Real Estate Development
47th Annual Basic Economic Development Course

Emil Malizia
Research Professor
Department of City and Regional Planning
University of North Carolina at Chapel Hill
July 31, 2019
Assignment

- We will cover three major topics in this session:
  - Development Process
  - Development Roles
  - Development Decisions

  Please formulate a question about one of these topics

- You may also formulate a question on ANY economic development topic that you want to discuss
Part I

- Development Process
What is real estate development?

- The developer begins with an idea and executes many related tasks to create real property.

- Development ends when the property achieves “stabilized occupancy” (give the definition) or target sales.
Types of Property Development

- Horizontal development
  - Site development that installs infrastructure first and landscaping last

- Vertical development
  - New construction on greenfield site
  - Redevelopment = new construction on infill/brownfield site or rehabilitation/renovation of existing building
Unique Features of RED

- Land developers install infrastructure that becomes public to covert raw land to developable sites.
- Vertical development constructs durable physical assets that occupy unique locations for many years.
- Real estate development always requires balancing public and private interests.
- Redevelopment projects often require public-private partnerships to become “doable deals.”
Vertical Development Categories

- Income-generating or For sale
- Income-generating
  - Build-to-suit = development fee for prospective owner
  - Speculative development = build, operate & lease then sell
- Types of development
  - Industrial/manufacturing (often build-to-suit)
  - Office, Warehouse, Flex, Retail, Hospitality, Multi-Family
  - Mixed-use/Multi use projects are becoming the norm
Why should economic developers learn about real estate re/development?

■ Relevant to mainstream economic growth* strategies of job creation & tax-base expansion
  ▪ Install infrastructure to create an industrial park (horizontal development) on a greenfield site
  ▪ Construct a spec building (vertical development) to have product to market

■ Relevant to emerging economic development* strategies
  ▪ Downtown/employment center redevelopment (adaptive reuse of historic properties) to improve the workshop*
  ▪ Promote innovation potential & productivity growth of the economic (export) base
Development Process Timeline

A. Idea conception
   Idea refinement
   Search for site

B. Option land
   Continue refinement--feasibility studies, site design & financing alternatives
   Public review of project for “entitlements”

C. Project approvals from local government
   Contract negotiations with landowner, investors, lenders, tenants
   Sign contracts; Close construction loan

D. Begin construction
   Construction process
   Begin leasing

E. Complete construction
   Continue leasing

F. Achieve stabilized occupancy
   Close permanent loan &
   Begin property management

In months:
- A to B: 0 to 3 months
- C to D: 12 to 14 months
- E to F: 34 to 36 months
Key Tasks to Complete by C

- Raise needed equity
- Provide evidence of market demand to permanent lender
  - Market study for M-F projects
  - Preleasing for commercial projects
- Secure permanent loan commitment
- Secure construction loan commitment
- Provide construction loan guarantee
- Otherwise **STOP**
RED is riskier than RE investment

(See Appendix - slide 38)

- Entitlement Risk – Garner needed political support. NIMBY, BANANA, CAVE, NOPE, in response to low density sprawl => crowded schools & congested roads
- Construction Risk – weather, rocks, coordination of subs, material deliveries, accidents
- Market Risk – change in market fundamentals, business/building cycles (See Appendix - slide 39)
- Lease-up Risk – change in marketing conditions
- Financial Risk – change in interest rates, underwriting criteria, or investor expectations
Development Process--Review

- Definition of RED
- Unique features of RED
- Types of RED
- Why learn about RED
- Development Process & Timeline
- Forms of Risk

Questions or Comments?
Part II

- Development Roles
Who are the major participants in RED?

- **Private**
  - Consumers = space users (current, future, & public)
  - Producers = real estate development team

- **Public**
  - Local government most important but also state, federal & special districts
  - Public-interest/non-profit organizations
    - Community-Based Organizations
    - Economic Development Organizations
What are the roles of consumers and producers?

■ Current consumers
  ▪ Lease space for a price and period of time
  ▪ Purchase space
  ▪ Pay taxes & receive public services

■ What about public & future consumers?

■ Producers
  ▪ Develop land
  ▪ Construct space
  ▪ Lease/sell space
  ▪ Pay taxes/fees & receive public services/subsidies
Producers: The Development Team

- Real estate developer as the keeper (timeline A through F)
- General contractor (timeline D & E)
  - Subcontractors
- Lender(s)
  - Construction (timeline D & E)
  - Permanent (timeline F)
- Investors
  - Limited partners or LLC members (timeline B-F)
  - Tax-credit investors (timeline F)
- Professions (timeline B-C)
  - architects & engineers (structural, mechanical, environmental, transport)
  - land planners & landscape architects
  - appraisers, market analysts, accountants & attorneys
  - economic developer as facilitator through EDO
What are the roles of local government?

- Local government
  - Provide public infrastructure
  - Regulate the development process
  - Facilitate development in the public interest
  - Local government must avoid conflicts of interest when it both facilitates and regulates development
Role of government: Provide Infrastructure

- Water & sewer + other utilities including broadband
- Roadways & parking + transit
- Parks, open space, schools, civic centers, other public facilities
- Public services in addition to facilities & infrastructure
Role of government:
Regulate development

- Comprehensive planning
- Zoning & CIP
- Subdivision regulations & Building codes
- Project review and approvals (See Appendix - slide 40)
Role of government:
Facilitate development

- Economic developers can facilitate development with authority granted from local government
- Land development to create industrial parks & sites
- Employment center revitalization for better workshops
- Participate in public-private partnerships when public benefits exceed public costs
Economic Development Organizations (EDOs) as facilitators of development

- EDO potential roles in Public Private Partnerships (See Appendix - slides 41-46)

- Compare economic development benefits to required financial outlays and subsidies
  - Impact on innovation potential/entrepreneurship & the productivity of economic base sectors
  - Impact on the number & quality of jobs
  - Also consider fiscal, environmental, traffic impacts
  - How much assistance/subsidy does this project deserve?
Development Roles--Review

- Three Participants
- Roles of Private Participants
- The Development Team
- Roles of Local Government
- Focus on how EDOs can facilitate development

Questions & Comments
Part III

Development Decisions
Development Decision Making

- Evaluate many development options
  - Property types including mixed use
  - Location: region, city, neighborhood
  - Sites: greenfield and infill
- Compare project cost to projected value:
  - market test
- Compare site’s size & cost to site’s development envelope: political test
- Consider Exit strategy
- Most projects are deemed infeasible
Cost versus Value

**Cost estimates**
- Site cost (land only or land + building)
- Site development costs
- Construction (hard) costs per SF or unit
- Soft costs as % of hard costs

**Value estimates**
- Sales price per SF or unit
- Capitalized net operating income (NOI) (See Appendix- slide 47)
- Direct capitalization = NOI / capitalization rate
- Market or direct capitalization rate = NOI / sales price of comparable properties
Financial Analysis Tools

- B-of-E: compare current market cap rates to anticipated return on total development cost
- Static comparisons
  - Cost driven analysis
  - Market driven analysis
- Dynamic comparisons
  - Discounted Cash Flow analysis (DCF)
- Cash Flow Accounting - See Slide 47
Legend

- **GPR.** Gross Potential Revenue.
- **VAC.** Vacancy Rate.
- **EGI.** Effective Gross Income.
- **OEX.** Operating Expenses
- **NOI.** Net Operating Income.
- **DS.** Debt Service.
- **BTCF.** Before-tax Cash Flow.
- **GSP.** Gross Sales Price.
- **SE.** Selling Expenses.
- **NSP.** Net Sales Price.
- **UM.** Unpaid Mortgage Loan Balance.
- **BTER.** Before-tax Equity Reversion.
- **PVCF₁.** Present Value Cash Flow Yr. 1
- **PVER.** Present Value Equity Reversion.
## DCF for Income Generating Project

<table>
<thead>
<tr>
<th>Development</th>
<th>Operations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Year 0</td>
<td>Year 1</td>
</tr>
<tr>
<td>Acquisition</td>
<td>GPR</td>
</tr>
<tr>
<td>Site Development</td>
<td>-VAC</td>
</tr>
<tr>
<td>Construction</td>
<td>EGI</td>
</tr>
<tr>
<td>Hard Costs</td>
<td>-OEX</td>
</tr>
<tr>
<td>Soft Costs</td>
<td>NOI</td>
</tr>
<tr>
<td></td>
<td>-DS</td>
</tr>
<tr>
<td>Total Dev Cost</td>
<td>BTCF</td>
</tr>
</tbody>
</table>

Sale at end Yr. 5

GSP – SE = NSP – UM = BTER
Discounting to Calculate Present Values

At Time 0: \[ \text{RETURNS} = \text{PVCF}_1 + \text{PVCF}_2 + \text{PVCF}_3 + \text{PVCF}_4 + \text{PVCF}_5 + \text{PVER} \]

\[ \text{EQUITY INVESTMENT} = \text{TOTAL DEVELOPMENT COST} - \text{ORIGINAL LOAN} \]

At Time 0: \[ \text{NET PRESENT VALUE} = \text{RETURNS} - \text{EQUITY INVESTMENT} \]
Decision Criteria

- **Solvency**
  - Estimate monthly revenues & expenses from A to F
  - Be sure monthly CF > 0

- **Equity return requirements**
  - Cash-on-cash return = or > minimum required return
  - BTCF at stabilized occupancy per dollar invested (equity)

- **Change/test assumptions to maximize profits**
  - Compute IRR* to compare alternative projects with NPV > 0
  - BTIRR
  - ATIRR for tax credit projects
Development Decisions--Review

- Development Decision Making
- Cost vs. Value
- Financial Tools
- Decision Criteria

Questions or Comments?
Sources

- The Appraisal of Real Estate, 14th edition, Appraisal Institute, 2013
Part IV

- Questions & Discussion
Do you have questions or comments on any of the three major topics we covered today?

- Development Process
- Development Roles
- Development Decisions
Do you have a question on any economic development topic?
Thank you!
Appendix
Why is real estate development riskier than real estate investment?

Real estate is inherently **cyclical**

Real estate investment purchases cash flow from owners of (stabilized) properties at or beyond point F

Real estate development realizes an idea through the development process – points A through F

A-C: Manage/minimize cash outlays to remain solvent
D-F: Manage/minimize time expended (construction-period interest)

Real estate development requires a higher rate of return than real estate investment due to greater risk
Stages of the real estate cycle

A_1  Low construction
     Normal vacancies

A_1 - B  Demand exceeds supply
         Construction increases
         Rents rise
         Vacancies fall

B  Construction slows
   Rents stabilize

B - A_2  Supply exceeds demand
         Construction declines
         Effective rents decline
         Vacancies rise

A_2  Same as A_1
IDEA

Refine into project proposal

Is proposal consistent with current zoning?

File rezoning request

No

Yes

Is subdivided required?

Yes

No

Allowable by right

File site plan application

File conditional use permit request

Use permit option

Site plan option

Allowable by special exception

Determine final form of zoning

File subdivision request and record deed if approved

Is zoning variance required?

No

Develop engineering and architectural plans

File building permit application(s)

Yes

File request for variance

Inspect construction

File for certificate of occupancy

OPEN

Source: Adapted from reference 26, p. 403.
EDO Roles in Public Private Partnerships

- Lower costs in near term
  - Land lease / Land write-downs
  - On-site infrastructure development
  - Subordinated debt financing or guarantees
  - Other techniques
    - Lower soft costs: pro bono professional services, waive fees
    - Lower operating costs: property tax abatements/reductions
Mitigate risk by finding ways to reduce barriers in the near term
- Simplify public-private development agreements
- Shorten development review period
- Increase flexibility in construction inspections
- Consider density bonus or similar inducements
EDO Roles in Public Private Partnerships (page 3)

- Mitigate risk by increasing predictability/reducing uncertainty in the long term
  - Promote long-term viewpoint
  - Gain consensus on comp/small area plans
  - Fund capital improvements to implement plans
  - Focus public facilities/services on strategic sites
- Mitigating risk >> Lowering costs through direct subsidies
EDO Roles in Public Private Partnerships (page 4)

Idea conception

- RFPs for specific site
- Promote Sustainable Development concepts
  - Type: Mixed use
  - Form: Compact development
  - Location: Efficient use of existing infrastructure
  - Protection of environmental assets
EDO Roles (page 5)

- Idea refinement
  - Market studies
  - Environmental assessments
  - Small area plans
    - Business parks
    - Industrial parks
    - Downtown re/development
    - Infill development

- Option Land
  - Site assembly
  - Land grants or below market sales
  - Land lease
EDO Roles (page 6)

- Project reviews/approvals
  - Neighbors
  - Existing businesses & industries
  - Professional staff
  - Local elected officials

- Contract negotiations
  - Development agreements

- Construction process
  - Infrastructure development for project
  - Spec building
  - Green building techniques

- Leasing
  - Marketing assistance
Cash Flow Accounting

- GPI  Gross potential revenue (rental income)
  - less Vacancy Allowance equals
- EGI  Effective gross income
  - less Operating Expenses including property taxes equals
- NOI  Net operating income
  - less Debt Service equals
- BTCF  Before-tax cash flow