THE ENTERPRISE FOUNDATION

# New Construction of Single-Family Housing for Infill

PROGRAM OPERATIONS

A Complete Overview of the Skills and Finances Needed To Run a Successful Program

Launched in 1982 by Jim and Patty Rouse, The Enterprise Foundation is a national, nonprofit housing and community development organization dedicated to bringing lasting improvements to distressed communities.


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# About This Manual

## What is new construction infill?

*New construction infill is the construction of single-family houses on vacant lots within existing neighborhoods. This approach is used to create more affordable housing while filling in the empty and often blighted areas of the community.*

*Successful New Construction of Single-Family Housing for Infill* is designed to help board members and staff of nonprofit community development organizations in the development of scattered-site newly constructed single-family houses. This manual can make that process easier and clearer. It should be used with the more detailed information and helpful documents available in The Enterprise Foundation's Developer Support System found on the Web at www.enterprisefoundation.org. This manual includes information on:

- Planning and executing a program
- Types of construction
- Costs of development
- Economics of running an in-house program
- Potential risks and ways to minimize them

This manual is part of the *Program Operations* series within The Enterprise Foundation's Community Development Library™. The series provides detailed information on the housing-related programs used most by nonprofit organizations. Other manuals in the series include information on:

- Single-family acquisition and rehabilitation
- Single-family subdivision new construction
- Multifamily new construction
- Multifamily rental housing through renovation
- Scattered-site rental housing
- Home improvement programs
- Supportive housing
- The HOME Investment Partnership Program

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# Introduction

This manual investigates options and recommends practices for efficiently creating a new construction program of single-family homes on infill lots. In it, you can investigate ways to control land and match potential purchasers and potential builders using a design-build or turnkey approach to scattered-site development. For the purposes of this manual, "scattered site" development refers to a few units, scattered throughout the neighborhood, built to replace unsafe buildings or trash-strewn lots that may hinder community revitalization.

## WHEN TO CONSIDER INFILL NEW CONSTRUCTION

- When land is available in the neighborhood

  In many cases some vacant land should remain vacant. Perhaps it is contaminated or there exists a need for more green space in the community. Nevertheless, many neighborhoods still contain buildable low-cost lots. For many community development organizations, infill new construction is an important component of a comprehensive strategy. Once the nonprofit has restored the available housing stock, the next step may be to fill in the missing pieces. The restoration of the architectural fabric of the community helps to affirm the new economic vigor and overall appeal of the neighborhood.

However, cost may be one impediment to infill new construction. Particularly in the boom cities of the Southwest and far Northwest, the only available land may be exceedingly expensive. Unwillingness of city and state governments to transfer vacant government-owned properties for redevelopment may present another obstacle.

- When it's less expensive than other development options

  If the cost of rehabilitation exceeds the replacement cost of an equivalent three-bedroom house, it's time to consider new construction. In general, renovation is not cost-effective unless it is performed in a disciplined, selective way or unless gut renovation is feasible. If the housing stock begins to deteriorate beyond a certain percentage, say 25 percent, it is very likely that new construction can be accomplished at a lower per unit cost with a more modern layout.

# Development Process

Infill new construction involves matching land, a purchaser and a builder with acquisition and construction financing and permanent mortgages. This process includes six steps: one planning step (strategic and program planning) and five implementation steps (program setup, purchaser qualification and site control, loan packaging and contractor award, construction, and final closing and warranty).

For more detailed information about the development process, see The Enterprise Foundation's Developer Support System at www.enterprisefoundation.org.

## STEP 1

### STRATEGIC AND PROGRAM PLANNING

Evaluate the neighborhood, the local housing market, the available financing and the strength and diversity of your development team before you decide to embark on an infill new construction initiative. Base this decision on facts and careful study, not merely the desire of a few staff or community or board members to see some new houses in the neighborhood.

## STEP 2

### PROGRAM SETUP

Structure your development team and financial parameters to fit your anticipated project pipeline. A qualified team includes a pre-purchase mortgage counseling organization; a builder who also designs, builds and potentially finances single-family projects; and a real estate agent who will market the properties to targeted groups. Balance the board's mission to house neighborhood residents with the economic realities of construction and lot costs, as well as the income and credit restrictions on mortgage financing.

## STEP 3

### PURCHASER QUALIFICATION AND SITE CONTROL

Potential purchasers can be referred from real estate agents and through outreach and marketing programs run by the nonprofit or the selected pre-purchase mortgage counseling agency. This pool of interested buyers is rapidly prequalified using short credit checks and a simple one-page application. Each client should be advised on the credit requirements, home ownership training and down payment funds needed to buy a home.

Your organization should also start to build a stockpile of buildable lots for constructing housing in your target area through donations, purchases, and option or contingent contacts.

## STEP 4

### LOAN PACKAGING AND CONTRACTOR AWARD

At the outset, you must match the lender and the contractor or design-builder with the landowner, and make sure that the prospective house will be available at the time the buyer will have sufficient funds to purchase it. The nonprofit's role will include coordinating the construction loan and permanent mortgage applications, being involved in housing design and cost estimating, coordinating the construction bid process, and setting and negotiating the acquisition price.

Additionally, the nonprofit should gain agreement with the home purchaser on a final purchase agreement and provide home-owner training. Needless to say, it is a complicated process that requires skill, patience and — more often than not — charm.

The nonprofit also needs to come up with accurate estimates of the length and cost of the development process. When coordinating the needs and expectations of this many people, almost nothing is as important as a clear, realistic timeline that is acceptable to all.

## STEP 5

### CONSTRUCTION

Now it is time to build the home. If you are new to this business use a *design-builder* to do the actual construction. A design-builder is a construction firm that can take the construction process from drawings and permits all the way to the sticks and bricks.

This manual assumes that a design-builder is used. The reason is simple: Community development organizations can add tremendous value to an infill program through their knowledge of the market and local politics. Design-builders enable you to match your talents with those of a construction firm to create housing. Actual construction will be complicated and costly for you. Unless you intend to create a separate business line from development, it is best to entrust it to a professional.

In the construction stage, oversee and assist the design-builder. Oversight consists of making sure that the house is constructed on time, on budget and according to the specifications contained in your agreement with the builder. *This can be a very risky phase*, as construction on many buildings takes more time, costs more and may not be of the right quality. Weekly meetings, clear communication among all parties, and decisive action when schedules or budgets are not being followed help to keep construction on track.

## STEP 6

### FINAL CLOSING AND WARRANTY

When construction is completed and approved by all lending sources, assist the buyer in the initial transition to home ownership by helping out at purchase and mortgage closing. You may also provide home maintenance training for the purchaser and warranty follow-up services for the home. At this stage, obtain program evaluations from both the contractor and the buyer, and celebrate your success!

# Construction Types

While this manual assumes you will contract for design-build construction with a local builder, you should also be familiar with the three types of construction available: stick-built, modular and panelized construction.

**Stick-Built Construction —** Carpenters take individual pieces of lumber and connect them to create a building on site. This usually involves using some pre-built components such as roof and floor trusses, pre-hung doors, pre-manufactured kitchen cabinets and factory-produced staircases. This construction method works well in very small developments (one to five units) and very large ones (more than 70 units). In small developments with low overhead, family-owned-and-operated contractors can often deliver a product at significant savings. On large sites, the field workers and subcontractors become familiar with the individual models, gaining great efficiency in both production time and cost.

Stick-built construction is the most labor-intensive building process and is therefore dependent on a pool of relatively skilled and available carpenters, roofers, drywallers, etc. Be aware that in cities surrounded by rapidly growing suburbs, it may be difficult to compete for carpenters and subcontractors when $200,000 and $300,000 houses are being constructed nearby.

Stick-built housing has the widest market and local code acceptance. In areas of the country with hurricane and earthquake requirements or specialized design standards, using stick-built construction is usually the easiest way to comply with local standards.

**Modular Construction —** Large sections of the house are built in a factory and shipped to the site for assembly. These large boxes are set on a permanent foundation, fastened together, hooked up to utilities and finished for final occupancy. Modular projects work especially well in mid-sized (15 or more units) developments, but any project can benefit from the factory's bulk purchasing of materials. Modular construction provides savings in architectural fees and the potential for decreased construction time, but these advantages can quickly evaporate when developers decide to finish basements.

Modular construction is a great option when workers are difficult to find or seasonally available. Usually the design personnel have excellent stock plans and target middle-income home buyers. It is not recommended that you hire an architect to help redesign the standard modular product to meet your clients' needs. Use an engineer to lay out the site, design the foundations and provide job site inspections. The modular plant must be within 250 miles of the development site or the cost of shipping the unit can seriously decrease any cost advantage.

In some jurisdictions — often in urban areas — the local code officials have little if any experience with modular construction. This can result in significant delays in project approval.

**Panelized Construction —** Large components, usually walls, kitchens and bathrooms, are manufactured in a plant and transported to the building site. There they are used in conjunction with traditional stick-built methods to construct a home. Panels may either be open wall or closed wall. In a closed-wall system, sealing has been applied to the interior finish (usually made of gypsum board) in the plumbing, electric and insulation areas before field installation. The exterior walls of stressed skin are created using plywood or other sheathing chemically adhered to a foam core. These panels are exceptionally well insulated and energy efficient. However, stressed skin is often unfamiliar to local building inspectors and usually requires extensive scrutiny before being approved for construction.

Panelized construction makes sense where there is a local factory with a relatively large repertoire and the local contractors are highly familiar with the panelized system. Do not use a closed-wall panelized system unless the product has been built at least twice before, each time with a minimum of eight units of the model you are choosing. Just like the first released version of computer software, the first released version of closed-wall panelized units may contain a great number of "bugs." Unfortunately, these bugs can be very difficult, and expensive, to fix once installed. Code officials generally look at open-wall panelized construction in the same way as stick built, while closed-wall panelized construction receives the same reaction as modular.

# Development Costs

The following is a development budget itemizing all costs for a typical new house located on a buildable lot. This budget assumes no additional costs for infrastructure (streets, curbs, sidewalks or bringing utilities to the site), since they would be already available at the site.

Costs are based on an average three-bedroom, two-bath, 1,200-square-foot house. All line-item costs will vary in different regions.

**Development Budget**

| | Average Per Unit |
|---|---|
| LAND ACQUISITION | |
| Purchase price | $3,000 |
| Title report and settlement fee | 150 |
| Title insurance | 175 |
| Transfer tax, document stamps & recording fee | 100 |
| Environmental audit | 400 |
| Survey | 225 |
| Prepaid property taxes | 50 |
| **Subtotal land acquisition costs** | **$4,100** |
| CONSTRUCTION COSTS | |
| Direct costs @ $52 per sq. ft. | $62,400 |
| Hard cost contingency @ 5% | 3,120 |
| Builder's profit and overhead @ 16% | 6,240 |
| **Subtotal construction costs** | **$71,760** |
| PROFESSIONAL FEES | |
| Plans and specifications (included) | $0 |
| Sponsor's legal and audit costs | 100 |
| Financial packager | 300 |
| **Subtotal professional fees** | **$400** |
| FINANCING COSTS | |
| Origination fee on purchaser mortgage @ 1.00% | $51 |
| Interest on predevelopment loan $10,000 @ 3% for nine months | 180 |
| Interest on private construction loan $71,760 @ 12% for six months (Note: Predevelopment and construction loans are drawn down as needed. In this example it is assumed that, on average, 60% of the principal amount of these loans are outstanding at any time.) | 2,583 |
| **Subtotal financing costs** | **$2,814** |
| OTHER SOFT COSTS | |
| Appraisal | $275 |
| Application fee to subsidy | 15 |
| Other lender legal | 50 |
| Marketing | 200 |
| Prepaid hazard & builder's risk insurance | 200 |
| Utilities during construction | 150 |
| Working capital/reserve | 200 |
| Soft cost contingency | 65 |
| **Subtotal other soft costs** | **$1,155** |
| **NONPROFIT SPONSOR'S ALLOWANCE @ 9%** | **$7,221** |
| **TOTAL DEVELOPMENT COST PER HOUSE** | **$87,450** |

# Purchaser Financing

Purchasers typically get the funds necessary to buy a house from two sources: cash from the purchaser (down payment) and money from a lender (mortgage). Many lower-income households will not have sufficient cash for the down payment or sufficient income to qualify for the mortgage loan. As a result, cities and counties often have home assistance programs operated directly through public housing agencies or through funds granted to a nonprofit organization. The amount of public funds available is often based on the income of the home buyer (with an upper limit in most cases).

Calculate hypothetical financing scenarios before starting your program to help you understand the *economic constraints* of the program. Establish a target income group and the number of units to be sold for your project. Then play with the figures until the numbers balance. For example, the more public funds available per unit qualifies households with lower incomes, but then fewer homes can be constructed and sold with the same amount of public funds. If the figures show that people with a certain income can qualify for purchase, then you have a match if those same people are interested in buying a house in that neighborhood.

Here is one example of how purchaser financing is calculated.

**Monthly Housing Payment Calculation**

| | |
|---|---|
| HOUSE PURCHASE PRICE (Including all closing costs) | **$87,500** |
| ***Subtract* any buyer subsidy** by adding together any closing cost, down payment or second-mortgage grant programs available to purchasers. | – $35,000 |
| ***Subtract* any cash down payment** expected from the buyer. | – $1,500 |
| This is the **mortgage amount a buyer will have to finance** to purchase the house for $87,500. | **$51,000** |
| Based on a 30-year mortgage at 7 percent interest, this is the **monthly mortgage payment on $51,000.** | **$342** |
| ***Add*** the estimated monthly payments for property taxes and property insurance. | + $100 |
| **This is the principal, interest, taxes and insurance (PITI), better known as a monthly housing payment.** | **$442** |

To qualify to purchase this house selling for $87,500, a household must have a gross income (income before taxes) between $16,073 and $18,943 annually to pay $442 a month for the PITI. These figures are based on the general guidance of mortgage lenders that the payment is between 28 percent and 33 percent of the buyer's monthly gross income.

# Organizational Budgeting

It is very difficult to undertake infill new construction unless you produce at least 20 to 25 new homes annually. As a result, if you are new to this line of business, act initially as a coordinator and facilitator and become a full-scale developer later. It is not economically sensible to retain a real estate agent, a general contractor, an architect and an owner's representative on staff for less than 20 to 25 units per year.

The model program described in this manual begins with a search for sympathetic, efficient and highly experienced professionals who are woven into a team by the sponsoring nonprofit. There are many efficient and experienced nonprofits that offer one of the essential activities for infill new construction, such as housing counseling or construction management. Such organizations need to locate only those pieces of the development puzzle that they do not already represent.

The following chart details the annual production needed by a community development organization to generate the revenue needed to pay for in-house full-time staff of in an infill new construction housing program. Figures may differ by region.

| Activity | Salary & Fringe | Market Fee | Annual In-House Volume |
|---|---|---|---|
| Sales & Marketing | $18,000–$24,000 | Real estate agent 3% (of $87,500) or $2,625 per unit | 8 to 10 units |
| Construction Oversight | $18,000–$24,000 | $800 to $1,100 per house fee inspector | 22 units |
| Builder | $55,000–$65,000 | 16% (of $62,400) construction profit/overhead or $9,984 per house | 6 to 8 units |
| Project Coordinator | $35,000–$40,000 | $2,000 per unit developer fee | 16 to 20 units |

Even if you contract for services, you will have significant expenses in operating an infill new construction program — costs associated with setting it up, finding and contracting with outside agents and monitoring their performance.

The following annual budget is for a typical community development organization operating an infill program that will produce 20 houses per year. The budget assumes that the project coordinator will be on staff, while sales and marketing, construction oversight and general contracting will be done through fee-for-service arrangements.

### Nonprofit Infill Program: Annual Operating Budget

| | | |
|---|---|---|
| Staff | | |
| Executive director | 25% FTE | $20,000 |
| Project coordinator | 100% FTE | $35,000 |
| Administrative assistant | 50% FTE | $10,000 |
| Fringe | 25% of salaries | $16,250 |
| Office rent | | $6,000 |
| Telephone | | $1,200 |
| Supplies and postage | | $600 |
| Equipment maintenance | | $480 |
| Liability insurance | | $2,400 |
| Automobile mileage | | $600 |
| Legal and accounting | | $6,000 |
| TOTAL | | $98,530 |

With annual costs close to $100,000, you can see why you would need to produce 20 units, each with an average per unit fee of $4,950, in order to break even.

FTE = Full-Time Equivalent

# Risks and Their Solutions

### SITE DEVELOPMENT PROBLEMS

In most urban neighborhoods, any available land was previously built upon. Most nonprofits can only afford a mid level of site investigation on small parcels. This combination may lead to unpleasant surprises when the heavy equipment begins to excavate for the foundation or basement — such as $10,000 or $15,000 in change orders in the first week of construction.

**Solutions** — Thorough site history investigations can help minimize surprises but will never eliminate them. The best solution is to assume the total removal of the old soil down to bearing capacity in the footprint of the house. If this money is not used, it can be credited to principal or used for various upgrades.

### PURCHASER FALLOUT

In a program where the purchasers and the design-build organization are wedded before the structure is built, the potential for cold feet or sudden financial hardship can spell disaster. Buyers lose jobs, back out when faced with the realities of a 20-year mortgage or reject the finished home. Sometimes financing hits many delays, especially for programs that use multiple sources of public and private financing. When a delay in tenancy happens, the costs of carrying the unsold home need to be covered by somebody.

**Solutions** — Organizations should develop a large pool of pre-approved purchasers to whom the completed property can be re-marketed. It may be tempting to build a number of homes on spec with the hope of marketing them once completed. In rebounding neighborhoods, this can lead to long sales periods with little certainty about the final purchase price.

### CASH FLOW PROBLEMS

Most of the fees generated from this model of an infill new construction program are only available when the property sells. Until then, the nonprofit developer must front overhead and technical service costs.

**Solutions** — Many organizations obtain an operating line of credit to pay for upfront development costs. And many try to secure an operating subsidy for administrative staff that is not dependent on the sale of the new homes.

### LOW APPRAISALS

There may be few, if any, comparable new construction units when the program begins. This usually leads to very low appraisals for the completed home.

**Solutions** — First mortgage financing will be limited to a percentage (often 95 percent) of the appraisal amount. Low appraisals will require principal write-down subsidies, land write-down subsidies in high-cost areas and other methods used by public agencies to make newly constructed housing economically feasible in low-cost areas.

# Notes

## THE ENTERPRISE FOUNDATION

The Foundation's mission is to see that all low-income people in the United States have access to fit and affordable housing and an opportunity to move out of poverty and into the mainstream of American life. To achieve that mission, we strive to:

- Build a national community revitalization movement.
- Demonstrate what is possible in low-income communities.
- Communicate and advocate what works in community development.

As the nation's leader in community development, Enterprise cultivates, collects and disseminates expertise and resources to help communities across America successfully improve the quality of life for low-income people.


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