

PLANNING AND URBAN DESIGN STANDARDS

**AMERICAN PLANNING
ASSOCIATION**

EMINA SENDICH
Graphics Editor



JOHN WILEY & SONS, INC.

This book is printed on acid-free paper. ∞

Copyright © 2006 by John Wiley & Sons, Inc. All rights reserved.

Published by John Wiley & Sons, Inc., Hoboken, New Jersey.
Published simultaneously in Canada

No part of this publication may be reproduced, stored in a retrieval system, or transmitted in any form or by any means, electronic, mechanical, photocopying, recording, scanning, or otherwise, except as permitted under Section 107 or 108 of the 1976 United States Copyright Act, without either the prior written permission of the Publisher, or authorization through payment of the appropriate per-copy fee to the Copyright Clearance Center, Inc., 222 Rosewood Drive, Danvers, MA 01923, (978) 750-8400, fax (978) 750-4470, or on the Web at www.copyright.com. Requests to the Publisher for permission should be addressed to the Permissions Department, John Wiley & Sons, Inc., 111 River Street, Hoboken, NJ 07030, (201) 748-6011, fax (201) 748-6008, e-mail: permcoordinator@wiley.com.

Limit of Liability/Disclaimer of Warranty: While the publisher and author have used their best efforts in preparing this book, they make no representations or warranties with respect to the accuracy or completeness of the contents of this book and specifically disclaim any implied warranties of merchantability or fitness for a particular purpose. No warranty may be created or extended by sales representatives or written sales materials. The advice and strategies contained herein may not be suitable for your situation. You should consult with a professional where appropriate. Neither the publisher nor author shall be liable for any loss of profit or any other commercial damages, including but not limited to special, incidental, consequential, or other damages.

For general information on our other products and services or for technical support, please contact our Customer Care Department, within the United States at (800) 762-2974, outside the United States at (317) 572-3993 or fax (317) 572-4002.

Wiley also publishes its books in a variety of electronic formats. Some content that appears in print may not be available in electronic books. For more information about Wiley products, visit our website at www.wiley.com.

Library of Congress Cataloging-in-Publication Data:

Planning and urban design standards / American Planning Association.— 1st ed.

p. cm.

Includes index.

ISBN-13: 978-0-471-47581-1 (cloth)

ISBN-10: 0-471-47581-5 (cloth)

1. Building—Details—Drawings. 2. Building—Details—Drawings—Standards. I. American Planning Association.

TH2031.P55 2006

711—dc22

2005016319

Printed in the United States of America

10 9 8 7 6 5 4 3 2 1

REAL ESTATE DEVELOPMENT

FINANCING METHODS AND TECHNIQUES

Real estate finance is inherently complicated. Funds are needed from the moment the developer wants to “tie up” land, through predevelopment approvals, construction, lease-up, or sell out. In a property held for investment, or an operating business, such as a hotel, working capital may also be needed. Providers of funds expect a return, although the level of that return depends on their investment goals, the source of funds, and the level of risk in the project.

The presentation below is a summary and is, of necessity, incomplete in some ways.

DEBT AND EQUITY DEFINED

All funds involved in a deal are either debt or equity (although there are many complexities that sometimes make it hard to tell which is which).

Debt

Debt is funds lent to the developer or development entity. The debt carries an interest rate, has some form of due date or term, repayment expectations, and is an obligation to be paid. The developer must pay taxes and contractors before the debt to protect the lender from tax sales and liens, but must pay the lender before equity investors. Debt is usually secured with a note and a mortgage on the property. Lenders do not own the property.

Equity

Investors provide equity; in turn, they receive an ownership interest in the property. There may be multiple tiers of owners with varying degrees of risk. Owners may be general or limited partners, members of a limited liability company (LLC), a corporate owner, or a sole owner. In many cases, the developer will be a single-purpose entity, to limit liability in the event of a problem.

Owners' funds are at-risk. They are the last to be paid. They may share in available funds after debt on varied bases, but they are owners and take the highest level of financial risk.

VARIATIONS ON DEBT

Mezzanine Debt

Sometimes debt looks like equity. There can be many layers of debt, each one taking a mortgage (second, third, and so on). One common form in development deals is a second layer during construction that reduces the amount and percentage of equity. This type of lender gets paid after the primary lender and often has an interest rate that is contingent on the profit level in the deal. It usually has a cap to meet IRS regulations, but the rate still can be quite high.

Construction Debt

During construction, debt is used to pay construction costs, marketing, and soft costs, such as property taxes, insurance, and a portion of development fee.

Construction debt is usually provided on a floating-rate basis tied to prime or to the London Interbank Offering Rate (LIBOR). Construction loans usually are limited to 80 percent or less of construction costs, although in boom times and for preferred customers or with guarantees, 100 percent loans have been made. The borrower usually must guarantee construction loans, either personally or with other collateral.

Long-Term Debt

In a for-sale project, such as single-family homes, the end buyer takes a mortgage and provides the long-term debt. In investment projects, the developer/owner must obtain a mortgage. This is often called “take-out” financing, because it retires or “takes out” the construction loan. Sometimes the construction lender will require an advance agreement or “forward commitment.” Long-term debt usually carries a fixed rate, amortization, and term. The amortization period and term may be different: for example, a loan may amortize over 25 years but be due in 10 years or have its interest reset. Rates depend on overall financial market conditions and are often related to the rates on U.S. treasuries of similar duration.

Other Debt Arrangements

Larger corporate developers will have much more complex financial arrangements, involving major investment houses, bank lines, corporate bonds or other “commercial paper.” Similarly, retailers who develop and/or own their own stores may bring a blend of corporate equity (shareholder equity) and corporate debt from credit lines or commercial paper.

CONCEPTS UNDERLYING FINANCIAL STRUCTURE

The blend of debt and equity that applies to a particular project will be determined through negotiation with the lenders and investors. The investor/owner typically wants to maximize debt as long as the expected profit rate is higher than the cost of debt (positive leverage). Whatever amount that the first mortgage cannot cover must be covered by other loans from lenders taking more risk, public economic assistance or subsidies, or equity.

Lenders want to control risk and therefore want a margin of value or cash flow over and above the debt to ensure that they can recover their capital. As a result, their lending will be limited by certain measures. Which one applies and the level will also depend on the nature of the project, the amount of preleasing, the market character, the track record of the borrower, and other factors that contribute to risk. Among the key measures are the following:

Loan to value. Loans will be limited to a percentage of value that is expected to be present

upon completion. Value is determined by two of the three appraisal techniques—comparables and cash flow/income approach, but not cost approach (see below). If the project is a build-to-suit to sell, the loan would be based on the contract sale price. Loan to value ratios range from 65 percent to (occasionally) 100 percent during construction. For most types of investment properties, 75 to 80 percent is common.

Loan to cost. A property may cost more or less to build than it is worth. If it appears to be worth more than it costs, the loan may still be limited to a percentage of cost rather than value. This will depend on the nature of the property, the risk, and the borrower.

Debt coverage ratios. The debt coverage ratio is the property's capability to pay its operating expenses and mortgage payments. Available cash flow will be reviewed to determine this ratio. A debt coverage ratio of 1 is breakeven. A coverage ratio of 1:1 to 1:3 is typically applied to determine the amount of cash that can reasonably be applied to pay debt. Again, this will vary based on the type of property, risk, and borrower track record, among other factors. The cash available will be applied as a payment to determine how much debt can be supported at current interest rates and amortization terms.

PRIVATE FINANCIAL SOURCES

There are numerous entities that come in and out of real estate finance, depending on market conditions and strategies. The ones discussed below are among the primary sources of real estate capital; however, this is not an exhaustive list.

Private Equity

Private equity comes from a number of sources. For many smaller projects, the developer or development entity itself provides equity. For larger projects, equity partners are sought. These may be individuals or other companies. Many developers raise equity through private networks of business associates. Others may partner with corporate partners whose primary business is other than real estate. Other equity comes from companies specifically in the business of financing real estate. These companies may also provide loans and mezzanine funds.

Banks

Commercial banks most commonly provide construction period financing, but they may also provide other longer-term funds. Typically, banks are lenders to projects taking a first or second mortgage until the project is complete. In residential for-sale projects, the construction lender may also provide mortgages to buyers.

Credit Companies

Credit companies refer to a group of finance firms that are often engaged in a wide variety of financing activities for equipment leasing as well as real estate. Two of the most prominent at this time are GE Credit and GMAC Mortgage. As their corporate parenthood suggests, the companies' original mission related to industrial and automotive finance, respectively. Credit companies are a potential source for both debt and equity, often providing debt financing for development projects, including "mezzanine" loans that replace equity and earn contingent interest if the project is successful.

Investment Banks

Investment banking firms such as Goldman Sachs and Lehman Brothers have become involved in real estate both as development partners and portfolio lenders. In development, there are several examples of investment banks providing equity as joint venturers with developers for both large residential and retail projects. In many cases, the investment bank provides capital during the high-risk periods of pre-development and development. They expect premium yields as a result, often seeking to cash out at the end of the development period.

Pension Funds

Pension funds may be either lenders or providers of equity. They also may act as long-term owners of real estate either as development partners or buyers of completed projects. Pension funds are not in themselves taxable, with taxation deferred until payments are made to the pension recipient. This has an impact on their investment motivation. For example, a pension fund will have a great deal of difficulty taking full advantage of historic tax credits. Conversely, their perspective is often longer term and matched to the expected retirement pattern of those on whose behalf they are investing. Return expectations may also be tempered by tax considerations.

Real Estate Investment Trusts (REITs)

REITs are a special type of investment company required by tax code to pay out 90 percent of their earnings to shareholders to avoid taxation at the corporate level. Stock is generally publicly traded. REITs may be developers, development financing partners, lenders, or equity investors. Many are long-term holders of real estate.

Life Insurance Companies

Life insurance companies are typically both owners of real estate for their own account and permanent mortgage lenders. They may also be joint-venture financial partners with developers.

PUBLIC SOURCES AND ENRICHMENTS

Provided here are generally available public financing sources and enrichments. Each state and locality may have other specific programs that serve as one form of another of real estate development financing.

Tax Increment Financing

Most states have some form of tax incremental financing (TIF). Under TIF, some or all of the tax revenues

generated on increased value within a specified area is dedicated to support the redevelopment of that area. Much of the funding is used for infrastructure. However, in most of the states where it is permitted, TIF funds may also be used for site assembly and land write-down, rehabilitation costs, interest subsidy, or other forms of developer assistance. In exchange, profits are usually limited, and in many cases the locality will share in profits above a specified level.

Special Service and Assessment Areas

Called different things in different states, special taxing districts are often used for infrastructure improvements that would otherwise be the responsibility of either the municipality or the developer. This shifts the burden from existing residents directly to new residents. It is recommended that the developer's economics be reviewed to determine whether such an extra tax is needed or the pricing of the development in the market covers these costs. In rapidly growing areas where the price of housing cannot directly support new infrastructure, this can be a useful tool.

Historic Tax Credits

The federal government allows a 20 percent credit against federal income taxes for qualified rehabilitation costs of a certified historic structure meeting National Park Service standards. The buyers of the credits are usually corporations, which in turn become the equity investors in all or part of the deal. The actual use of the credits is quite complex, and the costs of meeting the standards sometimes call into question the economic utility of the credits. Nonetheless, there are many successful examples of using the credits to restore historic properties. There is also a 10 percent credit for rehabilitation of older structures (1936 and older), subject to various Internal Revenue Service rules. This credit is more likely to be passed through to whomever the investors are to enhance returns rather than attract a different class of investor.

Low-Income Housing Tax Credits (LIHTC)

There is a special tax credit for rental housing affordable to households whose income is below 60 percent of area median income (AMI). Available credits are limited by a dollar amount per capita set by Congress. Credits are obtained by applying to the allocating agency for the jurisdiction (typically the state, except in the case of the City of Chicago, which has its own allocation). Credits are based on approximately 9 percent of qualified development costs and are made for 10 years. A lesser amount of credit based on 4 percent of qualified costs is available for projects using tax-exempt bonds. The credits are sold to investor groups at a discount from face value to generate return to the investor. Proceeds are invested in the project as equity, sometimes covering as much as 60 percent of total costs.

Home Investment Partnership Program (HOME) Funds

The U.S. Department of Housing and Urban Development (HUD) provides funds to local government either by entitlement or through the states for housing development. These funds can be used inde-

pendently or in tandem with tax credits to support affordable housing developments.

New Markets Tax Credits

A recent addition to the toolkit of real estate finance for job-creating projects are New Markets Tax Credits (NMTC). Administered by the Department of the Treasury, the credits are provided over a period of seven years and enhance the return to the lender or equity provider allowing lower rates of return or interest. They are available for use in qualified census tracts. Some cities have applied for and received allocations. A number of private and not-for-profit organizations such as the Local Initiatives Support Corporation (LISC) have also obtained allocations that can be tapped by multiple developers for projects.

Tax-Exempt Bonds

Tax-exempt bonds can still be used for industrial projects and low-income housing projects. From a real estate finance perspective, they serve as lower-interest lending sources for both construction and permanent financing because the interest on the bonds is exempt from federal income tax. Their use is quite complex and subject to numerous rules; and in periods of low interest, the benefits are more limited than in periods of high interest rates.

FINANCING ISSUES

Planners and public officials are sometimes puzzled by the difficulties developers report in financing projects that meet public goals and follow cutting-edge ideas in planning and urban design. Issues have arisen with regard to mixed-use projects, downtown projects where there are no comparables, new urbanist developments, transit-oriented developments, and virtually any other new idea that has not been successfully built in recent years in that locality. These problems arise from certain structural issues in the financing community, including the following.

Single-Product Orientation

Many lenders and developers specialize in one type of product. The lender may not understand how a mixed-use project works and may be uncomfortable with unique attributes, such as shared parking. For example, the lead developer may not have sufficient experience with retail and office development if its primary experience is residential, causing concern for the lender.

Lack of Comparables

Lenders are limited by value, hence look to appraisers to certify that the likely value at the end of development is sufficient. An innovative project may not have nearby comparables for the appraiser to use in the "sales" approach to value, one of the three required approaches. Other appraisers with specialized expertise and experience may need to be found.

New Design Concepts

There are many examples here, but likely the most common is parking for retail projects. Lenders are accustomed to fields of parking in front of the stores, and have confidence in this configuration. Structured and underground parking, and even counting street

spaces toward the ratio, may require a special effort at market and traffic analysis to support the design. Again, examples from elsewhere in the country may help.

Developers or Investors

Most of the real estate industry consists of people who buy, sell, invest in, or manage existing properties. In many communities, these individuals possess the greatest knowledge of the local, existing market. They may be consulted; they may be sought to undertake development projects. Development, however, is quite different from investment only, and it is important to find the right participants and team that includes the developer, the sources of funding (investors), and those who will manage the property in the long term.

CORE DEVELOPMENT FINANCE PRINCIPLES

Development is market-driven and entrepreneurial. It is, therefore, intrinsic to development that new players will emerge, new financial instruments will be offered, and new ideas regarding what constitutes a good project will be offered. These will all require open-minded, but careful, consideration, focusing on the core principles covered here:

- The developer has extensive responsibilities for design and execution, not just the idea.
- The developer does take a great deal of risk, if the deal is properly constructed.

- A financing source is either an owner (equity), and gets paid last, or a lender (debt), and gets paid in some order of priority before the owners.
- Projects can and should be carefully evaluated economically.
- For desired projects, the public sector can often be a financial participant through “public-private partnerships” and in exchange for reducing risk share in profits.
- New ideas that appear promising can often be evaluated and validated from the experience elsewhere.

See also:

Tax Increment Financing

FINANCIAL PLANNING AND ANALYSIS: THE PRO FORMA

Financial analysis is essential to planning an economically successful development. All revenues, operating expenses, and development costs must be identified to ensure that the project will be able to cover its costs and generate a reasonable profit and return on investment. For-sale projects, such as single-family homes, townhouses, and condominiums, have a different financial structure from investment properties such as offices, retail complexes, hotels, and rental apartments. However, the commonalities in analyzing the two types are discussed below.

REVENUES AND OPERATING EXPENSES

The market largely determines the revenue levels that any project can attain, whether for sale or for rent. Studies of similar projects can help determine selling prices, rents, rate of absorption, and vacancy rates to use in analysis. Operating expenses are researched using comparable properties and industry studies.

For-Sale Projects

Revenues include base sale prices, upgrades, and parking spaces, depending on the market and property type involved. Sales prices are usually listed per unit; however, analytically it is important to relate prices to total gross square footage to be constructed. Thus, when prices are expressed per square foot, it must be determined whether the salable square footage includes garages, hallways, and other space outside the unit proper.

Ongoing operating expenses of for-sale properties are the responsibility of the end buyers. Expenses accrued during construction are almost entirely development costs; these are discussed below.

For-Rent (Investment) Projects

The primary revenue source of investment properties is rent, whether expressed as room rates (in a hotel), rent per space (for a storefront), monthly (for apartments), or annually by square foot (for most commercial property). Rent is generated on some measure of net-rentable space. In retail spaces, this is called gross leaseable area (GLA). In office buildings, there may be different definitions of gross space, net-rentable, and net-occupiable space. Definitions have become more standardized in recent years, but they still vary by market.

Investment properties have other minor sources of income, including parking rentals, vending, laundry, cable TV, and similar incidental income.

Operating expenses for rental properties include, among others, the following:

- Maintenance
- Security
- Utilities
- Repairs
- Painting and decorating
- Releasing fees
- Insurance
- Management fees
- Taxes
- Tenant improvements (capital)

Many of these costs are passed on to the tenant in the form of common area maintenance (CAM), operating expense pass-throughs, tax pass-throughs, and similar mechanisms included in the lease. Leases may be gross (including all operating costs), net (excluding operating expenses and taxes but not repairs, management fees, and insurance), or triple net (excluding virtually everything). Specifics vary from landlord to landlord and market to market. Even rental apartment leases can vary with regard to payment for utilities, repairs, and maintenance of appliances, for example.

DEVELOPMENT COST PRO FORMA

A development cost pro forma for a community shopping center is included here as an example. Key elements of the pro forma are discussed below.

Land Acquisition

Land acquisition reflects the results of the site assembly process. Depending on the stage of planning, costs here may be the actual cost (often including interest and taxes since purchase) or the contract or option price. Where a specific deal has not been reached, costs may be estimated based on sales of similar properties or appraisals.

In redevelopment projects, costs of relocation, legal fees for condemnation, and other similar costs are typically considered part of land acquisition.

Site Development and Improvement Costs

These costs are always site-specific and are, therefore, difficult to estimate without the help of an architect

and engineer. Costs are greater and more unique in environmentally sensitive areas and redevelopment projects.

Demolition

Demolition costs include both removal and disposal.

Site Grading/Preparation

On large sites, this cost category includes mass grading. It also often includes addressing soil conditions that impact the ability to build on the site. These may be soft soils of various kinds; environmental issues, such as wetlands mitigation or floodplains (subject to regulatory approval); or, in redevelopment, addressing rubble and other noncompactable soils. This latter item is a common problem, resulting in part from the intrinsic character of reuse of urban land, but also often the result of improper demolition procedures in which foundations were left in the ground and the rubble of the building dumped in a basement.

Environmental Issues

Remediation costs must be addressed in pro forma estimates. If Phase II environmental studies have been prepared, relatively accurate cost estimates will be available for contamination issues. However, standard rules of thumb for addressing these issues are not available.

Soil-Bearing Capacity Issues

Beyond site preparation, specific engineering measures may be required, such as providing engineered fill under foundations, use of extensive grade beams, or drilling for caissons to reach solid material.

REPRESENTATIVE COMMUNITY SHOPPING CENTER DEVELOPMENT COSTS

DEVELOPMENT COMPONENT	SQUARE FOOTAGE	COST FACTOR	TOTAL COST
Land Acquisition	678,720	\$10	\$6,787,200
Building Construction Costs			
Supermarket	65,000	\$74	\$4,829,994
Drugstore	15,000	\$ 84	\$1,254,864
Small Retail	89,000	\$98	\$8,693,751
Parking (Spaces)	680	\$3,500	\$2,380,000
Total Building Construction Costs	169,680		\$17,156,609
Site and Soft Costs			
Other Site Improvements	678,720	\$3.00	\$2,036,160
Environmental Cleanup		Lump Estimate	\$1,000,000
A&E	Hard Cost	4.0%	\$807,791
Construction Supervision	Hard Cost	2.5%	\$504,869
Permits and Impact Fees		Estimate	\$150,000
Real Estate Taxes During Construction			\$50,000
Legal	Per Square Foot	\$1.00	\$169,680
Leasing	Per Square Foot	\$6.00	\$1,018,080
Contingency	Hard and Soft Costs	5%	\$1,144,759
Financing Fees	Construction and Permanent	2%	\$545,346
Construction Interest	One-year, Half-Out Method	8%	\$1,090,692
Development Fee	Total Development	2.5%	\$811,580
Total Site and Soft Costs			\$9,328,957
Initial Year Operating Loss After Debt Service			\$1,768,113
Total Development Cost			\$35,042,879
Per Square Foot			\$206.52

Source: S. B. Friedman & Company.

Site Utilities and Extensions

These costs are specific to the location of connections and the design of the project. Streets, sewer, and water are typically the key utilities of concern. In some jurisdictions, however, there may be charges levied by electric, gas, and telephone companies to extend service to a site.

Parking

Costs vary greatly, depending on the type of parking. Surface parking is least expensive to construct; fully underground parking with ramps is the most expensive. Many residential building types include indoor parking on grade at a moderate cost.

Landscaping

Regulatory and market factors both drive this cost, which can range from trivial to substantial.

Off-Site Costs and Fees

Some developments will require improvements to off-site systems, to provide capacity to hook up sewer or water or relieve transportation bottlenecks, for example. In addition, many jurisdictions impose impact fees that are intended to cover capital costs of schools, parks, transportation facilities, or other public facilities.

Other Costs

Because site conditions and jurisdictions vary so widely, an analyst must think comprehensively to ensure that all relevant costs have been accounted for.

Construction Costs

Construction costs are central to estimating overall development costs as part of the pro forma financial projection. Construction costs are typically estimated several times during the development process, and then confirmed by bids prior to construction. Preliminary estimates can be made based on an outline specification or conceptual design, or, at the most rudimentary level, be based on gross square footage of a type of building. As the architectural design proceeds, increasingly detailed and accurate estimates can be prepared at the stage of schematic design, design development, construction documents, and final bid. The methods of obtaining estimates include the following:

- *Contractor estimates.* In many larger-scale projects, developers work with a general contractor from the beginning. The contractor provides estimates based on experience and records. Many residential developers are vertically integrated and include their own construction capabilities, hence estimate internally.
- *Estimating manuals.* Several companies produce cost-estimating manuals for use by lenders, insurance companies, developers, and others. These manuals are based on research conducted by the company on buildings actually constructed. Two commonly available ones are the *National Building Cost Manual* and *Means Square Foot Costs*. The manuals allow the user to consider the quality and complexity of the building in arriving at a cost estimate. Geographic adjusters are included to reflect costs around the country. The manuals typically include costs at the builder or contractor level, including architects fees, general conditions,

and contractor's profit. Other developer level costs are not included.

- *Architect and construction consultant estimates.* A third way to obtain cost estimates is to engage an independent cost estimator. Some architectural firms provide this service separate from design. There are specialty firms that provide estimates, typically as one of their services. Other services of such a firm can include construction oversight, construction administration, and construction monitoring on behalf of lenders or grantors.

Construction Cost Estimation Factors

No matter which source is used in estimating construction costs, an analyst must consider a number of factors:

- Building types
- Quality levels
- Key systems:
 - HVAC
 - Structural
 - Materials
 - Finish levels
 - Parking types
- Furniture, fixtures, and equipment (for certain property types)
- Tenant improvements

SOFT COSTS AND FEES

The total capital development costs of the project include a wide variety of soft costs. Each of these costs must be carefully researched and calculated to arrive at the total development costs against which returns are measured:

- Architecture and engineering
- Legal and consulting (other professional services)
- Taxes during construction
- Insurance
- Bonds and performance guarantees
- Development fees or general and administrative costs
- Marketing and commissions
- Financing fees
- Construction period interest
- Working capital

Many of these fees are objectively determined; they are what they are. However, several need some elaboration.

Development Fees or General and Administrative Costs

Lenders and investor partners allow these costs as a payment to the developer for the cost of producing and delivering the product. The developer may have given personal guarantees of completion and lease-up or cash flow; these fees help compensate for the value of such guarantees. The level of the fees depends on the complexity of the project, its size, the amount of risk, and the marketplace. A simple build-to-suit drugstore may garner a fee of only 3 percent. In contrast, a complex affordable housing project may provide for a 10 percent fee. The typical level of general and administrative cost for a U.S. homebuilder is 3.5 to 4.5 percent, according to the National Association of Home Builders (NAHB).

Marketing and Commissions

Marketing and commissions is another area of some complexity. Most developers pay outside brokers' commissions in addition to their own marketing costs. Those costs may include advertising, inside salespeople, and models, for example. In addition, inside salespeople may or may not share in general market commissions. Local research is needed to understand specifically how these costs may be incurred.

Financing Fees and Construction Period Interest

Financing fees and construction period interest (CPI) are also areas with great variability. The developer will pay a fee, often expressed as "points," for origination of each type of financing obtained. This may include third-party equity, the construction loan, and the permanent loan in an investment property. Developers often borrow as much of the construction cost as possible, typically 80 percent of peak outflow, but sometimes 100 percent will be borrowed, based on track record or additional collateral.

ECONOMIC FEASIBILITY

Investment Analysis for Rental Property Held for Investment

Once all of the costs have been estimated, the potential return on investment can be analyzed. If return is not sufficient, developers may ask for public assistance through tools such as tax increment financing, tax abatements, free land, or other tools used in a particular locale and at a particular time. It is essential to understand how net operating income, financing terms, and investor expectations interact to result in an economically feasible project.

Developers must provide competitive returns on investment, or investment capital will not be available to them—or they would rationally invest their own funds elsewhere. Real estate investments have many elements of risk, and are not liquid, in contrast to a stock, which can be easily sold. The tax benefits of real estate investment were severely curtailed in 1986, and most investments are evaluated on the basis of their cash returns. Generally, real estate investors look for returns in the upper tier of performance of alternative investments at a given time. There are industry studies that provide information on actual returns on total cost, typically for completed and "seasoned" properties. Return on equity is judged more anecdotally or researched on a case-by-case basis. Typically, real estate returns on equity must match the best-performing stock mutual funds and corporate equity returns to attract capital. There is a premium expected for investing in development deals, as compared to seasoned properties.

Returns on investment real estate are measured in several ways.

Return on Total Cost

In this measure, net operating income (revenues less cash operating expenses) is divided by the total cost of the project to determine the return. (This may also be called cash-on-cash, which is applicable only if the property is not partially financed with debt). The resulting factor is called the income capitalization rate (cap rate). This analysis is conducted two ways: annually after stabilization and discounted over time as an internal rate of return.

664 Financial Planning and Analysis: The Pro Forma

SAMPLE MEANS

Model costs calculated for a three-story building with 10-foot-story height and 22,500 square feet of floor area

			APARTMENT, ONE-THREE STORIES				
			UNIT	UNIT COST	% PERCENT OF COST	PER S.F. SUB-TOTAL	
A. SUBSTRUCTURE							
1010	Standard Foundations	Poured concrete; strip and spread footings	S.F. Ground	4.50	1.50	4.8%	
1030	Slab on Grade	4" reinforced concrete with vapor barrier and granular base	S.F. Slab	3.65	1.21		
2010	Basement Excavation	Site preparation for slab and trench for foundation wall and footing	S.F. Ground	.14	.05		
2020	Basement Walls	4' foundation wall	I., F., Wall	108	1.11		
B. SHELL							
B10 Superstructure							
1010	Floor Construction	Open web steel joists, slab form concrete, interior steel columns	S.F. Floor	12.50	8.33	12.5%	
1020	Roof Construction	Open web steel joists with rib metal dock, interior steel columns	S.F. Roof	5.55	1.85		
B20 Exterior Enclosure							
2010	Exterior Walls	Face brick with concrete block backup; 88% of wall	S.F. Wall	17.11	8.03	11.9%	
2020	Exterior Windows	Aluminum horizontal sliding; 12% of wall	Each	332	1.41		
2030	Exterior Doors	Aluminum and glass	Each	1219	.21		
B30 Roofing							
3010	Roof Coverings	Built-up tar and gravel with flashing; perlite/EPS composite Insulation	S.F. Roof	4.26	1.42	1.7%	
3020	Roof Openings	N/A					
C. INTERIORS							
1010	Partitions	Gypsum board and sound-deadening board on metal studs	S.F. Part.	4.86	4.32	27.1%	
1020	Interior Doors	15% solid core wood, 85% hollow core wood	Each	4.21	5.26		
1030	Fittings	Kitchen cabinets	S.F. Floor	1.92	1.92		
2010	Stair Construction	Concrete-filled metal pan	Flight	53.75	1.19		
3010	Wall Finishes	70% paint, 25% vinyl wall covering, 5% ceramic tiles	S.F. Surface	1.96	1.96		
3020	Floor Finishes	60% carpet, 30% vinyl composition tile, 10% ceramic tiles	S.F. Floor	4.61	4.61		
3030	Ceiling Finishes	Painted gypsum board on resilient channels	S.F. Ceiling	3.00	2.78		
D. SERVICES							
D10 Conveying							
1010	Elevators and Lifts	One hydraulic passenger elevator	Each	70.200	3.12	3.8%	
1020	Escalators and Moving Walks	N/A	—	—	—		
D20 Plumbing							
2010	Plumbing Fixtures	Kitchen, bathroom and service fixtures, supply and drainage	Each	15.48	7.74	12.7%	
2020	Domestic Water Distribution	Gas-fired water heater	S.F. Floor	2.28	2.28		
2040	Rain Water Drainage	Roof drains	S.F. Roof	.84	.28		
D30 HVAC							
3010	Energy Supply	Oil-fired hot water; baseboard radiation	S.F. Floor	4.88	4.88	13.6%	
3020	Heat Generation System	N/A	—	—	—		
3030	Cooling Generation System	Chilled water; air-cooled condenser system	S.F. Floor	6.17	6.17		
3050	Terminal and Package Units	N/A	—	—	—		
3090	Other HVAC Sys. & Equipment	N/A	—	—	—		
D40 Fire Protection							
4010	Sprinklers	Wet pipe sprinkler system	S.F. Floor	1.98	1.98	2.4%	
4020	Standpipes	Standpipe	S.F. Floor	—	—		
D50 Electrical							
5010	Electrical Ser./Distribution	600 ampere service, panel board and feeders	S.F. Floor	1.67	1.67	9.3%	
5020	Lighting and Branch Wiring	Incandescent fixtures receptacles switches A.C. and miscellaneous power	S.F. Floor	5.21	5.21		
5030	Communications and Security	Alarm systems and emergency lighting	S.F. Floor	.55	.55		
5090	Other Electrical Systems	Generator; 11.5KW	S.F. Floor	.16	.16		
E. EQUIPMENT & FURNISHINGS							
1010	Commercial Equipment	N/A	—	—	—	0.0%	
1020	Institutional Equipment	N/A	—	—	—		
1030	Vehicular Equipment	N/A	—	—	—		
1090	Other Equipment	N/A	—	—	—		
F. SPECIAL CONSTRUCTION							
1020	Integrated Construction	N/A	—	—	—	0.0%	
1040	Special Facilities	N/A	—	—	—		
G. BUILDING SITEWORK							
N/A							
				Subtotal	81.20	100%	
CONTRACTOR FEES (General Requirements: 10%, Overhead: 5%, Profit: 10%)				25%	20.33		
ARCHITECT FEES				8%	8.12		
Total Building Cost 109.65							

Source: Reprinted with permission from Means Square Foot Costs, 2004. Copyright Reed Construction Data, Kingston, MA 781-585-7880. All rights reserved.

Stephen B. Friedman, AICP, CRE, S.B. Friedman & Company, Chicago, Illinois

PART 6 IMPLEMENTATION TECHNIQUES

The internal rate of return is calculated by:

1. estimating a residual value at the end of a hypothetical holding period;
2. adding that value to the final-year cash flow; and
3. discounting back to the initial year of the project.

The result can then be compared to benchmarks in publications such as the *American Council of Life Insurers Investment Bulletin*, the *RERC Report*, and the *Korpacz Real Estate Investor Survey* from PricewaterhouseCoopers. Interpretations and adjustments must be made for risk, because the core data in these studies tend to focus on existing properties.

Return on Equity

Equity returns are calculated after considering financing that has been arranged or that could reasonably be expected based on market conditions. In this case, debt service is deducted from net operating income to arrive at cash flow after debt service. In many public-private transactions, there may be several layers of debt. Whatever cash is left is available to service equity. The same types of calculations are made as above, but only cash available after debt service and against equity, rather than total cost.

Other Measures

Investors may also measure how quickly their capital is returned. This is valid in restaurant projects, which typically have a shorter lifespan. They may also look at returns without considering residual value, or may argue that the property will have little value at the end of a holding period. This is not typically true, but can be in some high-risk situations.

They may also argue that they are holders, not sellers, and that a hypothetical sale to estimate a value is not relevant. This may be true, but there is still long-term value to be taken into account in arriving at the types of estimates that can be compared to industry benchmarks.

Finally, note that many developers do not hold the property. They “underwrite” their investment by seeking a higher expected return if all goes well, compensating them for their risk. They then often sell to an investor-owner at a favorable price because the risk is lower, with a typical target profit level on the sale of 20 percent.

Profitability Analysis of For-Sale Projects

In for-sale projects, profitability is typically measured as margin on sales. While there is still concern about

return on investment by the developer or its investors, profit margin is the benchmark measure. Profit margin is used because return on invested capital is quite volatile and can be greatly impacted by the length of time it takes to sell out a project. Indeed, if it ultimately takes too long, all profit may be consumed by carrying costs. However, the standard of profit margin is relatively easy to use. The National Association of Home Builders has prepared a benchmark study. Key benchmarks include:

- Cost of goods: approximately 75 percent of sales
- General and administrative costs: 3.5 to 4.5 percent of sales
- Net profit, excluding general and administration costs: 5 percent typically; 10 percent for the most successful builders.

These factors apply to the integrated homebuilder. If a project requires multiple layers of builders/contractors/developers, then there may be additional fees.

The table here shows the summary analysis for a typical for-sale housing development.

COMMUNITY SHOPPING CENTER INCOME, EXPENSE, AND RETURNS

Exhibit XX

Community Shopping Center Income, Expense & Returns

Internal Rate of Return (RR) 10% on Total Cost
Internal Rate of Return (RR) 19% on Cash Equity

Assumptions

Project Cost		\$35,042,878
Equity	19%	\$6,775,589
Mortgage Loan	78%	\$27,267,289
TIF	3%	\$1,000,000
Check		\$35,042,878

Financing Factors

Debt Coverage Ratio	1.25
Supportable Annual Debt Service	\$(2,624,063)
Inflation Rate	2%
Cap Rate	10%
Loan Term (years)	20
Interest Rate	7.25%

Operating Income

	Initial Occupancy	Building Area	Lease Rate (Net)	Gross Income	Vacancy Rate	Lease Term	Inflation Factor
Grocery Store	Year 2	65,000	\$17.00	\$1,105,000	0	10.0	1.2190
Drugstore	Year 2	15,000	\$20.00	\$300,000	0	10.0	1.2190
Small Stores	Year 3	89,000	\$25.00	\$2,225,000	5%	5.0	1.1041
Total SF/Operating Income		169,000		\$3,630,000			

Operating Costs

		Annual Cost
Management (% of Income)	5%	\$181,500
Reserves PSF	\$0.20	\$33,800
Common Area Maintenance (CAM)	\$3.00	\$507,000
Property Taxes	\$2.00	\$338,000
Total Operating Costs		\$1,060,300

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Year 11
Revenue	Occupancy	47%	97%	97%	97%	97%	97%	97%	97%	97%	97%
Rental Income	Construction	\$1,405,000	\$3,630,000	\$3,630,000	\$3,630,000	\$3,630,000	\$3,861,580	\$3,861,580	\$3,861,580	\$3,861,580	\$4,169,267
Vacancy Loss—		\$—	\$(111,250)	\$(111,250)	\$(111,250)	\$(111,250)	\$(111,250)	\$(122,829)	\$(122,829)	\$(122,829)	\$(135,613)
Small Stores											
Recoveries		\$—	\$400,000	\$839,205	\$855,989	\$873,109	\$890,571	\$908,382	\$926,550	\$945,081	\$963,983
Total Revenue		\$1,805,000	\$4,357,955	\$4,374,739	\$4,391,859	\$4,409,321	\$4,658,712	\$4,665,301	\$4,683,832	\$4,702,734	\$5,016,916
Operating Expenses											
Management Fee		\$(70,250)	\$(181,500)	\$(181,500)	\$(181,500)	\$(181,500)	\$(193,079)	\$(193,079)	\$(193,079)	\$(193,079)	\$(208,463)
Reserves		\$—	\$(33,800)	\$(34,476)	\$(35,166)	\$(35,869)	\$(36,586)	\$(37,318)	\$(38,064)	\$(38,826)	\$(39,602)
Common Area Maintenance		\$(507,000)	\$(517,140)	\$(527,483)	\$(538,032)	\$(548,793)	\$(559,769)	\$(570,964)	\$(582,384)	\$(594,031)	\$(605,912)
Taxes		\$(338,000)	\$(344,760)	\$(351,655)	\$(358,688)	\$(365,862)	\$(373,179)	\$(380,643)	\$(388,256)	\$(396,021)	\$(403,941)
Total Expenses		\$—	\$(949,050)	\$(1,077,876)	\$(1,095,804)	\$(1,114,090)	\$(1,132,741)	\$(1,163,345)	\$(1,182,751)	\$(1,202,544)	\$(1,222,733)
Net Operating Income		\$855,950	\$3,280,079	\$3,278,936	\$3,277,769	\$3,276,580	\$3,495,367	\$3,482,550	\$3,481,288	\$3,480,000	\$3,758,206
Debt Service		\$—	\$(2,624,063)	\$(2,624,063)	\$(2,624,063)	\$(2,624,063)	\$(2,624,063)	\$(2,624,063)	\$(2,624,063)	\$(2,624,063)	\$(2,624,063)
Equity Investment		\$(5,007,476)	\$—	\$—	\$—	\$—	\$—	\$—	\$—	\$—	\$—
Residual Value		\$—	\$—	\$—	\$—	\$—	\$—	\$—	\$—	\$—	\$21,070,819
IRR on Total Cost	10%	\$(35,042,878)	\$855,950	\$3,280,079	\$3,278,936	\$3,277,769	\$3,276,580	\$3,495,367	\$3,482,550	\$3,481,288	\$3,480,000
IRR on Equity	19%	\$(5,007,476)	\$(1,768,113)	\$656,016	\$654,872	\$653,706	\$652,516	\$871,304	\$858,487	\$857,225	\$855,225

Stephen B. Friedman, AICP, CRE, S.B. Friedman & Company, Chicago, Illinois

666 Financial Planning and Analysis: The Pro Forma

MIXED-USE CONDOMINIUM DEVELOPMENT FINANCIAL ANALYSIS

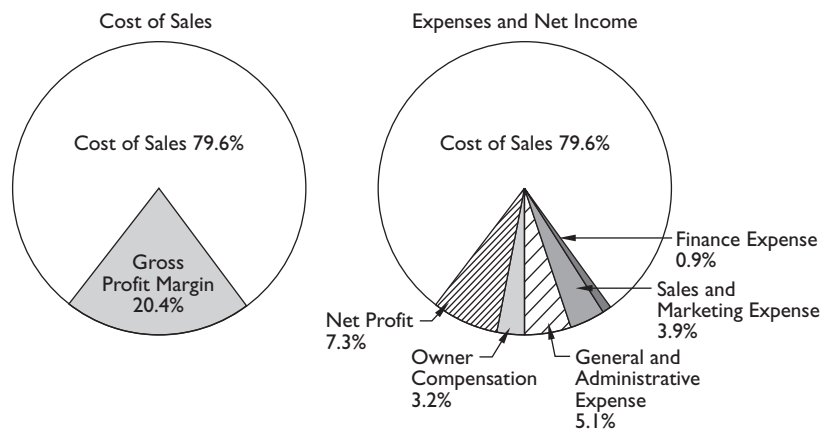
ASSUMPTIONS

Residential Units				Parking for Residential	
Number of Units			48	Enclosed Parking Total Area	16,502
Net Liveable Square Feet (Salable)			55,009	Enclosed Parking Spaced	48
Average Unit Size			1,146	Additional Salable Parking Spaces	27
Average Selling Price Per Net Square Foot			\$200	Visitor Spaces	5
Average Selling Price/Unit			\$229,204	Total Residential Parking	80
Average Selling Price/Unit Including Upgrades	10%		\$252,125	Retail/Commercial Parking	146
Retail Space				Total Parking, Residential and Commercial	226
Retail Space (net SF)			15,000		
Restaurant (net SF)			5,000	Construction Costs Per SF	
Commercial (net SF)			9,100	Residential (per net SF)	\$110
Total Commercial and Retail			29,100	Retail (per net SF)	\$105
				Commercial (per net SF)	\$90
				Restaurant (per net SF)	\$105
Total Net SF, Residential and Commercial			84,109		
Gross Building, Residential and Commercial			111,610		
INCOME (Residential Condominiums)					
Condo Sales	\$200	PSF, including balconies		\$11,001,800	
Net Upgrade Income (25% Margin)	\$5,730	per unit		\$275,045	
Extra Parking Spaces	\$10,000	per space		\$270,000	
Net Sales Proceeds				\$11,546,845	
Closing Costs	0.6%	of condo sales		(\$74,000)	
Commissions 6% of condo sales (\$676,308)					
TOTAL NET INCOME CONDOS				\$10,796,537	
Commercial/Retail Space Value		Based on NPV of Retail Income		\$5,820,000	Approx NOI, \$20 PSF Separate Pro Forma
TOTAL INCOME CONDOS AND RETAIL				\$16,616,537	
PROJECT COSTS					
				Cost	%TDC
Hard Construction Costs	\$118	per net SF		\$9,951,990	7.08%
Residential Units (including parking)	\$110	per net SF		\$6,050,990	46.87%
Retail Space	\$105	per net SF		\$1,575,000	2.20%
Commercial	\$90	per net SF		\$819,000	6.34%
Restaurant	\$105	per net SF		\$525,000	4.07%
Tenant Improvements	\$20	per net SF		\$582,000	4.51%
General Conditions				\$400,000	3.10%
Site Preparation Costs				\$887,001	6.87%
Demolition				\$0	0.00%
Relocation				\$0	0.00%
Soils				\$0	0.00%
Landscaping/Lighting				\$391,633	3.03%
Environmental Test and Remediation				\$0	0.00%
Sewer/Water/Detention				\$105,264	0.82%
Site Improvements				\$165,452	1.28%
Street and Parking Lot (including condo lot)				\$224,652	1.74%
Soft Costs				\$1,116,000	8.64%
Appraisal				\$25,000	0.19%
Architecture				\$290,000	2.25%
Engineering—All				\$75,000	0.58%
Legal				\$58,000	0.45%
Survey and Title				\$18,000	0.14%
Real Estate Taxes				\$150,000	1.16%
Permits				\$0	0.00%
Sales and Marketing				\$500,000	3.87%
SUBTOTAL DEVELOPMENT COST EXCLUDING LAND				\$11,954,991	92.59%
FINANCING FEES					
Construction Period Interest—Half-Out Method (80% of Subtotal DC)					
Subtotal Development Cost		80%		\$9,563,993	
Period (Years)			2.5		
Interest Rate		8.0%			
Construction Loan Financing Costs				\$956,399	7.41%
TOTAL DEVELOPMENT COST, INCLUDING FINANCING COSTS				\$12,911,390	100.00%
TOTAL DEVELOPMENT COST, INCLUDING FINANCING COSTS Per Net SF				\$154	% of income
NET PROFIT B/4 Land Cost (Net Total Income Less Total Dev. Cost)				\$3,705,147	22.3%
BENCHMARK PROFIT Incl. most Overhead				\$2,243,232	13.5%
LAND PRICE/(SUBSIDY) TO ACHIEVE BENCHMARK PROFIT				\$1,461,914	8.8%

Source: S. B. Friedman & Company.

Stephen B. Friedman, AICP, CRE, S.B. Friedman & Company, Chicago, Illinois

PART 6 IMPLEMENTATION TECHNIQUES



BENCHMARKS

Reprinted by permission from the 2004 edition of Cost of Doing Business Study: The Business of Building, p. 15, © 2004 by BuilderBooks.com, National Association of Homebuilders, Washington, D.C.

REFERENCES

American Council of Life Insurers. 2004. *Commercial Mortgage Commitments, Second Quarter 2004*. Washington, D.C.: American Council of Life Insurers.

Innerarity, Dean et al. 2004. *Cost of Doing Business Study, The Business of Building, Measuring Your Success*. Washington, D.C.: National Association of Homebuilders.

Korpacz, Peter. 2004. "Real Estate Investor Survey." *CMBS Insider* 17 (1). Ridgewood, NJ: Price Waterhouse Coopers LLP.

Real Estate Research Corporation, Real Estate Report. 2004. *The Good, the Bad, and the Real Estate Market: Waiting for the Dust to Settle* 33 (2).

DEVELOPMENT AND APPROVAL PROCESS

The information here outlines the real estate development process, focusing on the role and perspective of the real estate developer.

A real estate developer takes overall responsibility for the planning and execution of a development project. While many of the tasks outlined here apply to public sector projects, and real estate developers may be engaged to provide development management services for such projects, one of the distinguishing characteristics of a developer in private sector projects is taking financial risk.

The following information summarizes the major responsibilities of a developer of a market-driven project. For build-to-suit, “turnkey,” and projects undertaken for a nondeveloper owner, some of the activities noted may not be required, and different parties (owner or developer) may share various tasks and risks in ways that suit the specific situation.

DEVELOPMENT PROCESS

While presented as such, the development process is not essentially linear in nature. In many ways it is a creative, iterative process similar to the design process. An idea or concept is “sketched” (sometimes literally) and is subject to development, testing, review, criticism, and public review. Through that process it evolves into a final plan for execution. At each level of design development, a plan evolves in response to physical reality, market potential, and the input and goals of the public process.

Obtain Site Control

The developer first must obtain control of a site through purchase, option, contract for sale, or venture agreement with the owner. This is the first of many costs and financial risks in the development process. One should undertake the time and expense of planning for a site only if reasonably certain that the site can be developed. There are several general approaches to obtaining site control: acquisition, contracts, options, and public-private partnerships.

Acquisition

A site may be simply acquired, and the developer takes the risk of obtaining entitlements or other approvals. Prior to acquisition, there would typically be a due-diligence period during which investigations can be made into environment, soils, floodplain, wetlands, legal status, encumbrances, and other factors that have a basic impact on the development capa-

bility of a site. Outright acquisition prior to obtaining development approvals is common, where the intended development is a use-by-right or otherwise straightforward. Outright acquisition is also common among residential developers who maintain a land inventory. Once a property is owned, the developer can mortgage it to raise money for project costs.

Contracts

When there are more uncertainties, a developer uses contracts and options to obtain site control for the period necessary to determine whether they can proceed with the desired development. In a contract to purchase, there is typically an initial period of due diligence and planning. Depending on the terms of the contract, earnest money provided is refundable if the developer chooses not to proceed for almost any reason during this period. During this period studies and efforts might be more extensive than those during a direct purchase; they include market studies, zoning, and attainment of letters of no further remediation, for example. After some period of time, earnest money must go “hard,” and the developer must make a more significant financial commitment to the seller. This is the point at which, typically, the decision is made to proceed or not and is often extended by mutual agreement if the developer is pursuing the project aggressively but experiencing external delays, such as from a controversial rezoning.

Options

An option provides that at a certain point in the future the buyer or developer may purchase the property or proceed to contract to purchase. Usually, a price is set for the exercise of the option. The buyer pays for the option. Thus, an option starts out more expensive than a contract to purchase with a lengthy due-diligence period. However, a longer option may prove less costly than a short-due diligence period; moreover, the requirement to pay nonrefundable earnest money in a circumstance such as annexation or rezoning, which is uncertain, can take a long time.

Public-Private Partnerships

Municipalities often acquire land as part of redevelopment projects and seek developers to develop the property. In this situation, the developer has a form of site control once they are “designated,” which may be formal or informal, depending on the jurisdiction and their practice, and typically engages in extensive predevelopment activity to arrive at a redevelopment

agreement. Zoning or planned development approvals often occur in parallel to financing, and the developer achieves legal site control only when the governing body approves the redevelopment agreement. In this situation, the developer incurs significant expense and does not have the ability to borrow against the land. If the project does not proceed, all predevelopment costs are usually lost, unless there is a reimbursement agreement. On the positive side, the developer has not had to advance funds for land.

Once some reasonable form of site control has been achieved, site planning begins. A developer has legal standing to apply for rezoning in most jurisdictions, land to mortgage to help pay expenses (although many developers also have acquisition and development lines of credit), and some security that they can carry out the project if they are successful in obtaining entitlements and financing.

Assemble a Complete Development Team

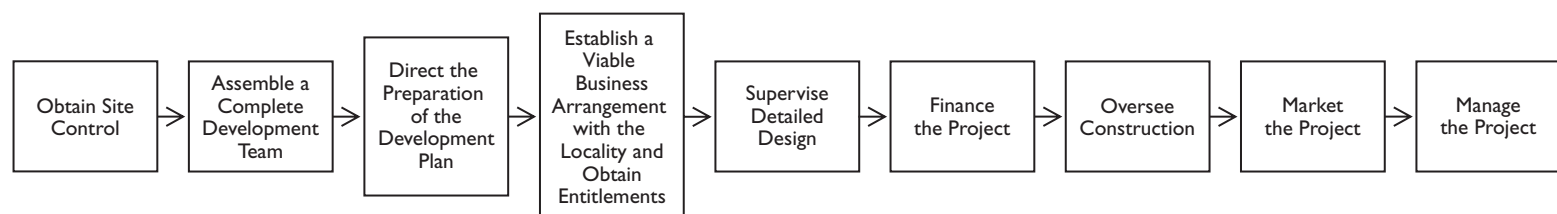
This step may include engaging architects, engineers, planners, financial consultants, and other professionals with additional skills that are not internal to the development company or team. There is a wide range of approaches to internal capacity, but usually the core development team includes construction and marketing, in addition to general development expertise.

Direct the Preparation of the Development Plan

The developer must prepare a plan that can receive governmental approval and be financed. This begins with schematic design and planning steps that form the basis for governmental approvals and the development program to be incorporated into agreements with the locality. Many of the issues of greatest concern to the public sector are addressed early in the design stage, including orientation to the street, parking, loading, circulation, height, and overall design concept. The basic elements of the process of creating a development plan include market potential, site capacity, economic feasibility, current zoning/entitlements, and concept plan/site master plan.

Market Potential

Private real estate development responds to market needs. Developers test market potential by both formal and informal studies, which may be prepared internally or by independent third parties (the latter



DEVELOPMENT PROCESS

Source: S. B. Friedman & Company.

Stephen B. Friedman, AICP, CRE, S.B. Friedman & Company, Chicago, Illinois

PART 6 IMPLEMENTATION TECHNIQUES

may ultimately be required). Market studies include several key elements:

- Competitive supply profile, including occupancy, rent, selling price, absorption pace, sizes, amenities, and features.
- Growth trends in the market area, including population, households, income, age, education, jobs, and other characteristics. Which trends are relevant varies by land use. For example, jobs in FIRE (Finance, Insurance, and Real Estate) and services drive office growth. Manufacturing seems to be the best predictor of growth in industrial space and hotel demand. Population, household formation, and changing age characteristics with associated lifestyle choices affect residential growth.
- Capture potential or requirement, including competitive capture and penetration analysis for some uses or requirements to fill the space for other types of projects. Many different techniques are used depending on the product type or land use under study and the kinds of data that are available.
- Development program/product and absorption potential, defining the types of spaces or housing products to be provided, including size, character, style, estimated absorption, and pricing. For example, developers would determine whether they want to build a town center or a strip center; single-family homes or condominiums; or an age-targeted complex or a mixed-age community.

Site Capacity

Site studies determine what can actually be built on the land involved. These studies must consider, among other things:

- Opportunities and constraints, including total area; current zoning; transportation access and capacity; location and availability of utilities; site constraints, such as topography, floodplains, wetlands, and other environmental issues; soil problems (particularly for redevelopment sites); and site opportunities, such as views, proximity to other land uses, and attractive features
- Streets, open space, and public facilities, either as rules of thumb, standards of required areas, or more usually by preliminary design
- Net buildable areas, considering the opportunities and constraints of the site
- Buildable parcels/lots to achieve a particular product type and density that is appropriate to the market
- Development quantities in terms of units, typically square footage, including consideration of parking, street requirements, and other physical issues of the site for the particular use.

Economic Feasibility

Based on the capacity and program, economic feasibility can be tested. This process is typically iterative, with modifications to the program based on economic results. Key elements of the economic feasibility study include the following:

- Development costs
- Land
- Site improvements
- Utilities

- Off-site requirements
- Hard construction costs
- Soft costs
- Development revenues
- Sales proceeds or rental income
- Investment/profitability assessment
- Rates of return on investment property
- Margin on sales on for-sale properties

Current Zoning/Entitlements

A developer must determine whether: a project fits with current zoning, special use approvals are required, or rezoning or planned unit development (PUD) are necessary. The program and product may have been changed to conform to zoning, or the studies may have resulted in a determination to seek zoning and entitlement changes to best meet the market and site constraints and opportunities.

Concept Plan/Site Master Plan

The specific form of the plan depends on the procedural requirements of the jurisdiction. Some jurisdictions allow preliminary review of plans or PUD applications, while others require more extensive initial submissions. Ultimately, the site master plan is highly detailed, including streets, utilities, lots, building footprints, and landscape plans, for example, to meet the requirements of the site approval process. This plan is used in financing and premarketing of the development.

Establish a Viable Business Arrangement with the Locality and Obtain Entitlements

Once a basic plan in place is considered physically suitable and economically feasible, a project must still be approved by a wide variety of agencies, and financing must be obtained before ground can be broken.

This task includes all the steps to negotiate a redevelopment agreement and obtain relevant entitlements. This may include rezoning, creation of a PUD, agreements on infrastructure, agreements on site remediation, establishing a price for land (if public land is involved), confirmation of responsibilities for public improvements, establishing development management agreements if the developer is to build any public improvements such as streets and parking structures, coordination of site assembly issues, negotiation of incentives, and agreements on fees or fee waivers, for example. Required governmental approvals may include:

- utility extensions;
- environmental clearances;
- annexation;
- impact fees/fee waivers;
- zoning and planned unit development approvals; and
- building permits.

Supervise Detailed Design

The later steps of the design process require special expertise to ensure that all issues related to regulations, marketing concerns, engineering issues, cost containment, and so on are addressed. This is the responsibility of a developer, who is personally liable ("at risk"), working with design and construction professionals. (A developer must also have equity

available to pay for detailed design, which often reaches 4 to 7 percent of costs prior to groundbreaking. Depending on site control and banking relationships, the developer often cannot obtain pre-development loans for these costs. If public land is involved, and transfer is not to occur until the project is fully financed to protect the public sector, the developer is generally going to be out-of-pocket for these costs. If the developer owns the land, he or she will likely be out-of-pocket for the land cost at this time.) Often a developer has internal construction expertise or has established a relationship with a general contractor who reviews the drawings for construction issues and prepares repeated cost estimates.

Finance the Project

A developer must arrange financing for a project, the details of which depend on the type of project. If the development consists of "for-sale" units, such as condominiums, a construction/development loan is arranged, typically for up to 80 percent of the maximum projected outflow. If there is a long-term investment hold (or a portion to be held, such as ground-floor retail), the developer must also arrange long-term financing. The developer is usually at risk for construction period financing. If a developer has other substantial collateral, that may be pledged instead of a personal guarantee. The developer is responsible for providing or raising the equity capital to balance the construction financing and/or permanent financing. This is typically 20 percent or more of the total project cost.

There are a number of key elements of financing a project:

- *Construction loan*, typically from a commercial bank and drawn as construction proceeds. There are other sources of funds during construction, as well. Some lenders, particularly non-bank lenders, provide debt with participation in profits, typically providing higher percentages of total project cost as debt than would otherwise be the case. In some cases, presales or preleasing commitments are required as trigger points to release the loan and start the project.
- *Equity drawn from the developer or investors*. This money is the most at risk and is only paid back if the project is financially successful. All lenders are paid first; equity providers are owners and take risk in projects. There can be multiple tiers of owners, partners, or members of limited liability companies.
- *Permanent financing/take-out loans*, which are used in investment-type properties and are held over a long period. The loan "takes out" the short-term construction loan. In many cases a "forward commitment" of permanent financing is needed to obtain construction financing.
- *End-buyer financing*. In some markets, developers make arrangements for homebuyer's financing, or may have their own mortgage brokerage company to place loans for their buyers, to facilitate the marketing process.

Oversee Construction

A developer must oversee the execution of construction. While an architect oversees the execution of his or her plans by the contractor, a developer reviews the work of both the architect and con-

