

# Integrating Sustainable Design Into Form-Based Codes

New Partners for Smart Growth

3 February 2011

**FBCI** Form-Based  
Codes  
Institute

## “Sustainability is a Low Standard”

- Kaizer Rangwala, in a forth-coming article to be published in the March issue of *Practicing Planners* writes “we have a long way ahead if we are going to restore the human habitat.” I submit to you today, that should be our challenge.

## What are Form-Based Codes?

- “Form-Based Codes foster predictable built results by using physical form (rather than separation of uses) as the organizing principle for the code. They are regulations, not mere guidelines. They are adopted into city or county law. Form-Based Codes are an alternative to conventional zoning.”

## What are Form-Based Codes?

- As the name implies, FBCs focus on *form* – the relationship of buildings to one another and to the public way.
- FBCs are *place-based*, i.e. the code can vary street by street or block-face by block face
- FBC is a *tool* that enables communities to implement a shared vision.

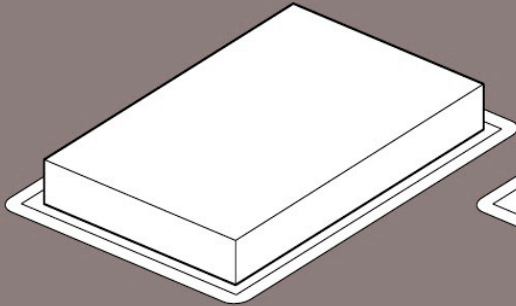
## How FBCs Differ from Conventional Codes

- Conventional land use regulation – Euclidean Zoning – requires separation into use zones (hence sprawl) and tries to control density with FAR – a blunt tool that does not address form.
- Furthermore, conventional zoning fails to look at the relationship among buildings, a major difference between Euclidean and Form-Based Codes.

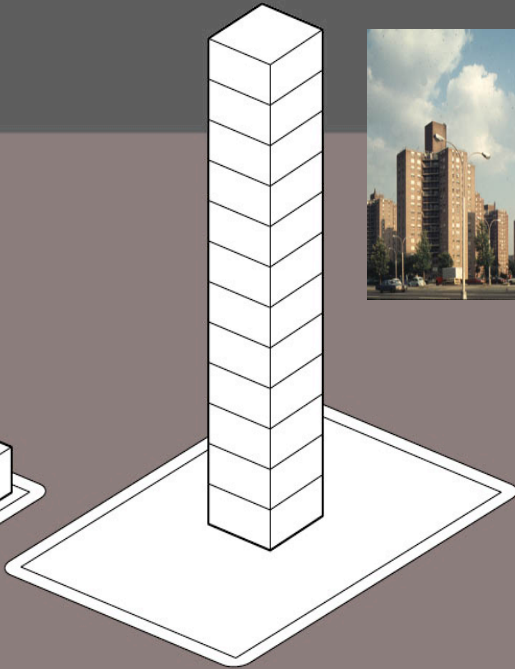
## How FBCs Differ from Conventional Codes

- Euclidean zoning does not distinguish between building types within a given density.
- The same zoning – as of right – allows either of the following, and there is no way to predict which one.

# Regulating Mechanism: Floor Area Ratio (FAR)



FAR 1.0



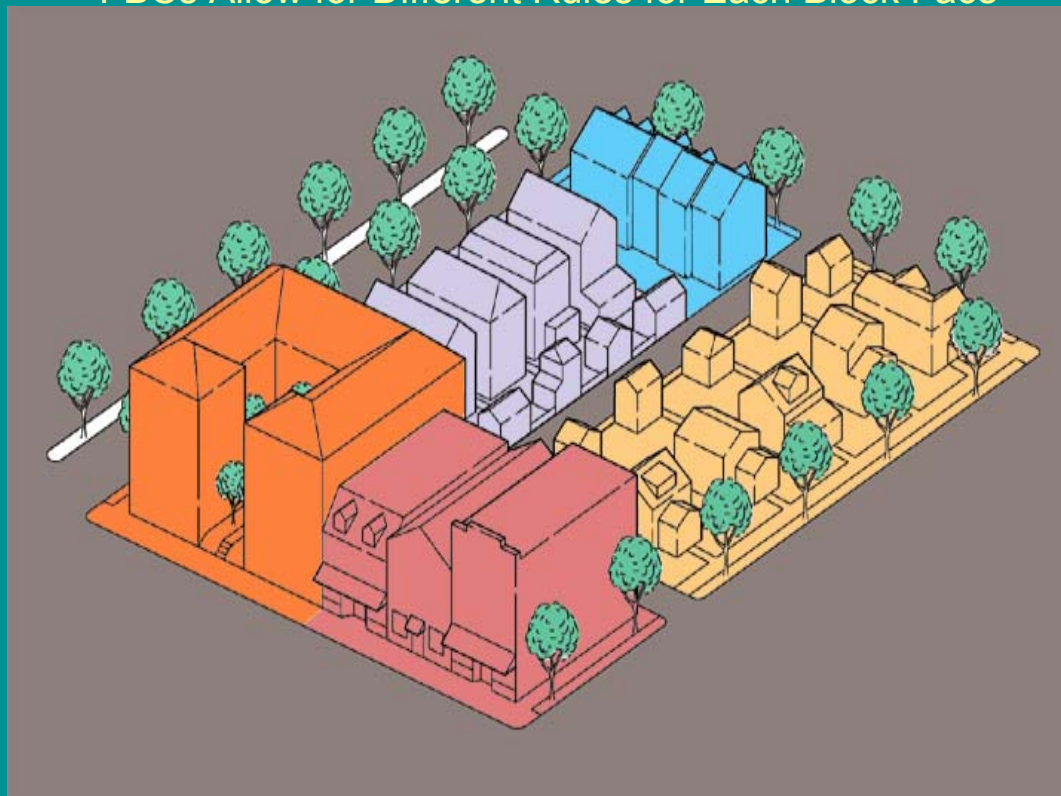
FAR 1.0

## How FBCs Differ from Conventional Codes

- Conventional zoning requires the same FAR for a multi-block area.
- In FBCs, building forms can differ from block face to block face



## FBCs Allow for Different Rules for Each Block Face



## How FBCs Differ from Conventional Codes

- For each street Building Standards prescribe the height, placement and lot coverage, elements and, to a lesser extent the use, of the buildings.

# Building Type in Elevation

Ferrell Madden Lewis Example

### Workplace Building Sites

Height		<p>The building shall be between 2 and 4 Stories in Height, except where otherwise noted on the Regulating Plan.</p> <p>Any Parking Structure within the Block shall not exceed the clear height of any building within 75 feet.</p> <p>Any unit within EREL or Common Lot Line shall have a Street Wall building height between 6 feet and 15 feet in height.</p>
Siting		<p>The Street Frontage shall be 2nd-7th the Required Building Line (RBL) within 75 feet of any Building Corner, and 2nd-7th not less than 75% of the RBL overall. There are no required side setbacks.</p> <p>Any unit within EREL shall have a Street Wall along it, between 6 feet and 15 feet in height.</p> <p>*Parking for vehicles (cars, trailers, boats, etc.) shall be at least 20 feet from any Street Frontage (excepting basement garages).</p> <p>*Garage/Trailer enclosures shall be no closer than 75 feet from any Building Corner (except where otherwise designated on the Regulating Plan).</p>
Elements		<p>Fenestration shall be no less than 30% for all EREL building facades (measured for each facade and story between 2 and 9 feet above the finished floor). Handlengths of wall greater than 20 linear feet are prohibited.</p>
Uses		<p>The Ground Floor shall be only non-Residential Uses such as Office and Retail.</p> <p>The Upper Floors may be either Office or Residential Use (including hotel apartments).</p> <p>Front-facing entry doors shall be along the Street facade of the building at intervals not greater than 125 feet.</p> <p>The garage, parking for vehicles (cars, trailers, boats, etc.) shall be at least 20 feet from any Street Frontage (excepting basement garages). *Except where otherwise designated on the Regulating Plan.</p>

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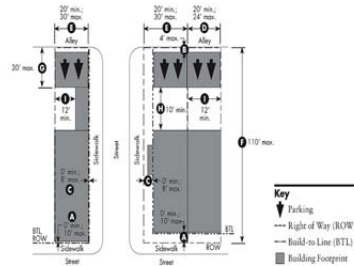
### Shopfront Buildings

Height		<p>The building shall be between 2 (2) and 4 Stories in Height, except where otherwise noted on the Regulating Plan.</p> <p>Any Parking Structure within the Block shall not exceed the clear height of any building within 75 feet.</p> <p>Any unit within Street Frontage or Common Lot Line shall have a Garden Wall building height between 6 feet and 15 feet in height.</p> <p>The ground floor elevation shall be no more than 6 inches above the finished ground elevation.</p> <p>If less than 50% of the ground floor shall have at least 12 feet clear height. If less than 50% of the upper stories shall not have at least 8 feet 6 inches clear height.</p>
Siting		<p>The Street Frontage shall be 2nd-7th the Required Building Line (RBL) within 75 feet of any Building Corner, and 2nd-7th not less than 75% of the RBL overall. There are no required side setbacks.</p> <p>Any unit within Street Frontage shall have a Garden Wall along it, between 6 feet and 8 feet in height.</p> <p>*Parking for vehicles (cars, trailers, boats, etc.) shall be at least 20 feet from any Street Frontage (excepting basement garages).</p> <p>*Garage/Trailer enclosures shall be no closer than 75 feet from any Building Corner (except where otherwise designated on the Regulating Plan).</p> <p>Adjacent parking areas shall be connected.</p>
Elements		<p>The primary Ground Floor Facade shall have not less than 60% Glass Fenestration (measured between 2 and 10 feet above the finished floor).</p> <p>Upper Story facades shall have at least 30% Fenestration (measured for each story between 2 and 6 feet above the finished floor) windows and Overhangs are encouraged.</p> <p>No windows are allowed on those facades that are within 45 feet of Parking Structures and Common Lot Lines within 30 feet.</p> <p>Areas that are 11 feet clear height are permitted for signage and constructed in compliance with Street Frontages of at least 200 feet to meet the Mainplan.</p>
Uses		<p>The Ground Floor shall house only Retail Uses.</p> <p>The Upper Floors may be either (A) Residential Use, or (B) Office or Lodging.</p> <p>Front-facing entry doors shall be along the Street facade of the building at intervals not greater than 75 feet.</p> <p>The garage, parking for vehicles (cars, trailers, boats, etc.) shall be at least 20 feet from any Street Frontage (excepting basement garages). *Except where otherwise designated on the Regulating Plan.</p>

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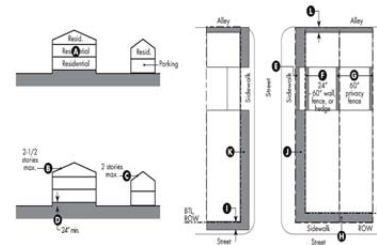
# The Code in Plan View and Elevation: Hercules Phase II by Opticos Design

## Type I: Townhouse



Building Placement	Parking
<b>Setbacks (to BTL)</b>	<b>Location</b>
Front 0' min.; 10' max.; 16' max. with front porch	Distance from Rear ROW 30' max.
Rear 4' max.	Loading Alley only
Side 0'	<b>Required Spaces</b>
Street Side, Corner Lot 0' min.; 8' max.	Main Unit One (1) off-street space plus one (1) on- or off-street space
<b>Lot Width</b>	Ancillary Unit None
Minimum 20'	
Maximum 24'	<b>Miscellaneous</b>
Maximum, Corner Lot 30'	Townhouses within one block of single-family houses must be no more than 4 units wide.
<b>Lot Depth</b>	10' min. distance between main body of house and garage.
Minimum None	12' min. backyard width.
Maximum 130'	
<b>Lot Size</b>	<b>Corner Lots</b>
Typical 24' x 100'	Facade edge of garage and main body of house must be aligned along the corner elevation.

## Type I: Townhouse



Use	Encroachments
All Floors Residential or Home Office	<b>Front</b>
Home Offices 500 sq. max.	With Setback
	All Elements To ROW
	Without Setback
	Stairs 2'
<b>Height</b>	Upper-Story Balconies 6'
Building 2-1/2 stories max.	
Ancillary Units 2 stories max.	<b>Street Side, Corner Lot</b>
Finish Ground Floor Level 24' min. above sidewalk	With Setback
	All Elements To ROW
	Without Setback
<b>Elements</b>	Upper-Story Balconies 6'
Porch Depth 8' min.	
If street-facing setback is greater than 7', a 24"-30" high wall, fence, or hedge must be located along the ROW.	<b>Rear</b>
On corner lots, a 24"-60" high wall, fence, or hedge must be located along the BTL.	Upper-Story Balconies 4'
A 72" privacy fence is required between units.	

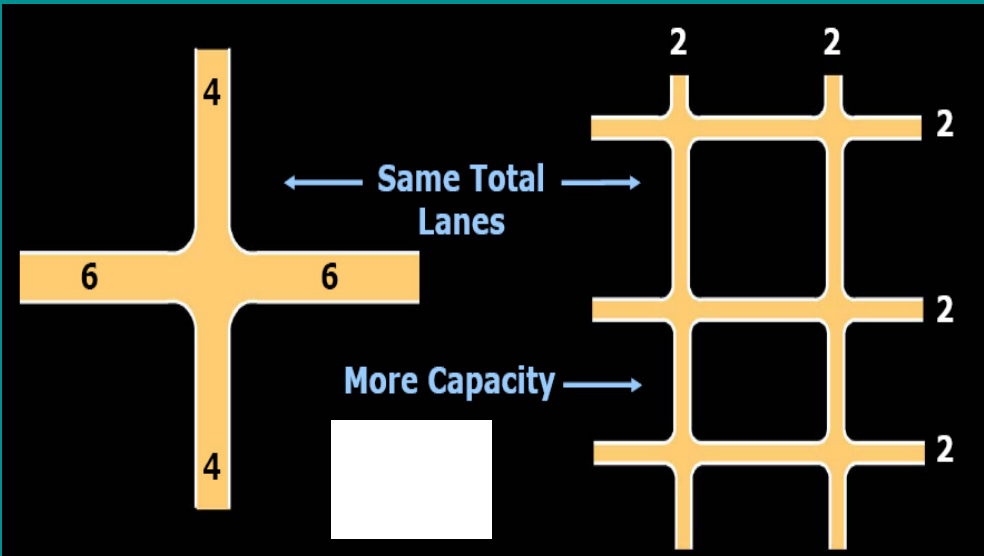
FBCs Enable You to Specify Results Between This:



...and this



# Design of the Public Realm Combines with the Private Realm to Create Each Place



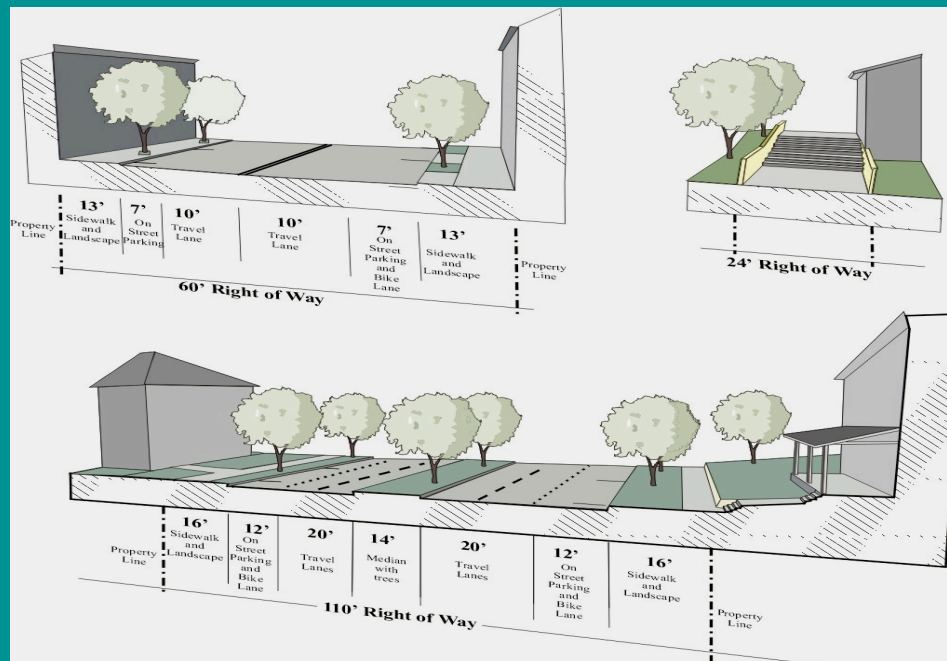


## The Public and Private Space Rules Combine to Create Place





## Street and Sidewalk Width and Parking Rules Should Match the Intent for the Private Space



## FBCs Vs. Conventional Zoning

- Conventional: Master Plan or Comprehensive Plan and Zoning Map
- FBC: Vision, Illustrative and Regulating Plan



Farmer's Branch  
DART Station

## Where Are FBCs Being Used?

- City-Wide
- Town Centers
- Greenfields
- Brownfields
- Greyfields
- Built-Up Neighborhoods where
  - change is desired
- Historic neighborhoods threatened by tear-downs and...
- even for sprawl repair!

## What is the Form-Based Code Institute?

- **Mission:** *To advance the knowledge and use of, and develop standards for, Form-Based Codes as a method to achieve a community vision based on time-tested forms of urbanism.*
- Composition
- Current Projects
  - ❖ Teaching
  - ❖ Promoting – definition, evaluation, RFQ
  - ❖ Awards-deadline for the 2011 Driehaus FBC Awards is March 31st.

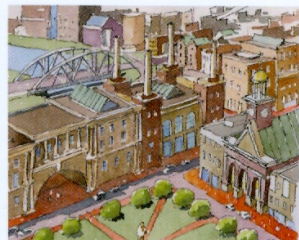
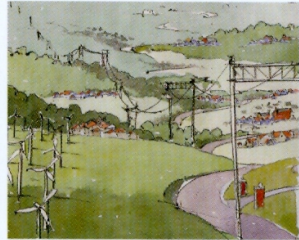
# Form-Based Codes



A Guide for Planners, Urban Designers,  
Municipalities, and Developers

Daniel G. Parolek, AIA • Karen Parolek • Paul C. Crawford, FAICP  
Forewords by Elizabeth Plater-Zyberk and Stefanos Polyzoides





# A LEGAL GUIDE TO URBAN AND SUSTAINABLE DEVELOPMENT

for Planners,  
Developers, and  
Architects

Daniel K. Slone and Doris S. Goldstein  
with W. Andrew Gowder Jr.

Foreword by Andrés Duany

## Where to Learn More

- [www.formbasedcodes.org](http://www.formbasedcodes.org)