

# Form-Based Codes

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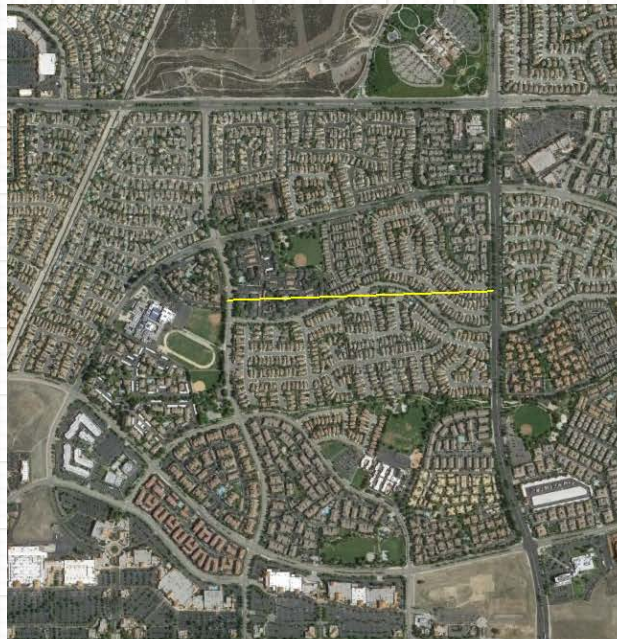
Cupertino, CA

April 12, 2018

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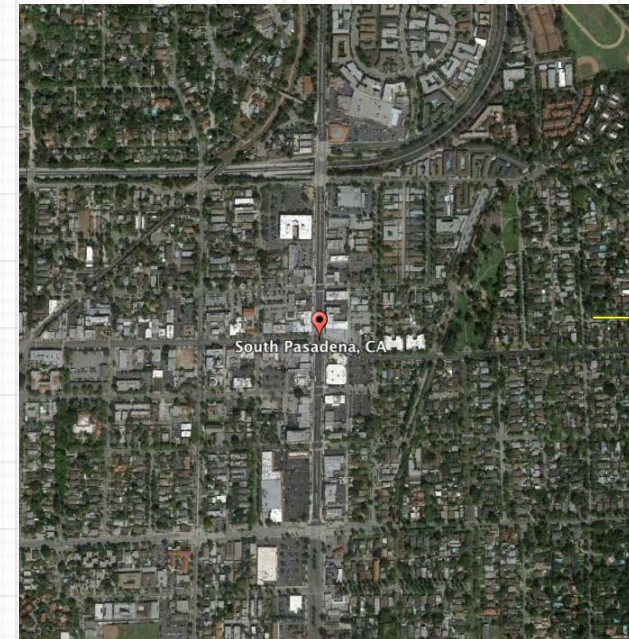
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Auto-Oriented Suburban Pattern

Organizing Principle: Land Use

Best Zoning: Conventional



Walkable Urban Pattern

Organizing Principle: Physical Form

Best Zoning: Form-Based



# 3 systems to implement your vision

## Use-Based Zoning

**Land Use**

**Density / FAR**

**Building Height**

**Administration**

**Public Realm**

## Negotiated Zoning (PUD)

**Land Use**

**Density / FAR**

**Building Height**

**Administration**

**Public Realm**

## Form-Based Zoning

**Physical Character**

**Public Realm**

**Compatibility**

**Clarity in Administration**

**Land Use**

# The Trend



### 4.3 Overuse of PUDs and SPUDs

#### Overuse of PUD Zoning

Based on the ineffective base zoning districts, it is understandable why the PUD and SPUD (PUD) have been used so much in Oklahoma City. However, over time administration of the PUDs proves challenging because the standards for each PUD need to be maintained and followed as new development or remodels are proposed in the area covered by the PUD. Each PUD is unique and sometimes not by much. But each requires administrative time to manage and time by each applicant to generate.

With physically-based zoning for walkable urban and rural areas, and improved base zoning for auto-oriented suburban areas, PUDs and SPUDs will not be necessary for new applications. Clarification and reliance on other procedures may also remove the need, increase by-right development, and streamline the process overall.

#### Recommendations

With improved base zoning regulations, the updated Zoning Code should reduce the reliance on and need for PUDs and SPUDs. For parts of the city covered under physically-based standards, PUDs can be an option but will no longer be necessary.

The updated Zoning Code should introduce needed flexibility, while streamlining the permitting process. This is possible if the base zoning districts are effective.

The Zoning Code update should also clarify and create differentiation in the intent and application of Master Plans. Master Plans should be used only when the intent of plan~~o~~ck needs to be further clarified and detailed in order to guide how the base zoning districts will

implement that vision. Master plans should not be used to plan an area that can otherwise be implemented through the updated Zoning Code, including updated procedures.

**2,599+**

**Existing PUDs and SPUDs**  
**Average of 84 per year**  
**or 7 per month**

**800**

# Conventional Zoning

- Emphasis on regulation by use

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

- Disconnect between land use, urban form, and design

- Exceptions become the rule

# Conventional Zoning

- Emphasis on regulation by use

- 19. Baths, Turkish
- 25. Boxing arena
- 28. Chinchillas, retail sales
- 41. Eleemosynary institutions
- 42. Embalming business

ce: Including but not lim  
) ; Cabaret - 21 and Over  
catessen; Farmers Mark  
; Restaurant - Drive In ; F  
amily with Lounge ; Res  
) ; Yogurt Store - Retail.

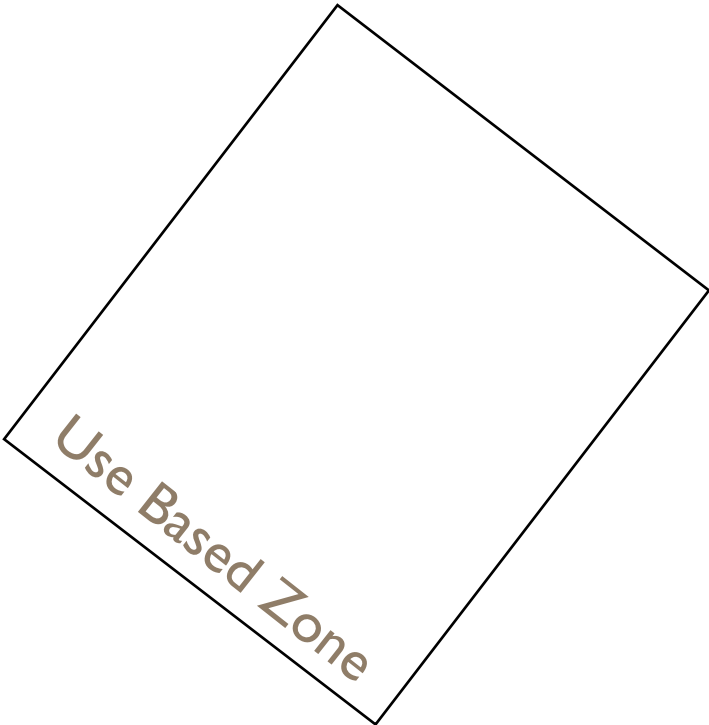
- Disconnect between land use, urban form, and design
- Exceptions become the rule

# Great at what it wants to prevent

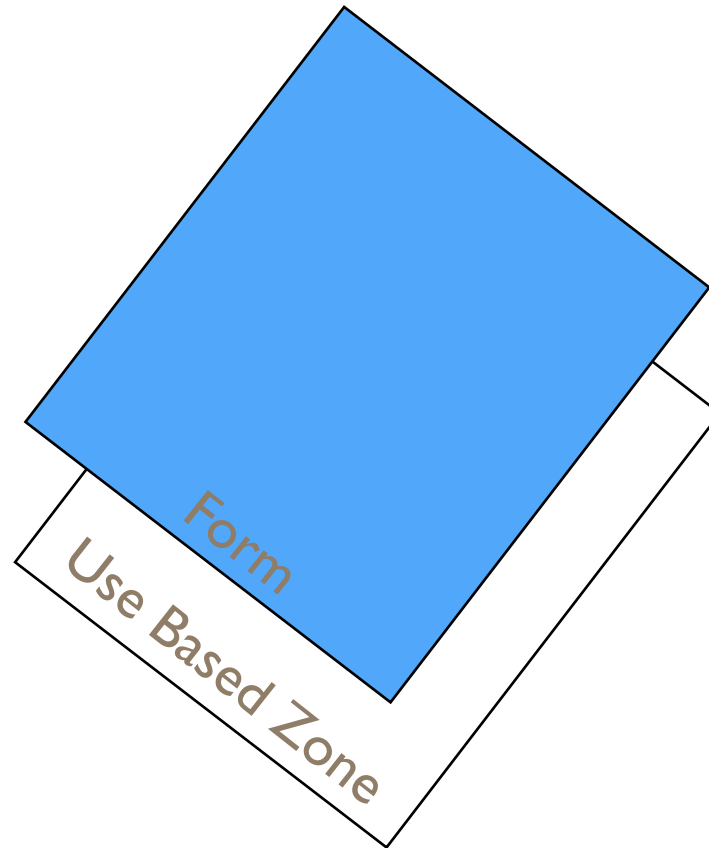




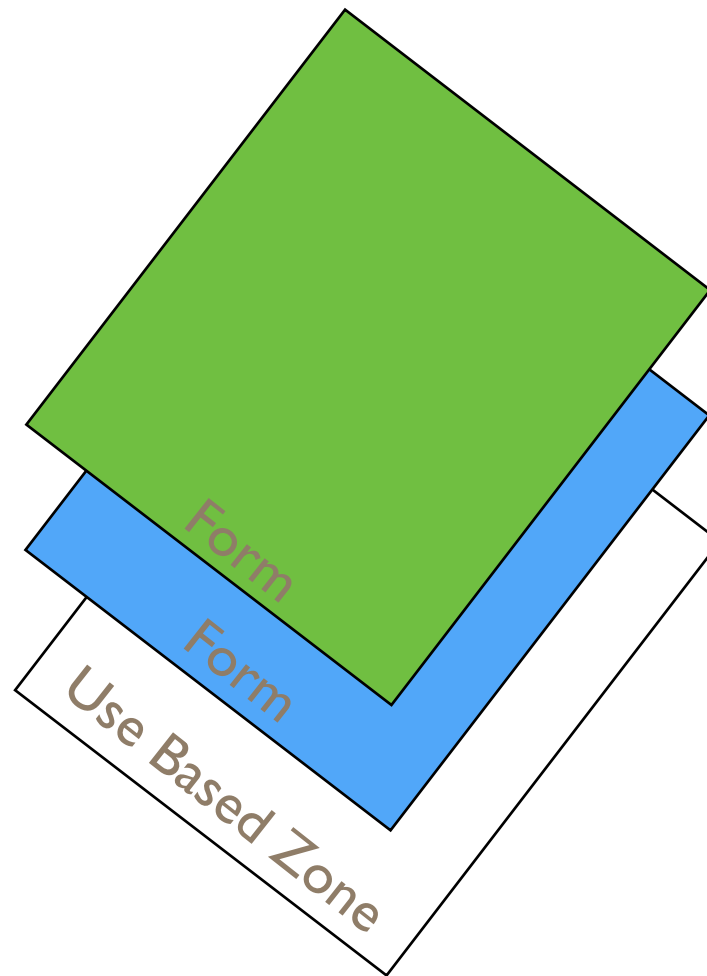
# Base Zoning Standards Ineffective (Use Based) The Response: Add Layers of Form Regulations



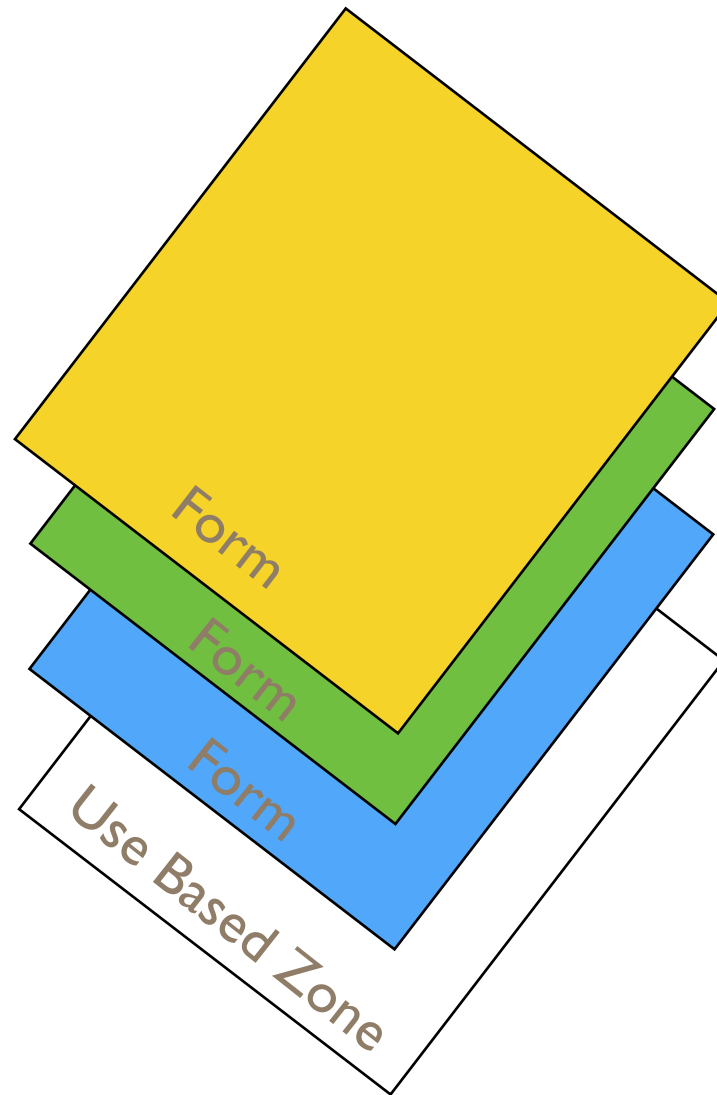
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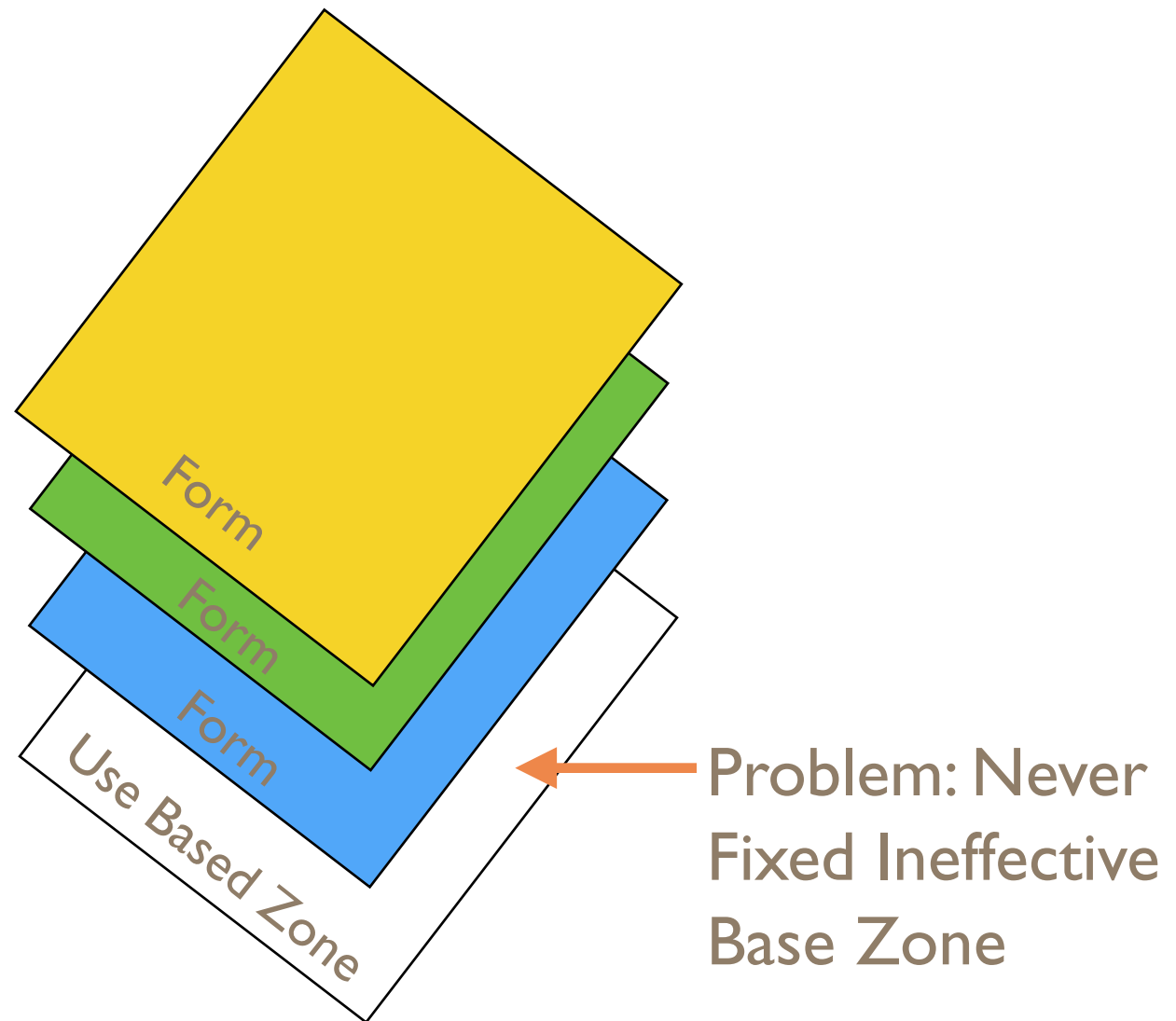
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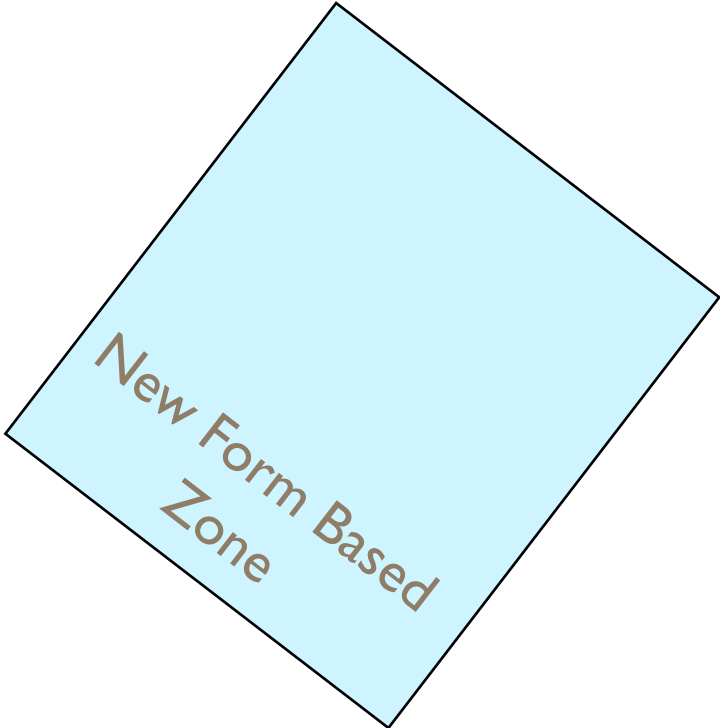
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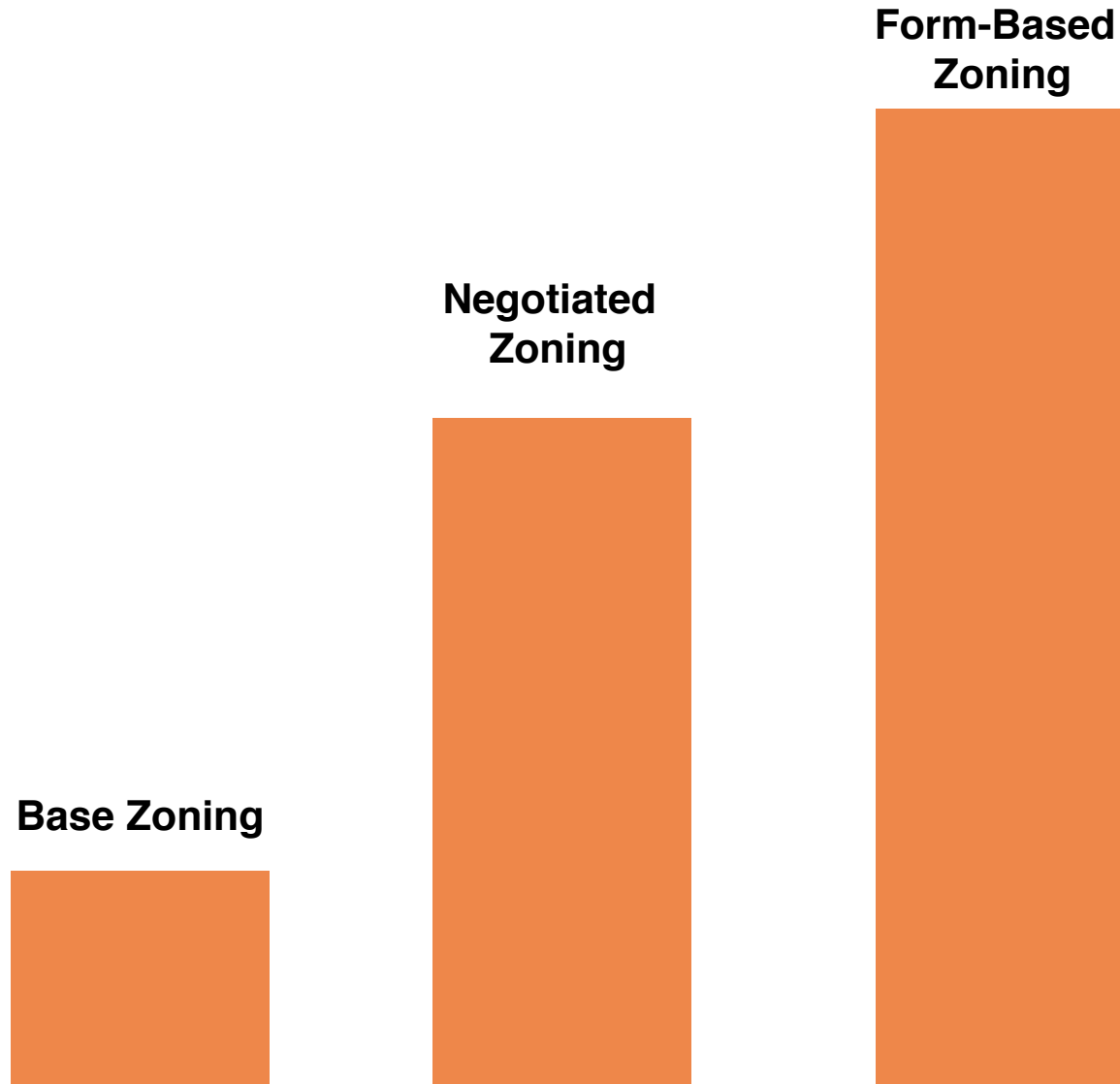
# Base Zoning Standards Ineffective (Use Based) The Response: Add Layers of Form Regulations



# A More Direct and Effective System Based on Form



# The Trend



# Form-Based Principles

**Rules:** Building form as important as land use regulation

**Emphasis:** Mixed-use and mixed housing types

**Public Realm:** Greater attention to streetscape, design, role of buildings

**Standards:** Intentionally based on context and/or desired context

**Public Process:** Design-focused / informed by existing conditions analysis



# Form-Based Codes (FBC) in California

THE PEOPLE OF THE STATE OF CALIFORNIA DO  
ENACT AS FOLLOWS:

SECTION 1. Section 65302.4 is added to the  
Government Code, to read:

65302.4. The text and diagrams in the land use element that address the location and extent of land uses, and the zoning ordinances that implement these provisions, may also express community intentions regarding urban form and design. These expressions may differentiate neighborhoods, districts, and corridors, provide for a mixture of land uses and housing types within each, and provide specific measures for regulating relationships between buildings, and between buildings and outdoor public areas, including streets.

**2004**

**AB 1268**

***Form-Based Codes become a  
legally viable zoning technique***

# Is your Zoning working to an integrated purpose?



# Is your Zoning working to an integrated purpose?



# The Intent

## Downtown Main Street

### 2.2.070 Downtown Main Street (DT-MS)



#### A. Intent

A walkable, vibrant urban main street serving as the citywide focal point for Hayward with commercial, retail, entertainment, and civic uses, public transportation, and small-to-large footprint, moderate-to-high-intensity housing choices, from Main Street Buildings to Lined Buildings.

The following are generally appropriate form elements in this Zone:

Block-form Buildings  
 Attached Buildings  
 Small-to-Large Lot Width  
 Small-to-Large Footprint  
 Small-to-No Front Setbacks  
 Small-to-No Side Setbacks  
 Up to 7 Stories (with setback above 5 stories)  
 Ground Floor Flush with Sidewalk  
 Shopfronts, Forecourts, Galleries, and Terraces

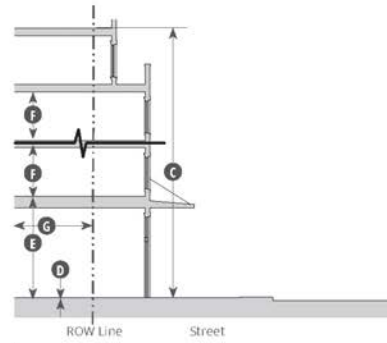
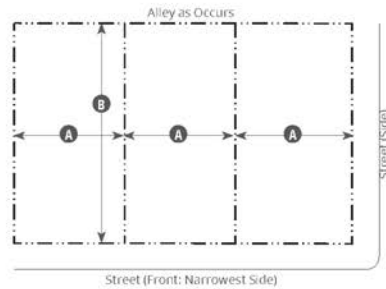
#### B. Sub-Zone(s)

None

*General note: The image above is intended to provide a brief overview of this Form-Based Zone and is illustrative only.*

# Building Form

2.2.070 | Downtown Main Street



Key - - - - ROW / Lot Line

### C. Building Types

Primary Building Type	Lot		Standards
	Width A	Depth B	
Live/Work	18' min.; 50' max.	80' min.	3.3.130
Main Street	200' max.	100' min.	3.3.140
Lined Building	400' max.	400' max.	3.3.150

### D. Building Form

Height		
Main Building	7 stories max.	C
To Eave/Parapet	75' max.	
Overall	85' max.	
Accessory Structure(s)	1 story max.	
Ground Floor Finish Level	6" max.	2
Above Sidewalk		D
Ground Floor Ceiling	14' min.	E
Upper Floor Ceiling	9' min.	F
Depth, Ground-Floor Space	40' min.	G

<sup>1</sup> See Subsection C of applicable building types for additional height Standards (3.3.130 to 3.3.150)

<sup>2</sup> Ground floor lobbies and common areas in multi-unit buildings may have a 0" to 6" ground floor finish level.

Key - - - - ROW Line

### D. Building Form (continued)

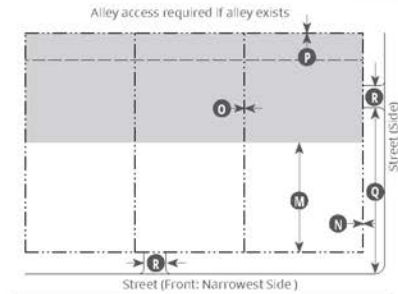
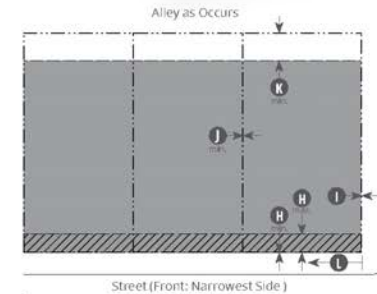
Main Building Height Setback	
Abutting NE, NG, RS, or RNP Zones	
Floors 4-5	25' min. from shared parcel line
Floors 6-7	35' min. from shared parcel line

Where noted on Regulating Plan, along parcel line  
 Floors 4+ 30' min. from parcel line

Footprint	
Lot Coverage	95% max.
Accessory Structure(s)	
Width	24' max.
Depth	32' max.

Miscellaneous	
35' max. distance between entries to ground floor uses.	
Buildings wider than 100' shall be designed to read as a series of buildings between 50' and 100' each.	

9.81-22



Key  
 - - - - ROW / Lot Line  
 - - - - Building Setback Line  
 ■ Buildable Area  
 ▨ Facade Zone

Key  
 - - - - ROW / Lot Line  
 ■ Parking Area

### E. Building Placement

Build-to Line (Distance from ROW / Lot Line)	
Front (Facade Zone)	0' min, 10' max H
Side Street (Facade Zone)	0' within I
	75', 5' max.
	Within 75' street corner; 0', 5' max

BTL Defined by a Building	
Front	90% min.
Side Street	60% min.

Setback (Distance from ROW / Lot Line)	
Side	5' min. J
Rear	0' min. K
Adjacent to NE, NG, RS, RNP	15' min.

**Miscellaneous**  
 BTL shall be defined by a building within 30' of corner along the front. I

A building form with a chamfered corner is allowed only on corner lots and if a corner entry is provided.

Entire BTL/ROW shall be defined by a building or a 2' to 3' high fence or landscape wall.

Fence materials shall not include chain link, barbed or razor wire.

Landscape walls shall have a masonry or stucco finish. Planting strips not allowed between sidewalk and building; sidewalk shall be extended into setback to meet building

### F. Parking

Minimum Required Spaces	
Residential Uses	1 per 1500 sf
Non-Residential Uses	
≤ 5,000 sf	None
> 5,000 sf	2/1,000 sf above first 5,000 sf; 3.3 per 1,000 sf max.

Parking and loading areas shall comply with Section 3.2.040. Required parking may be reduced as set forth in Section 3.2.040 (Parking and Loading).

Location (Distance from ROW / Lot Line)	
Front Setback	40' min. <sup>1</sup> M
Side Street Setback	0' min. N
Side Setback	0' min. O
Rear Setback	0' min. P

Miscellaneous	
Distance from Curb Cut/Dwy	50' max. Q
Curb Cut or Parking Driveway Width	R
≤ 40 Spaces	14' max.
> 40 Spaces	18' max.

All parking structures shall be screened from the front street by habitable space at least 40' deep from street.

Driveways may be shared between adjacent parcels.

9.81-23

# Allowed Uses

Urban Center | Use-Table

## 2.3: Use-Table

Residential Uses	Downtown Zones				
	NE	NG	UN	DT-MS	UC
Group Home <sup>3</sup>	P	P	P	P <sup>4</sup>	P <sup>1,4</sup>
Home Occupation	P	P	P	P <sup>4</sup>	P <sup>1,4</sup>
Live-Work <sup>3</sup>	-	-	MUP	MUP	P
Residential <sup>3</sup>	P	P	P	P <sup>4</sup>	P <sup>1,4</sup>
Health/Fitness Facility:					
≤ 7	P	P	P	P	P
> 7	-	-	-	MUP	MUP <sup>1</sup>
Rooming and Boarding House <sup>3</sup>	-	-	-	-	MUP <sup>1,4</sup>
ADU	-	-	-	-	MUP <sup>1,4</sup>
Transitional and Supportive Housing <sup>3</sup>	P	P	P	P <sup>4</sup>	P <sup>1,4</sup>
Recreation, Education, and Assembly Uses	Downtown Zones				
	NE	NG	UN	DT-MS	UC
Health/Fitness Facility:					
≤ 5,000sf	-	-	CUP <sup>1</sup>	P	P
> 5,000sf	-	-	-	-	P
Library, Museum, Public Art Gallery	-	-	CUP <sup>1</sup>	P	P
Meeting Facility (public or private)	CUP	CUP	MUP	MUP	P
Park/Playground/Trail	P	P	P	P	P
Recreation, indoor	-	-	MUP <sup>1</sup>	MUP	P
outdoor	-	-	-	-	MUP
School, College, University (public or private)	-	-	CUP <sup>1</sup>	CUP	CUP
Studio; art, dance, music, etc.	-	-	MUP <sup>1</sup>	MUP	MUP
Theater, cinema, performing arts	-	-	CUP <sup>1</sup>	P	P

**Key**

P Permitted MUP Minor Use Permit CUP Conditional Use Permit  
 TUP Temporary Use Permit - Not Permitted

9.81-29

Use-Table | Urban Center

Office and Service Uses	Downtown Zones				
	NE	NG	UN	DT-MS	UC
Administrative/Professional Office	P <sup>1</sup>	P	P <sup>1</sup>	P	P
Automotive Services and Repair:					
Gasoline/service station	-	-	-	CUP <sup>4</sup>	CUP <sup>4</sup>
Limited repair services	-	-	-	CUP <sup>4</sup>	CUP <sup>4</sup>
Vehicle washing and detailing	-	-	-	CUP <sup>4</sup>	CUP <sup>4</sup>
Vehicular repair and painting	-	-	-	-	CUP <sup>4</sup>
Business/Professional Service	MUP <sup>1</sup>	-	P <sup>1</sup>	CUP <sup>4</sup>	P <sup>4</sup>
w/Drive-through service	-	-	CUP <sup>1</sup>	CUP <sup>1,4</sup>	CUP <sup>1,4</sup>
Civic/Government	-	-	MUP <sup>1</sup>	MUP	P
Commercial Service					
Minor	-	-	P <sup>1</sup>	P	P
Major	-	-	MUP	MUP	MUP
w/outside storage	-	-	CUP <sup>1</sup>	CUP <sup>4</sup>	CUP <sup>4</sup>
Care Facility for the Elderly					
<7	-	MUP	P	P	P
>7	-	-	P	P	P
Day Care:					
Small House: <7	P	P	P	P	P
Large House: 7 to 12	-	CUP	CUP	CUP	CUP
Lodging:					
Bed and Breakfast	MUP	-	P	P	P
Hotel	-	-	MUP	P	P
Hospital	-	-	-	-	CUP
Medical Services	-	-	-	-	MUP
Personal services	-	-	-	CUP	P
Restricted	-	-	-	-	CUP
Veterinary Clinic/Boarding	-	-	CUP <sup>1</sup>	CUP	CUP
Retail and Food Land Uses	Downtown Zones				
	NE	NG	UN	DT-MS	UC
Alcohol Sales - Off Site	-	-	-	CUP	CUP
Bar/Nightclub	-	-	-	CUP	CUP
Micro-Brewery/Micro-Distillery/Winery	-	-	-	CUP	MUP
Production, Artisanal	-	-	CUP	P	P

**Key**

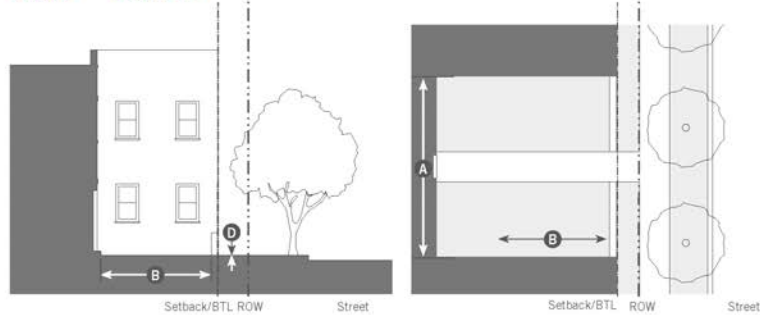
P Permitted MUP Minor Use Permit CUP Conditional Use Permit  
 TUP Temporary Use Permit - Not Permitted

9.81-30

# Frontages

3.4.080

## 3.4.080 Forecourt



**Key**  
 - - - - ROW / Lot Line      - - - - Setback Line/BTL

### A. Description

The main facade of the building is at or near the frontage line and a small percentage is set back, creating a small court, extending the public realm into the lot. The space may be used as an entry court or shared garden space for apartment buildings, or as an additional shopping or restaurant seating area within retail and service areas.

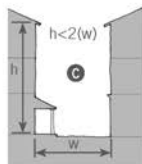
NE NG UN DT-MS UC

### B. Size

Width, Clear	12' min.	A
Depth, Clear	12' min.	B
Ratio, Height to Width	2:1 max.	C
Height from sidewalk	4' max.	D

### C. Miscellaneous

The proportions and orientation of these spaces shall comply with the diagram below for solar orientation and user comfort.



9.82-60



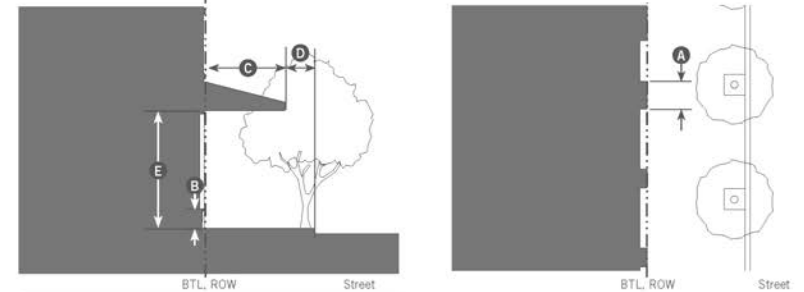
Forecourt visually extends the public realm into this retail and office lot.



Forecourt provides unique entries to dwellings and breaks down the overall massing of the buildings shaping the space.

General Note: Photos on this page are illustrative, not regulatory.

## 3.4.110 Shopfront



**Key**  
 - - - - ROW / Lot Line      - - - - Setback Line/BTL

### A. Description

The main facade of the building is at or near the frontage line with at-grade entrance along the sidewalk. This type is intended for retail use, has substantial glazing between the shopfront base and the ground floor ceiling, and may include an awning that overlaps the sidewalk. This type may be used in conjunction with other frontage types allowed in the zone.

NE NG UN DT-MS UC

In NE and UC only allowed at corners

### B. Size

Distance between Glazing	2' max.	A
Ground Floor Transparency	75% min.	
Depth of Recessed Entries	5' max.	B
Shopfront base	8" min.; 30" max.	

### C. Awning

Depth	4' min.	C
Setback from Curb	2' min.	D
Height, Clear	8' min.	E

### D. Miscellaneous

Residential windows are not allowed.

Doors may be recessed when main facade is at BTL.

Operable and open-ended awnings are allowed.

Rounded and hooped awnings are not allowed unless part of a historically designated building.

Decorative accordion-style doors/windows or other operable windows that allow the space to open to the street are subject to Director approval.



Simple opening with large windows and minimum shopfront base accenting the display.



Shopfront with recessed entry and simple large windows.

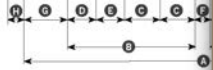
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9.82-63

# Streets and Civic Spaces

9.83.050.C

## 9.83.050.C Doheny Park Road

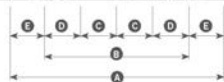
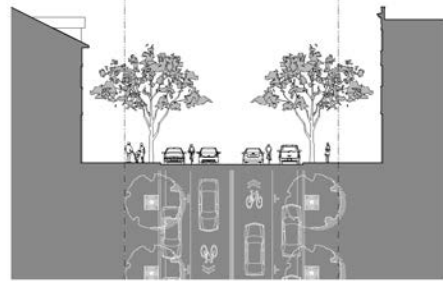


A. Application	
Movement Type	Free
Design Speed	30 mph
B. Overall Widths	
Right-of-Way (ROW) Width	112' <b>A</b>
Pavement Width	82' <b>B</b>
Cross section may vary along different sections of roadway.	
Preference is to consider road diet and roundabout intersections subject to future approval of OCTA for MPAH amendment and coordination with Caltrans and STC.	

126

9.83.050.K

## 9.83.050.K Domingo Avenue, Las Vegas Avenue: (Facing West)



A. Application		C. Lane Assembly	
Movement Type	Free	Traffic Lanes	2 @ 10' <b>C</b>
Design Speed	25 mph	Bicycle Lanes	Sharrow
B. Overall Widths		Parking Lanes/Edge Lines	2 @ 10', T's marked @ 8' <b>D</b>
Right-of-Way (ROW) Width	60' <b>A</b>	Median	None
Pavement Width	40' <b>B</b>	D. Public Frontage Assembly	
		Drainage Collection Type	Curb and gutter
		Planter Type	4' x 4' tree wells w/ grates
		Landscape Type	Trees at 30' o.c. avg.
		Lighting Type	Table 9.83.090.D
		Walkway Type	10' min. sidewalk <b>E</b>
		Curb Type	Raised

134

## 4.3.030.F Plaza



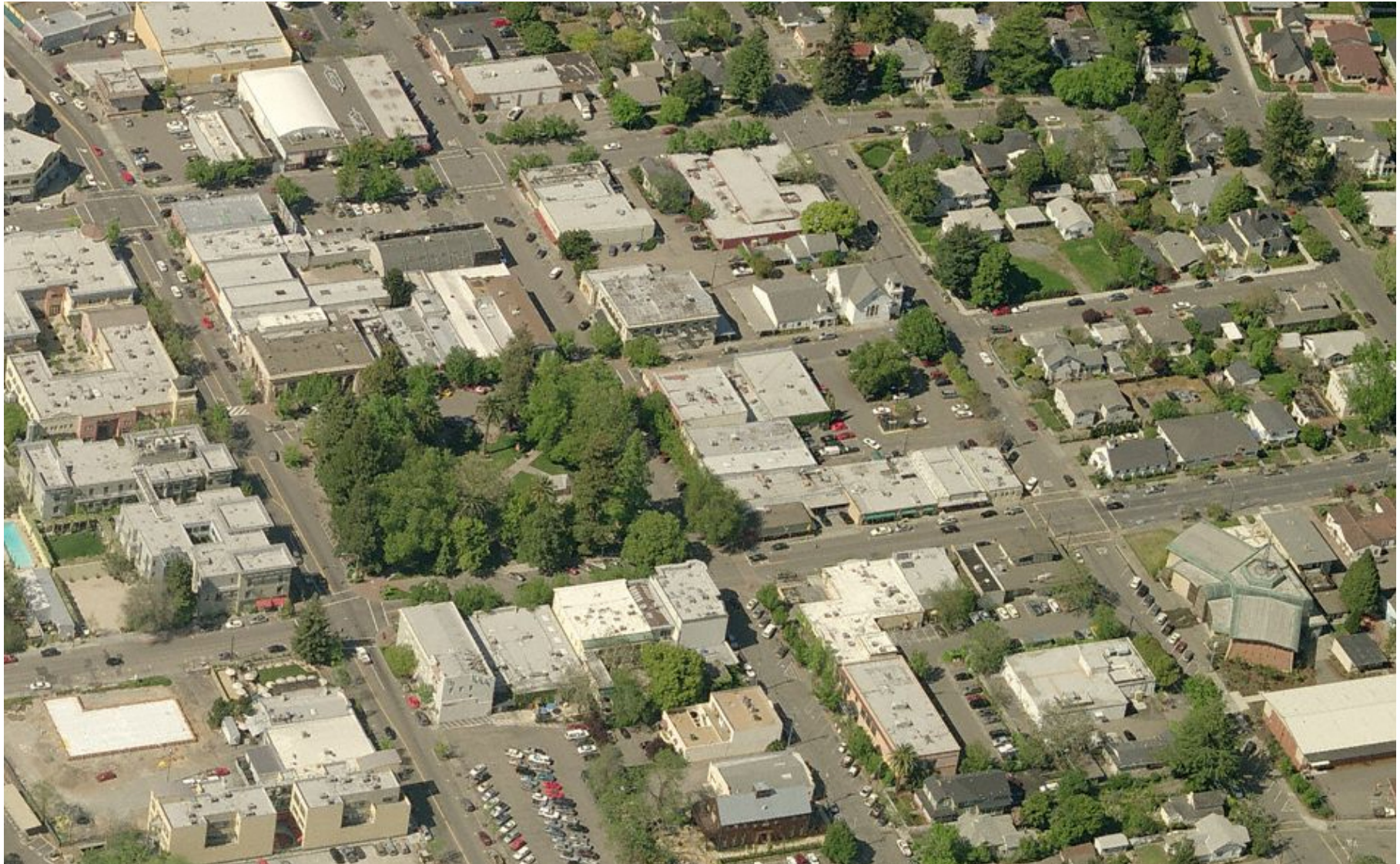
General Note: Images in this page are illustrative, not mandatory.  
9.83-36

NE UN NG DT-MS UC

A. Description	
Community-wide focal point primarily for civic purposes and commercial activities. Plazas are typically hardscaped with planting as accents. Commercial activities are subordinate to Civic activity. Appropriate civic elements, community facility < 5,000 G.S.F., fountains, benches. Service area: Multiple Neighborhoods	
B. General Character	
Formal, urban	
Combination of hardscaped & planted areas in formal patterns	
Spatially defined by buildings and tree-lined streets	
Civic element provided	
C. Size and Location	
Area: 1/2 acre min.	
Depth: 80 ft. min.	Width: 150 ft. min.
D. Typical Uses	
Civic uses	
Commercial uses in support of civic uses	
Passive recreation	

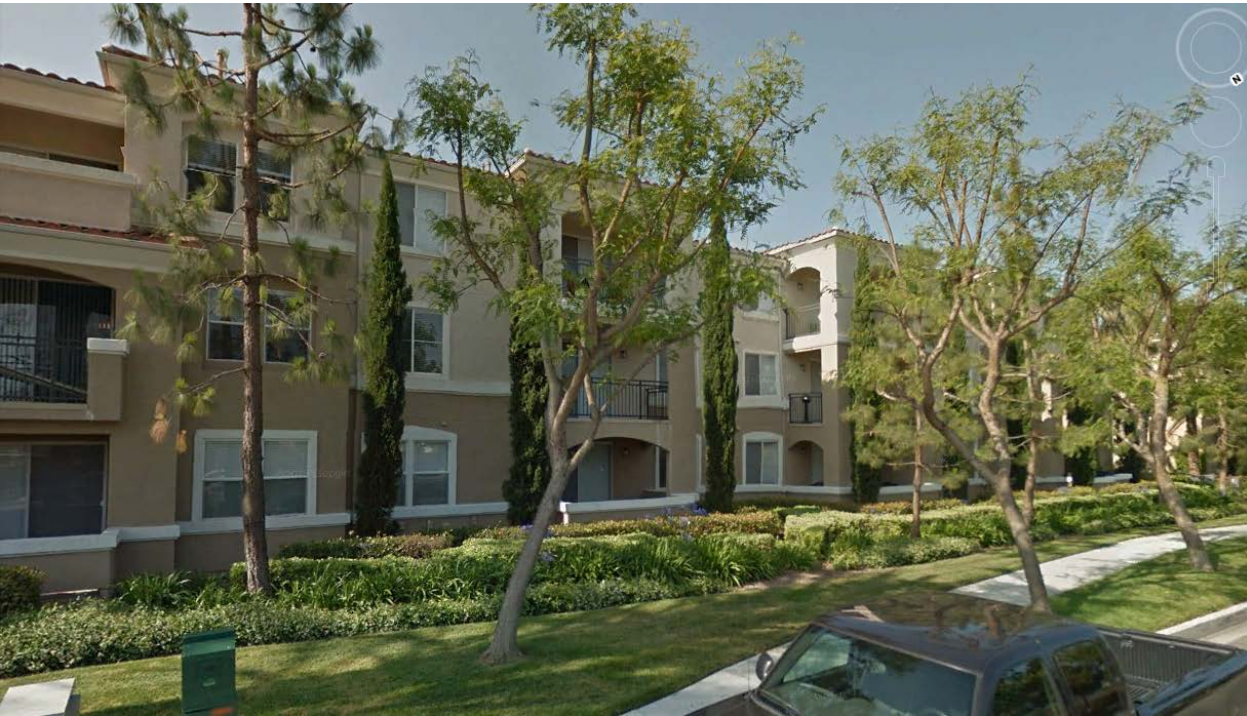


# The built environment: Repeating Patterns



Streets, **Buildings**, Frontages, Civic Spaces, Land Uses.....

# Use-based zoning says they're nearly the same



**Density = 30**

**180 units**



**= 29**

**5 units**

# Physically, they're nearly the same



Density = 53

3 units

= 82

6 units

# Conventional zoning formula applied regardless of lot size

**Small**

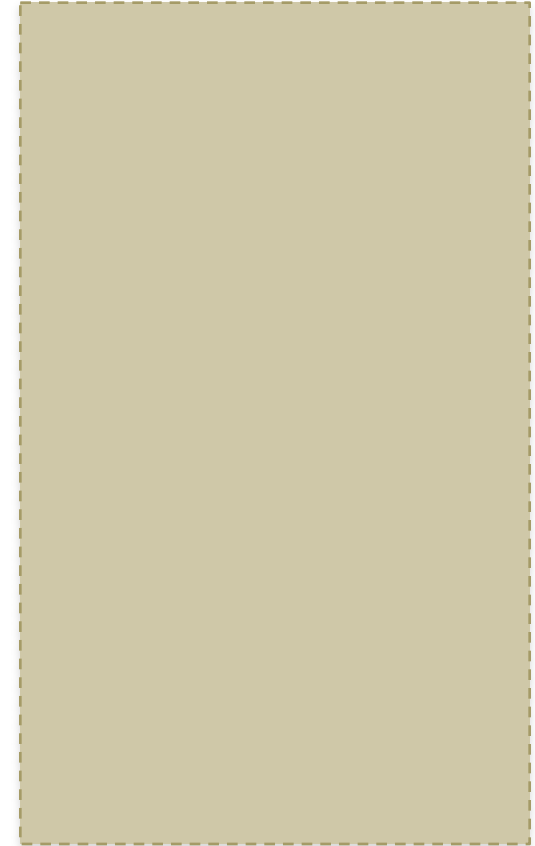


typically  
over-zoned

**Medium**



**Large**



typically  
under-zoned

**Intended context?**

**Intended outcomes?**

**Adjacencies and Compatibility?**

**Potential is applied despite size differences**

# The built environment: Physical Character and Scale



**S**

**2-4**

**M**

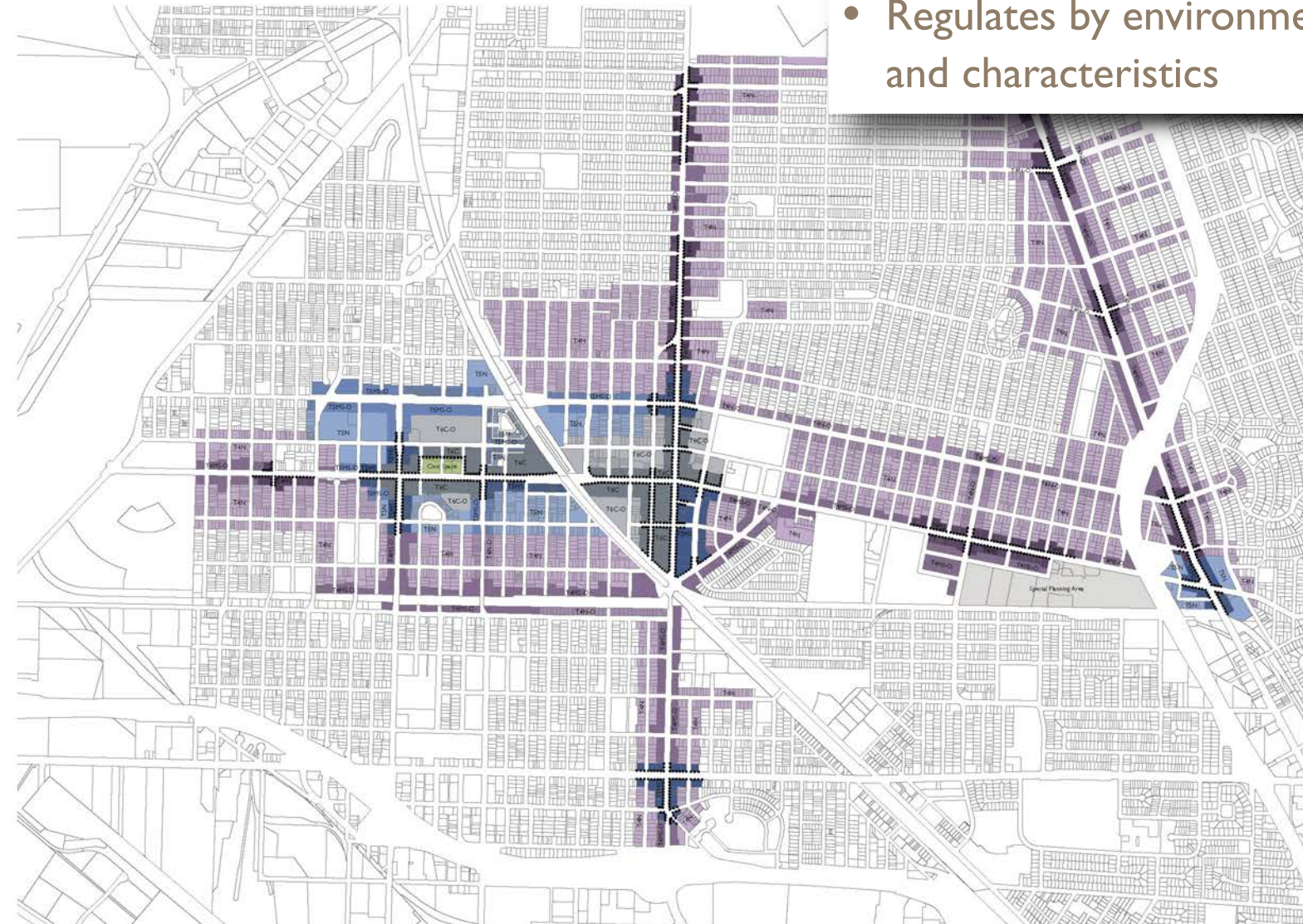
**5-12**

**L**

**13+**

# Regulating Plan

- Regulating Plan does more than regulate land uses, height and setbacks
- Also regulates thoroughfares and your plan's urban design intentions
- Regulates by environment and *its* components and characteristics



**Urban Design  
and intensity  
are clear**

But that's not how conventional zoning does it

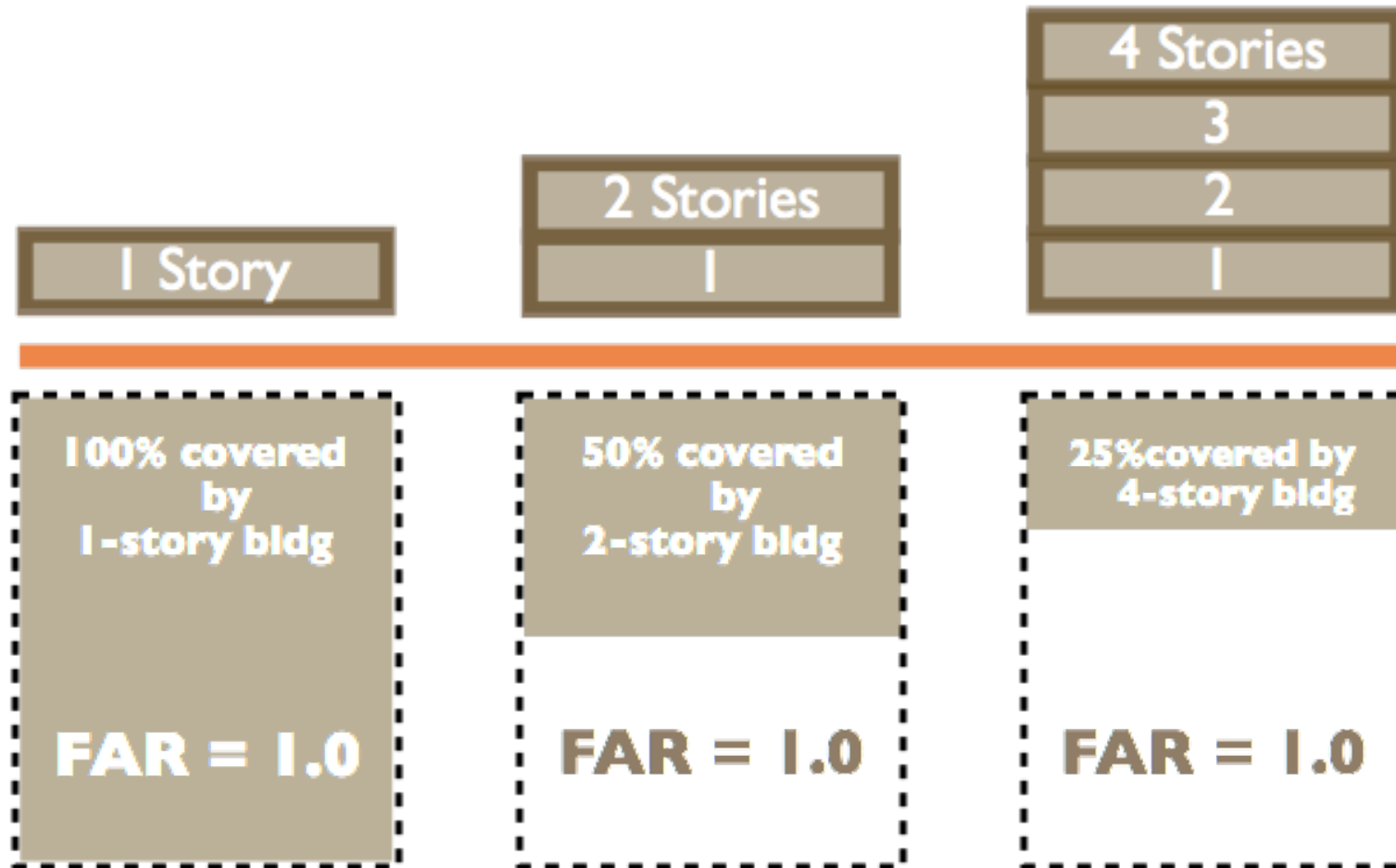
# Use-Based zoning says they're the same



FAR = 1.2

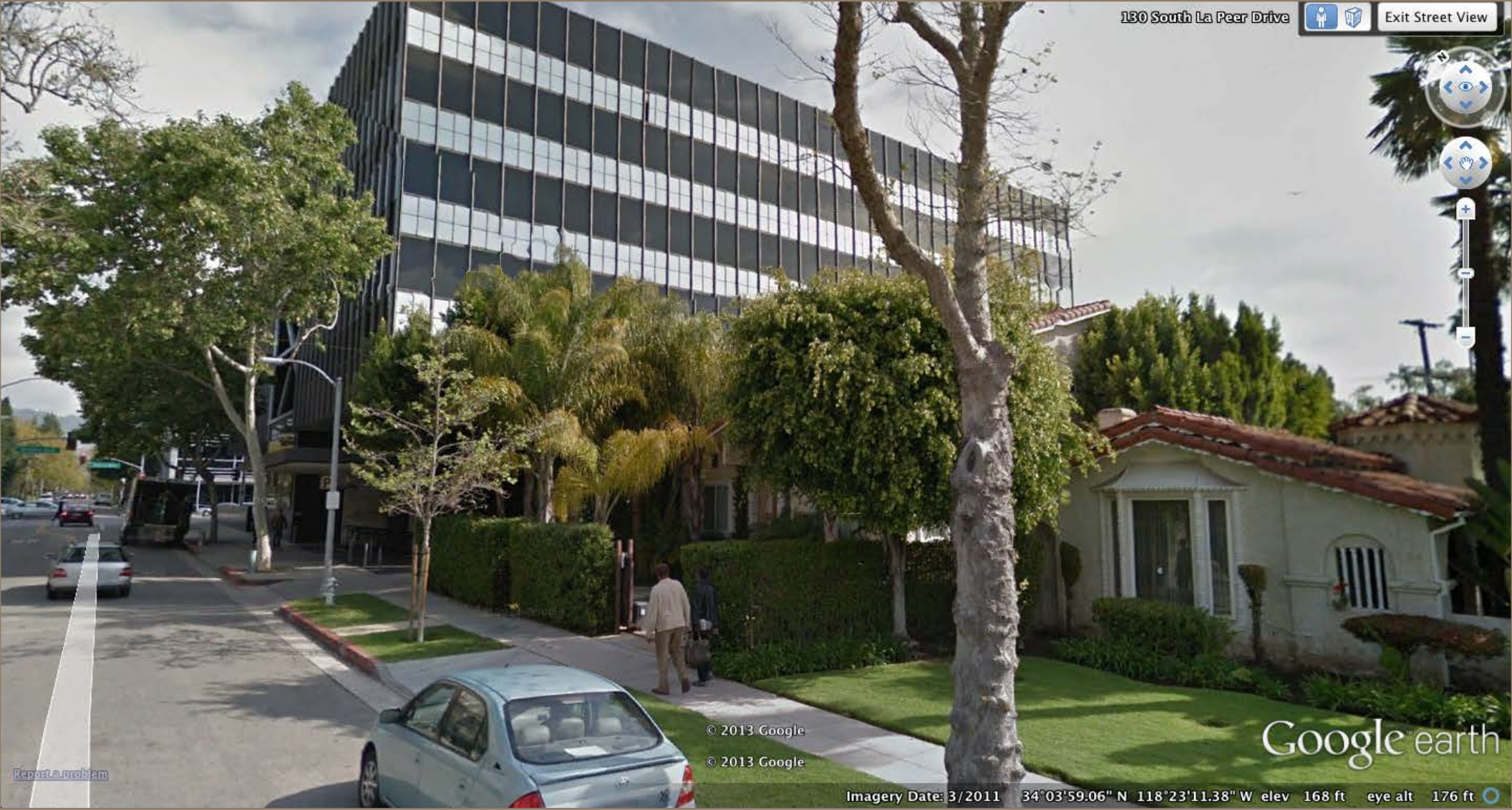


# F.A.R. a measuring tool

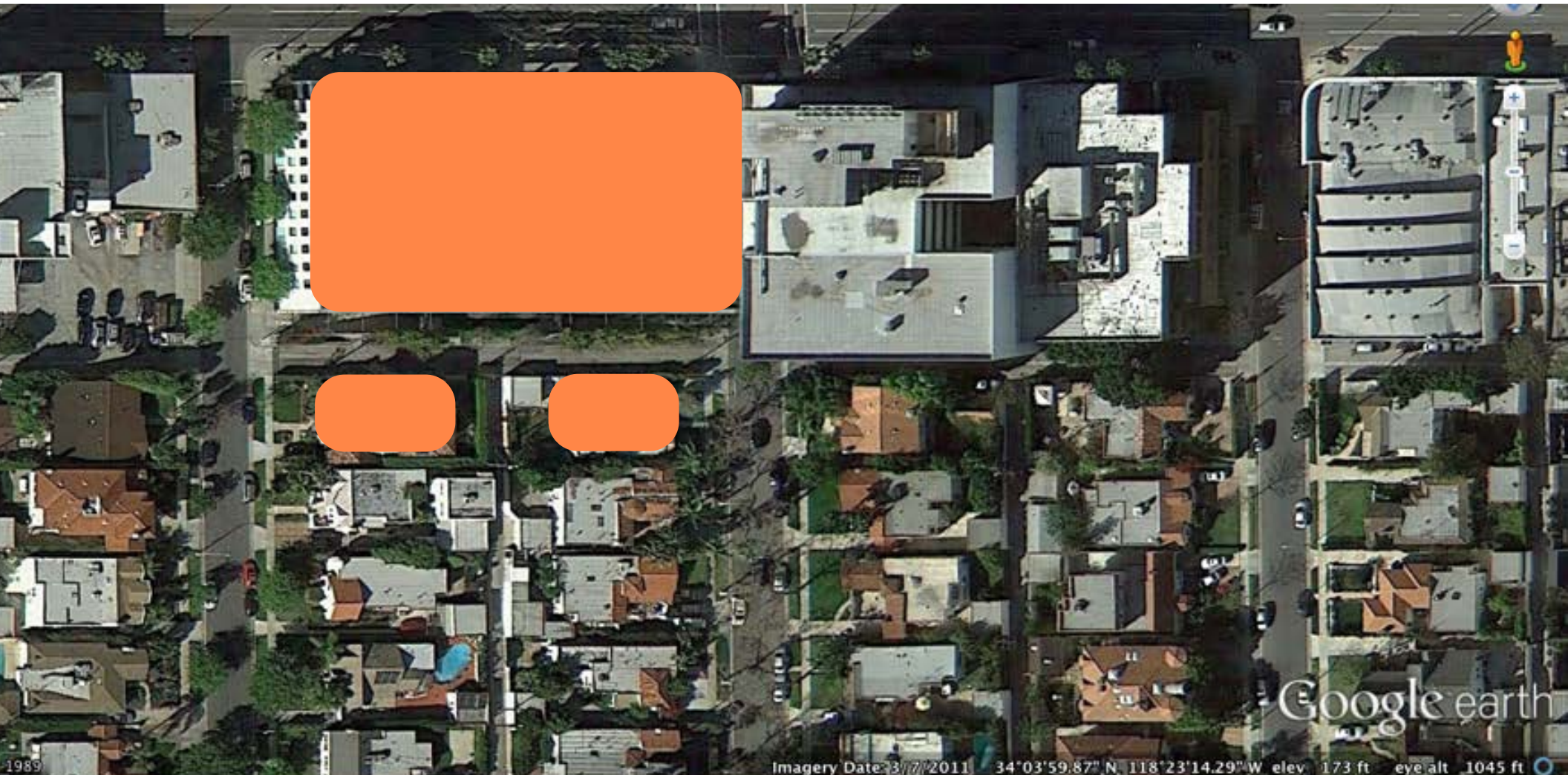


**FAR is a great and fast measuring tool but should not be used to drive design or decision-making: best as a 'resultant' factor**

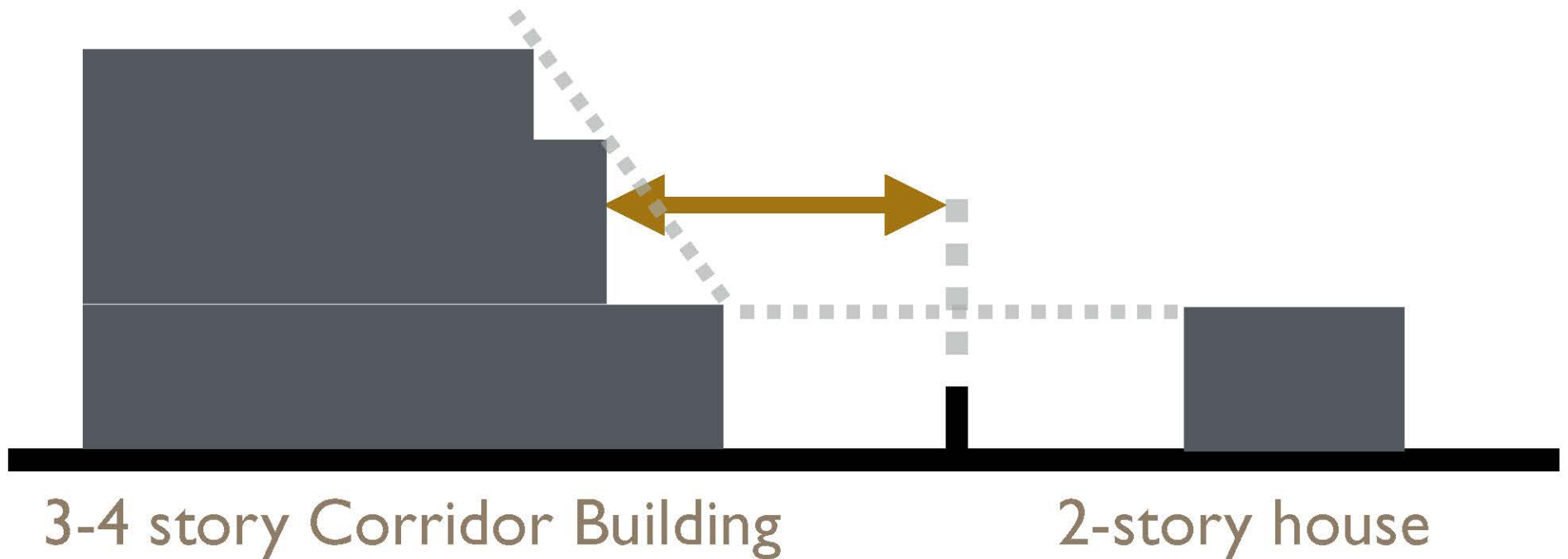
# Compliant but incompatible



# Two different, adjacent environments affecting each other

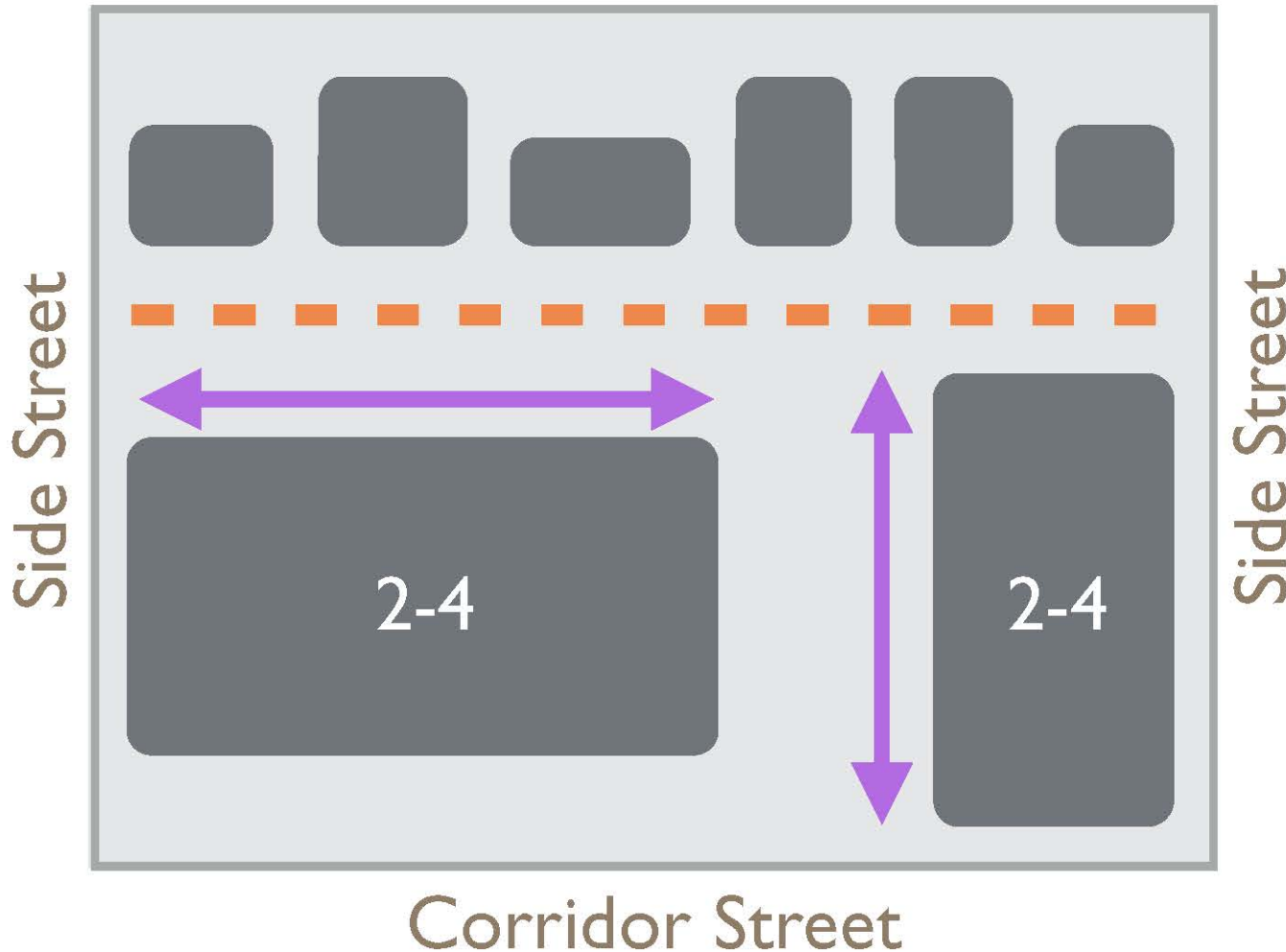


# Height is important but not everything



# What about other factors?

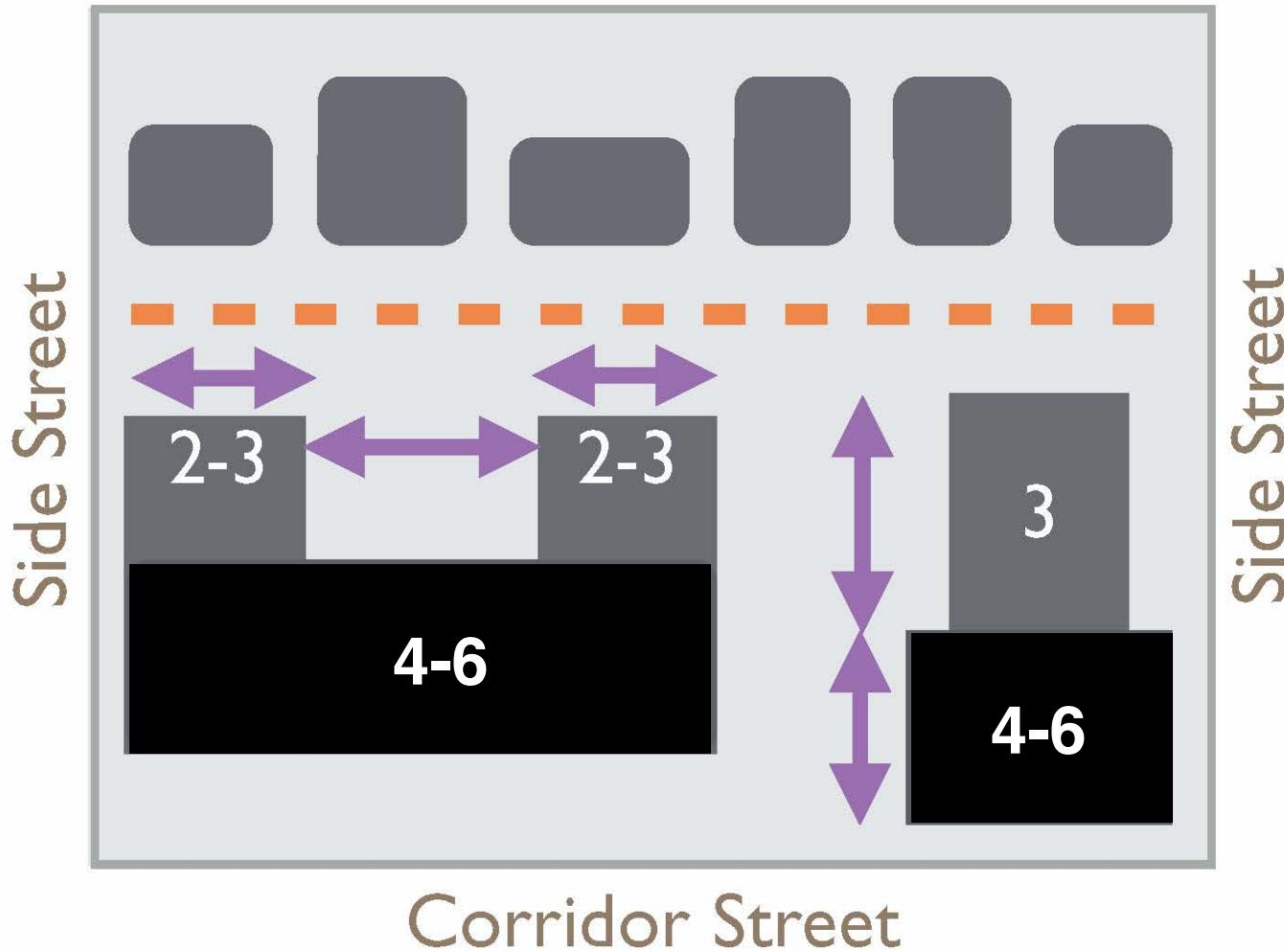
## Neighborhood Street



- **Building Width**
- **Building Length**
- **Transitions along side streets**

# Adjusting for the 'Neighborhood Side'

Neighborhood Street



- **Building Width**
- **Building Length**
- **Transitions along side streets**



**Make the Zoning  
predictably  
deliver the vision**