to be selected at the same time as the architect, so that they can get involved early in the process, as was the case in Griggs Farm. When the general contractor is part of the design team, they can provide valuable input regarding cost estimates and tradeoffs as part of the design process (i.e., while the design and details are being developed, rather than waiting until the documentation is nearly complete). This saves both time and money later on, when cost estimates come in high or changes must be made due to the availability of materials or other constraints. An expanded role for the construction manager would be to serve as an overall project manager, coordinating both the design and construction process. This might be a good model for many low-income housing projects, especially where the sponsor's team does not include personnel with strong construction expertise.

In assembling the development team, the selection of design consultants is an equally important decision which should take into consideration the specific needs of a project. It is not always easy to satisfy what can be conflicting demands. For example, an architectural firm skillful in the design concept desired by the sponsor may not have certain technical skills or expertise with state procedures. On the other

Findings

Type of Project

BH can help minimize the chance that a sponsor will be unprepared for surprises in the development process by evaluating the development team's competence to handle its proposed project. BH can instruct sponsor groups about the different challenges of various types of projects, and remind them not to worry about discarding options which do not "fit" their organization's capabilities. The following is a brief overview of some characteristics of the types of projects we analyzed: subdivisions (Griggs Farm), scattered site (Loantaka Way, Whitesboro), a category we call urban renewal (Vermont Plaza, Society Hill and, in some ways, Delavan Court) and infill (Monticello, Villa Santa Maria, Linden Place).

Suburban Subdivisions and Rural Scattered-Site Projects These projects are typically constructed on open land which has not been previously built upon and are generally the most straightforward type of project to develop. The primary obstacles encountered may include obtaining good sites at an affordable price, overcoming community resistance and providing new or extended roads, water, sewers and utilities. While in the past, suburban and rural housing has reinforced existing socio-economic patterns, the construction of new low-income housing in these areas offers the opportunity to create more balanced communities. Griggs Farm is a model for how a mixed-income or "inclusionary" project can help provide balance in a suburban community.

Urban Renewal As used here, this describes projects built on urban land on which existing structures have been or can be demolished, in order to prevent blight. Such projects offer the opportunity to "wipe the slate clean" and rebuild large areas, thereby taking advantages of economies of scale, as in the example of Society Hill in Newark. A potential advantage of

urban renewal projects is that it can be easier to build on relatively accessible land rather than tight in-fill sites where new construction has to be carefully integrated with existing structures. Both Society Hill and Vermont Plaza are inclusionary projects in which BH funds were part of a package of incentives offered to the developers to build such housing, in order to attract the middle class back to inner-city neighborhoods. A major challenge facing cities such as Newark and Atlantic City, when encouraging projects of this type is to reconcile the delicate balance between the forces of gentrification and the need to provide affordable housing.

Projects such as Delavan Court in New Brunswick suggest a good model for how to do this. While the townhouse complex is on the site of a former garage (not a cleared slum, it demonstrates how developers have learned from the mistakes of urban renewal efforts of the past decade, where isolated blocks of apartment buildings were built on sites on which previously existing housing had been removed. Delavan Court is a scaled down version of a market-rate project nearby, which was also developed by DevCo as an experiment in lease-purchase. The new townhouses are designed to complement the scale, style and materials characteristic of the neighboring one- and two-family homes, built around 40 years ago. Rather than dislocate residents, the companion developments helped lure back a mixed-income population to live downtown.

Providing housing alone, however, is not enough to achieve this objective or revitalize blighted areas. Lower- and middle-income groups have different needs for shopping, schools, transportation, and social services, among other items. Vermont Plaza is an example of how inclusionary projects are vulnerable to socio-economic factors, such as the closing of a major place of employment (i.e. a casino) or the

Findings

Site Feasibility

Typically, the first step in any project is to conduct site-feasibility studies, including surveys, site borings, title searches and an analysis of site-planning restrictions and building codes, in order to determine whether a project merits further investment of time and money. What we found, however, was that over half of the total time spent in many of the projects studied — almost three years in one case — was devoted to resolving site-related problems. (The timelines which precede each project profile dramatically illustrate this.) In all nine projects, site-related problems were the source of some amount of delay and unexpected problems. Clearly though, urban, suburban and rural sites each have their own set of issues which affect development costs. Based on our sample, we observed that the difficulty of developing urban sites (generally previously built-on land) for new low-income housing is due in part to the problems of acquisition, clearance, relocation of existing occupants and the municipality's need to collect tax revenue in order to provide services. The challenges of developing suburban and rural sites (typically clear land) include overcoming local resistance, working with zoning restrictions, obtaining environmental permits and providing or extending infrastructure. Throughout the state there is the need to balance development with the preservation of scarce open space.

The findings of this study confirm the BH staff's notion that projects often coalesce around a site, whether or not it makes sense to develop that particular piece of land. It seems that inexperienced sponsors "get married to" their initial ideas regarding site selection and project type, even when the assumptions on which they are based later prove to be invalid. Of course, doing site-feasibility studies is no guarantee that unanticipated problems might not still crop up. For example, Sensit Development obtained borings on the Vermont Plaza site in Atlantic City in

exactly the same configuration as they had done for a previous project on a nearby parcel. However, once they began to dig, the developer discovered buried cars, refrigerators and oil tanks, and an unanticipated clearance bill of \$500,000. The need for construction contingencies even when a project has been studied should emphasize the extent of risk in proceeding without proper planning.

The cases of Society Hill, Monticello and Villa illustrate how difficult it can be, even with the help of the city, to assemble buildable parcels of sufficient size and to obtain clear title to land, especially where there have been multiple owners or the land has been acquired through improper foreclosure proceedings. These projects also illustrate how the need for extensive clearance (as a result of the sloppy demolition of previous structures or the presence of contaminated soils) adds significantly to the cost of building on urban sites. On the other hand, in the case of Delavan Court the developer selected a site despite the presence of an existing structure which had contaminated the soil, due to a shortage of available sites for affordable housing. While a certain site may be desirable despite the need for excavation, to clear debris and then replace it with engineered fill is an expensive operation. In the case of Villa, the ground was so full of rubble that it was more cost effective to build a basement in the excavated hole, than to add new fill and place the modular units on a slab-on-grade foundation. This forced the developer to change both the type of unit they were going to build and their marketing strategy.

Any site which requires the relocation of tenants presents major problems, due to the lack of suitable, affordable housing alternatives for residents. Tenant relocation caused a significant delay in the Society Hill project, for example. On the other hand, it is interesting to note that in the case of Monticello, the project's small scale and infill design enabled the developer to incor-

subsidy is to provide sponsors with public land for a nominal fee, often as little as one dollar. The Linden Place project in Moorestown provides an interesting model for other groups in this regard. The town had the foresight to create a land bank — a supply of appropriate building sites to fulfill its Mt. Laurel obligation. Taking the initiative enabled the town to shop for good deals, rather than be vulnerable to market fluctuations or limited to less desirable land. Being more selective during site acquisition minimizes the need for costly efforts to solve the problems of difficult sites later on. This approach enabled the town to control the development of its mandated quota of affordable housing, rather than be forced to accept a builder's remedy suit. Another useful strategy to be learned from Moorestown's experience, is that by leasing the land for Linden Place to MEND for one dollar for 99 years, MEND was able to avoid the tax abatement issue. The town zoned the site to restrict its use to affordable housing in order to protect the units in the event that MEND should lose control of the complex.

Budgets and Schedules

The third important task of project development, in addition to determining the type of project to pursue and evaluating the feasibility of the site, is to assemble a reasonable costs estimate and schedule. While this may prove to be a time-consuming task, if it is not done, a penalty is likely to be paid later when sites are proven unfeasible, schedules are extended beyond their contingency periods and budgets become too small. We observed that the less-experienced groups are often so eager to get their projects going that they predict overly optimistic schedules and budgets. Monticello is one example where a schedule and budget did not allow for any contingency plans or alternatives if things did not work out exactly as planned. While experienced developers also get caught with unanticipated costs (both Vermont Plaza and

Society Hill demonstrate this), they generally build adequate contingencies into their pro formas. And in cross-subsidized or inclusionary projects, cost overruns can be absorbed with higher prices or lower profit margins. However, nonprofits do not enjoy that option, making the need for accurate estimating of time and money even more important.

The amount of red tape involved in obtaining state and local approvals is a universally cited source of delays and frustration, the consequences of which unfortunately must be figured into schedules and budgets. Sometimes, as in the case of Delavan Court, even an experienced group can be unaware of the need for a particular approval. In most cases, the developers of the projects we looked at were aware that the long lead time for certain approvals (especially DEP and DOT) is a fact of life. Preparedness is not always enough, unfortunately, and even with the best planning, things can go wrong. For example, with Griggs Farm, the sponsor (Princeton Community Housing) hired a consultant to help with DOT's requirements for an access road. However, after a year of assurances from DOT staffers and the traffic consultant that DOT approval would be forthcoming, the developer's proposal was rejected. In another instance, Linden Place was held up for nearly a year as a result of a temporary backlog in DCA's plan-review division. Delays in the release of BH funds must also be taken into consideration. Snags occur at both the state and local levels.

4. Finance

The combination of the Housing Trust Fund, which finances Balanced Housing grants, and Regional Contribution Agreements (RCAs) make New Jersey a leader in how states can subsidize housing without federal assistance. In a recent interview, Rick Cohen, former Director of Housing and Economic Development in Jersey

ing concern. Jersey City's Jonathan Justice points out that putting together a financial package is further complicated since every funding source wants to be "the last one in" and each has its own reporting requirements. As a result, the "soft" cost component of these projects (i.e., for professional services such as legal, accounting and design) can add up to 20 percent of the total project cost. That figure would be even higher if staff administrative time were to be counted as well. While BH funds may only comprise a relatively small percentage of total investment in a project, they stimulate other funders to put up the remainder by establishing a level of confidence. Balanced Housing is the yeast causing the growth of low-income housing development in New Jersey. Therefore, BH can be more effective as the catalyst to help start projects, rather than as the "last one in" to finish them. Having an understanding of the impact of the timing of commitment of funds will help BH optimize this potential. The following describes some of the key sources of funds in the typical BH project.

Regional Contribution Agreements

Regional Contribution Agreements (RCAs) occur when a donor municipality trades off a portion of its quota of affordable units, as designated by COAH, by contributing towards units in a receiving municipality. They are an important part of the equation in three of the nine projects we studied while three other projects were developed in order to fulfill Mt. Laurel quotas. While early problems with the use of RCAs (e.g., at Delavan Court, negotiations took over one year and COAH's requirements seemed unreasonably stringent) have been ironed out, many of the groups we interviewed criticized RCAs as a problematic funding source. Difficulties arise since the actual dollar amount to be paid is not certified until the project is all set to go. Designation of an RCA contribution is not a guarantee that the donor town will actually have the money when the time comes to pay, unless

the funds have been written in as a line item in a town's budget. Moreover, although the donor town is fulfilling part of its affordable housing quota, the level of subsidy per unit does not begin to cover the unit cost, creating the need for multiple funding sources to make up the deficit.

Municipal Contributions

Municipal support — cash, expertise, land or regulatory exemptions — were another significant source of subsidy for these projects. Municipal funds can be channeled through direct appropriations, the allocation of CDBGs or obligated through a bond issue. Support can also include expediting approvals, zoning for higher density, assisting in the negotiation of RCAs and lining up state funding. Another form of municipal support is the establishment of linkage programs, which require developers to provide monetary or other contributions for housing in return for development concessions. The level of municipal support can affect how long it takes to develop a project as well as its cost. Jersey City, the state's most active user of Balanced Housing funds, is a model for how a municipality can be an active partner in the production of affordable housing. While the Monticello project suffered from some bad decisions early on, the city made a major commitment to fund it with nearly \$500,000 in direct grants, channeled housing-linkage monies and allocated income-tax credits.

Housing and Mortgage Finance Agency

The BH program is directly affected by the Housing and Mortgage Finance Agency (HMFA) as a lending institution and through its role in certifying RCA projects. We found that these groups are coordinating efforts. It is important for DCA and HMFA to continue to exchange information and work together to resolve problems in the development process, such as burdensome reporting requirements, when sponsors receive support from both agencies.

Findings

strates that inclusionary projects work better in areas with strong real estate markets, with the appropriate services and amenities.

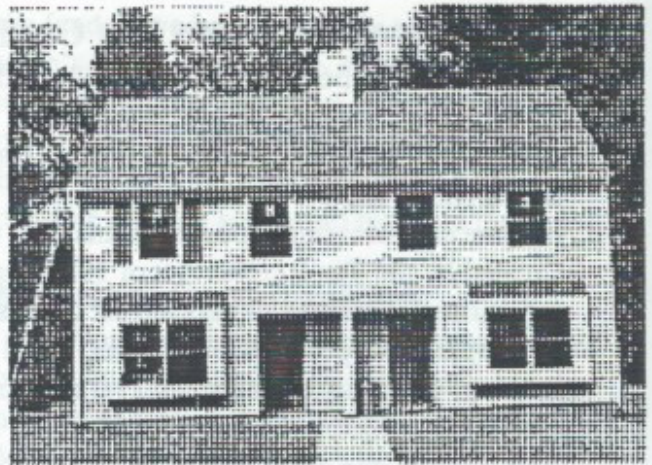
The inclusionary projects we looked at (Griggs Farm and Vermont Plaza) illustrate how mixed-income projects offer amenities, quality construction or location, in order to compete with other market-rate projects in the area. In Vermont Plaza the subsidized and market-rate units are essentially identical and feature a well-designed layout, quality materials and a full range of appliances. In Griggs Farm the common public areas include tennis courts, landscaped plazas and walkways. There is a wide choice of unit types, many of which feature decks, fireplaces and bay windows. Such attention to detail involves higher front-end costs, but can provide more lasting value for the same level of subsidy — namely, more durable buildings, more balanced communities and less stigma attached to subsidized housing.

Mixed-Use Projects

In theory, the benefit of mixed-use projects is the subsidy and cash flow provided by the commercial component. In reality, the legal and financial arrangements necessary for such developments are too complex for projects operating on tight margins. For example, in Monticello, legal complications over the transfer of public land for anything other than affordable-housing use became a test case for this use of the redevelopment law. The deal was also financially complicated by how to resolve the trade-off between offering the incentive of ownership to the commercial tenants while preserving the affordability of the rental units for fifteen years.

Tax-Exempt Bonds

Although the mixed-income project scenario is appealing economically, it raises certain legal issues for public housing authorities, which may be restricted to financing projects exclu-



Loantaka Way, Madison.

sively for low-income occupancy. Local housing authorities have always played an important role as financiers, and since the 1970s their role has expanded beyond traditional housing projects. The case of Loantaka Way is an example of a traditional project, in which the housing authority served as a channel for HUD money. The work of the New Brunswick Housing Authority provides an interesting model for a more active role. The City of New Brunswick created DevCo as its nonprofit development arm, endowed with the authority to issue tax-free bonds. Funds generated by the sale of bonds financed part of the construction cost of Delavan Court. The subsidy represented by the lower-cost loan enabled by the tax exemption was not sufficient in itself to pay for the project, however, and both BH and RCA money was needed to make the deal work.

Lease-Purchase Projects

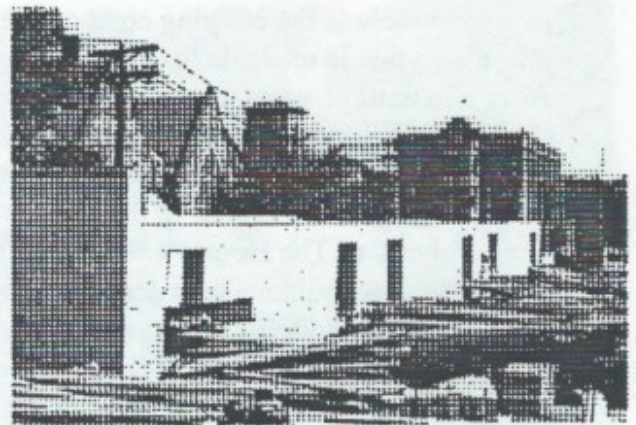
DevCo is also using its power to issue tax-exempt bonds to finance lease-purchase projects aimed at middle-income, first-time home buyers. Tax-exempt bonds generate low-interest loans to finance the project, keeping the monthly carrying costs relatively affordable. Applicants who qualify for the program begin by putting down \$1,000 initially, and lease the units. Monthly

Findings

Good design enhances the quality of life and can also reinforce a sponsor's social goals. For example, in Griggs Farm, Princeton Community Housing is not just building housing; they are creating a public environment with a strong sense of place, providing a common focus for residents in this mixed-income community. Creating a sense of community awareness also contributes to the security of the complex. As projects such as Griggs Farm, Delavan Court and Vermont Plaza demonstrate, a tight budget does not preclude good design. On the other hand, Loantaka Way and Monticello show how the desire to provide such features as recessed entries, balconies, site lighting or dishwashers created a conflict with certain non-BH funding sources, where "amenities" are prohibited even if they are affordable within the project's budget. We found that attention to the aesthetics within and without a project contributes to the well-being of the occupants. When people feel good about where they live, they are more likely to care about maintaining their building and the community over the years. The challenge facing the design profession is to fulfill its social responsibility and apply even greater care and creativity to the task of designing affordable housing than it does to more luxurious commissions.

Methods of Construction

Based on the nine projects, we found that some form of prefabricated construction — ranging from manufactured components to modular units — is typically used to control construction costs. Even with standard wood frame construction, which is appropriate and efficient for most low-rise residential projects, the use of prefabricated panels and trusses, such as in Griggs Farm and Linden Place, is now widely accepted by most builders and significantly speeds up the construction process. The advantage of using conventional wood-frame construction with the added efficiency of prefabricated components is that the system is known



Masonry ground floor, before installation of modular units, at Villa Santa Maria, Newark.

to the workers, is more flexible than current manufactured housing and is easily evaluated by building code officials. The benefits of prefabrication is not just limited to wood construction. The one high-rise building in the sample — Vermont Plaza — utilized a prefabricated concrete system since it was cheaper, quicker to erect and more efficient than a steel-frame structure. However, it is worth noting that within the metropolitan area there are other highly organized and economic forms of high-rise construction (e.g., flat plate) which do not involve prefabrication.

We found that modular construction was less expensive than conventional construction. To achieve these savings, however, certain conditions must be met. Specifically, all participants in the process — the development team, the manufacturer, the general contractor, city agencies, and funding sources — must be in agreement as to their individual responsibilities and the project's affordability goals. Otherwise, the resulting problems can be greater than with conventional construction. Sponsors should be prepared for potential obstacles in the areas of code compliance, coordination of site-built and manufactured portions of the job and the limited number of manufacturers able to provide appro-

Findings

that no more than 28 percent of a family's income can be used for housing, and 36 percent for overall debt. The qualification process itself comprises a significant portion of the total administrative costs of a project, eating up years of staff time. Often, a sponsor's staff must walk applicants through the process, assist them in clearing up past credit problems or establishing acceptable employment credentials and, in the case of Whitesboro, even help pay closing costs. BH, in response to the problem, is currently revising its rules to allow for more flexible pricing so as to meet the needs of applicants.

The HMFA and banks in the State's Banking Coalition are addressing the problem of downpayments and closing costs with innovative financial instruments. The New Brunswick Housing Authority has taken advantage of HMFA's new closing-cost assistance program — essentially, deferred loans — and reports that the demonstration project works well. The loan does not have to be repaid until the unit is sold. New Brunswick also worked with the MidAtlantic Bank to obtain reduced-rate loans for the DeLavan Court project. MidAtlantic is also willing to offer unsecured second liens on property to be used for closing costs. The appraised value of the unit secures the second mortgage in the event of foreclosure, when resale controls are removed.

But the difficulty in securing a mortgage and raising the closing costs is compounded by the need for private mortgage insurance (PMI). If banks were to keep mortgages for low-income housing within their own portfolios, applicants could avoid the need for PMI. Most mortgages are sold to the secondary market, however, which insists on PMI whenever a downpayment is less than 20 percent (normally the case for BH-supported projects; e.g., HMFA offers mortgages with 5% down). The PMI industry's inflexible standards for allowable debt ratios effectively make their rules more stringent for

low-income people than for the average homebuyer. Moreover, the industry does not seem to understand why the value of the mortgages on subsidized units is so low while their appraised value is high. PMI is unwilling to accept the logic that it is less risky to insure highly subsidized low-income units because of the built-in equity of the subsidy. The industry does not recognize that they share in the social responsibility to help solve the housing crisis and that there is a sound basis for re-examining its rules. Without affordable housing, the economy of the State will suffer.

The difficulties presented by traditional home ownership among low-income people suggests that a better alternative would be rental or non-traditional forms of ownership such as limited-equity cooperatives or community-owned housing. The 1986 Tax Act, however, has brought private development of low-cost rental housing to a virtual standstill, by eliminating nearly all of the write-offs for investors. Nevertheless, nonprofit groups are still willing to search for investors and create rental housing. For example, MEND actually prefers to develop rental housing since it can maintain greater control over the selection of tenants and the maintenance and management of facilities. Princeton Community Housing is willing to manage rental properties and has adopted a sliding-scale rent tied to income in order to achieve greater flexibility in determining criteria for affordability.

Cost Analysis

The following analysis of the construction costs of six of the nine projects is broken down by trade content, organized to compare project costs by component categories. The results are presented in five tables: Total Component Cost; Percent of Total Cost Excluding Site Development and General Conditions; Percent of Total Cost; Average Component Costs per Dwelling Unit; and Average Project Component Cost per Square Foot. Since the available information did not include completed construction costs, there may be some discrepancies with the final costs. "Soft" costs such as permits, licenses, professional fees, and the cost of land have not been included in this analysis. The standard method of cost analysis based on a breakout by trade is useful for monitoring the progress of construction and payments to subcontractors. This approach is limited, however, in its applications during planning and design. A component-cost analysis provides a tool for planning and design by establishing norms for the range of costs to be expected in various building types.

The tables compare the costs of three conventionally built and three modular projects. For the modular projects, the "unit cost" category covers all of the various components such as exterior walls, interior partitions, floors, etc. Additional costs for on-site construction are noted in two of the modular projects. Villa Santa Maria combines modular units with a masonry-block ground floor. In Monticello, brick veneer exterior walls and a built-up roof are added to the modular units. The cost of the site-built ground floor in the Monticello project is not included in these tables, however, since it will be used as commercial space.

The average cost of the conventionally built projects is \$71 per square foot and \$70,287 per dwelling unit. The average cost of the modular units is \$54 per square foot and \$59,176 per dwelling unit. This indicates a potential for

savings in the use of modular construction. This could be enhanced by the shorter construction period for modular projects, which reduces carrying costs.

Table 1 shows the cost of each component. Tables 2 and 3 show the percentage of the total cost for each component part, with and without site costs. Since conditions vary from site to site, it is difficult to establish a norm for site development costs. Site development accounts for nearly 25 percent of the total spent in rural projects such as Griggs Farm and Whitesboro. It amounted to less than eleven percent of the total in urban projects such as Vermont Plaza and Monticello. The costs of foundations, roofs, bathrooms, or plumbing fall within a closer range of the total percentage per project.

Tables 4 and 5 compare the average costs of the dwelling units with the square foot cost of each project, relative to the average number of square feet per unit per project. These tables show that the range of costs for similar components are relatively close. The costs per dwelling unit of exterior walls, for example, are within one percent, and interior partitions are within four percent, in each case. Altogether, the costs of the foundation, floor, exterior wall, roof, and interior partition components vary only fourteen percent in cost per dwelling unit, in this sample.

The charts provided in this report represent the beginning of a data base which can be used both by the Balanced Housing staff and the development team as a guideline for project evaluation and planning. We recommend that DCA enlarge the data base and compare different regions in the state as well as different residential building types. Such a system of component-based cost guidelines, adjusted for building type and local conditions, can quickly focus decision making on how to allocate available resources to achieve the maximum benefit.

Cost Analysis

Component	CONVENTIONAL			MODULAR		
	Griggs Farm	Vermont Plaza	Loantaka Way	Villa Santa Maria	Whitesboro	Monticello
	280 UNITS 944 SF AVG.	36 UNITS 930 SF AVG.	12 UNITS 1,030 SF AVG.	39 UNITS 1,178 SF AVG.	9 UNITS 906 SF AVG.	24 UNITS 1,200 SF AVG.
Foundation	7.24%	4.49%	8.53%	5.66%	7.85%	11.26%
Floor & Ceiling	7.04%	11.95%	9.31%	9%		
Exterior Walls	25.69%	23.65%	16.68%	5.54%		5.4%
Roof	8.02%	5.12%	8.69%			1.8%
Interior Partitions	17.12%	15.86%	12.98%	10.26%		
Kitchen	5.4%	5.27%	6.65%			
Bathroom	4.37%	2.48%	2.6%			
Plumbing	10.92%	11.91%	12.03%	5.13%	1.63%	
Electric	6.5%	8.62%	13.45%	5.14%	1.77%	
HVAC	7.7%	10.65%	9.08%	3.12%		
Unit				56.12%	88.75%	81.45%
TOTAL	100%	100%	100%	100%	100%	100%

Table 2: PERCENT OF TOTAL COST
(Excluding site costs and bond/general conditions)

Component	CONVENTIONAL			MODULAR		
	Griggs Farm	Vermont Plaza	Loantaka Way	Villa Santa Maria	Whitesboro	Monticello
	280 UNITS 944 SF AVG.	36 UNITS 930 SF AVG.	12 UNITS 1,030 SF AVG.	39 UNITS 1,178 SF AVG.	9 UNITS 906 SF AVG.	24 UNITS 1,200 SF AVG.
Site Development	\$17,283.90	\$4,166.67	\$11,225.00	\$9,270.77	\$11,329.33	\$5,875.00
Foundations	3,091.22	2,108.33	5,416.67	2,908.51	2,883.33	5,000.00
Floors & Ceilings	3,007.39	5,543.67	5,912.08	4,620.56		
Exterior Walls	10,970.58	10,976.33	10,595.00	2,846.97		2,400.00
Roofs	3,425.08	2,375.00	5,518.33			800.00
Interior Partitions	7,311.28	7,360.56	8,245.00	5,269.25		
Kitchens	2,307.84	2,444.90	4,426.25			
Bathrooms	1,867.84	1,152.32	1,545.00			
Plumbing	4,662.14	5,527.78	7,128.33	2,632.31	600.00	
Electric	4,662.14	4,000.00	8,541.67	2,641.02	650.00	
HVAC	3,292.14	4,944.44	6,180.00	1,600.00		
General Conditions	9,273.91	8,591.66	7,705.17	1,766.95	666.67	5,046.00
Unit				28,830.77	32,588.67	47,301.00
TOTAL	\$69,256.41	\$59,166.66	\$82,438.50	\$62,387.11	\$48,718.00	\$66,422.00

Table 4: AVERAGE COMPONENT COST PER DWELLING UNIT