

Creating Urban Form: Conventional and Form-Based Codes



Bill Spikowski

November 6, 2007





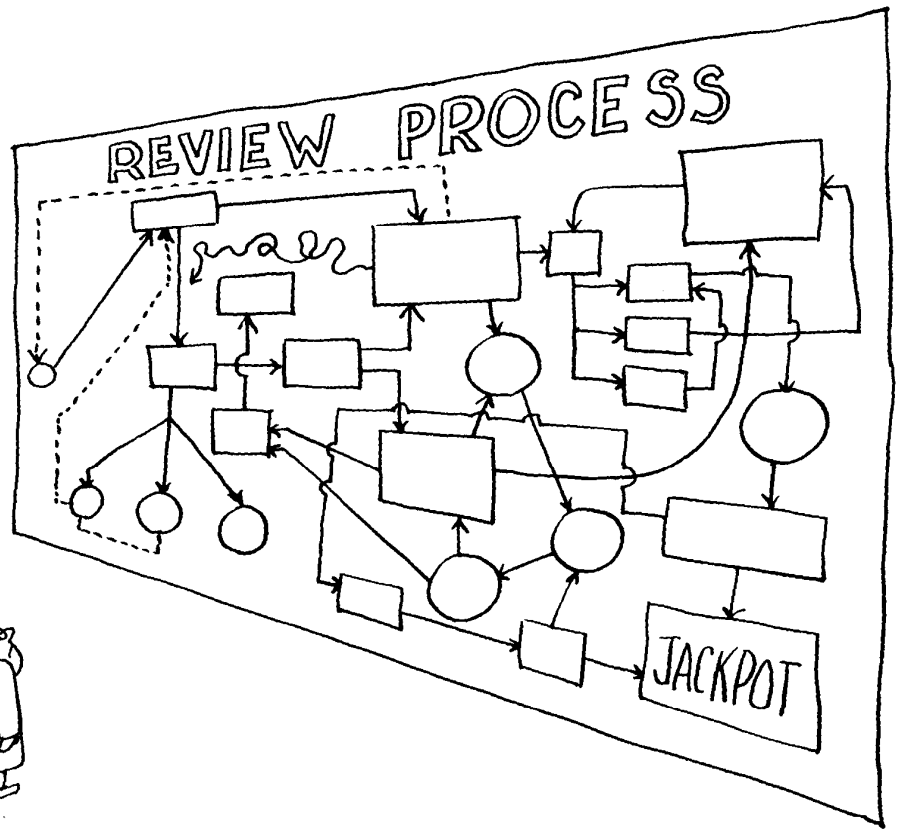
How do zoning codes affect urban form?

Ask a builder...

Ask an architect...

Ask elected officials...

Ask urban designers...



IT DOESNT WORK
BUT IT SURE IS
IMPRESSIVE



HEDMAN
76 ©



Why such skepticism about growth?

This is "red" on the zoning map



Strip Shopping Center, Fort Myers Beach

This is "red" on the map too



lifeless public realm



comfortable public realm





■ MONOCULTURE

Mass-produced housing is common at higher densities and in many cases provides the only affordable way to build. But some measure of variety is necessary to avoid monotony. These two developments provide a contrast in how to avoid the deadening effect of mass production. Both used a limited number of building designs. In Mountain View, California (above) the types were segregated by area, with each district limited to a single building type. The area shown is the "townhouse" section of the development. One model—a two-story townhouse design with slight variations—is repeated along each street. Contrast this with the new neighborhood in Columbus, Ohio, where five different models are interspersed within one block.



Visualizing Density
By Julie Campoli & Alex MacLeanl

CONVENTIONAL CODES

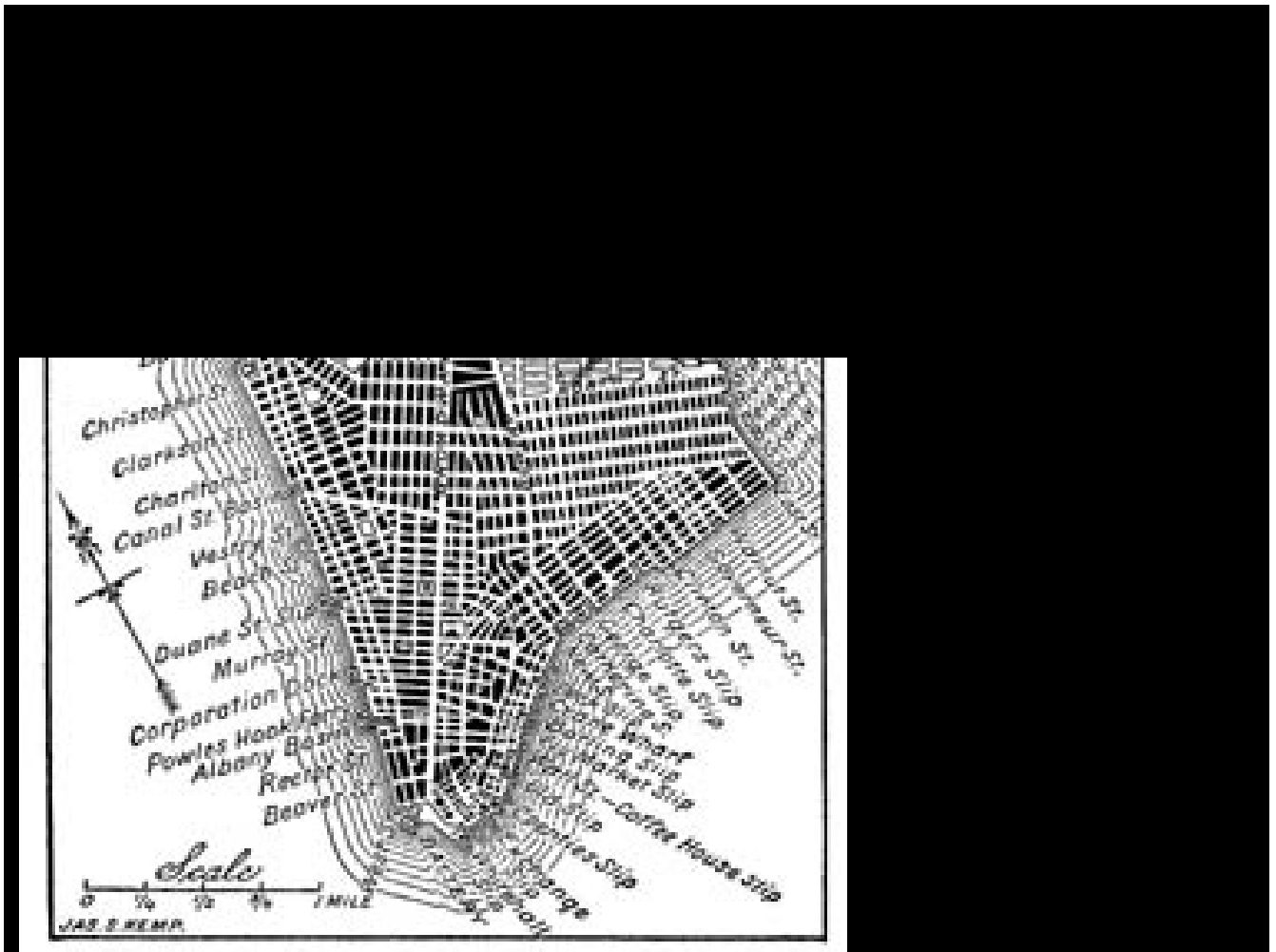
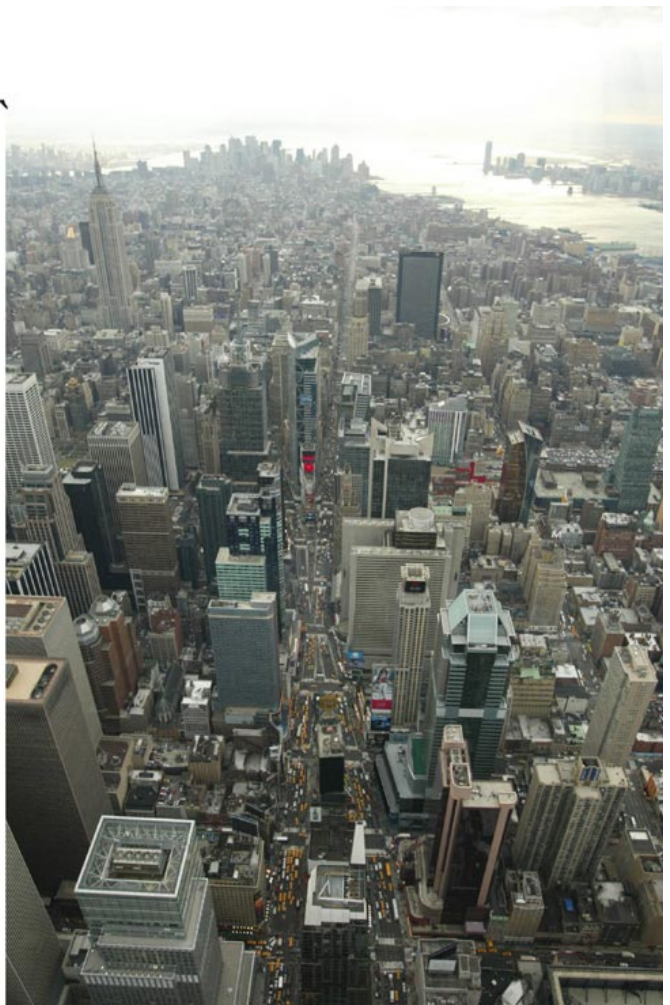
- Zoning and subdivision regulations
- Designed to separate incompatible uses
- Ideal for suburban development patterns

FORM-BASED CODES

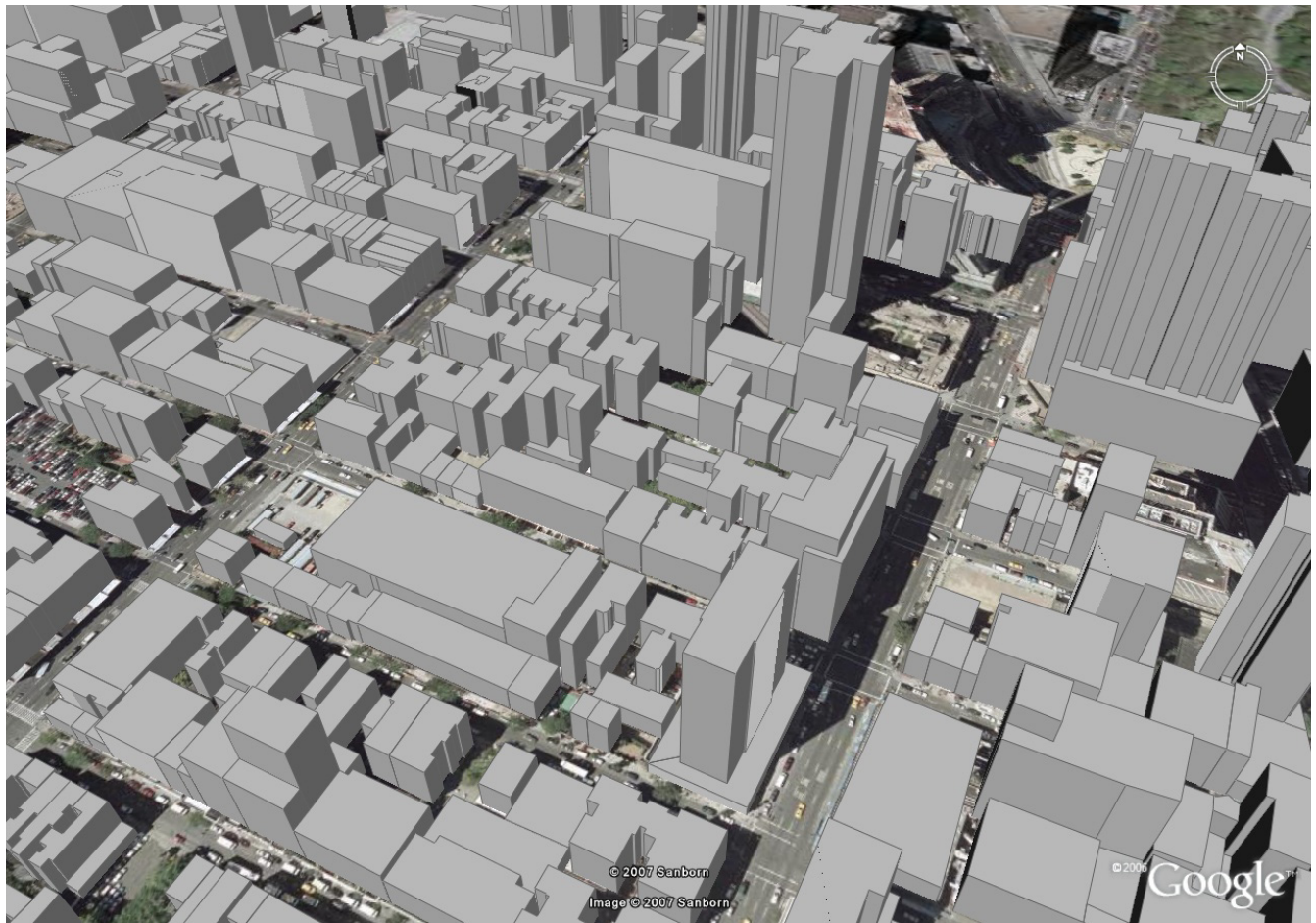
- A relatively new name...
- For emerging regulatory techniques...
- To serve rebirth of interest in urbanism...

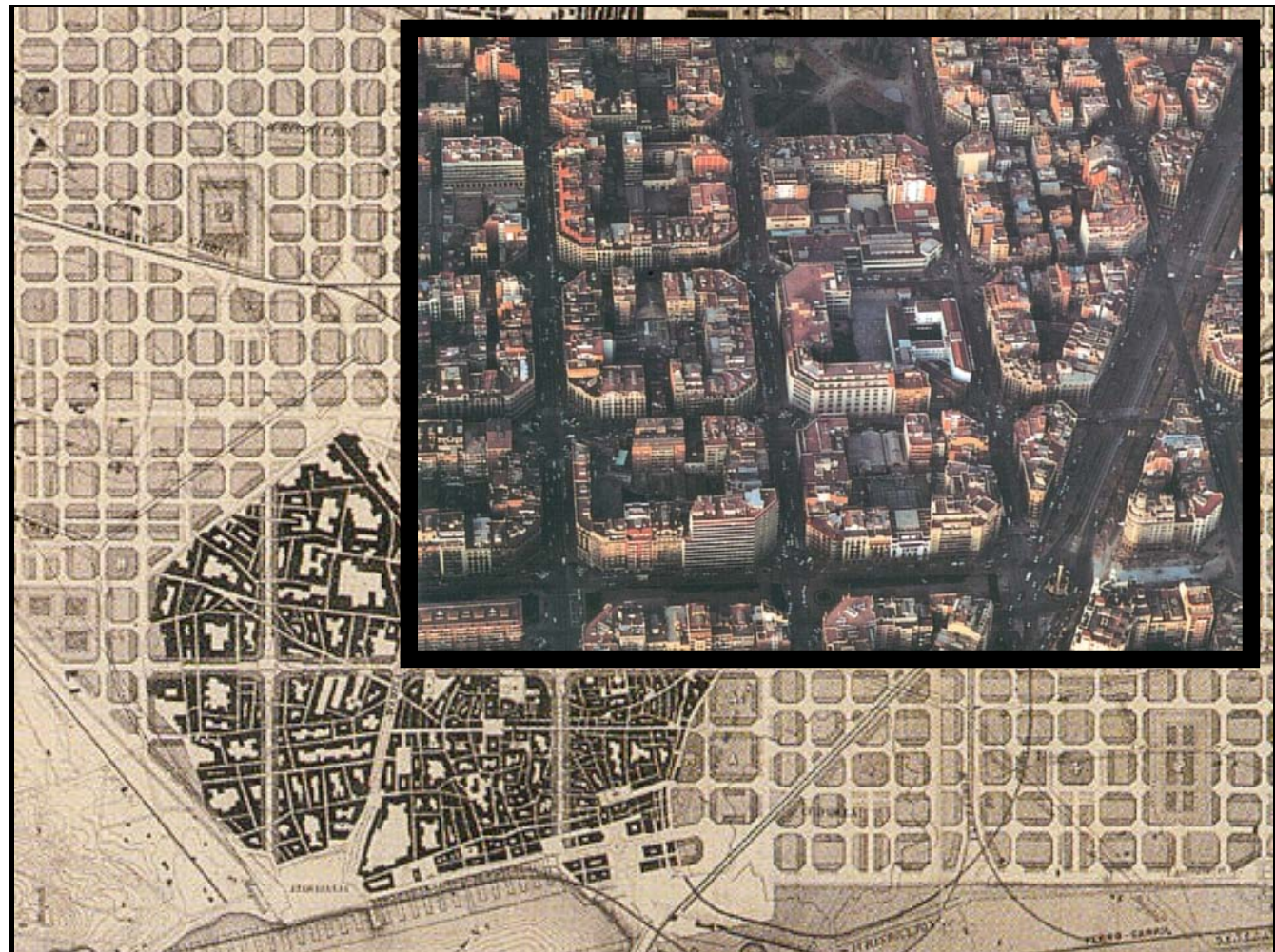
TONIGHT'S PRESENTATION:

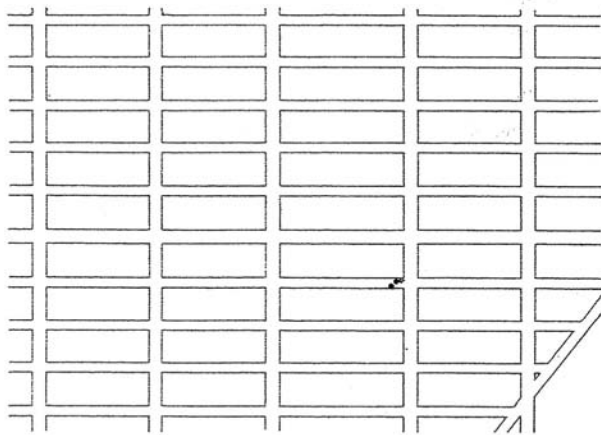
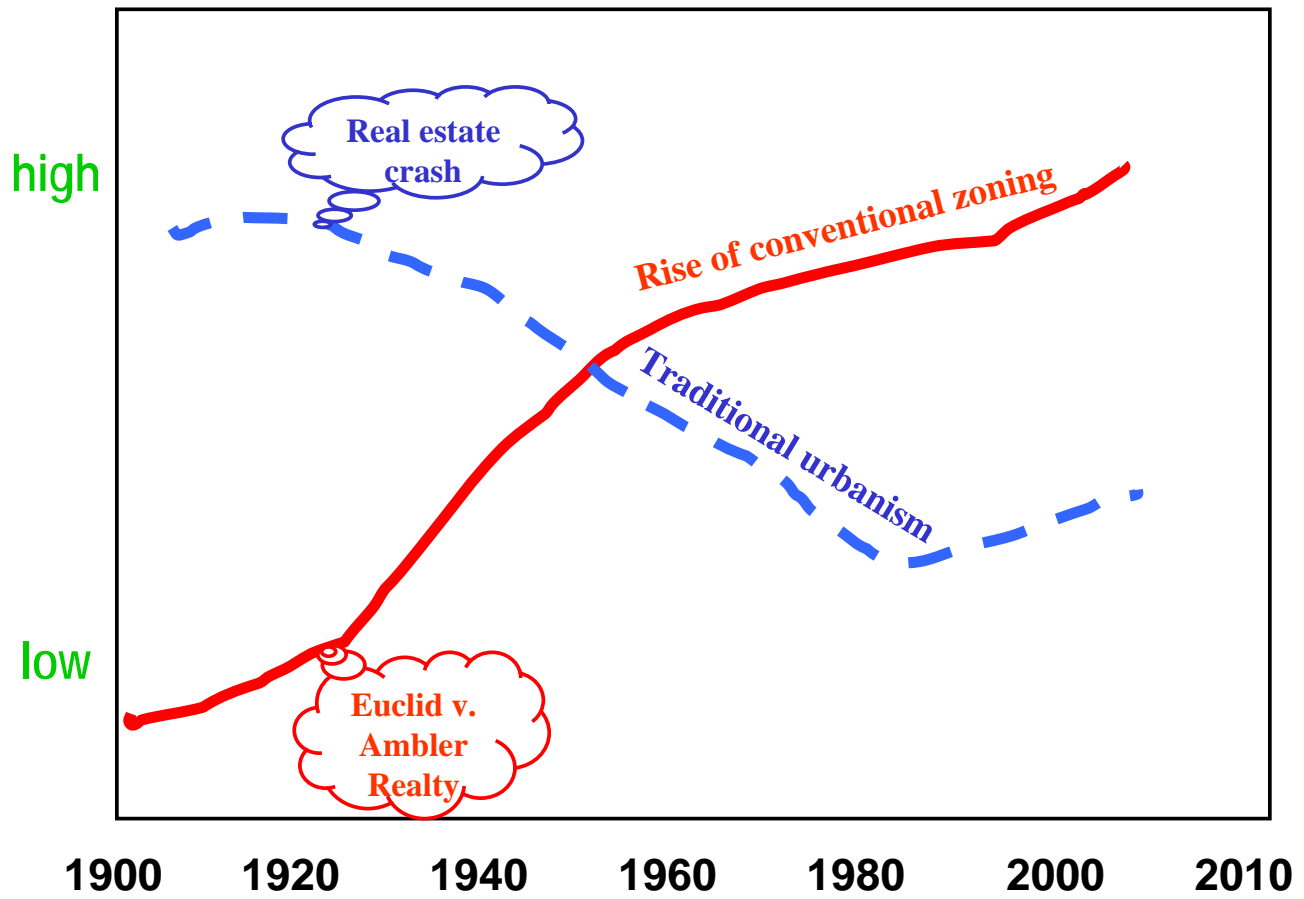
1. Comments on historical development of cities
2. Rise of zoning and decline of urbanism
3. How conventional and form-based codes differ
4. Form-based codes defined; common variations
5. Examples of form-based codes in current use
6. References for further study



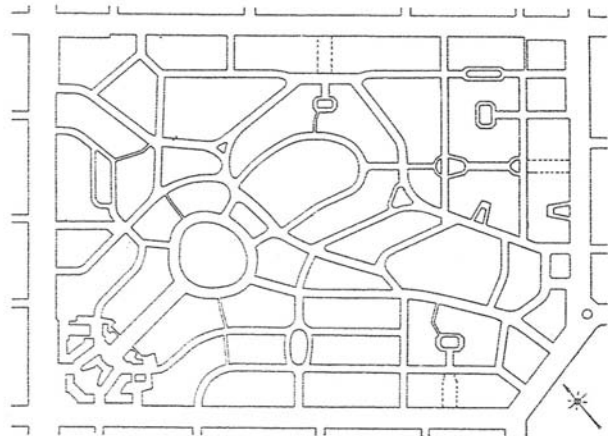






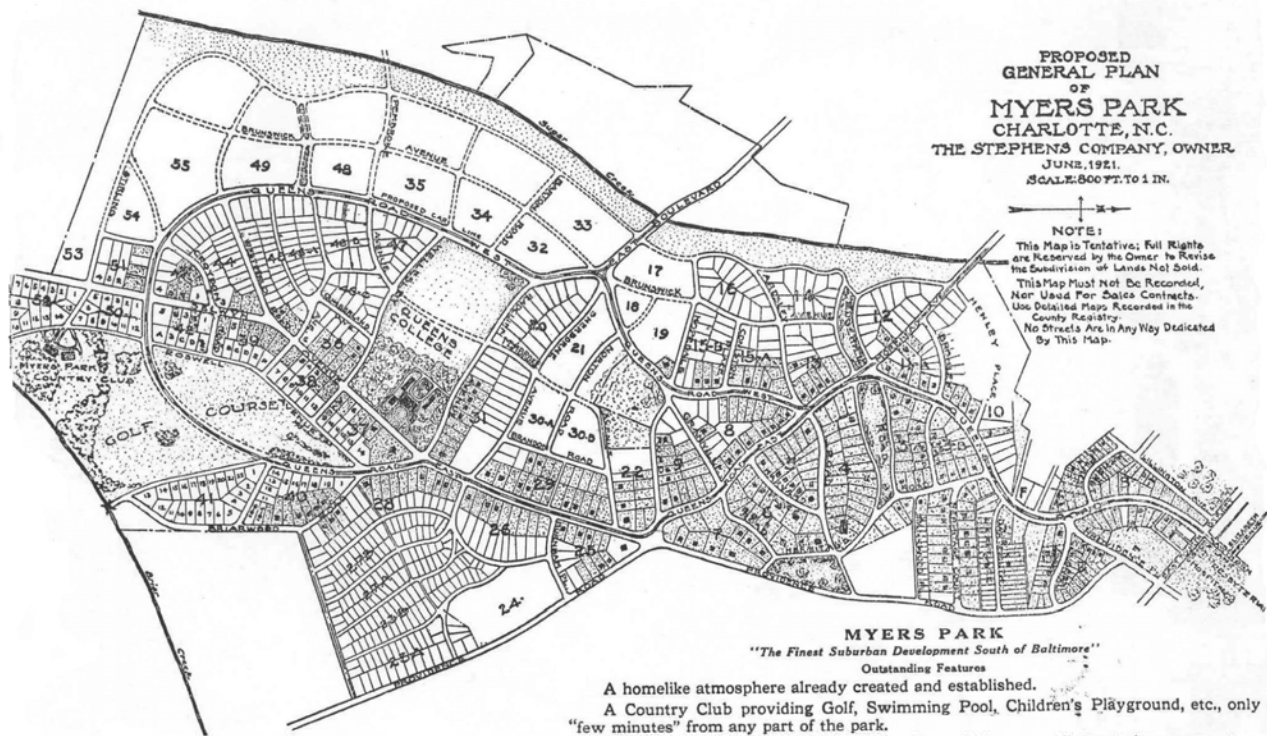


A.—LEADING NOWHERE IN PARTICULAR



B.—LEADING TO PLACES WHERE PEOPLE GO

Clarence Perry, "Neighborhood and Community Planning," 1929



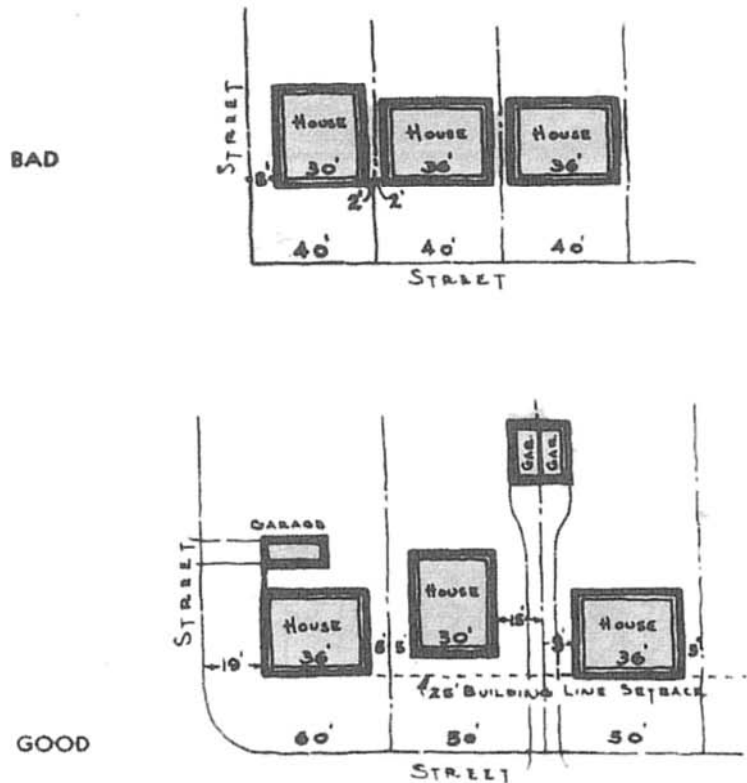
Myers Park

MYERS PARK
 "The Finest Suburban Development South of Baltimore"
 Outstanding Features
 A homelike atmosphere already created and established.
 A Country Club providing Golf, Swimming Pool, Children's Playground, etc., only a "few minutes" from any part of the park.
 Myers Park lots provide ample space for each home. All street improvements are paid for, and purchasers assume no assessments.
 Plots in Myers Park, on a square foot basis, cost no more than "High-class" lots in other sections of Charlotte.
 An excellent street car service is maintained. Queens College, one of the finest female colleges in the South, is located in Myers Park. Over \$2,500,000 already invested in Homes.
 We are prepared to give terms, either on a lot or a home, to meet the reasonable requirements of any responsible purchaser.

MYERS PARK HOMES COMPANY
 Developers, Home Builders, Selling Agents
 CHARLOTTE, N. C.

Realty Building Phone 231

Figure 3.8
 The U.S. Federal Housing Administration's 1938 neighborhood-standards suggestions for dos and don'ts for lot configurations and building set-backs. By the 1950s, the FHA's *Neighborhood Standards*—published in the *Land Planning Bulletin No. 3*—were widely utilized in each state. (Source: U.S. Federal Housing Administration, Technical Bulletin No. 7)



Federal Housing Administration (1938)



Levittown NY

4 TO 5 UNITS PER ACRE



Hollister, CA 4.8 units / acre



Tampa, FL 4.9 units / acre



Levittown, NY 5.0 units / acre



context



context



context



neighborhood



plan



neighborhood



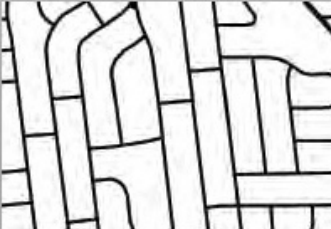
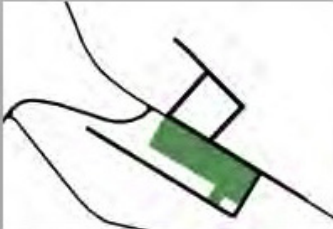
plan



neighborhood



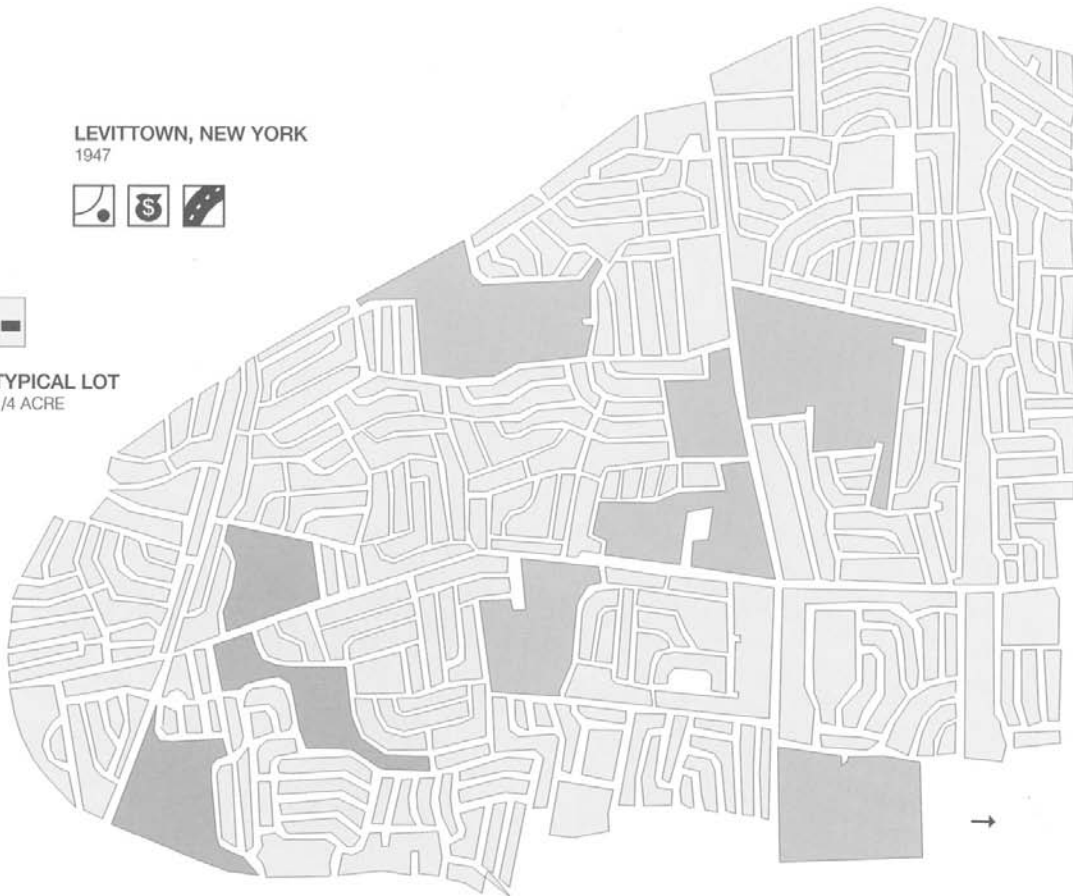
plan

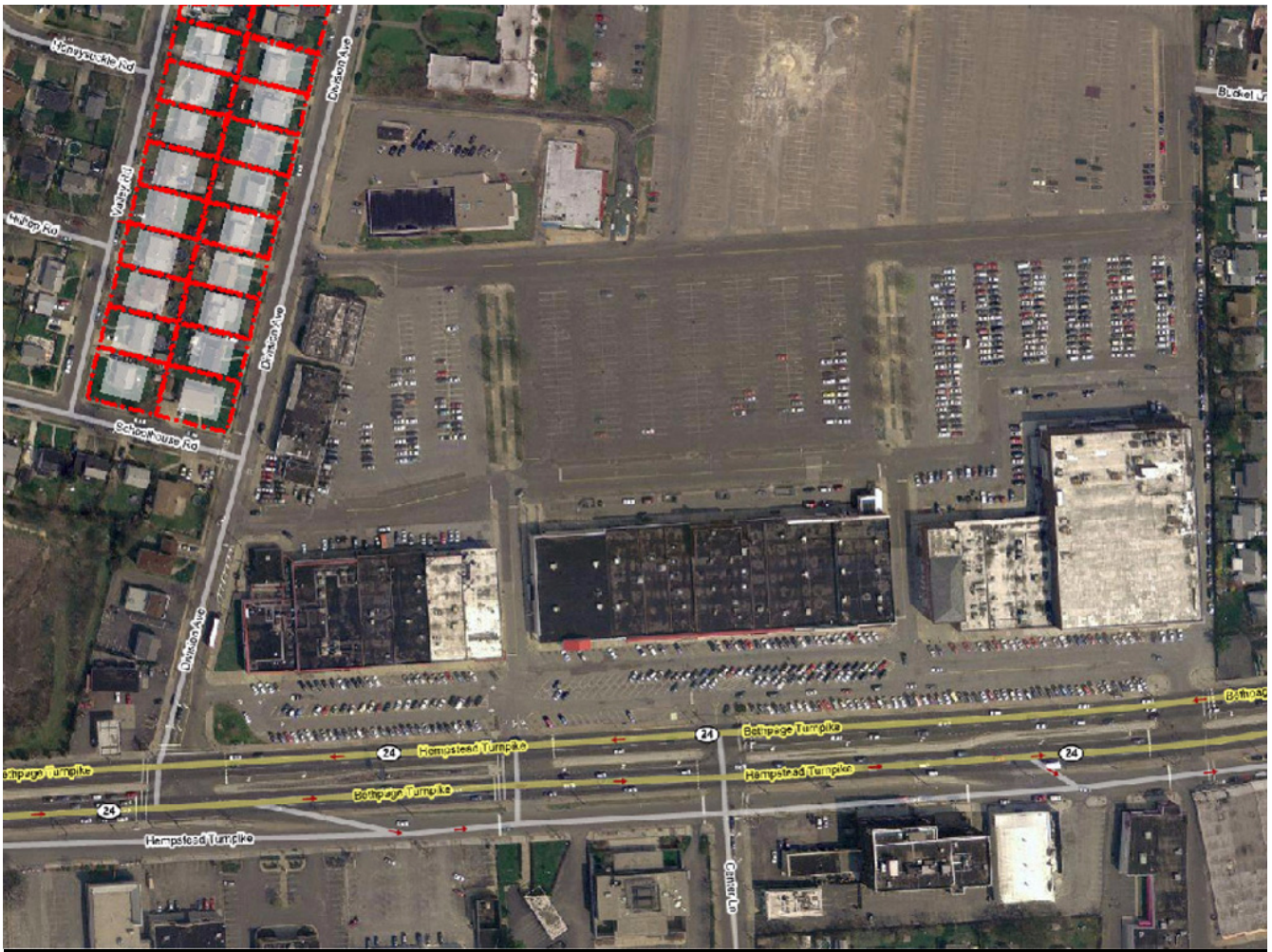


LEVITTOWN, NEW YORK
1947



TYPICAL LOT
1/4 ACRE





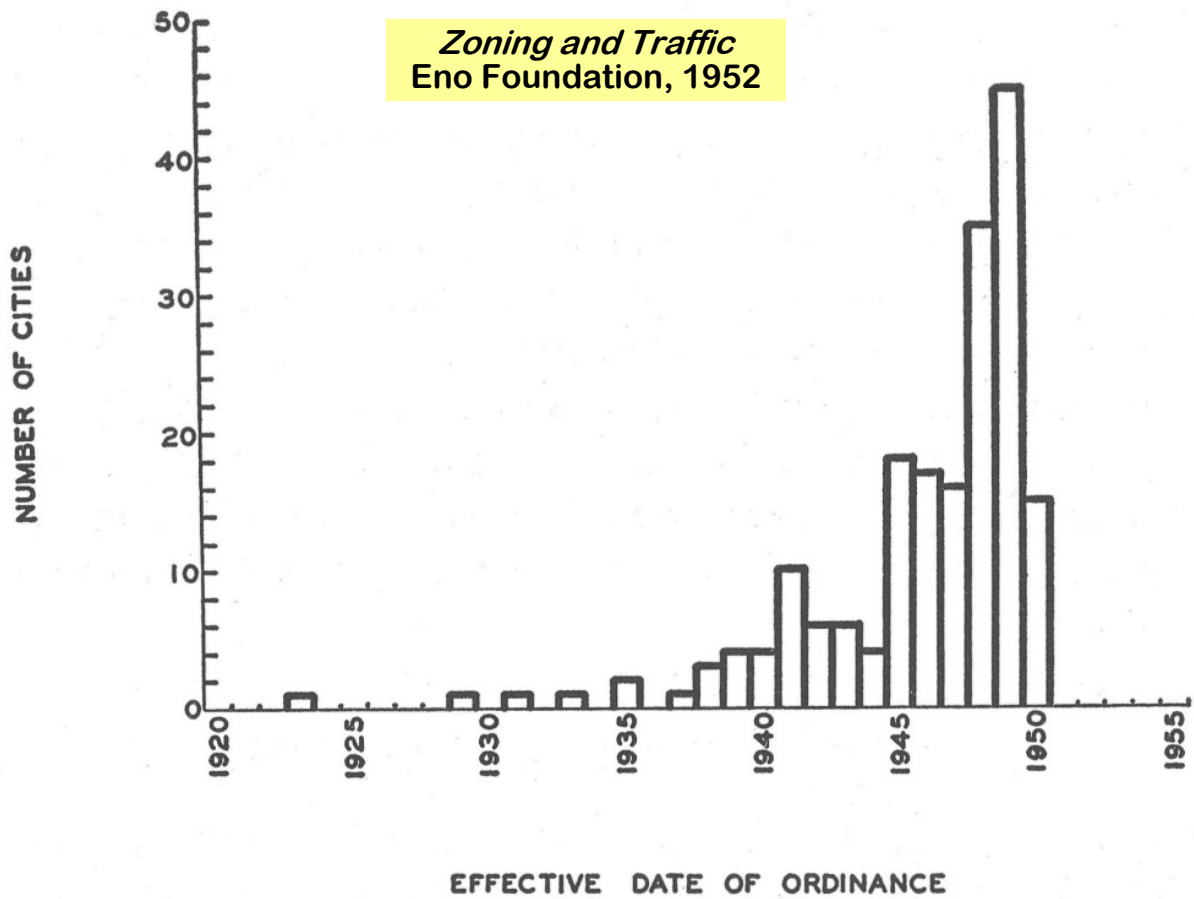


FIGURE 3. Growth in Adoption of Zoning for Parking Practices, 1923-1950.

A 1946 survey of 76 cities found that only 17 percent had parking requirements in their zoning ordinances.

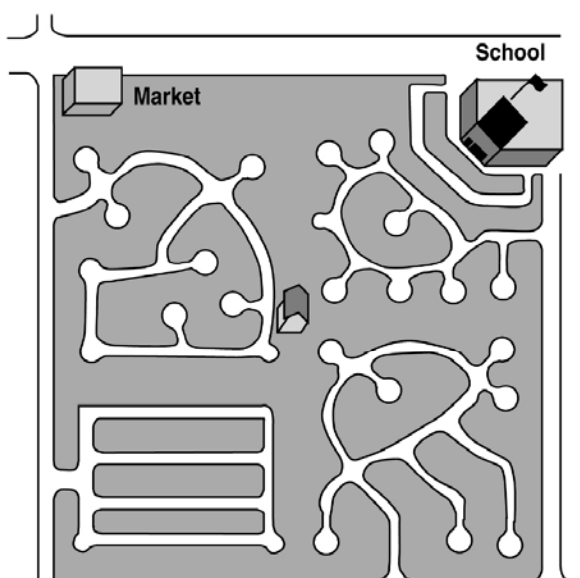
Five years later, 71 percent of these cities had parking requirements...



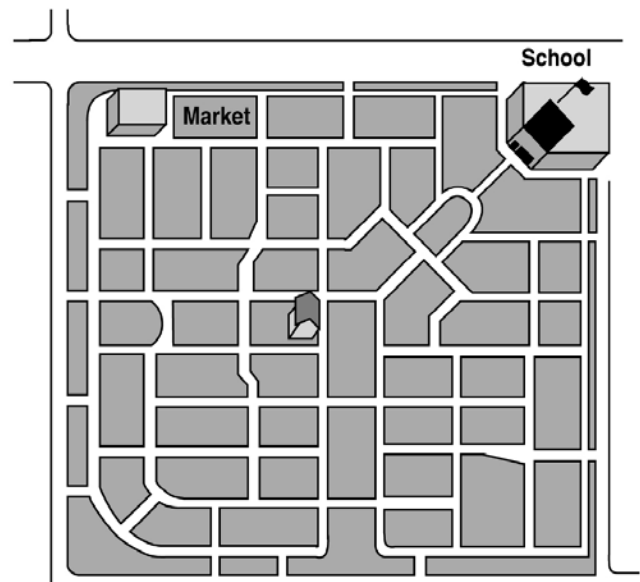
NEXT GENERATION OF PLANNING EXPERIMENTS:

- Reston (Virginia)
- Columbia (Maryland)
- Woodlands (Texas)

--- Led to P.U.D. zoning techniques
(Planned Unit Developments)

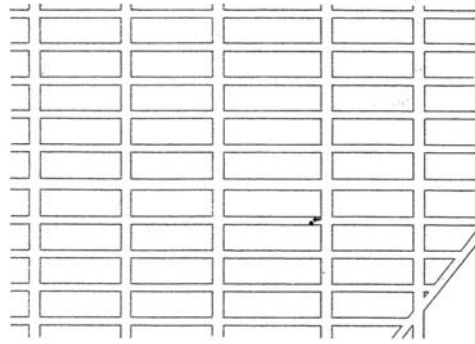


Typical Subdivision
Cul-de-Sacs

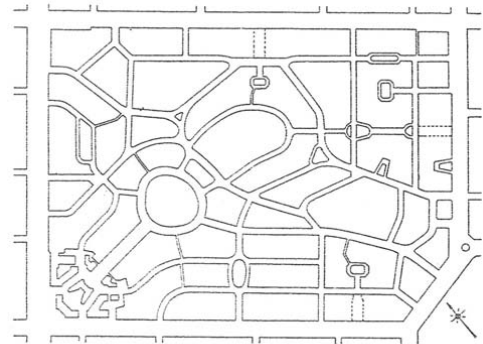


Well-Connected
Street Network

1926

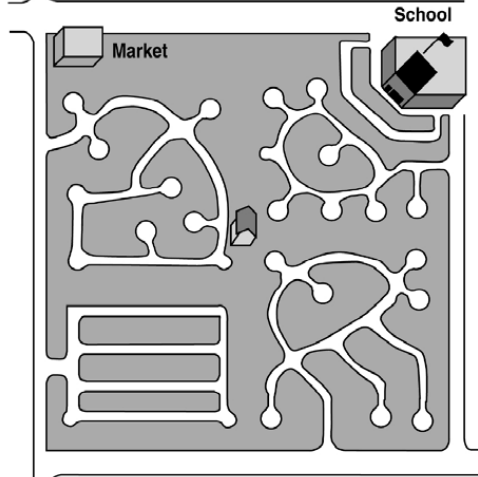


A.—LEADING NOWHERE IN PARTICULAR

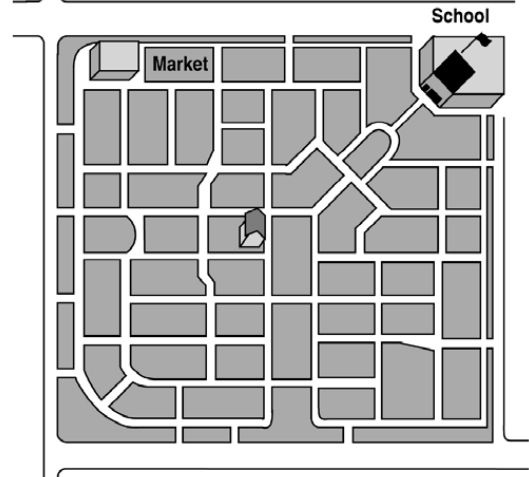


B.—LEADING TO PLACES WHERE PEOPLE GO

2006



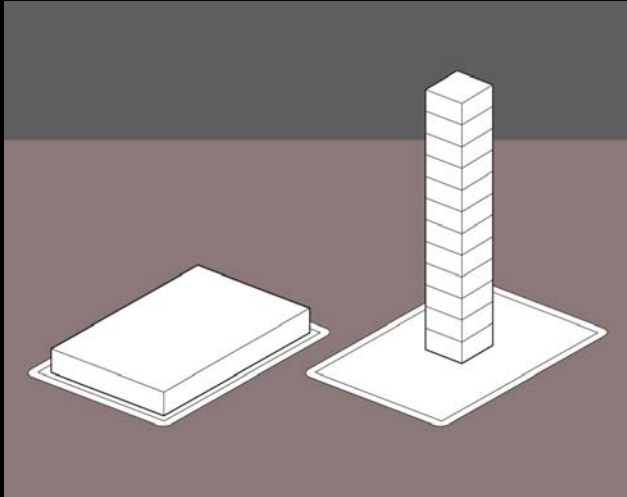
Typical Subdivision
Cul-de-Sacs



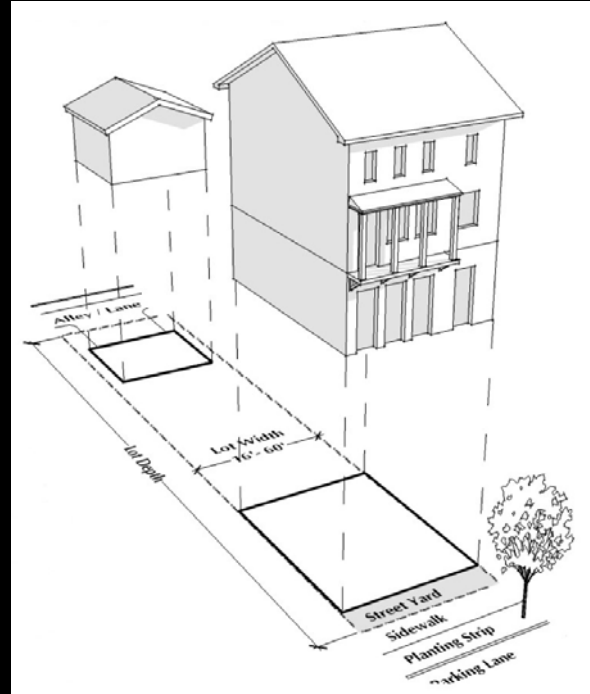
Well-Connected
Street Network

Conventional codes
--- compared to ---
form-based codes...

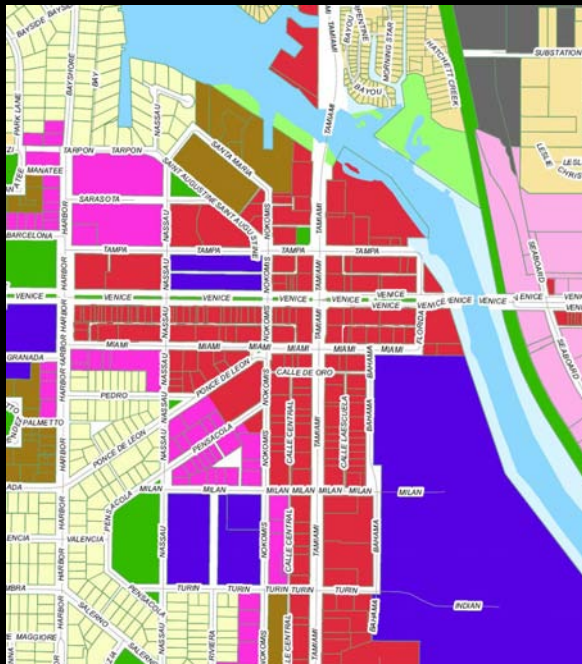
Conventional Code:
...buildings can be random



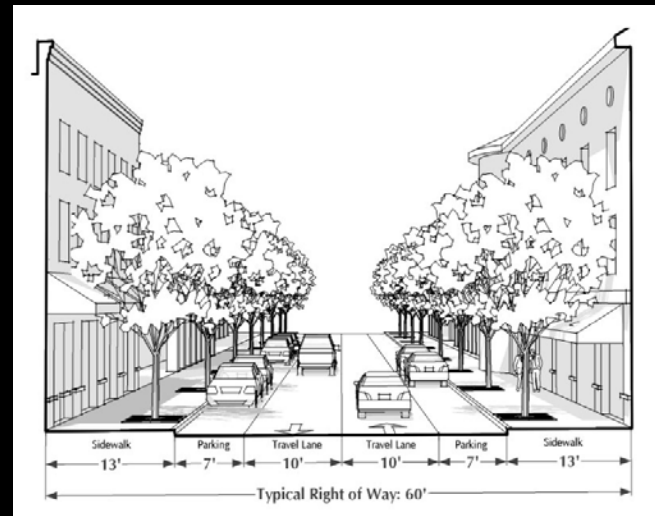
Form-Based Code:
...focus on building placement



Conventional Code:
...ignores streets

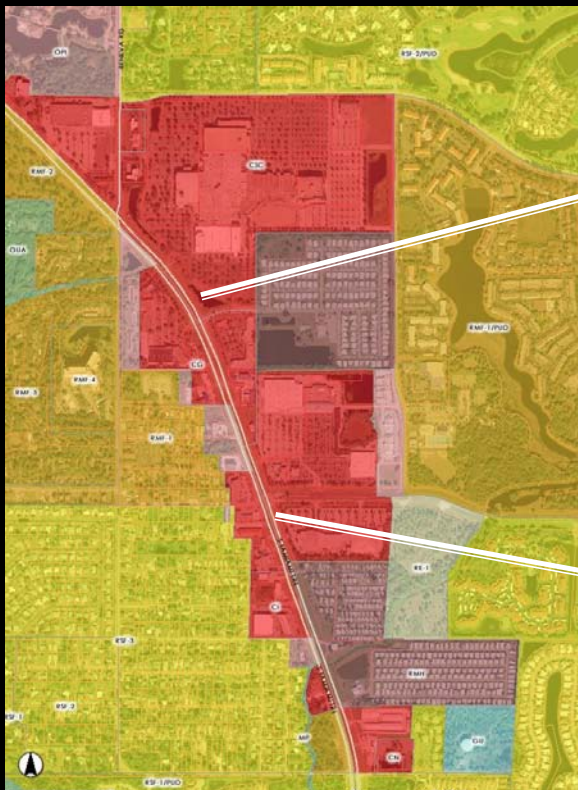


Form-Based Code:
...includes streets



Conventional Code:

...little detail



Form-Based Code:

...considerable detail



Conventional Code:

...mostly text

Sec. 1-1. Designation and citation of Land Development Code.

The ordinances embraced in the following chapters and sections shall constitute and be designated as the "Lee County, Florida, Land Development Code," and also may be cited as the "Lee County Land Development Code."

(Ord. No. 94-12, § 1, 4-20-94)

State law references: Requirement that county codify and publish its ordinances, F.S. § 125.68.

Sec. 1-2. Rules of construction and definitions.

(a) In the construction of this Land Development Code, and of all ordinances, the rules and definitions set out in this section shall be observed, unless inconsistent with the manifest intent of the Board of County Commissioners. The rules of construction and definitions in this section do not apply to any section of this Land Development Code that contains any express provisions excluding their application, or where the subject matter or context of such section may be repugnant thereto.

(b) Generally.

- (1) All general provisions, terms, phrases and expressions contained in this Land Development Code will be liberally construed in order that the true intent and meaning of the Board of County Commissioners may be fully carried out.
- (2) Terms used in this Land Development Code, unless otherwise specifically provided, have the meanings prescribed by the statutes of the state for the same terms.
- (3) In the event of any difference in meaning or implication between the text of this Land Development Code and any caption, illustration, summary table or illustrative table, the text shall control.
- (4) Any words used in the present tense shall include the future, and any words in the singular number shall include the plural, and vice versa, unless the context clearly indicates the contrary, and words of the masculine gender shall be construed to include the feminine gender and vice versa.
- (5) Unless the context clearly indicates the contrary, where a regulation involves two or more items, conditions, provisions or events connected by the conjunction "and," "or" or "either . . . or," the conjunction shall be interpreted as follows:
 - a. "And" indicates that all the connected terms, conditions, provisions or events shall apply.
 - b. "Or" indicates that the connected terms, conditions, provisions or events may apply singly but not in any combination.
 - c. "Either . . . or" indicates that the connected terms, items, conditions, provisions or events shall apply singly but not in combination.
- (6) The provisions of this Land Development Code shall be liberally construed so as to effectively carry out its purpose in the interest of the public health, safety and welfare.
- (7) This Land Development Code constitutes the minimum requirements adopted for the promotion of the public health, safety, comfort, convenience and general welfare. Where any provisions of this Land Development Code conflict such that one provision causes greater restrictions to be imposed than another provision, the provision imposing the greater restriction or regulation will control.

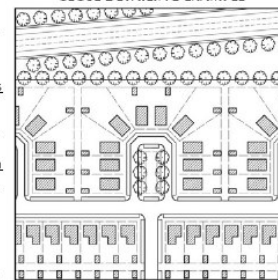
State law references: Construction of statutes, F.S. ch. 1.

Form-Based Code:

...highly illustrated

- iv. The proposed street network should respect topography and designated environmental resources and be modified accordingly to avoid damages to such resources.
- v. Sidewalks and rows of street trees must be provided on both sides of all streets; street trees may be omitted where arcades or colonnades meet the standards in Section 6.11.5.e or where a street adjoins a natural area being preserved. To allow healthy tree growth, when street trees will be planted in tree wells or in planting strips narrower than 10 feet, the developer must support the surrounding sidewalk and parking lane with structural soil or provide an equivalent soil volume using a method acceptable to the county's urban forester. See also Sections 6.11.5.i and j regarding street trees.
- vi. Dead-end streets are not permitted except where physical conditions such as highways, sensitive natural resources, or unusual topography provide no practical connection alternatives. Each dead end must be detailed as a close (a small green area surrounded by a common driveway, serving adjoining lots) and should provide pedestrian connectivity to the maximum extent practicable.
- vii. All streets must be publicly dedicated. Private streets and closed or gated streets are prohibited.

CLOSE DETAILING EXAMPLE



Conventional Code:

...focus on uses of land

- 19. Baths, Turkish
- 25. Boxing arena
- 28. Chinchillas, retail sales
- 41. Eleemosynary institutions
- 42. Embalming business
- 95. Physical culture institution
- 109. Potato chip manufacturing
- 127. Tombstones, retail sales
- 135. Turkish bath

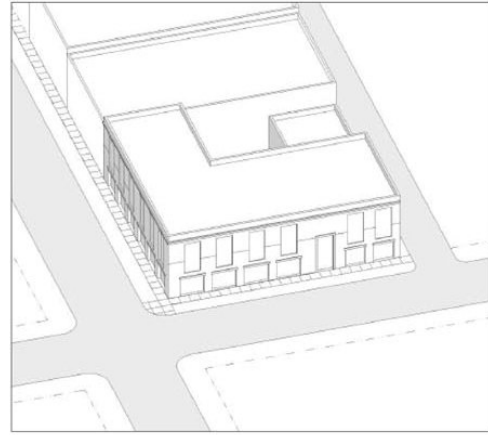
Form-Based Code:

...focus on form of buildings and streets

ARCHITECTURAL TYPES COMMERCIAL BLOCK

A building designed for occupancy by retail, service, and/or office uses on the ground floor, with upper floors also configured for those uses or for dwelling units.

Each Commercial Block shall be designed to comply with the following standards, and the frontage type requirements of this Code for the applicable zone, except where the frontage type requirements are modified by this Section.



FORM-BASED CODE:

A method of regulating development to achieve a specific urban form.

Form-based codes create a predictable public realm by controlling physical form primarily, with a lesser focus on land use....

Form-based code:

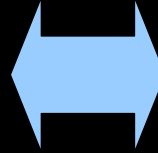
- **Regulating plan**
- **Building form standards**
- **Public space standards**

REGULATING PLAN:

The map in a form-based code that shows streets and public open spaces and designates where various building form standards will apply. A regulating plan helps translate a master plan into place-specific development regulations.

Form-based code:

- Regulating plan
- Building form standards
- Public space standards



Conventional code:

- Zoning districts.
- Variances
- Subdivision regulations
- Sign regulations

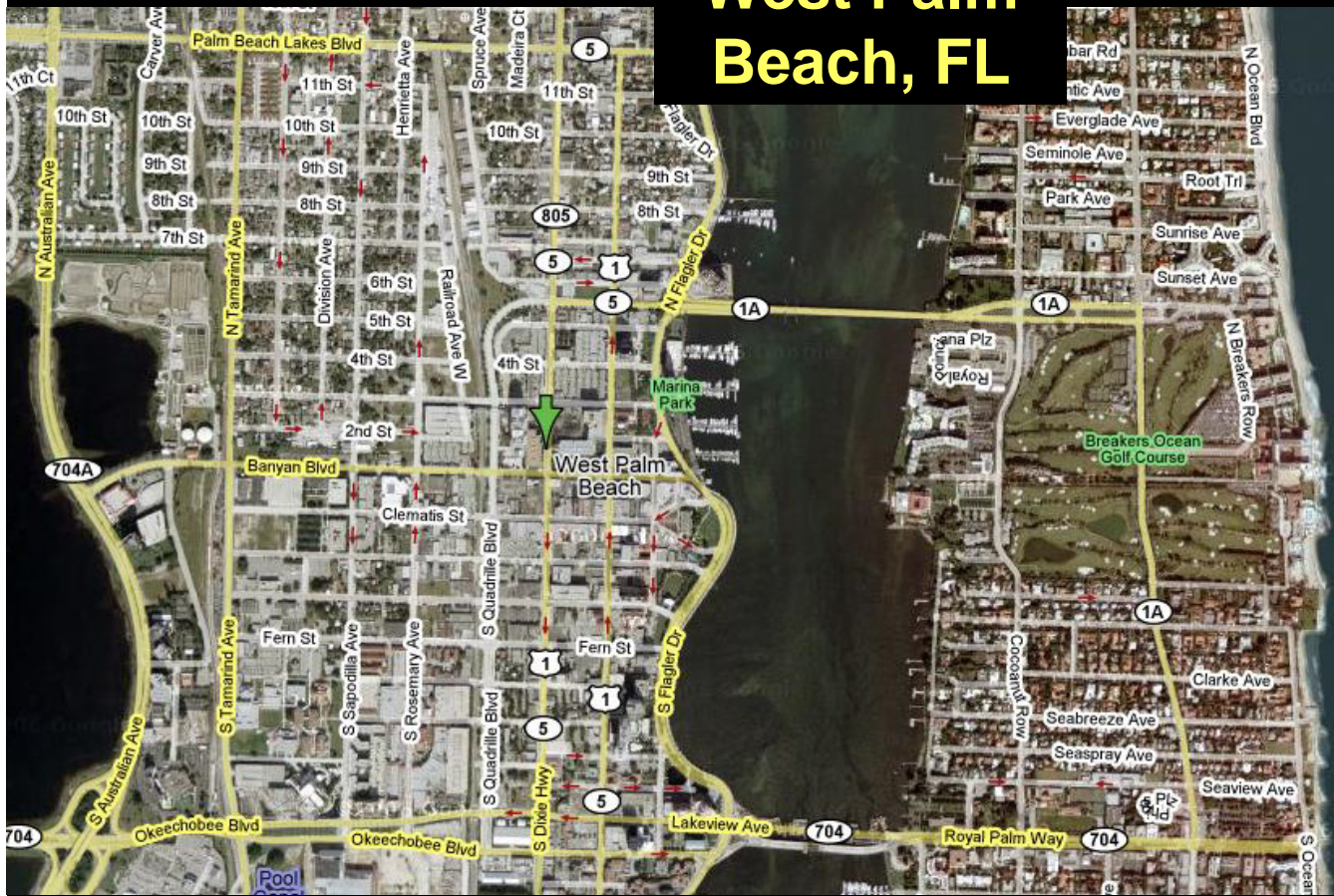
Types of links between form-based codes and conventional codes:

1. **Mandatory form-based code**
2. **Optional (parallel) form-based code**
3. **Floating zone form-based code**
(Planned Development /
Planned Unit Development)

FORM-BASED CODE EXAMPLES:

- West Palm Beach FL
- “Downtown Kendall” FL
- Fifth Avenue South, Naples FL
- Sarasota County FL
- Fort Myers Beach FL

West Palm Beach, FL



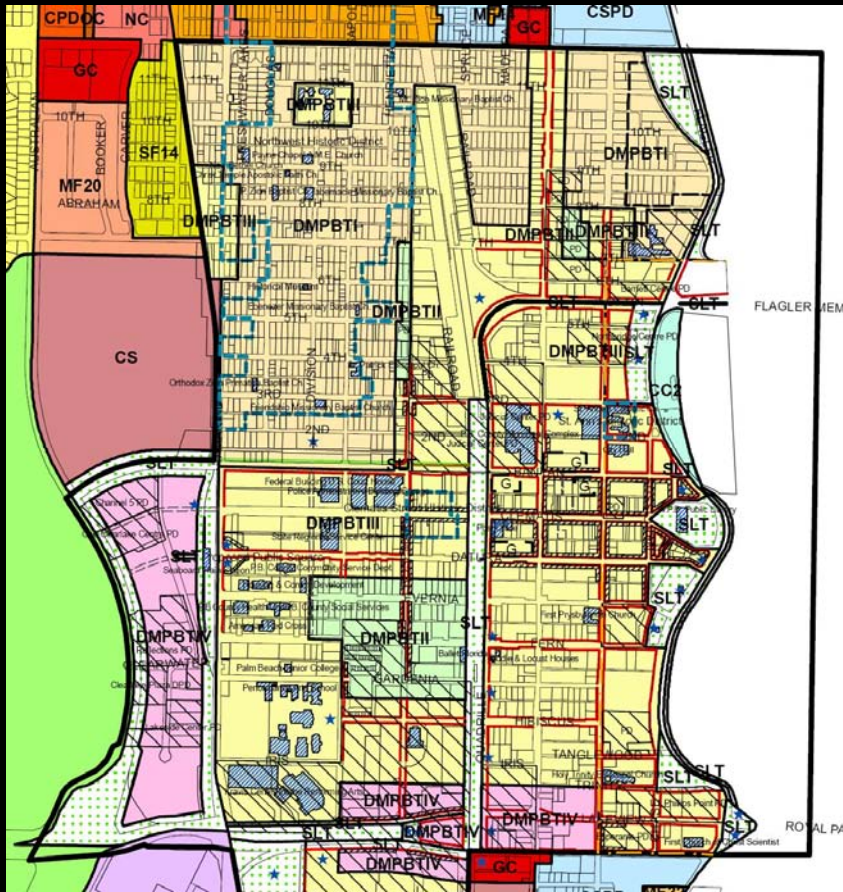
West Palm Beach, FL

ZONING MAP:

Four new zoning districts:
BT-I, BT-II, BT-III, BT-IV

REGULATING PLAN:

(superimposed on zoning map)



Sec. 94-103. Building type I; yard building.

(a) **Building height.** For building type I the height of the building shall be as follows: Principal buildings shall be a maximum of 2 1/2 stories and accessory buildings a maximum of two stories.

(b) **Building placement.** For building type I, buildings, other than accessory buildings, shall be placed on their lots as follows:

(1) Facades shall be built parallel to the frontage line of the lot with a setback of 25 feet from the frontage line. The setback shall match one or the other of the existing adjacent lots.

(2) Side setbacks shall be a total of 20 percent of the lot width on each side. In the case of an infill lot, the side setbacks shall be the lesser of the side setback of the lot or the side setback of the adjacent lot.

(3) Rear setbacks for principal buildings shall be a minimum of 15 feet from the centerline of the rear lot line. The rear setback shall be 20 feet for principal buildings on lots less than 100 feet wide.

(4) In the event of adjacent preexisting setbacks, the setbacks shall be the lesser of the setbacks of the lot or the setbacks of the adjacent lot, as determined by the downtown action committee.

(5) Open porches, stairs and ramps may encroach into the side setbacks.

(6) Streetwalls and fences at street fronts and side setbacks shall be 48 inches in height. Garden walls and fences shall be 48 inches in height.

(c) **Building use.** Building type I buildings shall accommodate the following uses:

- Building height
- Building placement
- Building use
- Parking
- Architectural standards
- Signage standards

- Type I: yard building
- Type IIa: urban house
- Type IIb: row house
- Type IIc: courtyard building
- Type IId: urban house
- Type IIe: live/work building
- Type III: medium building
- Type IV: tower building



**PRE-CODE
BUILDINGS:**

*Parking garage
along the sidewalk*



TYPE III BUILDING:

**101 Clematis
(corner building)**

*Primary street on right
– fully lined garage*

*Secondary street on
left – garage exposed*



TYPE III BUILDING: Community Foundation



TYPE IV BUILDING:

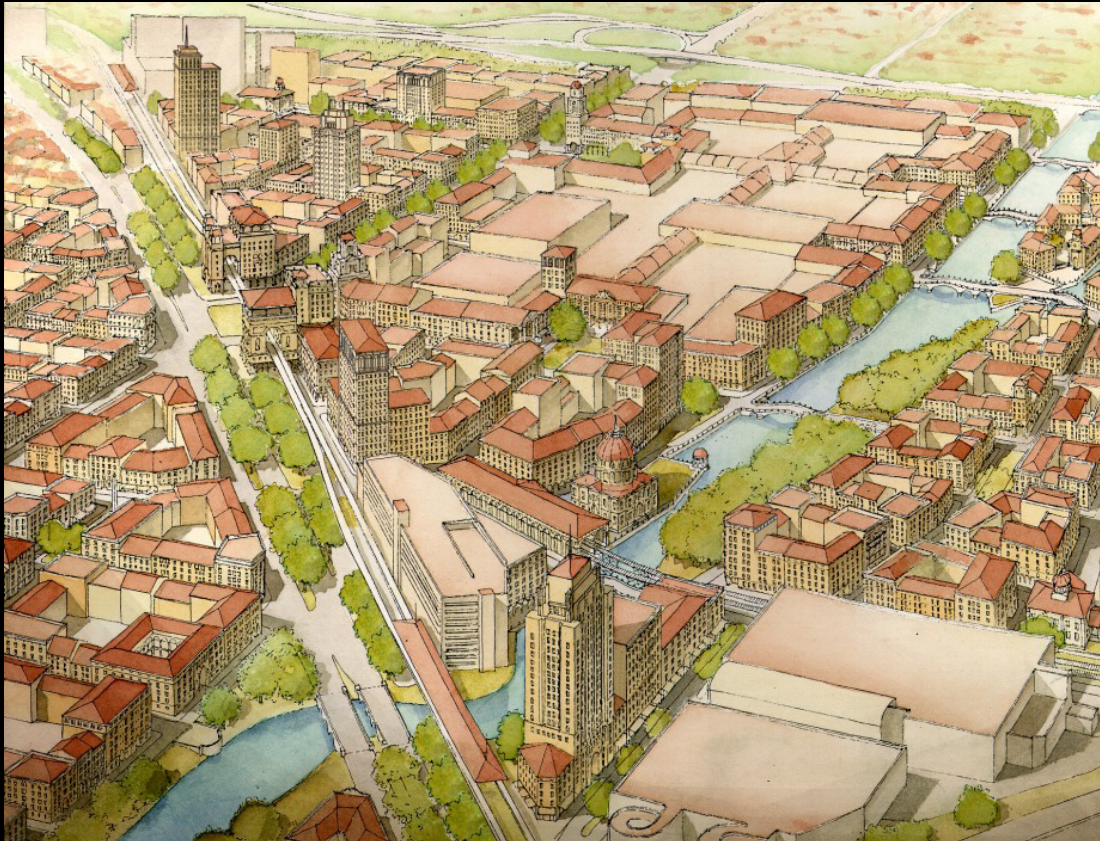
The Strand

re-imagining the “edge city”

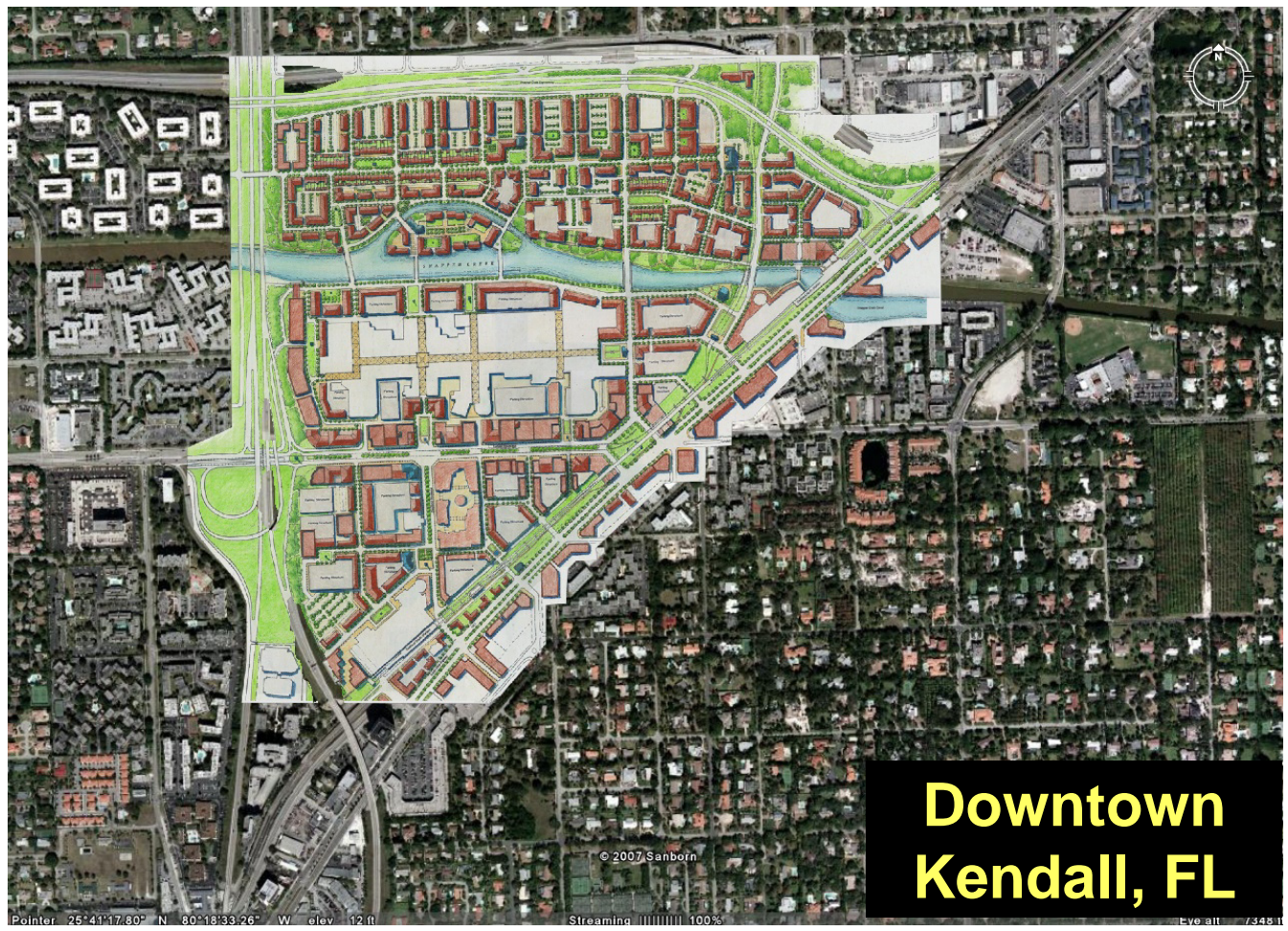
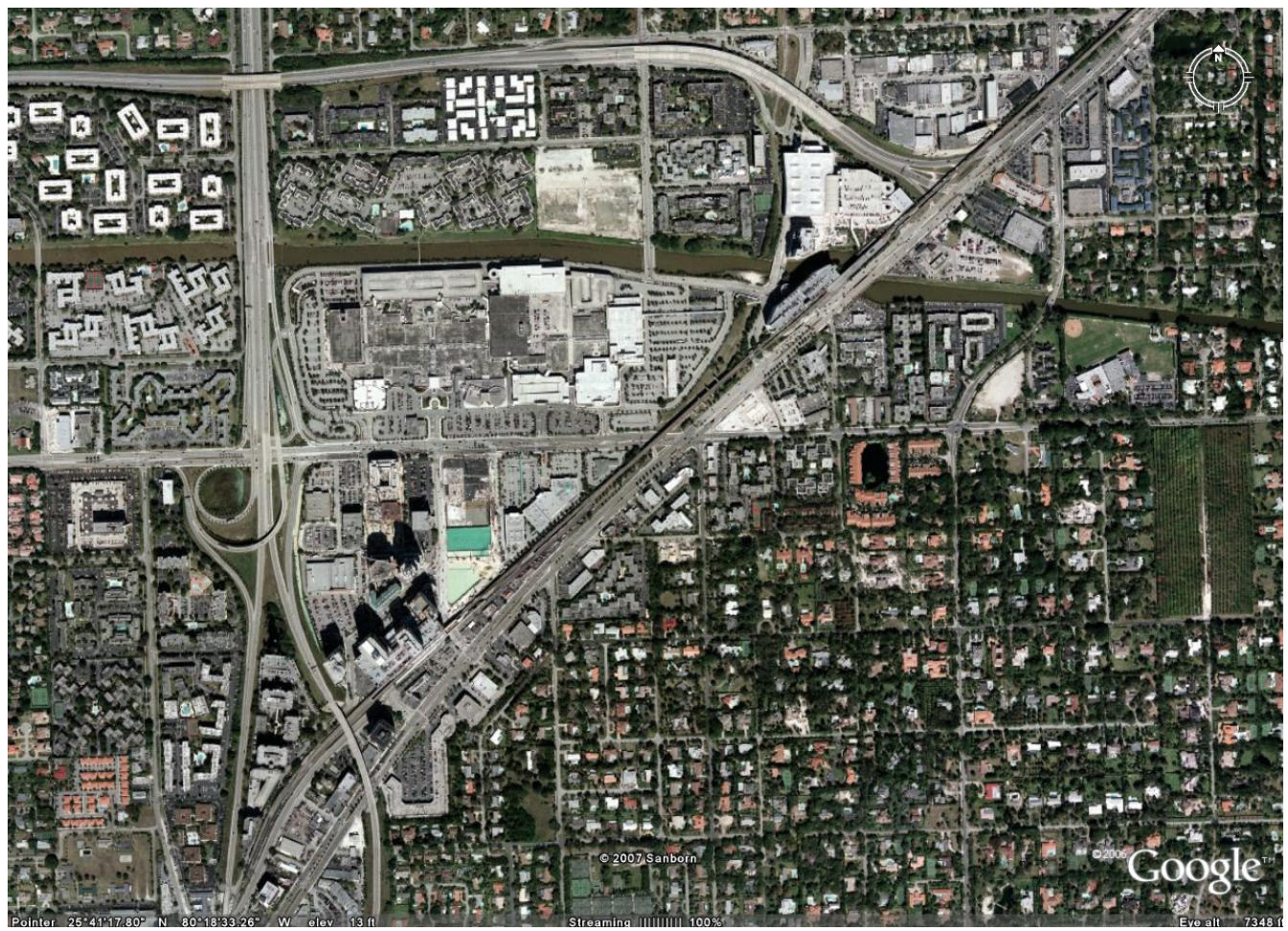


“Dadeland Regional Activity Center”...

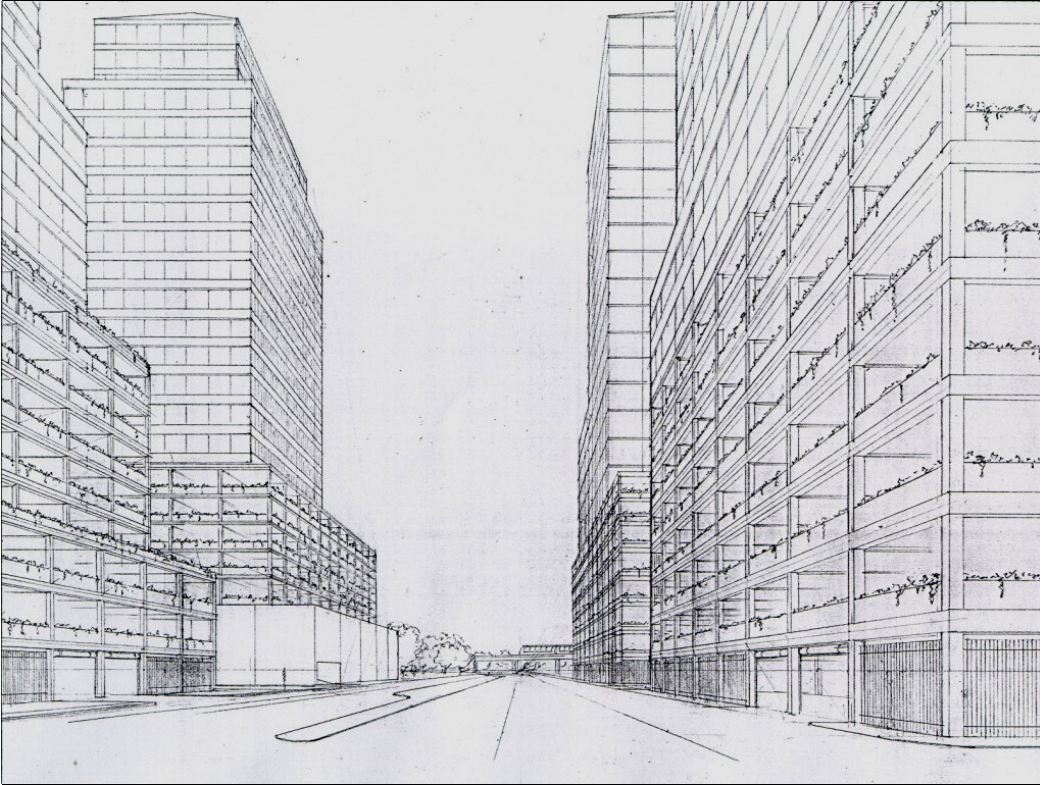
re-imagined “edge city”



Downtown Kendall



smarter regulations



Old Zoning

smarter regulations

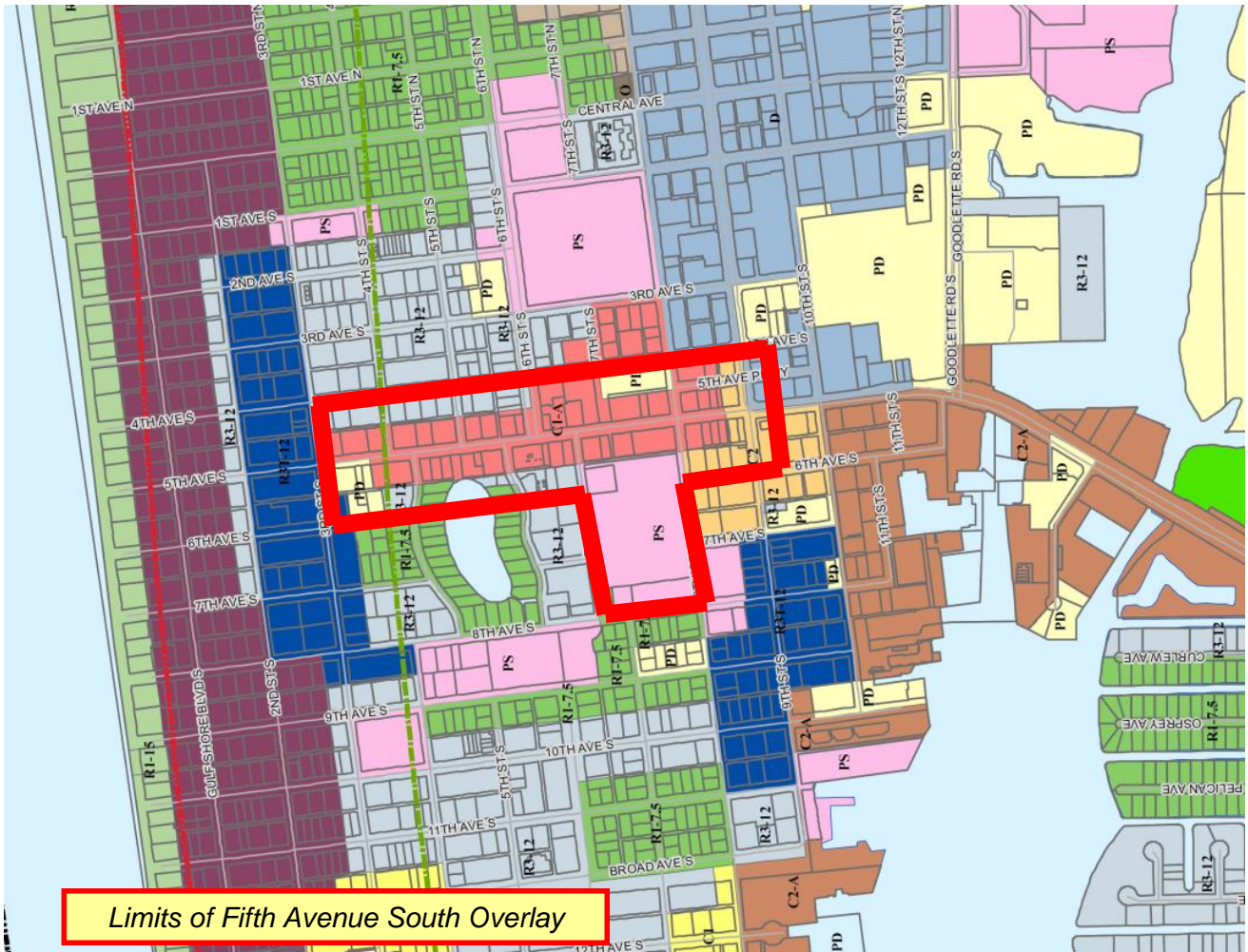
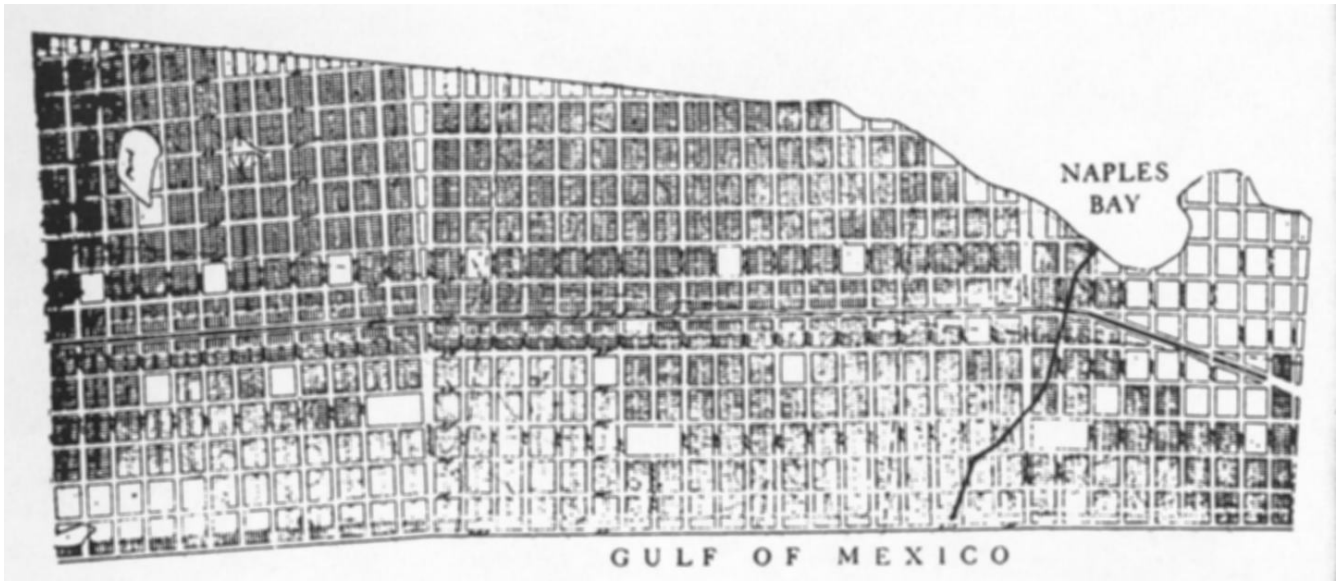


Downtown Kendall Code



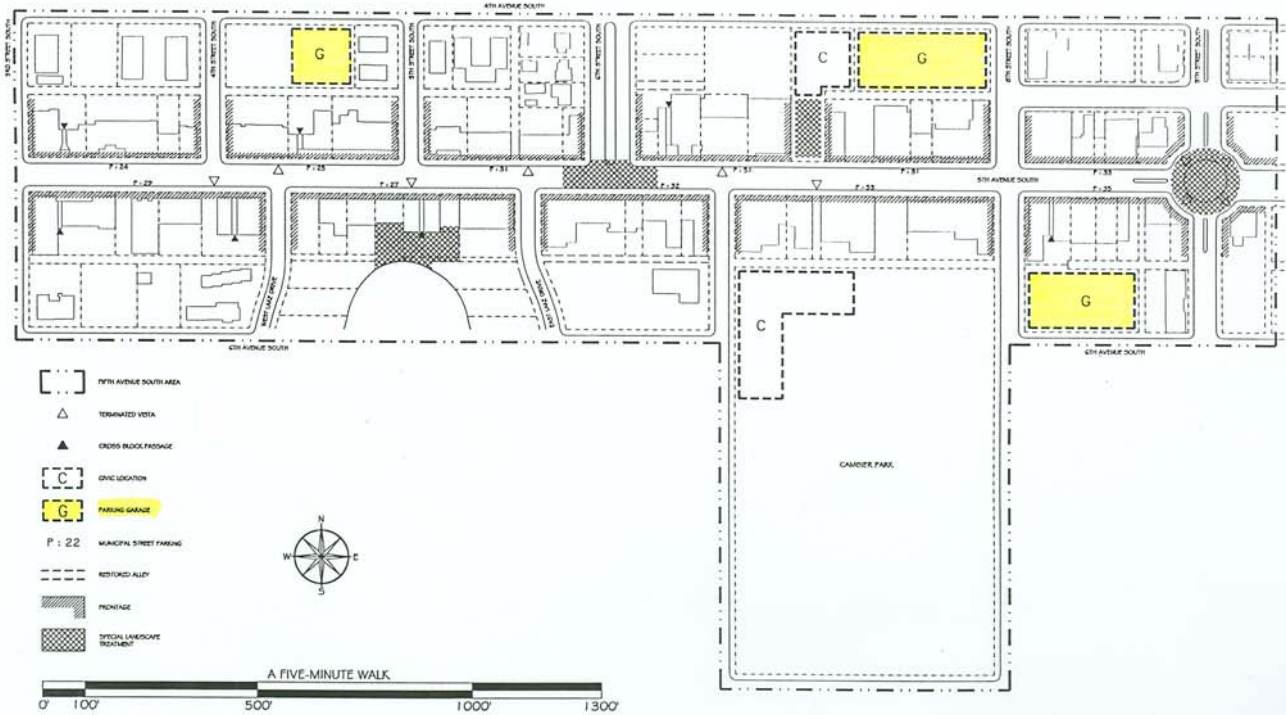


Naples – Fifth Avenue South



Fifth Avenue South Regulating Plan

September 1997

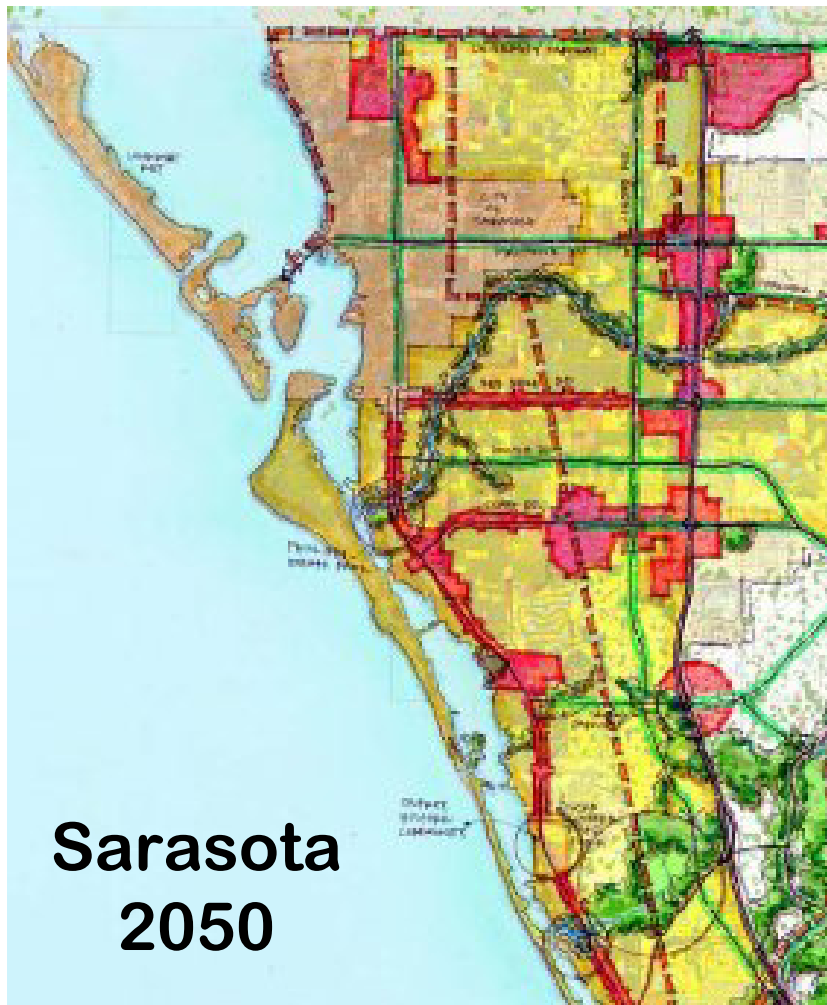


<http://www.municode.com/resources/gateway.asp?pid=10201&sid=9>



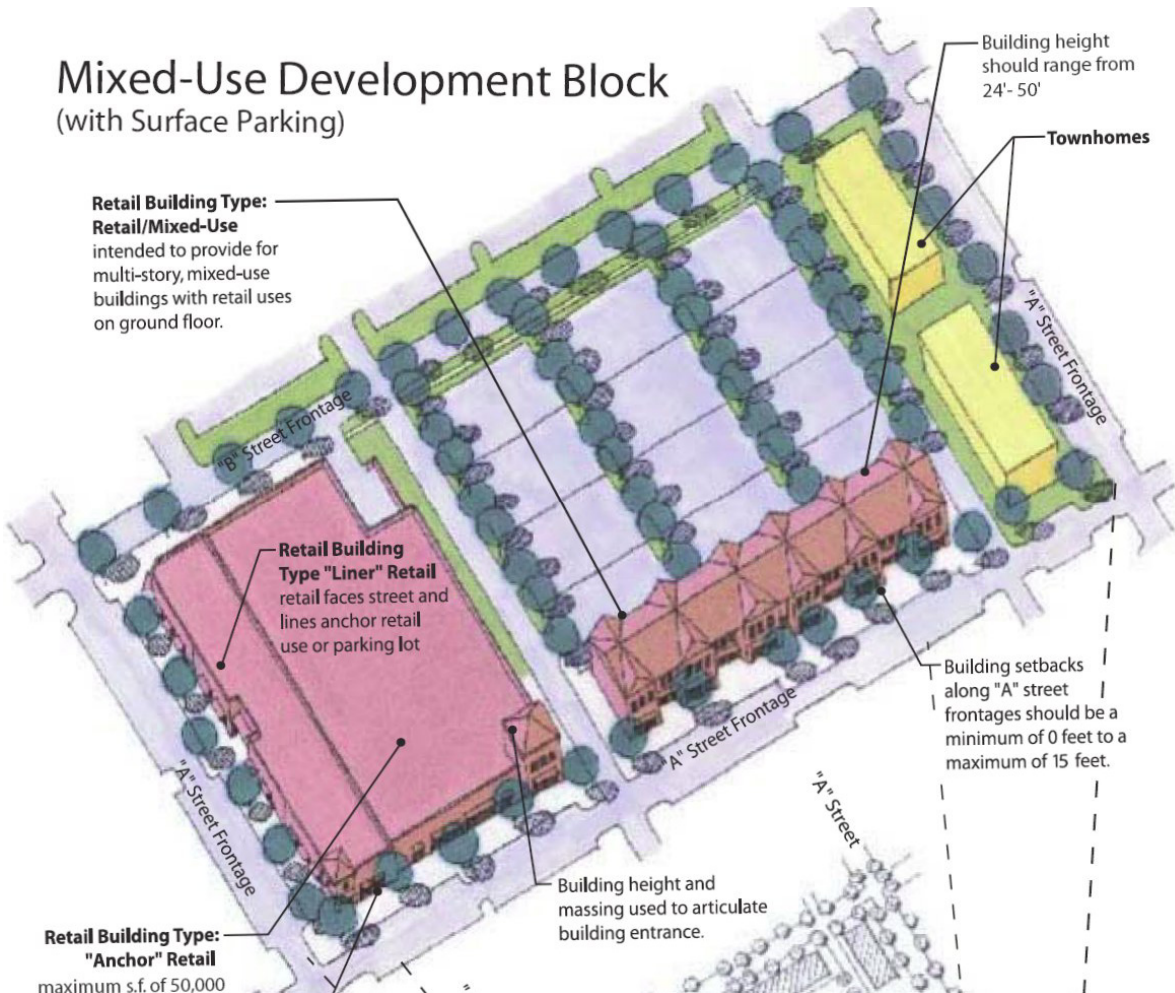
Colonnade condominiums – Fifth Ave. South

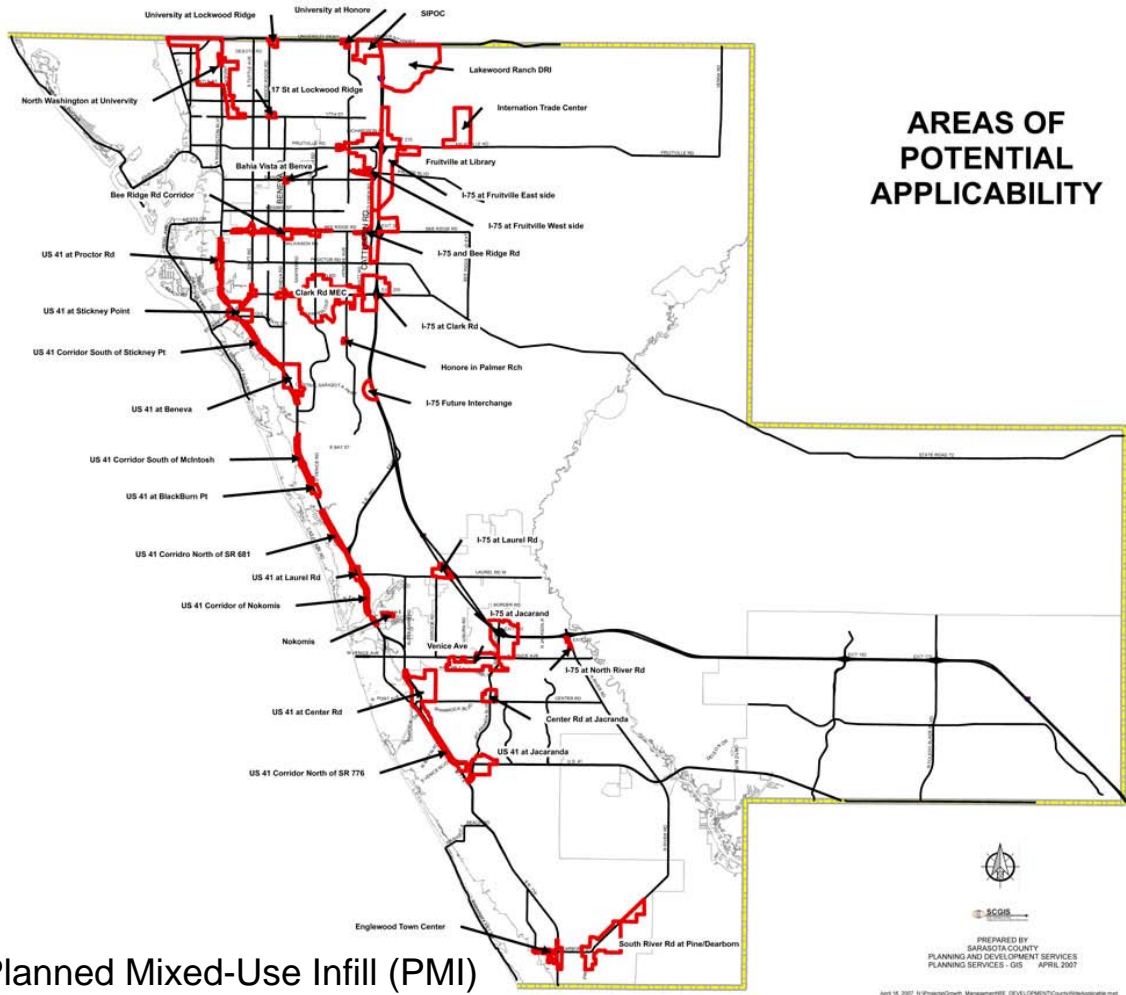




Sarasota 2050

Mixed-Use Development Block (with Surface Parking)





Planned Mixed-Use Infill (PMI)

example site



Existing aerial photo

Establish a vision using key principles:

A densely **interconnected street network**, dispersing traffic and providing convenient routes for pedestrians and bicyclists.

High-quality public spaces, with all building facades having windows and doors facing tree-lined streets, plazas, squares, and neighborhood parks.

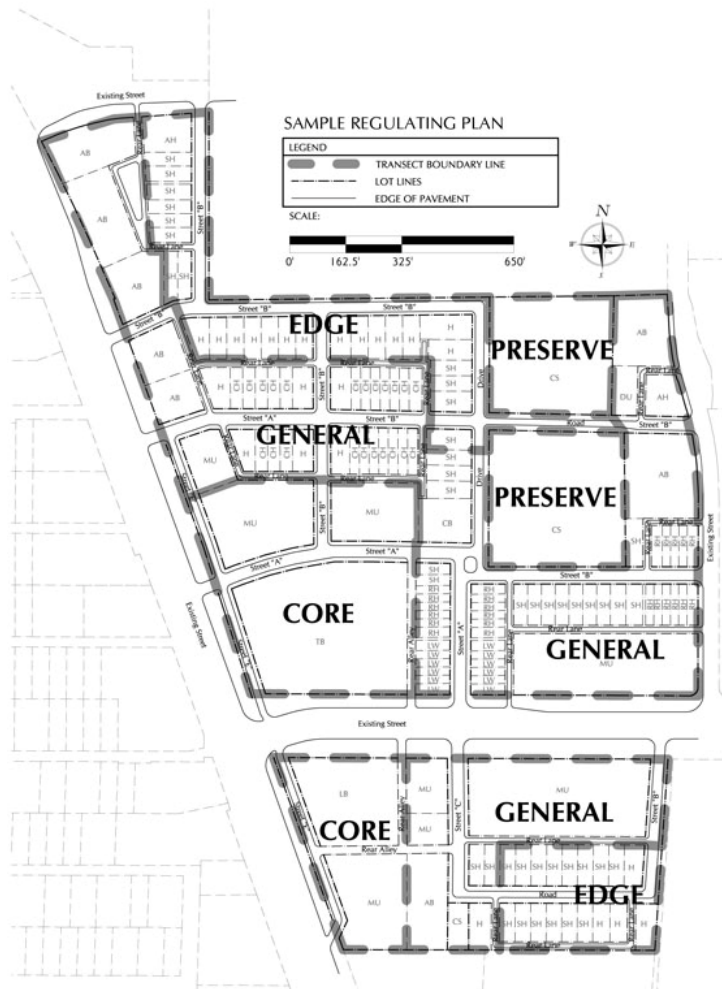
Compact development, creating a **walkable** urban environment and conserving land and energy through reduced automobile usage and advanced techniques such as stormwater infiltration.

Diversity not homogeneity, with a **variety of building types, street types, open spaces, and land uses** providing for people of all ages and every form of mobility.

Resilient and **sustainable neighborhoods**, adaptable over time to improved **public transit** and to changing economic conditions.

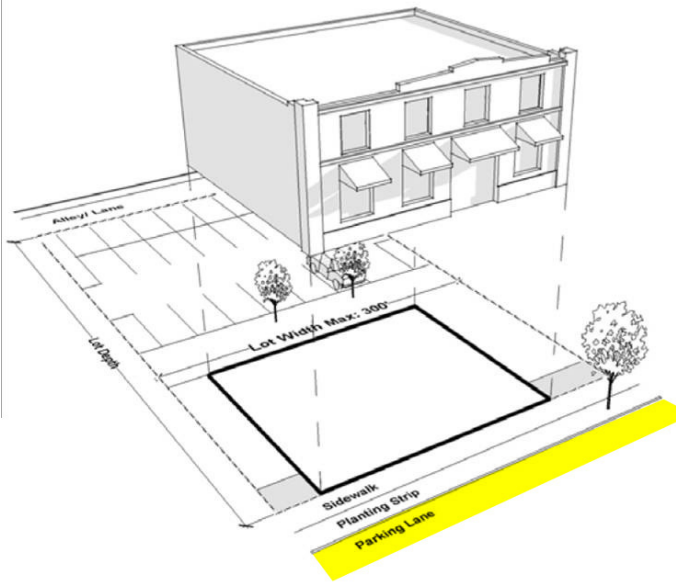


implementation details



Regulating Plan

parking



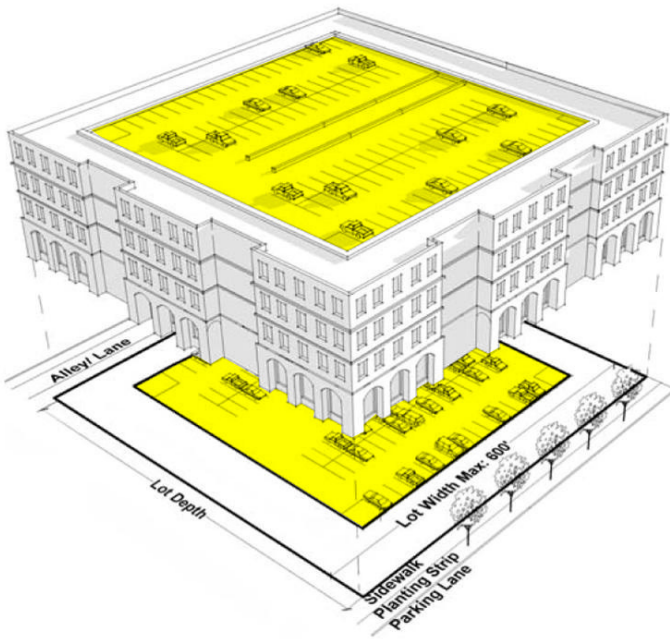
On-street parking provides pedestrian-friendly environment

parking



Off-street parking is screened from view of streets

parking

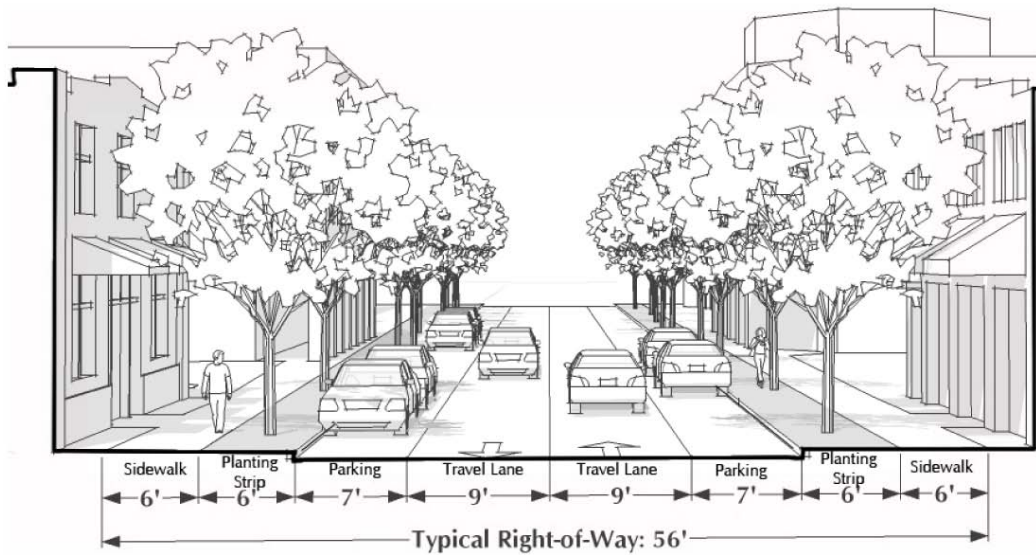


Off-street parking is screened from view of streets

menu of street types

Street B:

Core	
General	●
Edge	●
Preserve	

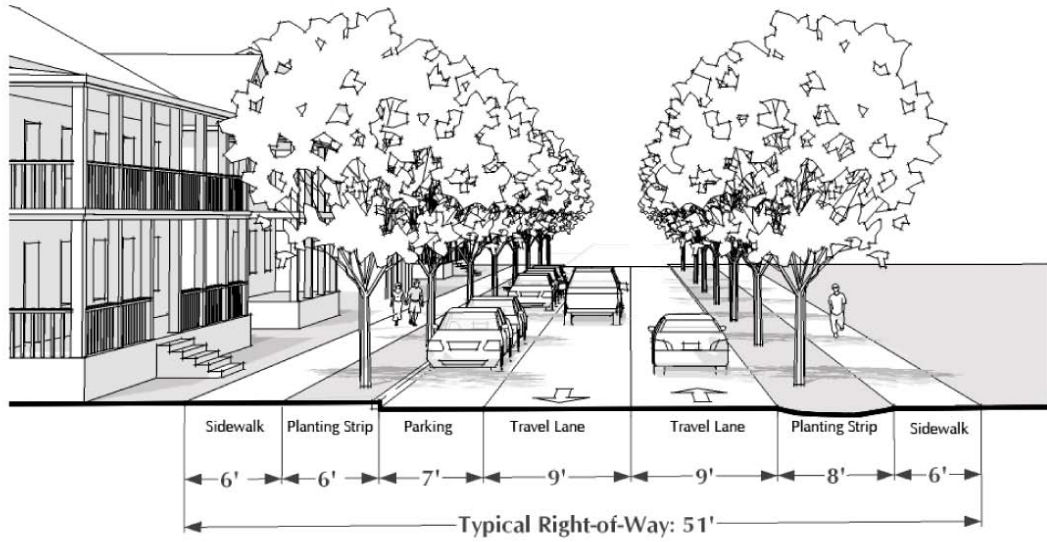


Movement type: slow

menu of street types

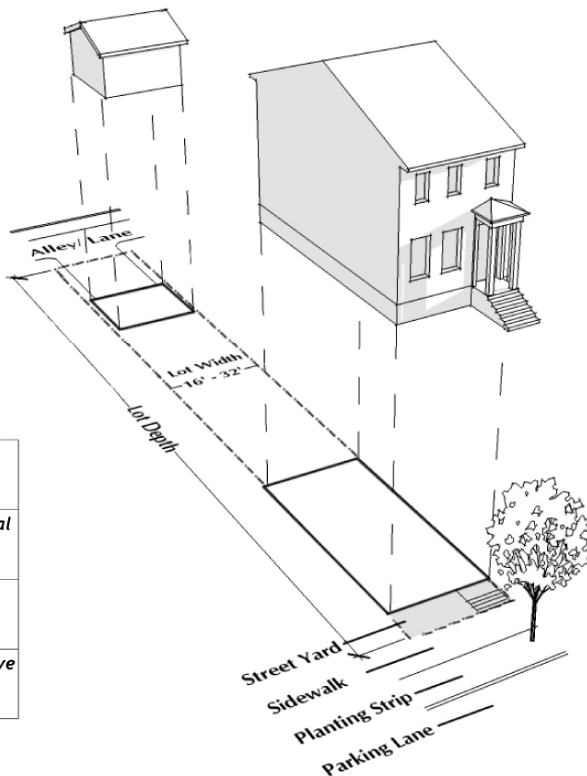
Drive:

Core	
General	●
Edge	●
Preserve	



Movement type: slow

menu of lot types

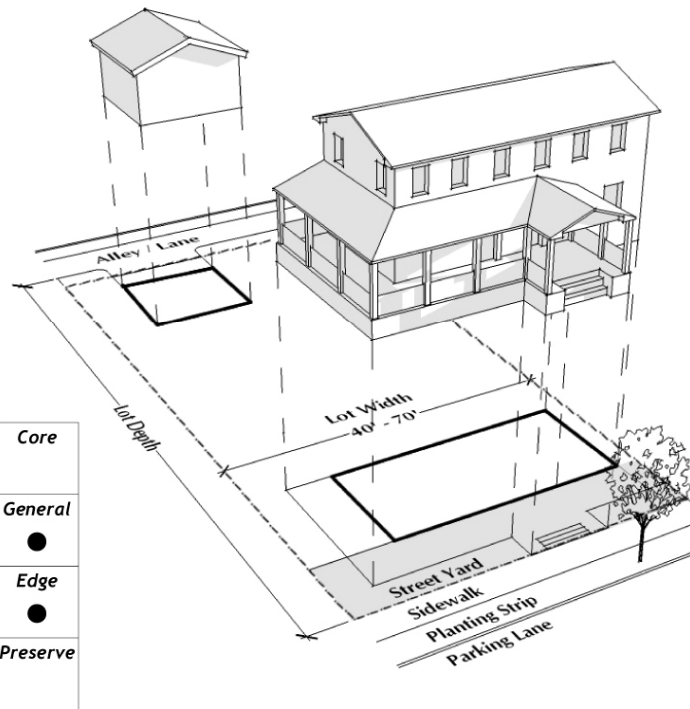


Core	●
General	●
Edge	
Preserve	

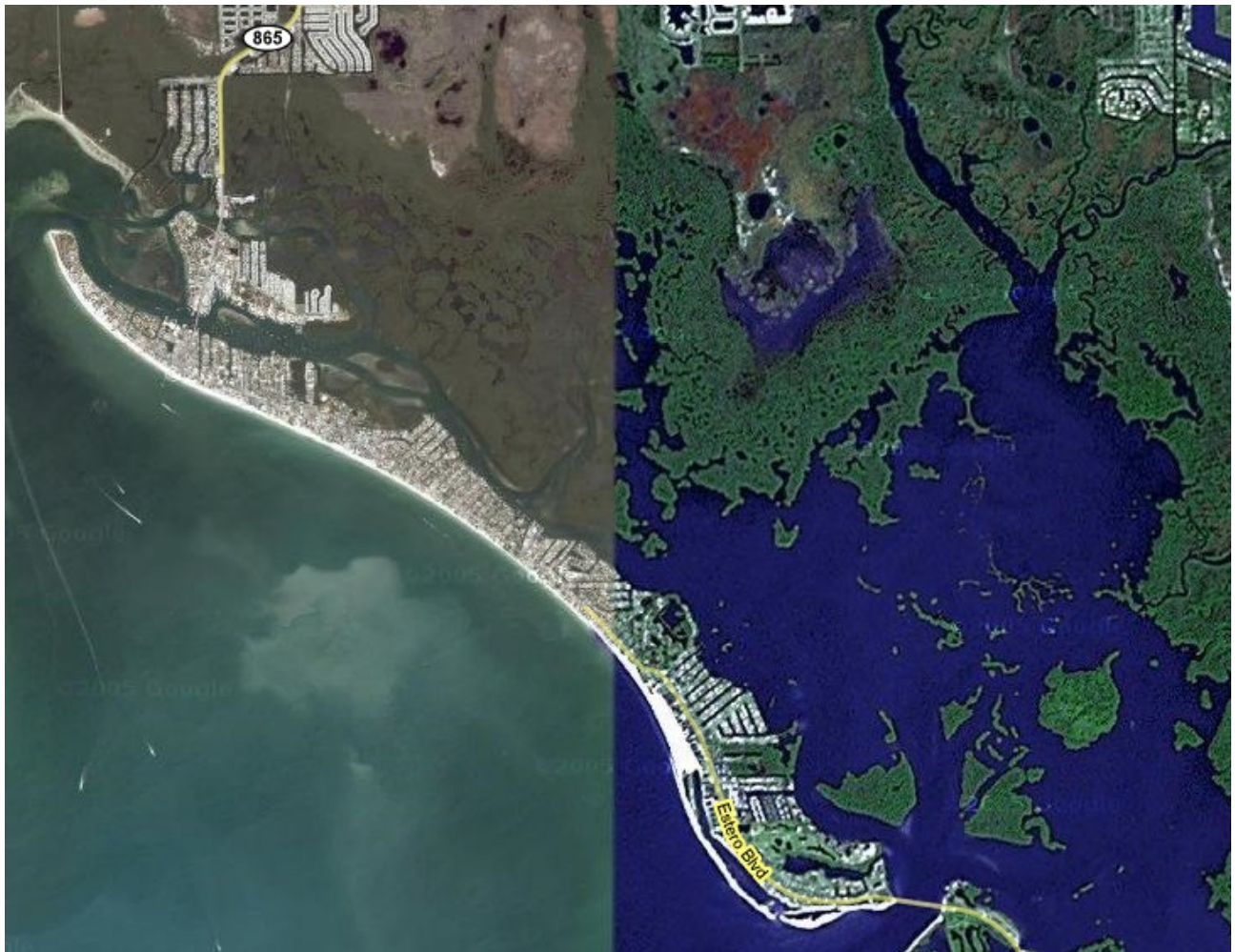


Rowhouse

menu of lot types



House



TOWN OF
FORT MYERS BEACH

COMPREHENSIVE PLAN



INTRODUCTION — 1

"ENVISIONING TOMORROW'S FORT MYERS BEACH" — 2

COMMUNITY DESIGN ELEMENT — 3

FUTURE LAND USE ELEMENT — 4

COASTAL MANAGEMENT ELEMENT — 5

CONSERVATION ELEMENT — 6

TRANSPORTATION ELEMENT — 7

UTILITIES ELEMENT — 8

STORMWATER MANAGEMENT ELEMENT — 9

RECREATION ELEMENT — 10

CAPITAL IMPROVEMENTS ELEMENT — 11

HOUSING ELEMENT — 12

HISTORIC PRESERVATION ELEMENT — 13

INTERGOVERNMENTAL COORDINATION ELEMENT — 14

PROCEDURES AND MONITORING — 15

TOWN OF FORT MYERS BEACH, FLORIDA
LAND DEVELOPMENT CODE

CHAPTER 1	General Provisions	Adopted by Town Charter, 12/31/95 Replaced by Ord. No. 02-01, 2/4/02 Amended by Ord. No. 05-07, 4/18/05
CHAPTER 2	Administration	Adopted by Town Charter, 12/31/95 Replaced by Ord. No. 00-11, 6-29-00 Amended by Ord. No. 02-01, 2/4/02 (§§2-301– 459) Amended by Ord. No. 03-12, 12/15/03 (§§2-420–459) Amended by Ord. No. 05-07, 4/18/05
CHAPTER 6	Maintenance Codes, Building Codes, and Coastal Regulations	Adopted by Town Charter, 12/31/95 Replaced by Ord. No. 00-12, 6/29/00 Amended by Ord. No. 02-01, 2/4/02 (§§6-401–474) Amended by Ord. No. 04-09, 6/30/04 (§§6-401–474) Amended by Ord. No. 05-07, 4/18/05
CHAPTER 10	Development Orders and Engineering Standards	Adopted by Town Charter, 12/31/95 Replaced by Ord. No. 04-01, 1/5/04 Amended by Ord. No. 05-07, 4/18/05
CHAPTER 14	Environment and Natural Resources	Adopted by Town Charter, 12/31/95 Amended by Ord. No. 98-3, 4/6/98 Replaced by Ord. No. 02-01, 2/4/02 Amended by Ord. No. 02-29, 9/26/02 (§§14-6, 14-78) Amended by Ord. No. 05-24, 6/27/05 (since repealed)
CHAPTER 22	Historic Preservation	Adopted by Town Charter, 12/31/95 Replaced by Ord. No. 02-01, 2/4/02
CHAPTER 26	Marine Facilities	Adopted by Town Charter, 12/31/95 Replaced by Ord. No. 02-01, 2/4/02

Integrating form-based elements into a conventional code:

1. Less emphasis on uses of land

Sec. 34-622. Uses groups and sub-groups.

(a) Allowable land uses are assigned by Table 34-1 to one of six use groups:

- (1) **Residential**
- (2) **Lodging**
- (3) **Office**
- (4) **Retail**
- (5) **Marine**
- (6) **Civic**

(b) Within each use group, Table 34-1 also assigns each allowable land use to one of three sub-groups:

- (1) **R** -Restricted
- (2) **L** -Limited (which includes all R uses)
- (3) **O** -Open (which includes all R and L uses)

Integrating form-based elements into a conventional code:

1. Less emphasis on uses of land

2. Reduced off-street parking

Sec. 34-676

DOWNTOWN

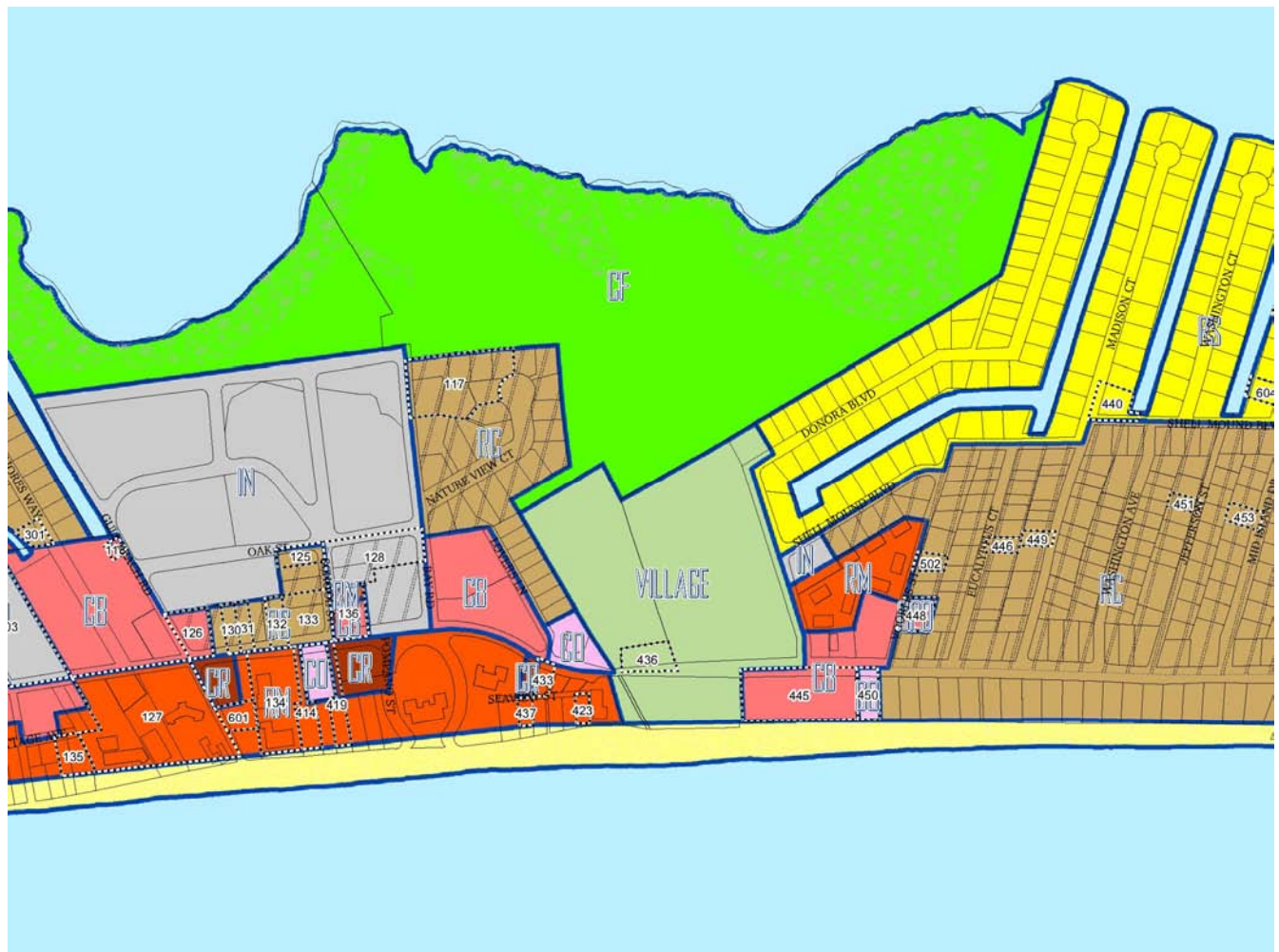
Sec. 34-676. Circulation and parking.

(a) *Off-street parking reductions.* The DOWNTOWN district is planned as a “park-once” district, with preference given to pedestrian movement within the district. On-street parking will be provided by the town along Old San Carlos Boulevard and other public parking is available under the Sky Bridge. For these reasons, substantial reductions are allowed to the normal off-street parking requirements found in § 34-2020. The follow percentages shall be multiplied by the number of off-street parking spaces normally required by § 34-2020 to determine the adjusted off-street parking requirements along various streets in the DOWNTOWN district:

- (1) Old San Carlos Boulevard, multiply by 50%.
- (2) Bayfront pedestrian plazas (see Figure 34-6), multiply by 50%. No parking spaces may be provided in the Bayfront pedestrian plaza, but the required spaces must be located within 750 feet in single-purpose, shared, or joint-use parking lots (see division 26 of this chapter).
- (3) Times Square pedestrian plaza (see Figure 34-6), multiply by 0%.
- (4) All other streets in the DOWNTOWN district, and all land on Crescent Street regardless of zoning district, multiply by 67%.

Integrating form-based elements into a conventional code:

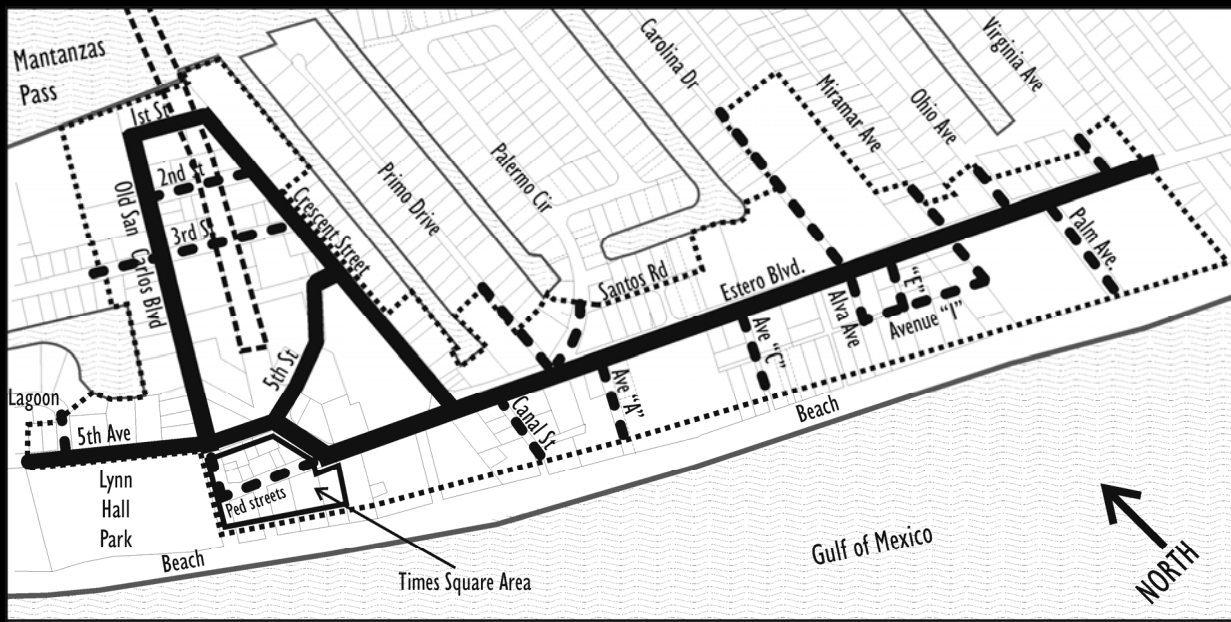
1. Less emphasis on uses of land
2. Reduced on-site parking
3. New zoning map eased transition to form-based coding



New zoning map has 3 types of zoning districts:

- Conventional zoning districts
- Redevelopment zoning districts (form-based)
- Planned zoning districts

“Downtown” regulating plan #1:



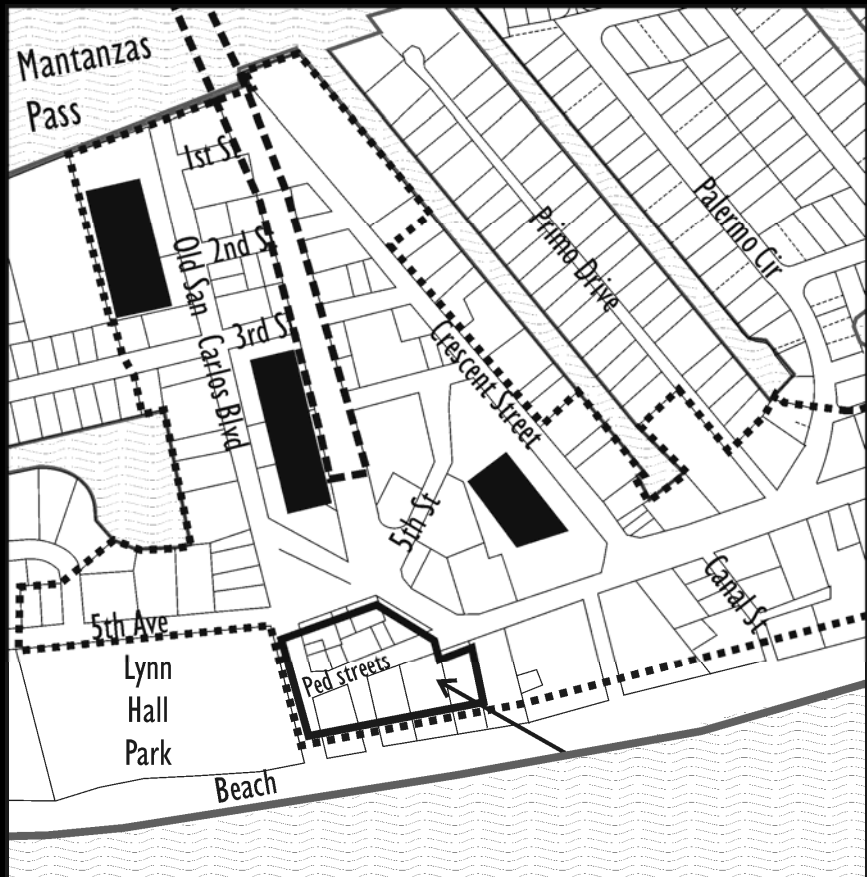
Primary Streets

- Old San Carlos Blvd,
- Fifth Ave/Street,
- Estero Blvd, (East of 5th to District edge)
- Crescent Street, &
- First St.

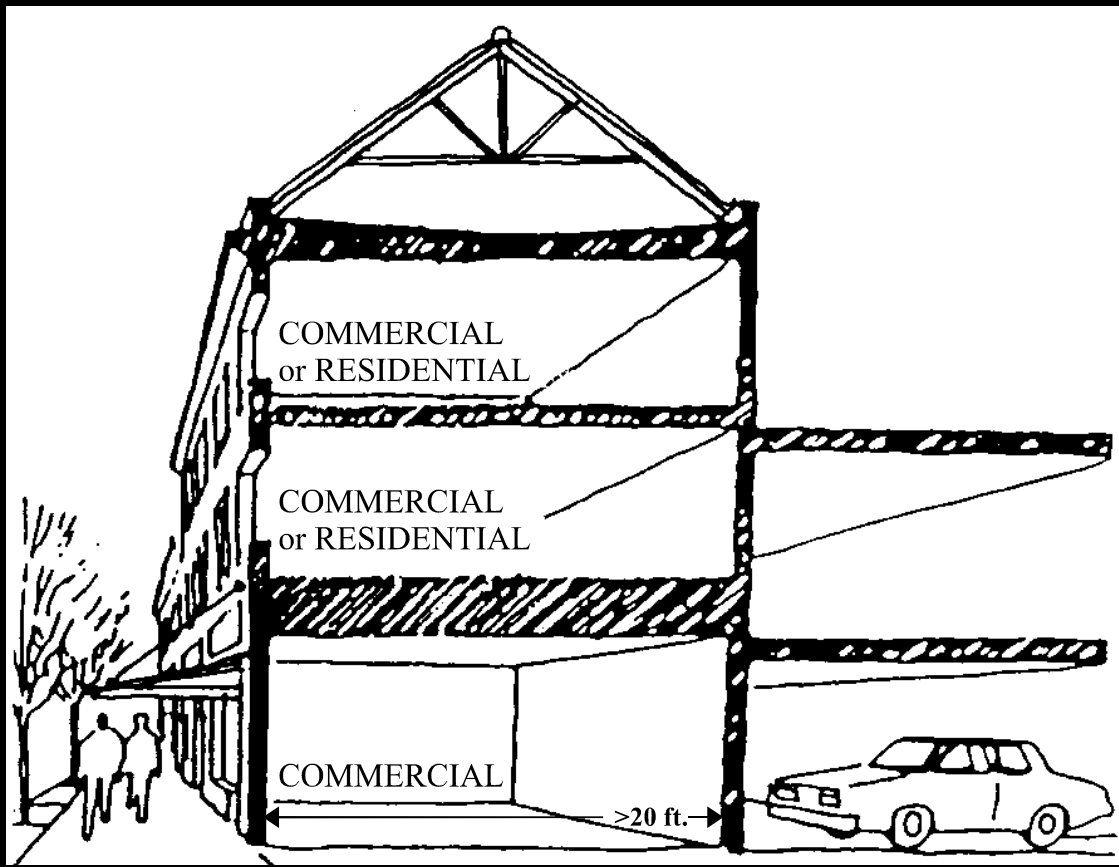
Secondary Streets

- Second & Third Streets,
- Lagoon Street,
- Pedestrian streets in Times Square,
- Primo Drive,
- Palermo Cir,
- Carolina Dr

“Downtown” regulating plan #2:



“Downtown” building form standards:



Integrating form-based elements into a conventional code:

1. Less emphasis on uses of land
2. Reduced on-site parking
3. New zoning map eased transition to form-based coding
4. Commercial design standards (not guidelines)

(a) *Facade elements.* Principal facades are the primary faces of buildings. Being in full public view, they shall be given special architectural treatment.

- (1) All principal facades shall have a prominent cornice and expression line, a working entrance, and windows (except for side-wall facades where entrances are not required).

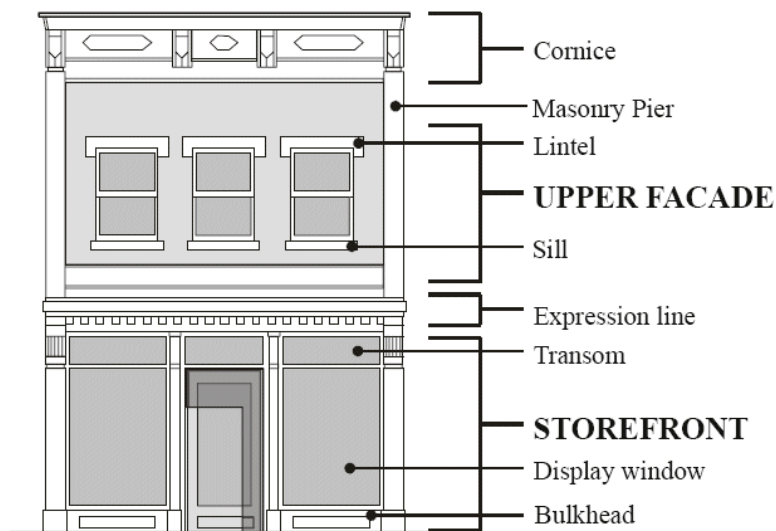
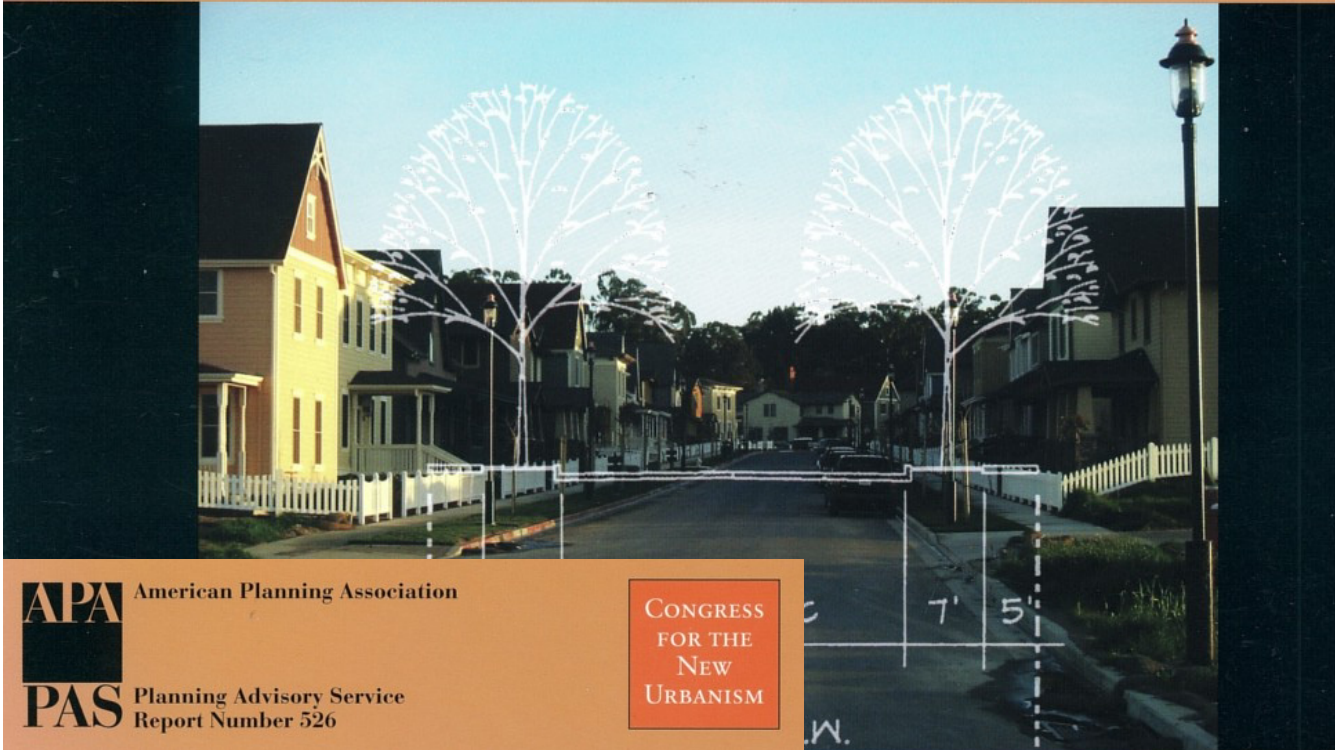


Figure 34-18

Codifying New Urbanism

How to Reform Municipal Land Development Regulations



American Planning Association

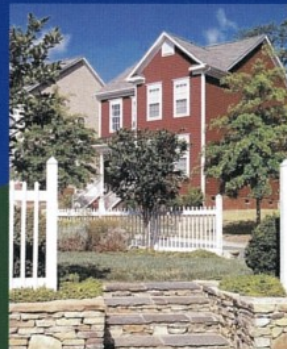


Planning Advisory Service
Report Number 526

CONGRESS
FOR THE
NEW
URBANISM

Smart Growth Zoning Codes: A Resource Guide

Local Government Commission
by Steve Tracy



FORTHCOMING BOOKS:

- “Form-Based Codes” by Paul Crawford, Daniel Parolek and Karen Parolek

- “A Legal Guide to Urban and Sustainable Development for Planners, Developers and Architects” by Doris Goldstein, Dan Slone and Andy Gowder

For more information on
form-based codes:

www.formbasedcodes.org



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