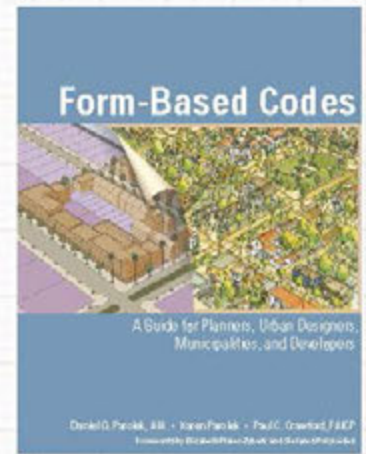
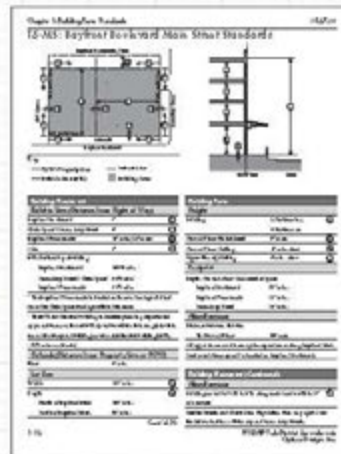


Introduction to Form-Based Codes



Daniel Parolek
Principal, Opticos Design
dan@opticosdesign.com



CodeNext:Code Advisory
Group
September 22 ,2014
Austin, TX

Euclidean Zoning is an Out-of-Date Operating System Form-Based Coding is One New System



The 21st Century Operating System is Form

Form-Based Approach

Walkable Urban Places



Lower parking requirements
(More walking, access to transit)

Public realm = Public space

Blended density (variety of types)

Mixed use environments

Uses more flexible based on operational
characteristics

Conventional/ Use-Based Code

Drivable Suburban Places



Higher parking requirements
(Less walking and access to transit)

Larger public and private open space required
due to isolation

“Podded” densities and uses

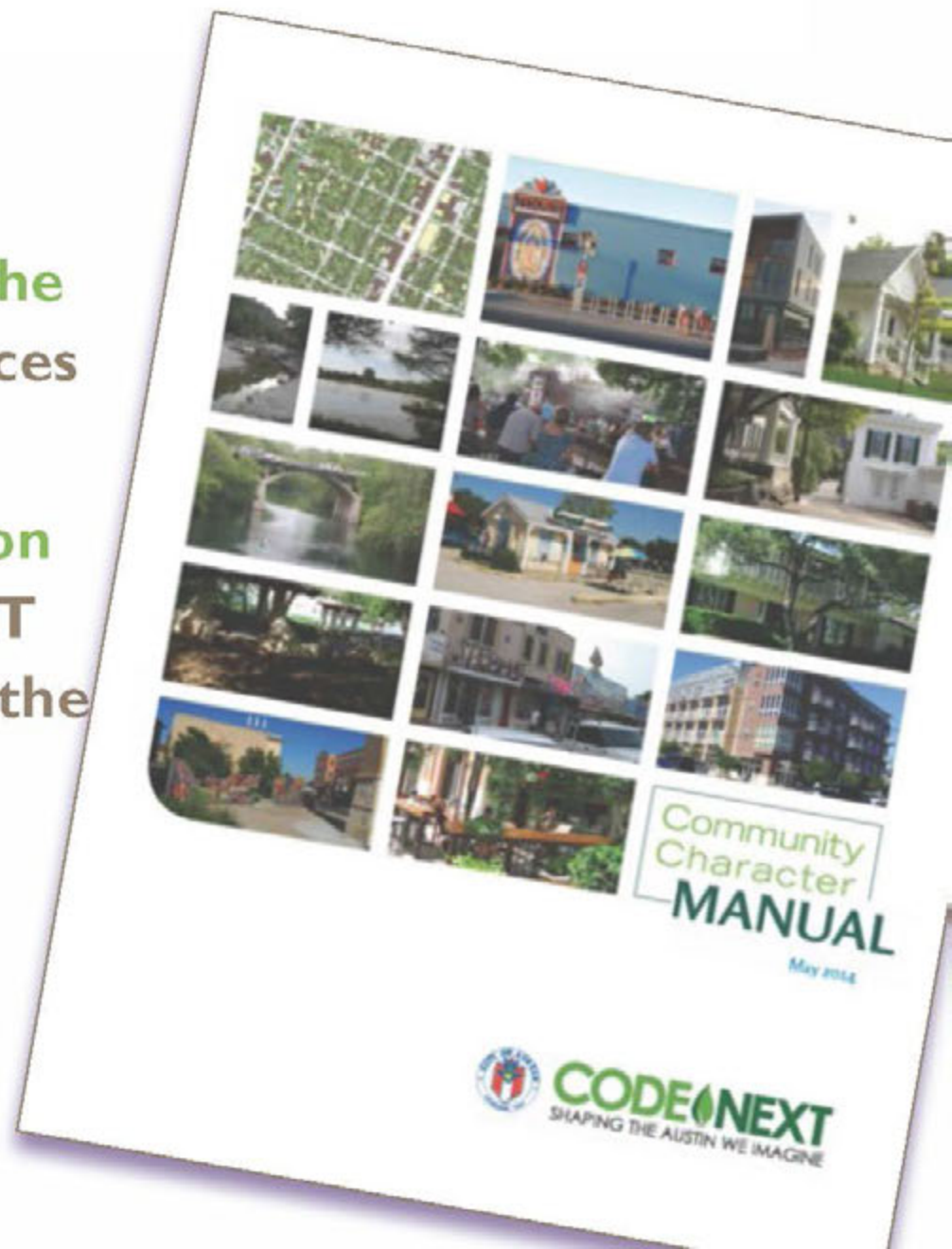
Specific Uses allowed

Community Character Manual:

Intent

A Tool for Effective Planning

- **Provide an understanding of the range** of different types of places that exist throughout Austin.
- **Establish a common foundation and vocabulary** for CodeNEXT and future planning efforts in the City of Austin based on Community Character.



Different Types of Place Need Different Rules



Walkable Urban



Transitional



Drivable Suburban



1

The Components

Recipe for Success

FBC Components are Like Ingredients of a Proven Recipe

1. Regulating Plan
2. Building Form Standards
3. Frontage Types
4. Thoroughfare Types
5. Civic Space Types
6. Building Types

Boston Cream Pie

Courtesy Gale Gand

Show: Sweet Dreams • Episode: Desserts from the Yankee Kitchen

★★★★★ [Rate it](#) • [Read users' reviews](#) (32)

Filed under: [Dairy](#), [Chocolate](#), [more](#) ▼

RECIPE

RATINGS & REVIEWS (32)



Photo: [Boston Cream Pie](#)

Similar Recipes

Recipes Like This

[Mini Orange Chocolate
Chunk Cake](#)

[Chocolate Sybil Cake](#)

[Tiered Chocolate
Buttercream Cake](#)

[Molten Chocolate Cakes with
Raspberry Sauce](#)

Recipe Collections

Showing 1-10 of 14

[Cupcake](#)

Cook Time: 2 hr 45 min | **Level:** -- | **Yield:** --

Ingredients

- 1 cup plus 2 tablespoons sifted cake flour
- 2/3 cup sugar
- 1 1/2 teaspoons baking powder
- 1/4 teaspoon salt
- 1/2 cup milk
- 1/4 cup cooking oil
- 2 egg yolks
- 1 teaspoon [vanilla](#)
- 2 egg whites
- 1/4 teaspoon cream of tartar
- Pastry cream, recipe follows
- Ganache, recipe follows

Pastry Cream Filling:

- 2 cups whole, 2 percent fat, or 1 percent fat milk
- 1/2 vanilla bean, [split](#) lengthwise, seeds scraped out
- 6 egg yolks
- 2/3 cup granulated sugar
- 1/4 cup [cornstarch](#)
- 1 tablespoon unsalted butter

Recipe Tools:

-  [Print Recipe](#)
-  [Get Card](#)
-  [Save Recipe](#)

FBC Components are Like Ingredients of a Proven Recipe

1. Regulating Plan
2. Building Form Standards
3. Frontage Types
4. Thoroughfare Types
5. Civic Space Types
6. Building Types
7. Architectural Standards
8. Landscape Standards
9. Green Building Standards
10. Alternative Energy
11. Urban Agriculture
12. Stormwater Management
13. Etc.

Boston Cream Pie

Courtesy Gale Gand

Show: Sweet Dreams • Episode: Desserts from the Yankee Kitchen

★★★★☆ Rate it • Read users' reviews (32)

Filed under: Dairy, Chocolate, more ▼

RECIPE

RATINGS & REVIEWS (32)



Photo: Boston Cream Pie

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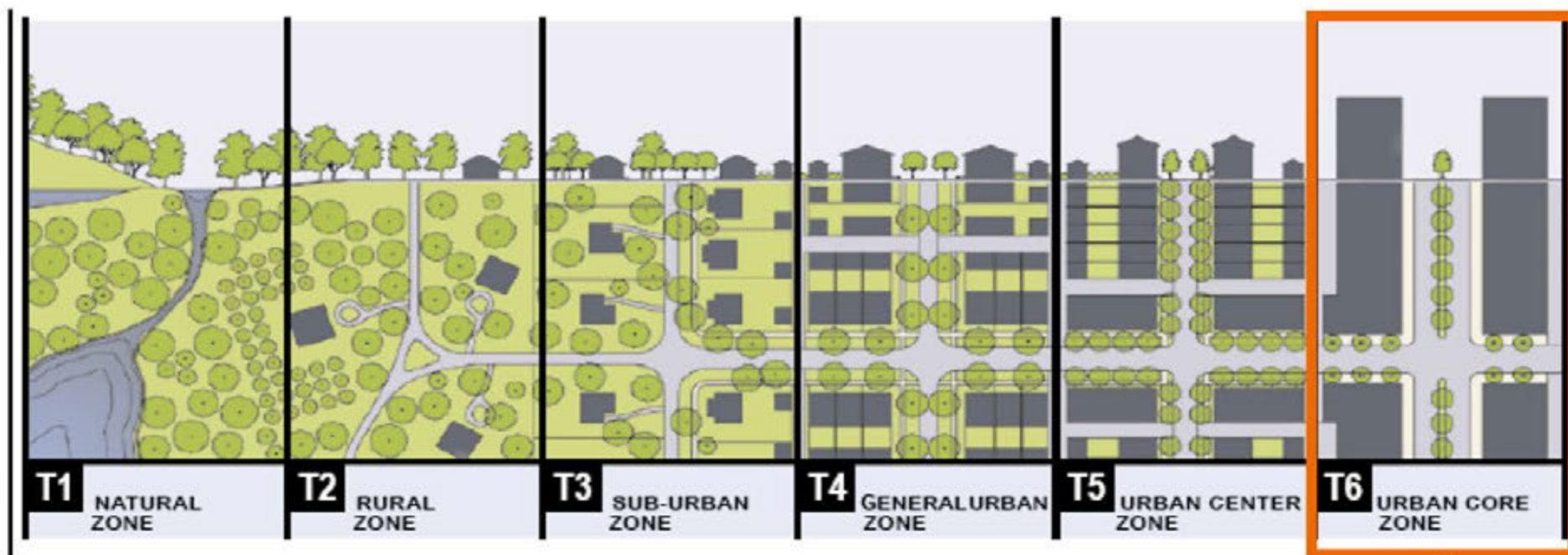
Zones = Different Environments

Zones = Different Environments
But-Walkable Urban Environments

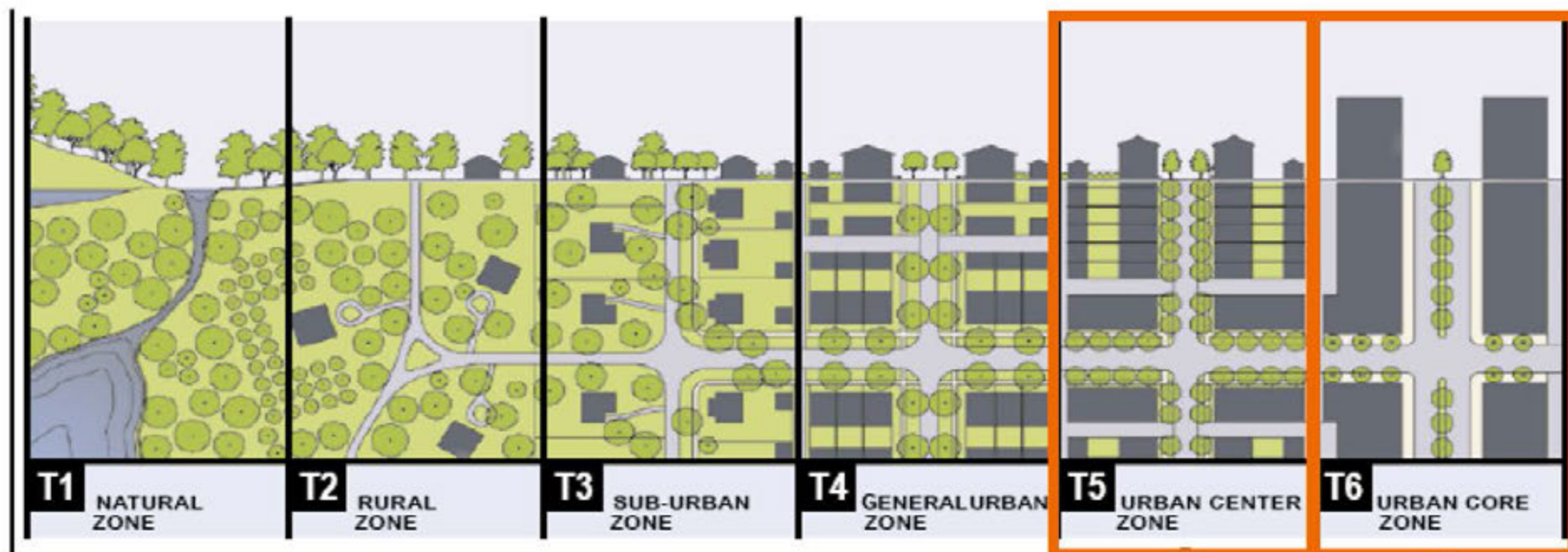
Base Zones Based on a Hierarchy of Form Primarily



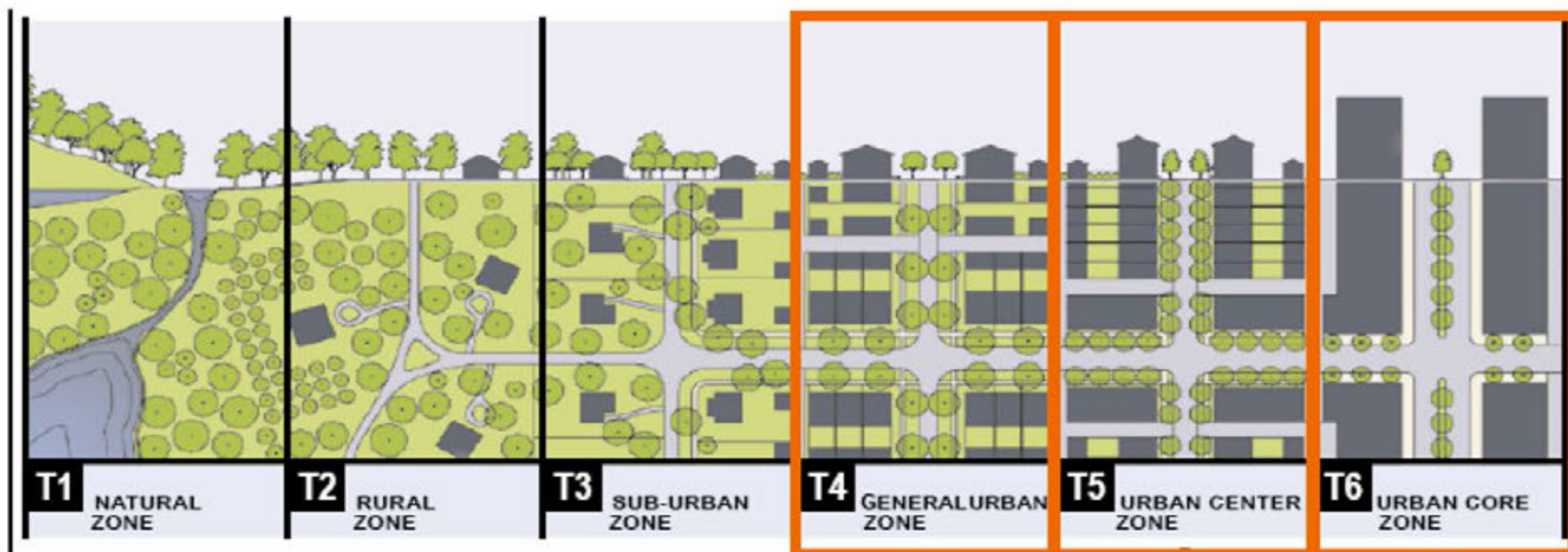
Base Zones Based on a Hierarchy of Form Primarily



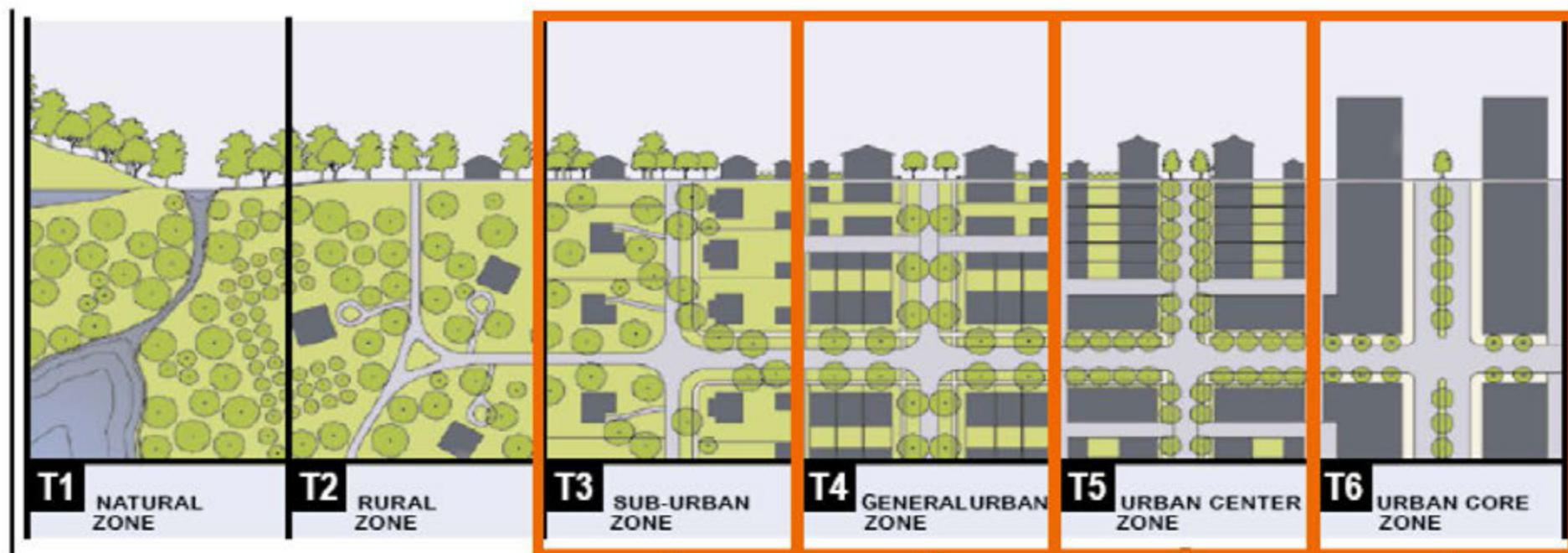
Base Zones Based on a Hierarchy of Form Primarily



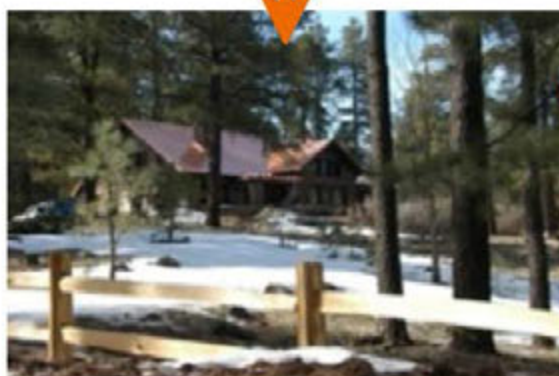
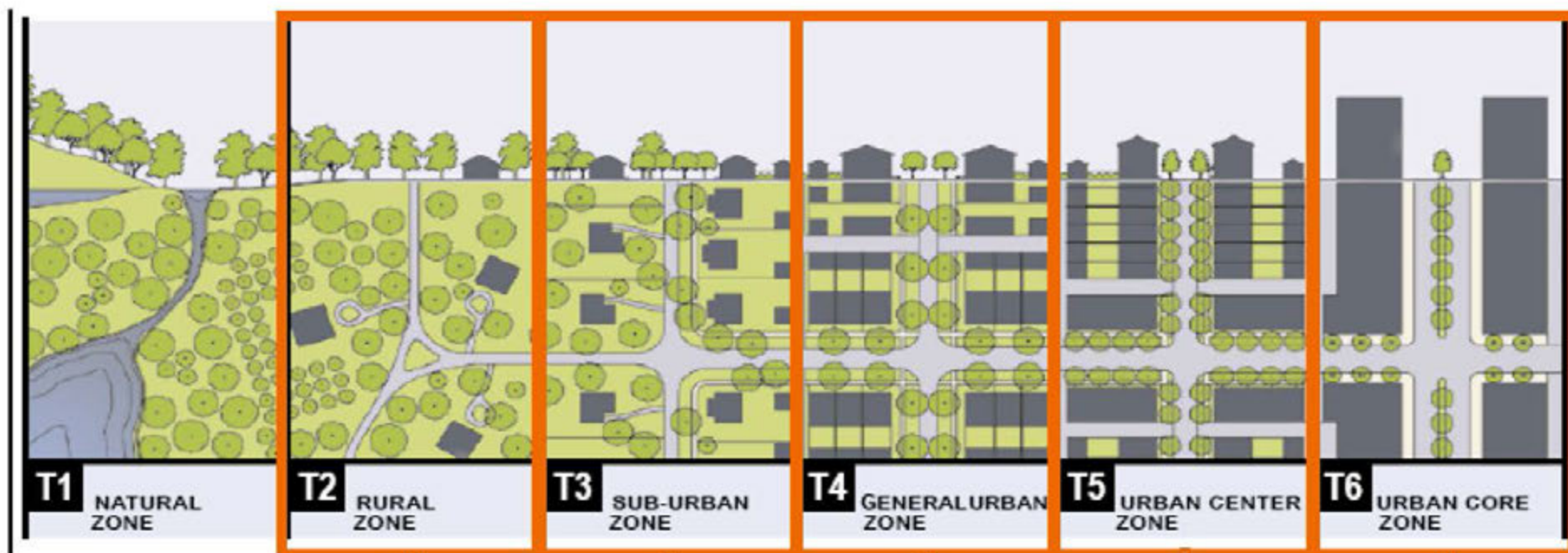
Base Zones Based on a Hierarchy of Form Primarily



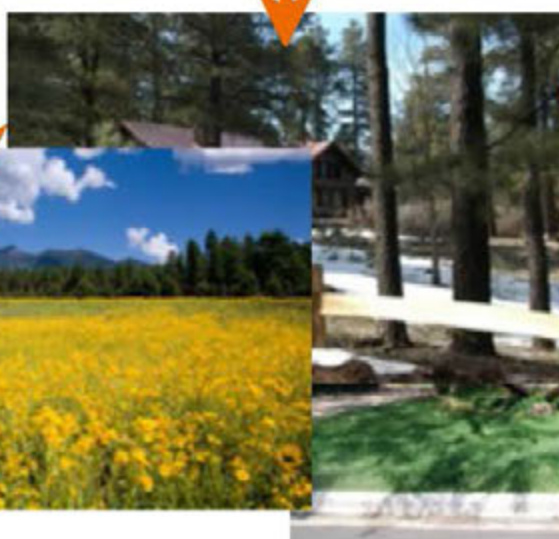
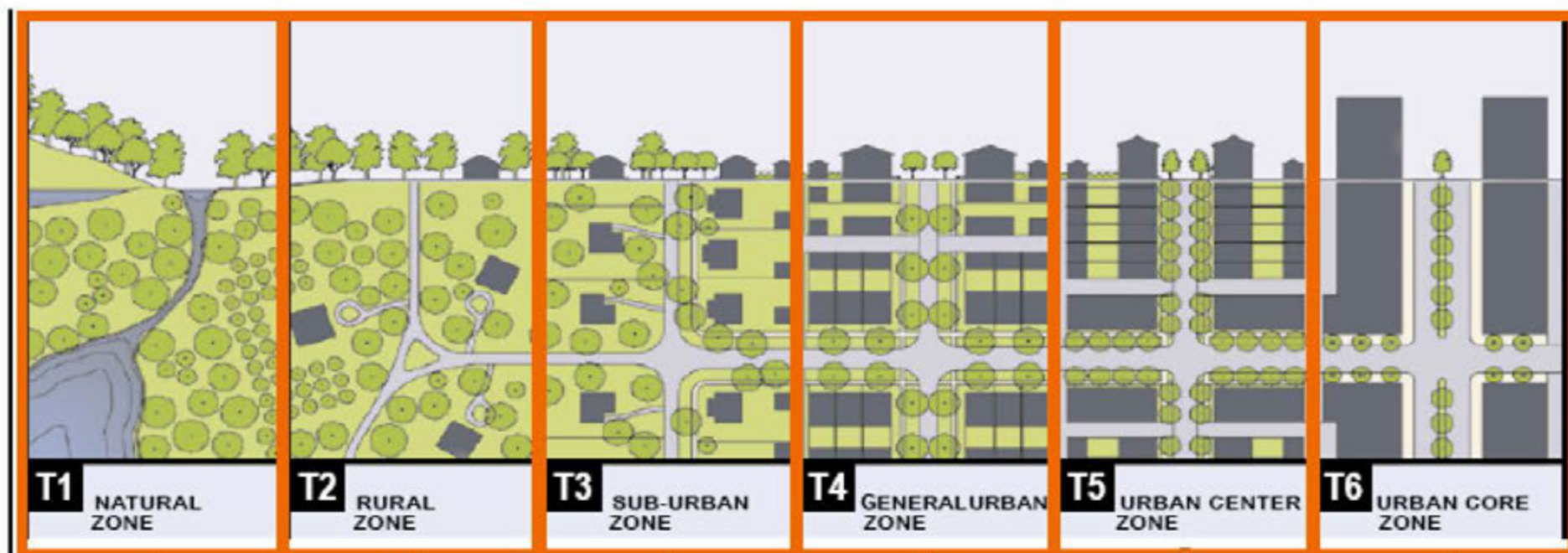
Base Zones Based on a Hierarchy of Form Primarily



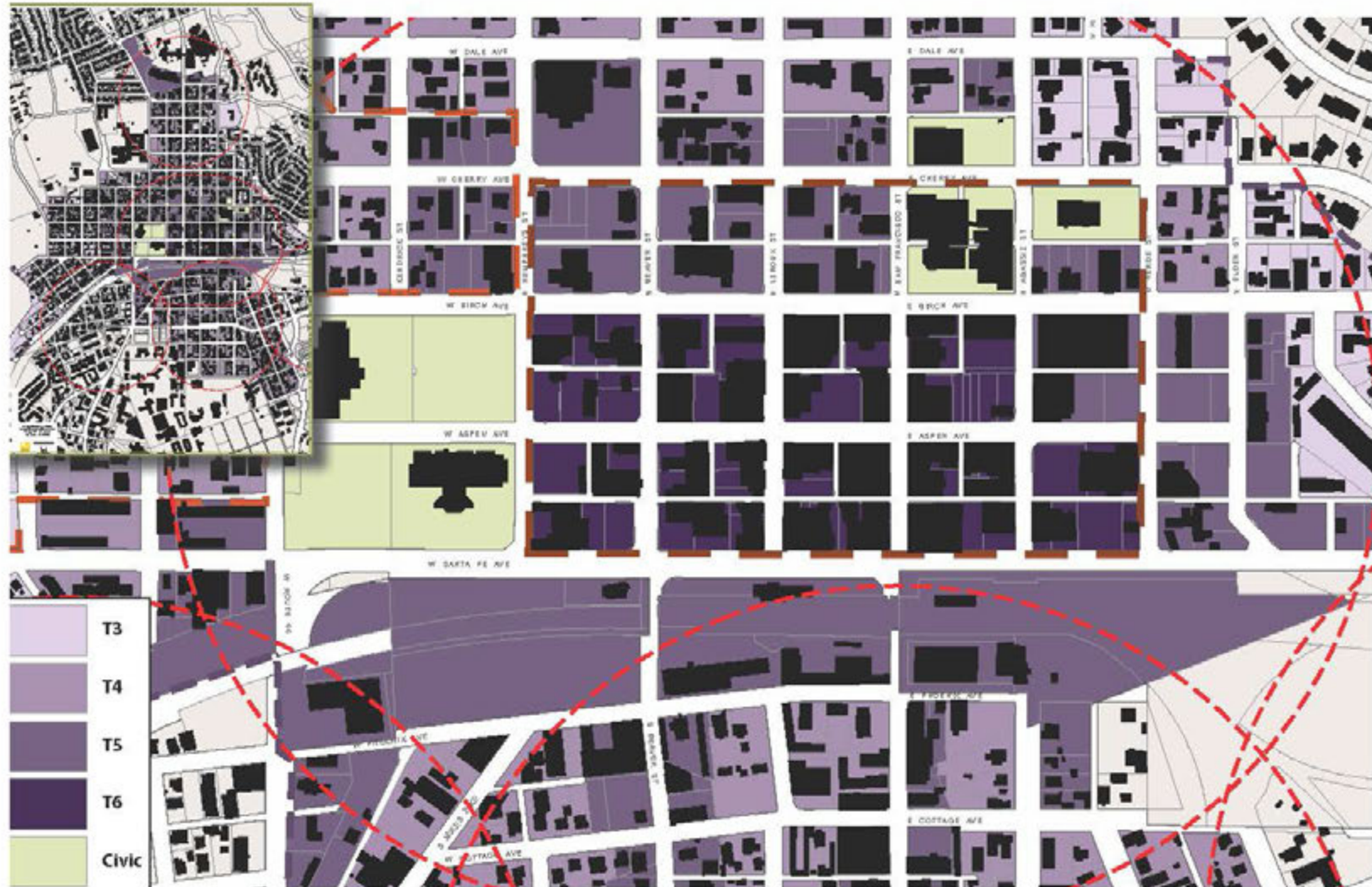
Base Zones Based on a Hierarchy of Form Primarily



Base Zones Based on a Hierarchy of Form Primarily



Regulating Plan: Map of Form/Scale Hierarchy not Use

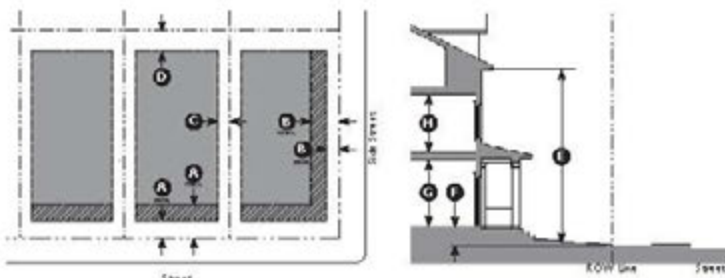


Flagstaff, Arizona: Development Code Update

Building Form Standards = Zone Development Standards

10-40.40.000

T4 Neighborhood 2 (T4N.2) Standards



Key

- ROW/Property Line
- Building Setback Line
- Building Area
- Facade Area

D. Building Placement

Setback (Distance from ROW/Property Line)

Principal Building	
Front ¹	5' min.; 12' max. A
Front facade within area	50% min.
Side Street/Civic Space	10' min.; 15' max. B
Side ²	3' min. C
Rear	3' min. D
Outbuilding	
Front	20' min.
Side	0' min.; 3' max.
Rear	3' min.

¹ Setback may match an existing adjacent building as follows. The building may be set to align with the facade of the front lot immediately adjacent property, for a width no greater than that of the adjacent property's facade that encroaches into the minimum setback.

² No side setback required between townhouse and/or live/work building types.

Miscellaneous

Upper-floor units must have a primary entrance along a street or courtyard facade.
Ground-floor residential units along a street must have individual entries.

E. Building Form¹

Height

Principal Building	
Stories	4 stories max.
To Eave/Parapet	40' max. E
Overall	52' max.
Outbuilding	
2 stories max.	
To Eave/Parapet	18' max.
Overall	20' max.
Ground Floor Finish Level	18" min. above sidewalk F
Ground Floor Ceiling	9' min. clear G
Upper Floor(s) Ceiling	8' min. clear H

¹ See Division 10-50.100 (Specific to Building Types) for additional building form regulations.

Footprint

Depth, ground-floor residential	30' min.
space along primary street frontage	
Lot Coverage	80% max.

Miscellaneous

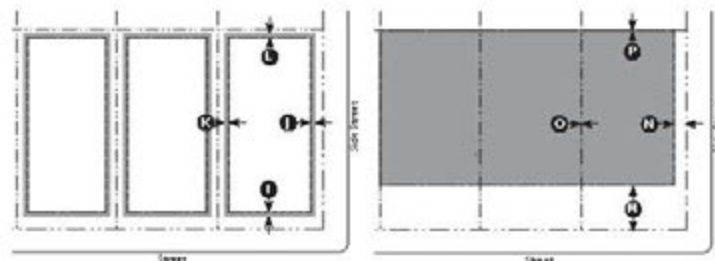
Mansard roof forms are not allowed.

10-74

Flagstaff Zoning Code

10-40.40.000

T4 Neighborhood 2 (T4N.2) Standards



Key

- ROW/Property Line
- Building Setback Line
- Encroachment Area

F. Encroachments and Frontage Types

Encroachments¹	
Front	5' max. I
Side Street/Civic Space	5' max. J
Side	3' max. K
Rear	
Property Line	0' max. L
Rear Lane or Alley	3' max.

Galleries may encroach into street ROW, all other encroachments are not allowed within a street ROW.

¹ See Section 10-50.35 (Encroachments) for allowed encroachments.

Allowed Private Frontage Types²

Stoop	Forecourt
Gallery ³	Terrace/Lightwell ⁴
Shopfront ⁵	Porch

² See Division 10-50.30 (Specific to Private Frontage Types) for private frontage type descriptions and regulations.

³ Allowed only in open sub-zone(s).

Key

- ROW/Property Line
- Parking Setback Line
- Parking Area

G. Required Parking Spaces¹

Residential Uses	
Studio/1 Bedroom	1 space/unit min.
2+ Bedrooms	2 spaces/unit min.
Retail Trade, Service Uses	
≤2,000 sf	No spaces required
>2,000 sf	2 spaces/1,000 sf min. above first 2,000 sf

¹ Use types not listed shall meet the requirements in Table 10-50.70.040.A (Automobile Parking Spaces Required).

Location (Setback from ROW/Property Line)

Front	
Covered/Attached	30' min. M
Uncovered	Match front facade min.
Side Street/Civic Space	5' min. N
Side	0' min. O
Rear	0' min. P

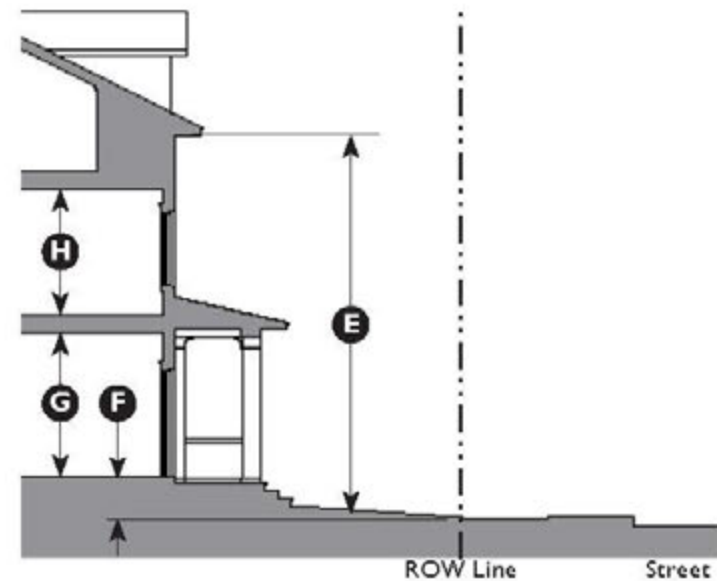
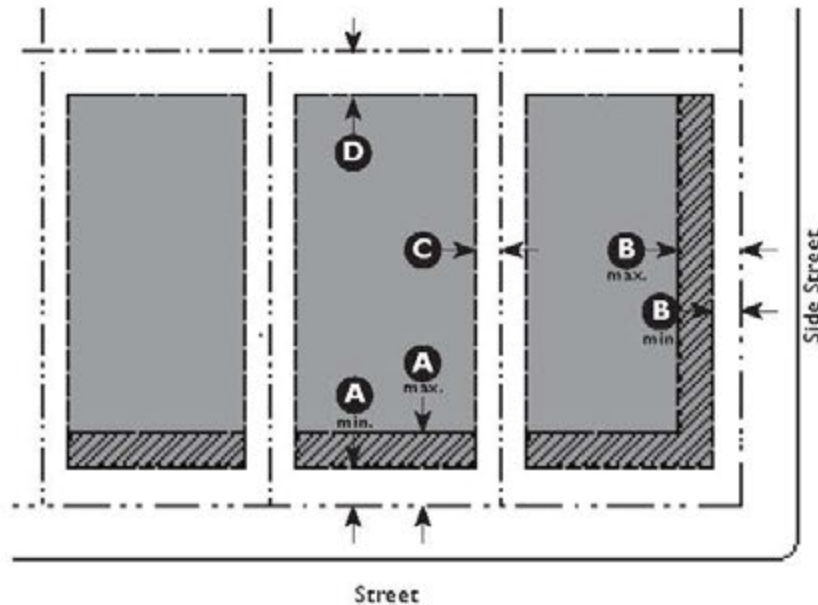
Miscellaneous

Linear feet of front or side facade that may be garage 35% max.
See Division 10-50.70 (Parking Standards) for additional parking regulations.

Flagstaff Zoning Code

10-75

Clarity and Usability are Very Important



D. Building Placement

Setback (Distance from ROW/Property Line)

Principal Building

Front ¹	5' min.; 12' max.	A
Front facade within area	50% min.	
Side Street/Civic Space	10' min.; 15' max.	B
Side ²	3' min.	C
Rear	3' min.	D

Outbuilding

E. Building Form³

Height

Principal Building

Stories	4 Stories max.	
To Eave/Parapet	40' max.	E
Overall	52' max.	

Outbuilding

To Eave/Parapet	18' max.
Overall	28' max.

Form-Based Zones Establish a Hierarchy of Scale and Form

Form Intent is Clear: Based on Unique Patterns of a Place



Small Footprint Urban Neighborhood Zone

Form Hierarchy Should be Clear: Cincinnati, OH Transect



Form Hierarchy Should be Clear: Cincinnati, OH Transect



T4 Neighborhood I (T4N.I)

Form Hierarchy Should be Clear: Cincinnati, OH Transect



T4 Neighborhood 2 (T4N.2)

Form Hierarchy Should be Clear: Cincinnati, OH Transect



T5 Neighborhood 2 (T5N.2)

Form Hierarchy Should be Clear: Cincinnati, OH Transect



Form Hierarchy Should be Clear: Cincinnati, OH Transect



Compatibility Directly Integrated Into Form-Based Districts



Small Footprint Urban Neighborhood Zone

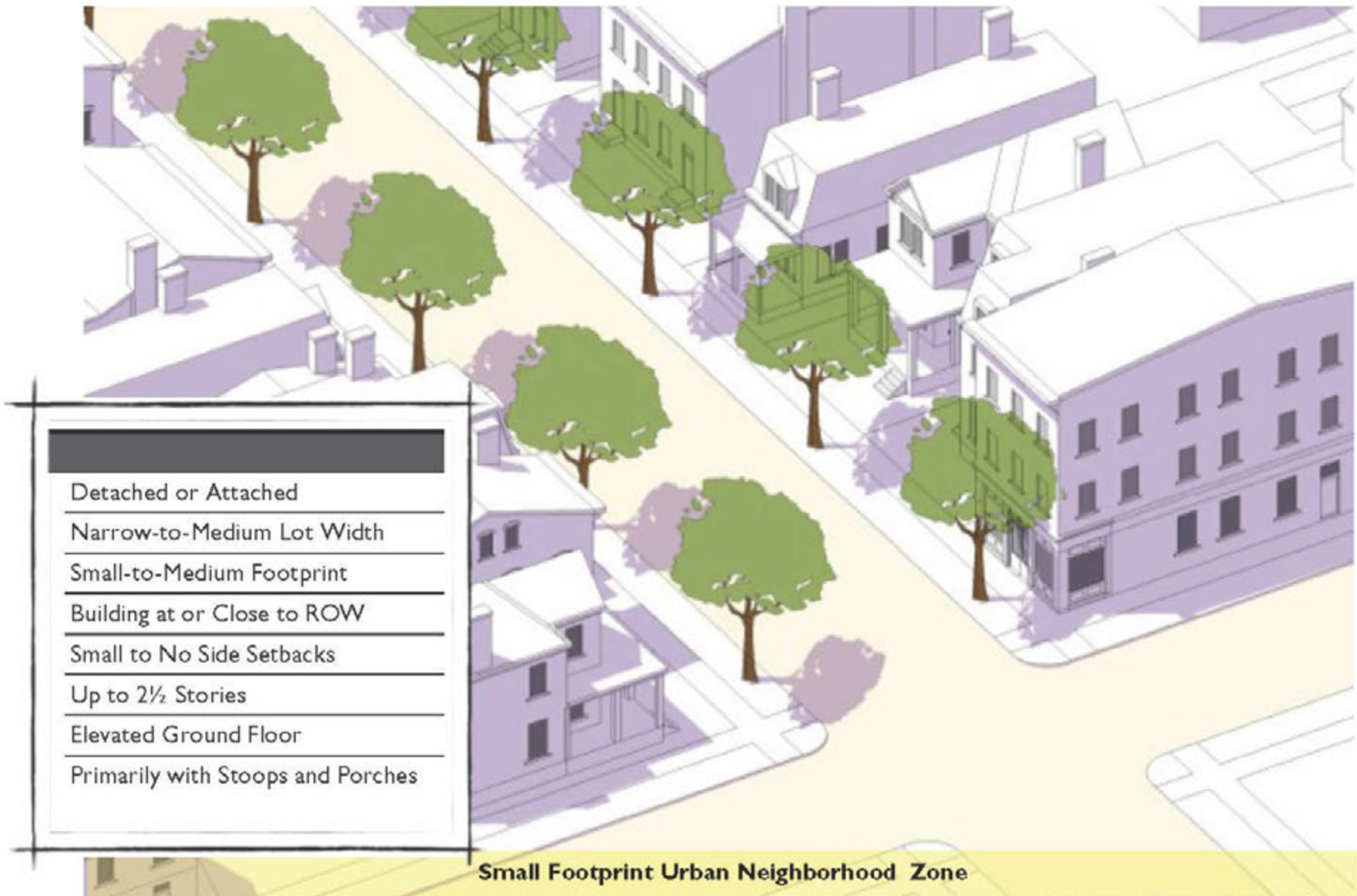


Medium Footprint Urban Neighborhood Zones

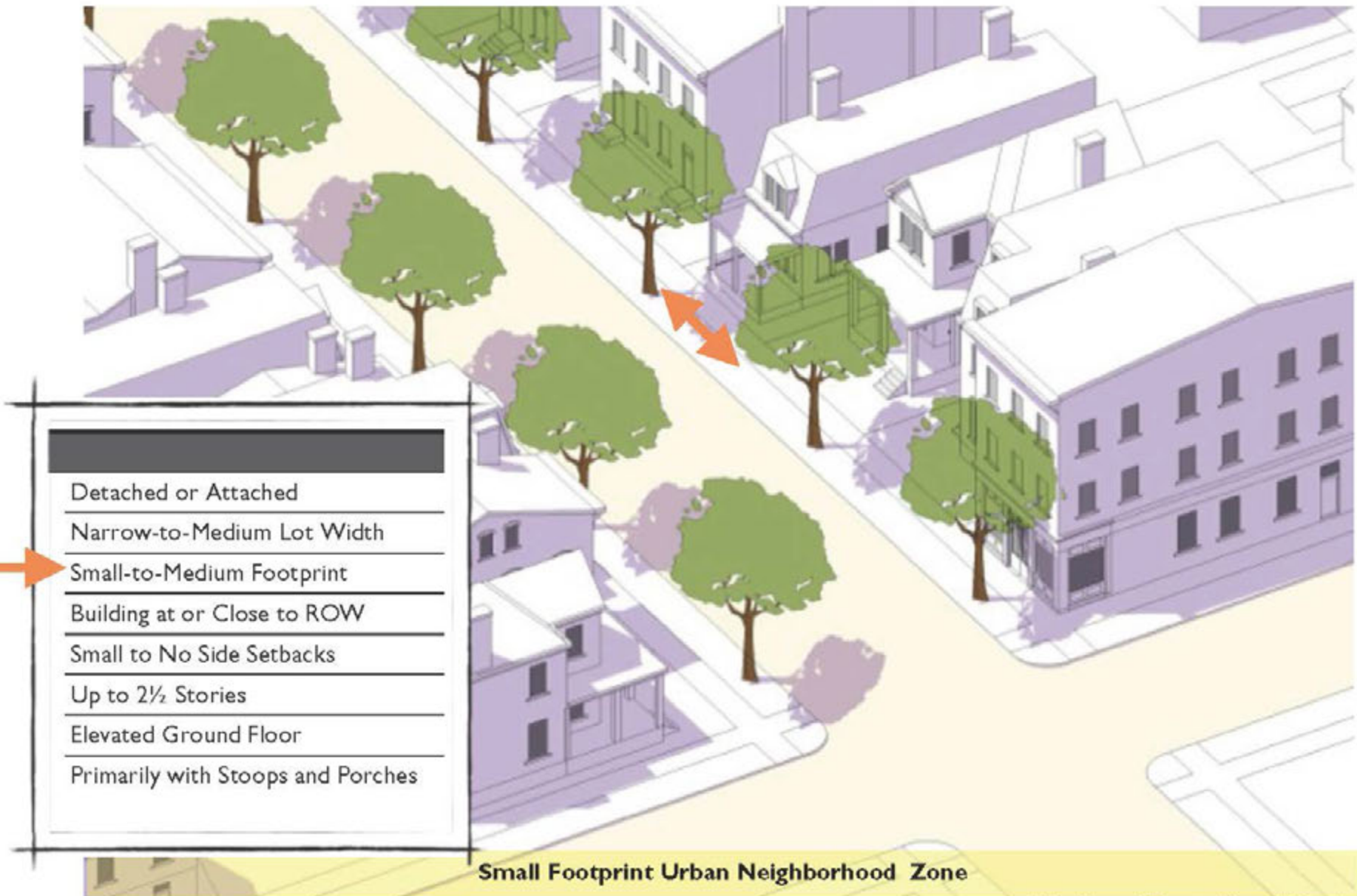
Compatible Form Reinforced Within Zone Standards



Compatible Form Reinforced Within Zone Standards



Compatible Form Reinforced Within Zone Standards



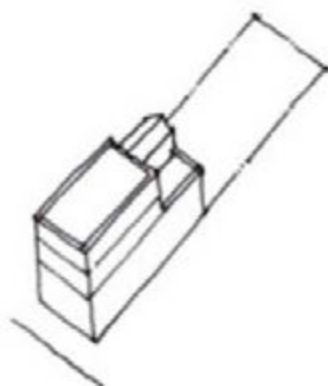
Compatible Form Reinforced Within Zone Standards



Numbers within Tables Are Carefully Tested

25' x 100'

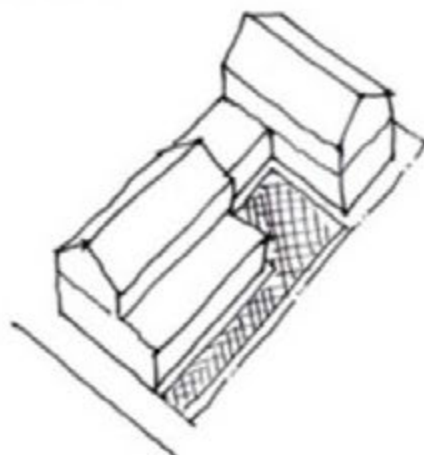
Potential Build-Out - Option A
3 Stories: No Parking



Program Summary	
Use	
Ground Floor Commercial	5,250 sf
Commercial F&B	0
Residential	2,000 sf
Residential Density (units/acre)	50/50
Parking	
On-Street Spaces	0
Off-Street Spaces	0
Height	
Stories	3-3

50' x 100'

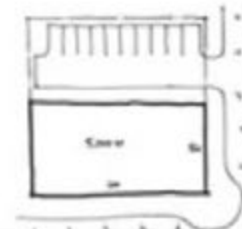
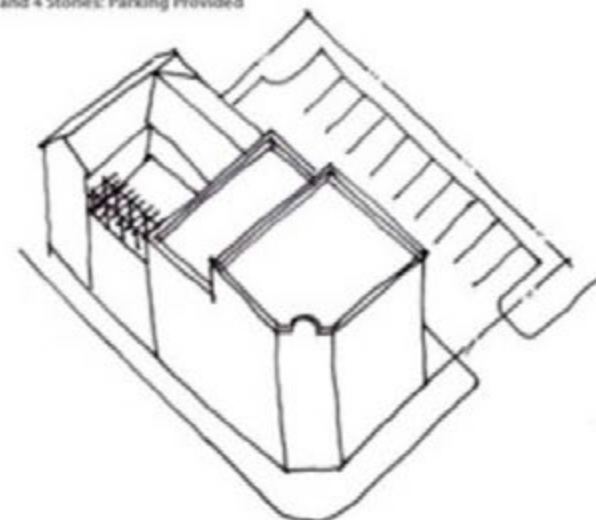
Potential Build-Out - Option B
1 and 2 Stories: No Parking



Program Summary	
Use	
Ground Floor Commercial	2,500 sf
Commercial F&B	0
Residential	2,000 sf
Residential Density (units/acre)	10-20
Parking	
On-Street Spaces	2
Off-Street Spaces	0
Height	
Stories	1-2

100' x 100'

Potential Build-Out - Option A
3 and 4 Stories: Parking Provided



Program Summary	
Use	
Ground Floor Commercial	5,250 sf
Commercial F&B	0
Residential	10,000 sf
Residential Density (units/acre)	50-50
Parking	
On-Street Spaces	0
Off-Street Spaces	50
Height	
Stories	3-4

FBCs Do Integrate Use Standards

Specific to Transect Zones

1703-2.60

T4 Neighborhood Medium Footprint (T4N.MF)

1. T4N.MF Use Table

Use Type	Specific Use Standards	T4N	
		HT	HT-O
Residential			
Dwelling		P	P
Accessory Dwelling		P	P
Home Occupation	1703-S.100.H	P	P
Home Office		MUP	MUP
Services			
Animal Services, except with the following features:	1703-S.100.A		
Boarding		UP	P
Automatic Teller Machine	1703-S.100.B	—	P
Day Care Center	1703-S.100.E	P	P
Day Care Home:	1703-S.100.E		
Adult		P	P
Type A (7 - 12 Children)		UP	P
Type B (1 - 6 Children)		P	P
Lodging: Bed & Breakfast	1703-S.100.C	P	P
Medical Services:			
Clinic		—	P
Doctor Office		—	P
Office: Professional		—	P
Personal Services		—	P
Recreation, Education, Public Assembly			
Cultural Institution		UP	UP
Meeting Facilities		P	P
Park, Open Space			
Playground		P	P
Public Safety Facility		P	P
Recreational Facility:			
Indoor ≤ 1,000 sf		P	P
Indoor > 1,000 sf		UP	UP
Outdoor		UP	UP
Religious Assembly		P	P
School: Public or Private		P	P
Studio: Art, Music, Dance		P	P
Industry, Manufacturing & Processing			
Artisan Production		UP	MUP
General Production		—	—
Limited Production		UP	UP
Agriculture			
Community Gardens	1703-S.100.D	P	P
Transportation, Communications, Infrastructure			
Utility		—	—
Wireless	1703-S.100.K		
Telecommunications:			
Antenna ≤ 20' tall		P	P
Antenna > 20' tall		MUP	MUP
Facility		MUP	MUP
Accessory			
Accessory Building/Structure		P	P

Key	
P	Permitted Use
MUP	Minor Use Permit Required
UP	Use Permit Required
—	Use Not Allowed
End Notes	
1 Only allowed in accessory structure.	

Key

P Permitted Use

MUP Minor Use Permit Required

UP Use Permit Required

— Use Not Allowed

End Notes

¹ Only allowed in accessory structure.

FBCs Do Integrate Use Standards

Specific to Transect Zones

1703-2.60

T4 Neighborhood Medium Footprint (T4N.MF)

I. T4N.MF Use Table

Use Type	Specific Use Standards	T4N MF	T4N MF-O
Residential			
Dwelling		P	P
Accessory Dwelling		P	P
Home Occupation	1703-5.100.H	P	P
Home Office		MUP	MUP
Services			
Animal Services, except with the following features:	1703-5.100.A		
Boarding		UP	UP
Automatic Teller Machine	1703-5.100.B	—	P
Day Care Center	1703-5.100.E	P	P
Day Care Home:	1703-5.100.E		
Adult		P	P
Type A (7 - 12 Children)		UP	P
Type B (1 - 6 Children)		P	P
Lodging: Bed & Breakfast	1703-5.100.C	P	P

Clinic	—	P
Doctor Office	—	P
Office: Professional	—	P
Personal Services	—	P
Recreation, Education, Public Assembly		
Cultural Institution	UP	UP
Meeting Facilities	P	P
Park, Open Space		
Playground	P	P
Public Safety Facility	P	P
Recreational Facility:		
Indoor ≤ 1,000 sf	P	P
Indoor > 1,000 sf	UP	UP
Outdoor	UP	UP
Religious Assembly	P	P
School: Public or Private	P	P
Studio: Art, Music, Dance	PA	P

Use Type	Specific Use Standards	T4N MF	T4N MF-O
Industry, Manufacturing & Processing			
Artisan Production		UP	MUP
General Production		—	—
Limited Production		UP	UP
Agriculture			
Community Gardens	1703-5.100.D	P	P
Transportation, Communication, Information			
Utility		—	—
Wireless	1703-5.100.K		
Telecommunications			
Antenna ≤ 20' tall		P	P
Antenna > 20' tall		MUP	MUP
Facility		MUP	MUP
Accessory			
Accessory Building/Structure		P	P

Key

P Permitted Use

MUP Minor Use Permit Required

UP Use Permit Required

— Use Not Allowed

End Notes

¹ Only allowed in accessory structure.

City of Cincinnati Form-Based Code

Final Draft 2/15/13

2-21

I. T4N.MF Use Table

Use Type

Specific Use Standards

T4N

MF MF-O

Residential

Dwelling

P P

Accessory Dwelling

P P

Home Occupation

1703-5.100.H P P

Home Office

MUP MUP

Services

Animal Services, except 1703-5.100.A

with the following features:

UP P

Boarding

UP UP

Automatic Teller Machine 1703-5.100.B

— P

Day Care Center 1703-5.100.E

P P

Day Care Home: 1703-5.100.E

Adult

P P

Type A (7 - 12 Children)

UP P

Type B (1 - 6 Children)

P P

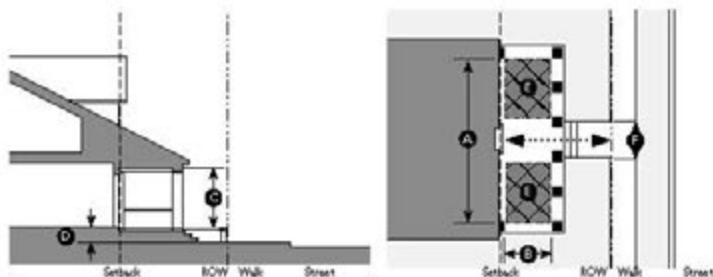
Lodging: Bed & Breakfast 1703-5.100.C

P P

Frontage Type Standards

4.03.050

Frontage Standards



Key

- ROW / Property Line
- Setback Line

4.03.050 Porch: Integral

Description

The main facade of the building has a small setback from the property line. The resulting front yard is typically very small and may be undefined or defined by a fence or hedge to spatially maintain the edge of the street. An integral porch is part of the overall massing and roof form of a building. With an integral porch it is not possible to remove the porch without major changes to the overall roof form.

Size

Width, clear	8' min.	A
Depth, clear	8' min.	B
Height, clear	8' min.	C
Finish level above sidewalk	18" min.	D
Furniture area, clear	4' x 8' min.	E
Path of travel	3' wide min.	F

Miscellaneous

The porch may be one or two stories.
Integral porches may be enclosed on up to two sides and have a roof.



Partial-length integral porch integrated into the overall massing



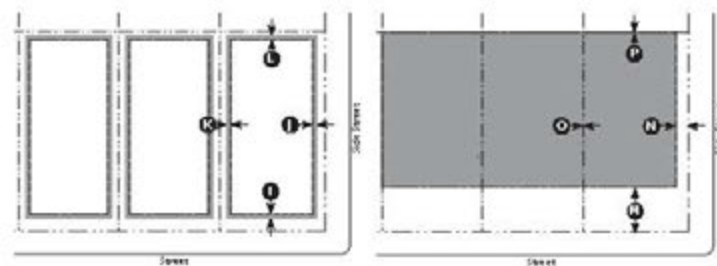
Full-length integral porch integrated into the overall massing

4-30

Livermore Development Code

10-40.40.000

T4 Neighborhood 2 (T4N.2) Standards



Key

- ROW/Property Line
- Building Setback Line
- Encroachment Area

F. Encroachments and Frontage Types

Encroachments ¹		
Front	5' max.	I
Side Street/Civic Space	5' max.	J
Side	3' max.	K
Rear		L
Property Line	0' max.	
Rear Lane or Alley	3' max.	

Galleries may encroach in to street ROW, all other encroachments are not allowed within a street ROW.

¹See Section 10-50.35 (Encroachments) for allowed encroachments.

Allowed Private Frontage Types²

Stoop	Forecourt
Gallery ³	Terrace/Lightwell ⁴
Shopfront ⁵	Porch

²See Division 10-50.30 (Specific to Private Frontage Types) for private frontage type descriptions and regulations.

³Allowed only in open sub-zone(s).

Key

- ROW/Property Line
- Parking Setback Line
- Parking Area

G. Required Parking Spaces⁷

Residential Uses	
Studio/1 Bedroom	1 space/unit min.
2+ Bedrooms	2 spaces/unit min.
Retail Trade, Service Uses	
≤2,000 sf	No spaces required
>2,000 sf	2 spaces/1,000 sf min. above first 2,000 sf

⁷Use types not listed shall meet the requirements in Table 10-50.70.040.A (Automobile Parking Spaces Required).

Location (Setback from ROW/Property Line)

Front		
Covered/Attached	30' min.	M
Uncovered	Match front facade min.	
Side Street/Civic Space	5' min.	N
Side	0' min.	O
Rear	0' min.	P

Miscellaneous

Linear feet of front or side facade that may be garage 35% max.
See Division 10-50.70 (Parking Standards) for additional parking regulations.

Flagstaff Zoning Code

10-75

Your Existing Code Does Not Recognize the Difference



Buildings and their lots shape the streetscape through a variety of ways or “types”

We Have Forgotten How to Design Good Frontage



Building Type Standards

5.01.070

Building Types

5.01.070 Duplex, Stacked

General Note: the drawings and photos below are illustrative.



The entry to the right opens to a stair leading to the upper unit, which takes up the entire upper floor. The door to the left opens directly into the lower unit, which takes up the entire lower floor.

A. Description

This Duplex building type consists of structures that contain two units, one on top of the other. This building type has the appearance of a medium to large single-family home. This type is typically integrated sparingly into single-family neighborhoods or more consistently into neighborhoods with other medium-density types such as bungalow courts, fourplexes, or courtyard apartments. This building type enables the incorporation of high-quality, well-designed density within a walkable neighborhood.

This is the preferred type of duplex on 50' wide lots in Livermore neighborhoods not zoned for single-family because it is capable of accommodating two units in a smaller footprint, thus maximizing compatibility in size and privacy to the rear of adjacent units.



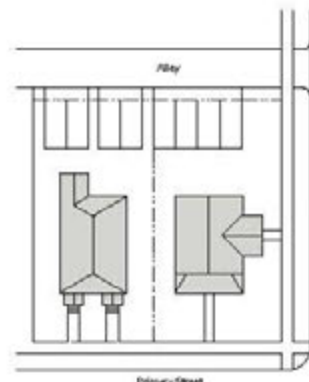
The scale of this duplex makes it compatible with adjacent single-family homes.

5-12

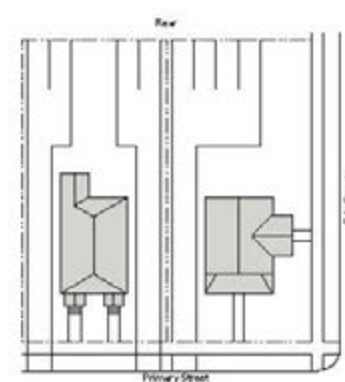
Livermore Development Code

Building Types

5.01.070



Typical Alley Loaded Plan Diagram



Typical Front Loaded Plan Diagram

Key

--- ROW / Property Line ■ Building Area

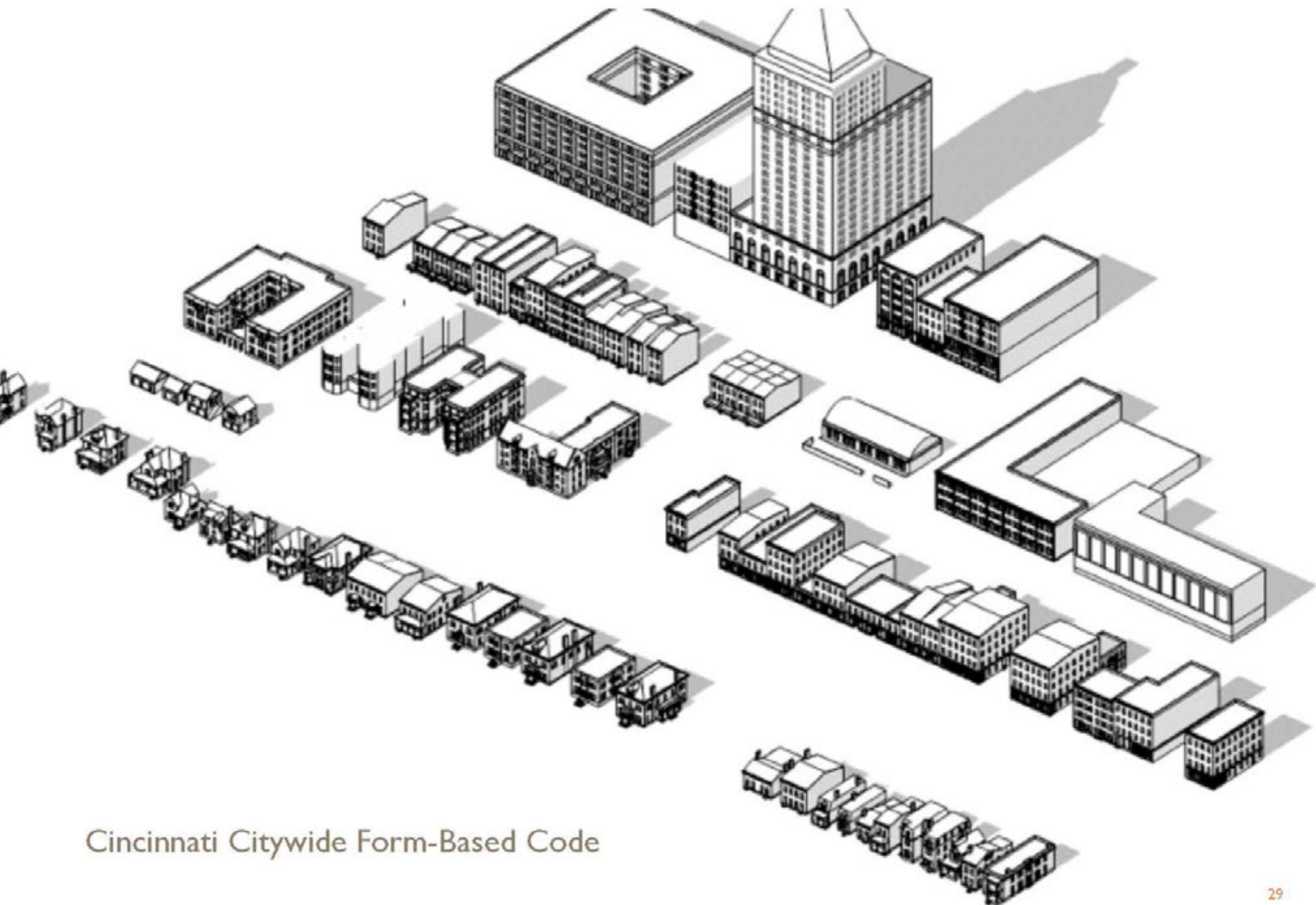
B. Lot	
Lot Size	
Width	50' min., 75' max.
Depth	100' min., 150' max.
C. Pedestrian Access	
Main Entrance Location	Primary street
On corner lots each unit shall front a different street.	
D. Frontages	
Allowed Frontages	
Porch	
Sloop	
E. Vehicle Access and Parking	
Parking spaces may be enclosed, covered, or open.	

F. Open Space, Usable	
Width	15' unit min.
Depth	15' unit min.
Open Space Area	300 sq ft min.
Required street setbacks and driveways shall not be included in the open space area calculation.	
G. Building Size and Massing	
Main Body	
Width	34' max.
Secondary Wing	
Width	24' max.
Detached Garage	
Width	24' max.
Depth	25' max.
H. Micro-Entrances	
Both units shall have entries facing the street no more than 10' behind the front facade.	

Livermore Development Code

5-13

Kit of Parts for Neighborhoods: Cincinnati, Ohio



Cincinnati Citywide Form-Based Code

Group of Building Types Calibrated for the City

Specific to Building Types

1703-3.30

Table 1703-3.30.A: Building Types General

Building Type	Transect Zones										
 Carriage House. This Building Type is an accessory structure typically located at the rear of a lot. It typically provides either a small residential unit, home office space, or other small commercial or service use that may be above a garage or at ground level. This Type is important for providing affordable housing opportunities and incubating small businesses within walkable neighborhoods.	<table border="1"> <tr><td>T3E</td><td>T3N</td></tr> <tr><td>T4N.1</td><td>T4N.2</td></tr> <tr><td>T5MS</td><td>T5N.1</td></tr> <tr><td>T5N.2</td><td>T5F</td></tr> <tr><td>T6C</td><td></td></tr> </table>	T3E	T3N	T4N.1	T4N.2	T5MS	T5N.1	T5N.2	T5F	T6C	
T3E	T3N										
T4N.1	T4N.2										
T5MS	T5N.1										
T5N.2	T5F										
T6C											
 Detached House: Medium. This Building Type is a medium-sized detached structure on a medium-sized lot that incorporates one unit. It is typically located within a primarily single-family residential neighborhood in a walkable urban setting, potentially near a neighborhood main street.	<table border="1"> <tr><td>T3E</td><td>T3N</td></tr> <tr><td>T4N.1</td><td>T4N.2</td></tr> <tr><td>T5MS</td><td>T5N.1</td></tr> <tr><td>T5N.2</td><td>T5F</td></tr> <tr><td>T6C</td><td></td></tr> </table>	T3E	T3N	T4N.1	T4N.2	T5MS	T5N.1	T5N.2	T5F	T6C	
T3E	T3N										
T4N.1	T4N.2										
T5MS	T5N.1										
T5N.2	T5F										
T6C											
 Detached House: Compact. This Building Type is a small detached structure on a small lot that incorporates one unit. It is typically located within a primarily single-family residential neighborhood in a walkable urban setting, potentially near a neighborhood main street. This Type enables appropriately-scaled, well-designed higher densities and is important for providing a broad choice of housing types and promoting walkability.	<table border="1"> <tr><td>T3E</td><td>T3N</td></tr> <tr><td>T4N.1</td><td>T4N.2</td></tr> <tr><td>T5MS</td><td>T5N.1</td></tr> <tr><td>T5N.2</td><td>T5F</td></tr> <tr><td>T6C</td><td></td></tr> </table>	T3E	T3N	T4N.1	T4N.2	T5MS	T5N.1	T5N.2	T5F	T6C	
T3E	T3N										
T4N.1	T4N.2										
T5MS	T5N.1										
T5N.2	T5F										
T6C											
 Cottage Court. This Building Type consists of a series of small, detached structures, providing multiple units arranged to define a shared court that is typically perpendicular to the street. The shared court takes the place of a private rear yard and becomes an important community-enhancing element of this Type. This Type is appropriately-scaled to fit within primarily single-family or medium-density neighborhoods. It enables appropriately-scaled, well-designed higher densities and is important for providing a broad choice of housing types and promoting walkability.	<table border="1"> <tr><td>T3E</td><td>T3N</td></tr> <tr><td>T4N.1</td><td>T4N.2</td></tr> <tr><td>T5MS</td><td>T5N.1</td></tr> <tr><td>T5N.2</td><td>T5F</td></tr> <tr><td>T6C</td><td></td></tr> </table>	T3E	T3N	T4N.1	T4N.2	T5MS	T5N.1	T5N.2	T5F	T6C	
T3E	T3N										
T4N.1	T4N.2										
T5MS	T5N.1										
T5N.2	T5F										
T6C											
 Duplex. This Building Type is a small- to medium-sized structure that consists of two side-by-side or stacked dwelling units, both facing the street and within a single building massing. This Type has the appearance of a medium- to large single-family home and is appropriately scaled to fit within primarily single-family neighborhoods or medium-density neighborhoods. It enables appropriately-scaled, well-designed higher densities and is important for providing a broad choice of housing types and promoting walkability.	<table border="1"> <tr><td>T3E</td><td>T3N</td></tr> <tr><td>T4N.1</td><td>T4N.2</td></tr> <tr><td>T5MS</td><td>T5N.1</td></tr> <tr><td>T5N.2</td><td>T5F</td></tr> <tr><td>T6C</td><td></td></tr> </table>	T3E	T3N	T4N.1	T4N.2	T5MS	T5N.1	T5N.2	T5F	T6C	
T3E	T3N										
T4N.1	T4N.2										
T5MS	T5N.1										
T5N.2	T5F										
T6C											

Key

 Allowed

 Not Allowed

City of Cincinnati Form-Based Code

Public Review Draft: 9/21/12

1703-3.3

1703-3.30

Specific to Building Types

Table 1703-3.30.A: Building Types General (continued)

Building Type	Transect Zones										
 Rowhouse. This Building Type is a small- to medium-sized typically attached structure that consists of 2-8 Rowhouses placed side-by-side. In a feature unique to Cincinnati, this Type may also occasionally be detached with minimal separations between the buildings. This Type is typically located within medium-density neighborhoods or in a location that transitions from a primarily single-family neighborhood into a neighborhood main street. This Type enables appropriately-scaled, well-designed higher densities and is important for providing a broad choice of housing types and promoting walkability. Syn: Townhouse	<table border="1"> <tr><td>T3E</td><td>T3N</td></tr> <tr><td>T4N.1</td><td>T4N.2</td></tr> <tr><td>T5MS</td><td>T5N.1</td></tr> <tr><td>T5N.2</td><td>T5F</td></tr> <tr><td>T6C</td><td></td></tr> </table>	T3E	T3N	T4N.1	T4N.2	T5MS	T5N.1	T5N.2	T5F	T6C	
T3E	T3N										
T4N.1	T4N.2										
T5MS	T5N.1										
T5N.2	T5F										
T6C											
 Multi-plex: Small. This Building Type is a medium structure that consists of 3-6 side-by-side and/or stacked dwelling units, typically with one shared entry or individual entries along the front. This Type has the appearance of a medium-sized family home and is appropriately scaled to fit sparingly within primarily single-family neighborhoods or into medium-density neighborhoods. This Type enables appropriately-scaled, well-designed higher densities and is important for providing a broad choice of housing types and promoting walkability.	<table border="1"> <tr><td>T3E</td><td>T3N</td></tr> <tr><td>T4N.1</td><td>T4N.2</td></tr> <tr><td>T5MS</td><td>T5N.1</td></tr> <tr><td>T5N.2</td><td>T5F</td></tr> <tr><td>T6C</td><td></td></tr> </table>	T3E	T3N	T4N.1	T4N.2	T5MS	T5N.1	T5N.2	T5F	T6C	
T3E	T3N										
T4N.1	T4N.2										
T5MS	T5N.1										
T5N.2	T5F										
T6C											
 Multi-plex: Large. This Building Type is a medium- to large-sized structure that consists of 7-18 side-by-side and/or stacked dwelling units, typically with one shared entry. This Type is appropriately scaled to fit within medium-density neighborhoods or sparingly within large lot predominantly single-family neighborhoods. This Type enables appropriately-scaled, well-designed higher densities and is important for providing a broad choice of housing types and promoting walkability.	<table border="1"> <tr><td>T3E</td><td>T3N</td></tr> <tr><td>T4N.1</td><td>T4N.2</td></tr> <tr><td>T5MS</td><td>T5N.1</td></tr> <tr><td>T5N.2</td><td>T5F</td></tr> <tr><td>T6C</td><td></td></tr> </table>	T3E	T3N	T4N.1	T4N.2	T5MS	T5N.1	T5N.2	T5F	T6C	
T3E	T3N										
T4N.1	T4N.2										
T5MS	T5N.1										
T5N.2	T5F										
T6C											
 Stacked Flats. This Building Type is a medium- to large-sized structure that consists of multiple dwelling units accessed from a courtyard or series of courtyards. Each unit may have its own individual entry, or may share a common entry. This Type is appropriately scaled to fit adjacent to neighborhood serving main streets and walkable urban neighborhoods. It enables appropriately-scaled, well-designed higher densities and is important for providing a broad choice of housing types and promoting walkability. This building type may include a courtyard.	<table border="1"> <tr><td>T3E</td><td>T3N</td></tr> <tr><td>T4N.1</td><td>T4N.2</td></tr> <tr><td>T5MS</td><td>T5N.1</td></tr> <tr><td>T5N.2</td><td>T5F</td></tr> <tr><td>T6C</td><td></td></tr> </table>	T3E	T3N	T4N.1	T4N.2	T5MS	T5N.1	T5N.2	T5F	T6C	
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T4N.1	T4N.2										
T5MS	T5N.1										
T5N.2	T5F										
T6C											
 Live/Work. This Building Type is a small to medium-sized attached or detached structure that consists of one dwelling unit above and/or behind a flexible ground floor space that can be used for residential, service, or retail use. Both the ground-floor floor space and the unit above are owned by one entity. This Type is typically located within medium-density neighborhoods or in a location that transitions from a neighborhood into a neighborhood main street. It is especially appropriate for incubating neighborhood-serving retail and service uses and allowing neighborhood main streets to expand as the market demands.	<table border="1"> <tr><td>T3E</td><td>T3N</td></tr> <tr><td>T4N.1</td><td>T4N.2</td></tr> <tr><td>T5MS</td><td>T5N.1</td></tr> <tr><td>T5N.2</td><td>T5F</td></tr> <tr><td>T6C</td><td></td></tr> </table>	T3E	T3N	T4N.1	T4N.2	T5MS	T5N.1	T5N.2	T5F	T6C	
T3E	T3N										
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T5MS	T5N.1										
T5N.2	T5F										
T6C											

Key

 Allowed

 Not Allowed

1703-3.4

Public Review Draft: 9/21/12

City of Cincinnati Form-Based Code

Every Zone Has a List of Allowed Types

Specific to Tract Zones

1703-2.70

T4 Neighborhood Small Footprint (T4N.2)

1703-2.70 T4 Neighborhood Small Footprint (T4N.2)



A. Intent

To provide variety of urban housing choices, in small-to-medium footprint, medium-to-high density building types, which reinforce the walkable nature of the neighborhood, support neighborhood-serving retail and service uses adjacent to this Zone, and support public transportation alternatives. The following are generally appropriate form elements in this Zone:

Detached or Attached
Narrow-to-Medium Lot Width
Small-to-Medium Footprint
Building at or Close to R.O.V.
Small to No Side Setbacks
Up to 2½ Stories
Elevated Ground Floor
Primarily with Stoops and Porches

B. Sub-Zone(s)

T4N.2-Open Zone (T4N.2-O)

The open sub-zone provides the same building form but allows for a more diverse mix of uses.

General note: The drawing above is intended to provide a brief overview of this Tract Zone and is illustrative only.

City of Cincinnati Form-Based Code

Public Review Draft: 9/21/12

1703-2-23

C. Allowed Building Types

Building Type	Lot		Standards
	Width A	Depth B	
Carriage House	n/a	n/a	1703-3.40
Detached House: Compact	30' min.; 50' max.	75' min.	1703-3.60
Cottage Court	75' min.; 100' max.	100' min.	1703-3.70
Duplex	40' min.; 75' max.	100' min.	1703-3.80
Rowhouse	18' min.; 35' max.	80' min.	1703-3.90
Multi-Plex: Small	50' min.; 100' max.	100' min.	1703-3.100
Live/Work	18' min.; 35' max.	80' min.	1703-3.130

Civic Space Standards

Civic Space Types

10-70.10.030

Table 10-70.10.030.A Civic Spaces

TRANSECT ZONE	T1 T2 T3 T4 T5 T6	T1 T2 T3 T4 T5 T6	T1 T2 T3 T4 T5 T6
Civic Space Type	Park	Greenway	Green
Illustration			
Description	A natural preserve available for unstructured recreation.	A linear space in largely natural conditions for unstructured recreation.	An open space, available for unstructured recreation.
Size and Location			
Size			
Minimum	8 acres	8 acres	1/2 acre
Maximum	-	-	8 acres
Frontage	Independent	Independent/Building Frontage	Independent/Building Frontage
Character	Natural	Natural	Natural
Typical Uses			
	Passive/Active (Unstructured) Open Space, Civic Uses, Paths and Trails, Woodland and Open Shelters, Community Gardens, Playgrounds	Passive/Active (Unstructured) Open Space, Civic Uses, Trails for Bicycles and Pedestrians, Community Gardens, Playgrounds	Passive/Active (Unstructured) Open Space, Civic Uses, Community Gardens, Playgrounds
Stormwater Management			
	Integrated Runoff, Bioretention, Extended Detention Basins, Porous Pavements and Landscaping	Integrated Runoff, Bioretention, Extended Detention Basins, Porous Pavements and Landscaping	French Drains, Porous Pavements and Landscaping

Key  Allowed  Not Allowed

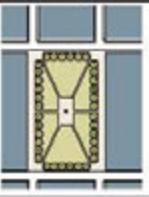
Flagstaff Zoning Code

70.10-3

10-70.10.030

Civic Space Types

Table 10-70.10.030.A Civic Spaces (continued)

TRANSECT ZONE	T1 T2 T3 T4 T5 T6	T1 T2 T3 T4 T5 T6	T1 T2 T3 T4 T5 T6
Civic Space Type	Square	Plaza	Pocket Plaza
Illustration			
Description	An open space available for unstructured recreation and civic purposes.	An open space available for civic purposes and commercial activities.	An open space available for civic purposes and commercial activities.
Size and Location			
Size			
Minimum	1/2 acre	1/2 acre	4,000 sf
Maximum	5 acres	2-1/2 acres	1/2 acre
Frontage	Independent	Independent/Building Frontage	Building Frontage
Character	Formal	Formal	Formal
Typical Uses			
	Passive/Active (Unstructured) Open Space, Civic Uses, Paths, Community Gardens, Playgrounds	Passive/Active (Unstructured) Open Space, Civic Uses, Commercial Uses, Community Garden, Playground	Passive/Active (Unstructured) Open Space, Civic Uses, Commercial Uses, Community Garden, Playground
Stormwater Management			
	French Drains, Porous Pavements, and Landscaping	French Drains, Porous Pavements, and Landscaping	French Drains, Porous Pavements, and Landscaping

Key  Allowed  Not Allowed

70.10-4

Flagstaff Zoning Code

Open Space and Civic Space Regulating Plan



4.50.050 - Open Space and Civic Space Regulating Plan Downtown Station Area

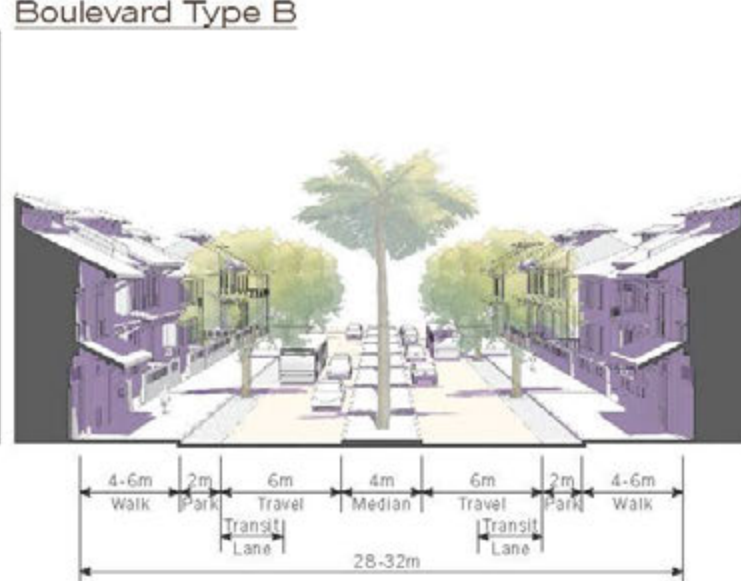
- A Pedestrian Priority Design Area.** The streets and sidewalks in this area shall be designed to feel like a continuation of public space. This includes the use of decorative pavers or street print and rolled curbs and bollards where feasible. These locations are areas where the streets may be closed off for community events.
- B Linear Park.** The linear park shall contain a central sidewalk and regularly spaced benches. See Thoroughfare Standards for a cross section and dimensional requirements.
- C Neighborhood Square.** 75' min. width; see 4.50 for additional regulations.
- D Pocket Plaza.** See 4.50 for regulations.
- E Potential Future Pocket Park.** (on existing parking lot) See 4.50 for regulations. A vertical element should be used to terminate the view down the Transverse Street.
- F Future Promenade Expansion.** Future redevelopment of the parcels between Weller Street and the Petaluma River shall include an expansion of the promenade with a 12' min. wide trail.
- G Amphitheater** or other Civic gathering/ event space.
- H River Overlooks.** Boardwalks constructed of wooden piers, beams, and floor planks, that project over the Turning Basin and have minimal impact on the shoreline below.
- I Plaza.** 30' min. width from the top of the bank to the face of the Special Building at the western end; 50' min. width from the top of the bank to the face of all other buildings. See 4.50 for additional regulations.
- J Promenade.** 30' min. width from top of bank to the face of the buildings; 12' min. wide walking.
- K General Waterfront Open Space.** 20' min. width from top of bank to the face of the buildings; 6' min. wide walkways.
- M Public Docks.**
- Access Points to Water.**

Thoroughfare Standards

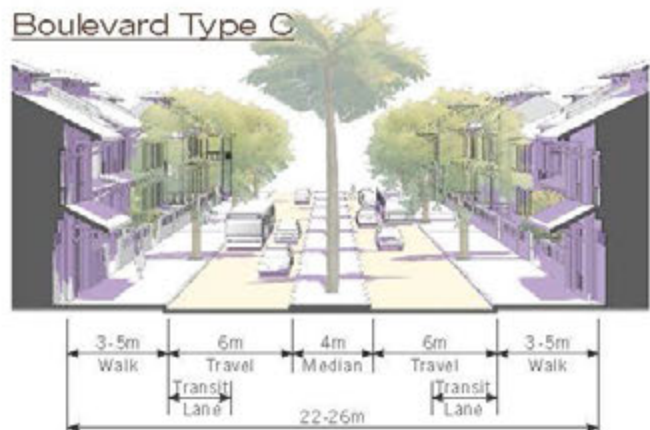
Boulevard Type A (Multi-way Boulevard)



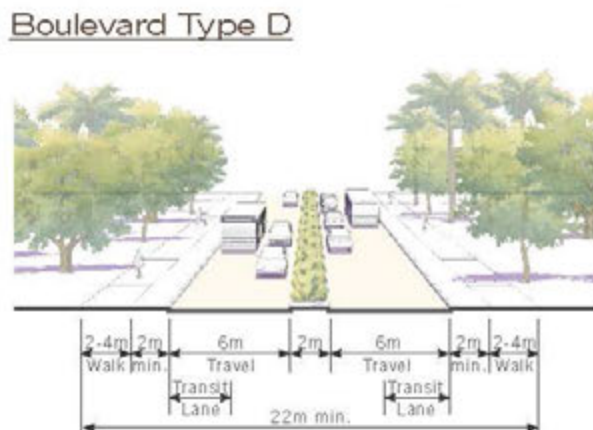
Boulevard Type B



Boulevard Type C



Boulevard Type D



Avenue



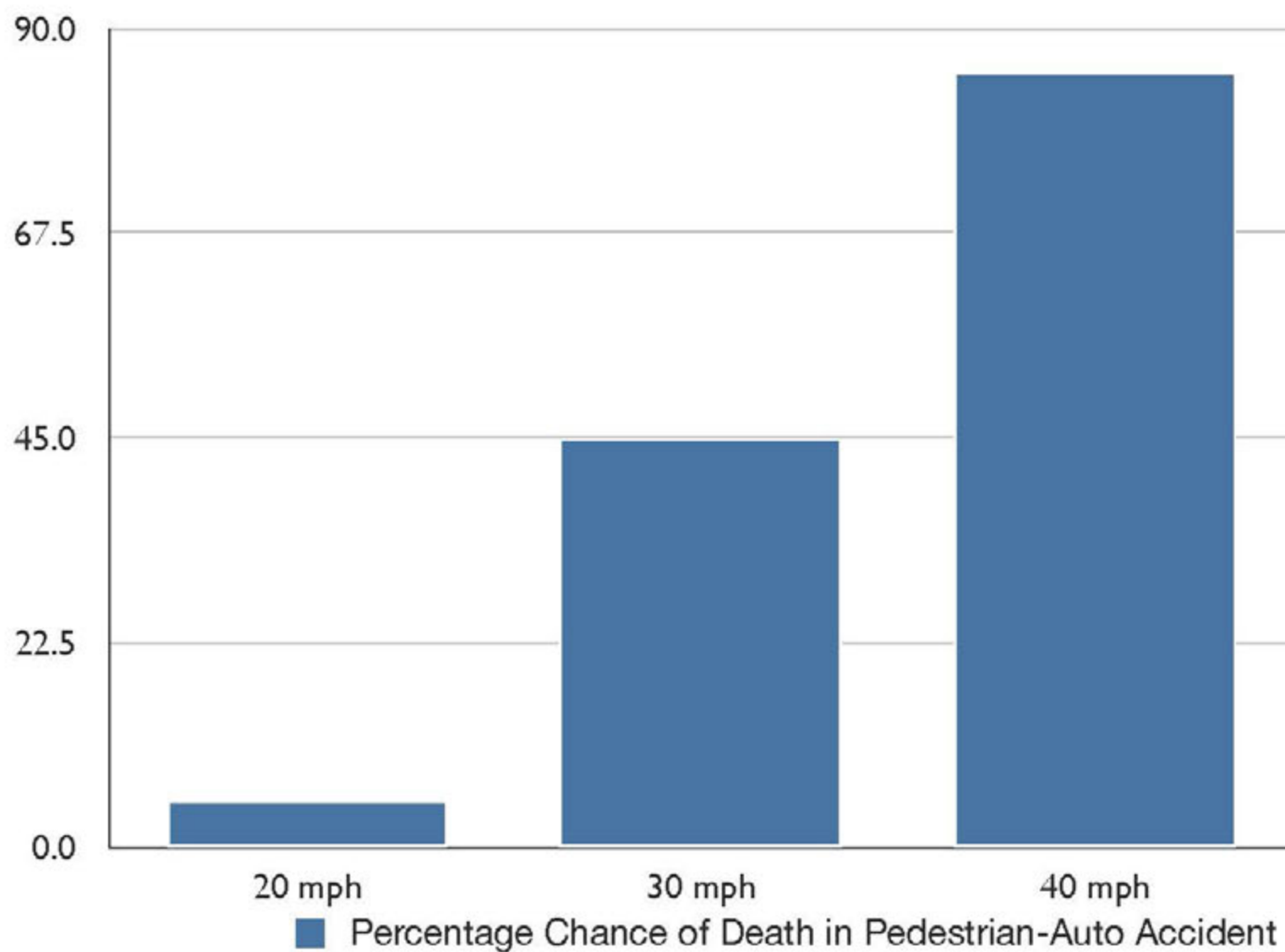
Notes: Refer to Sustainability Guidelines for locations of utilities and storm-water treatment facilities.
Street trees within public right-of-way shall be located per sections above and spaced at 14m on-center.

Quality of Place Requires Great Streets



Thoroughfare Speeds and Ped Safety

Chart 3

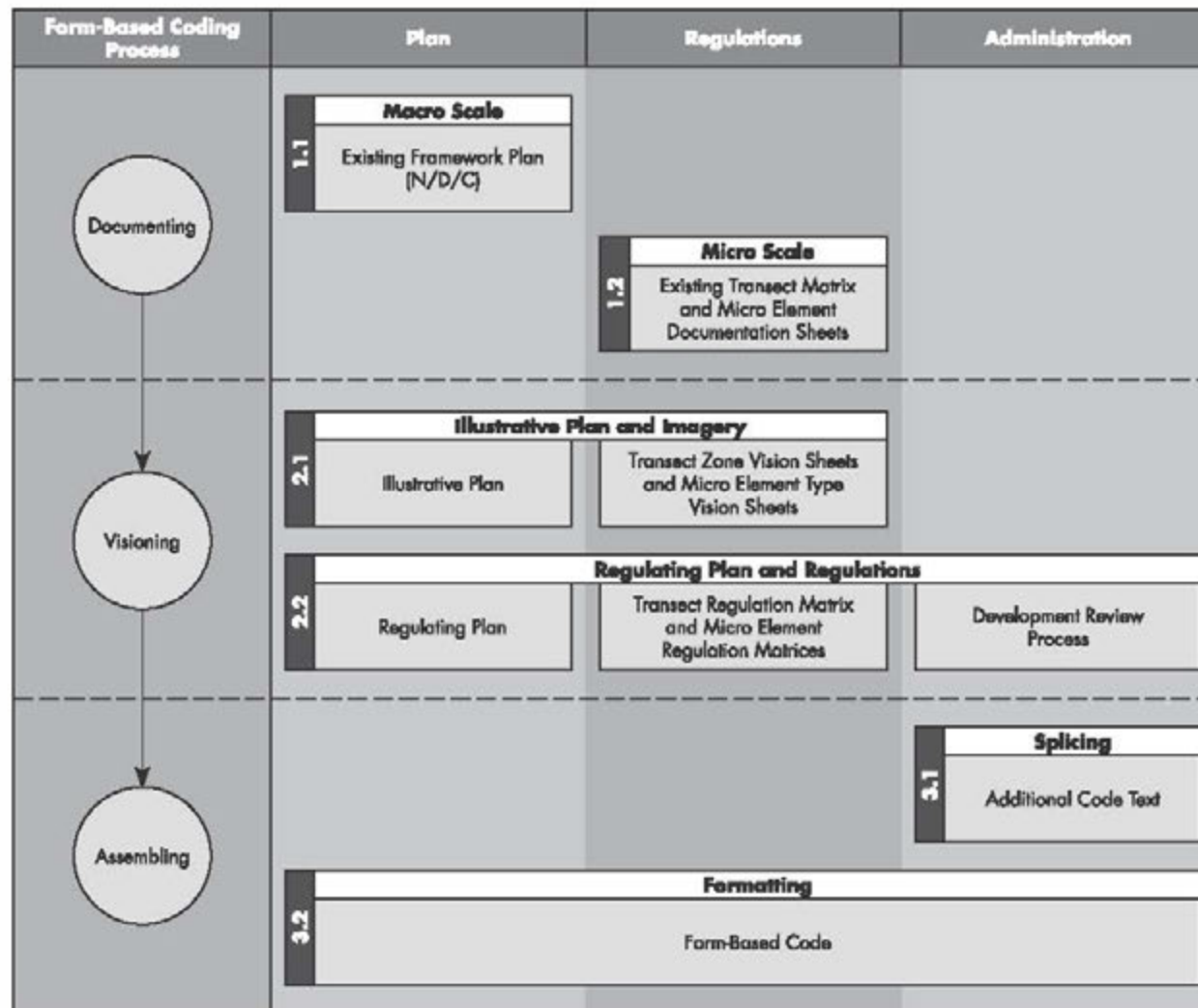


2

The Process

Proven Steps

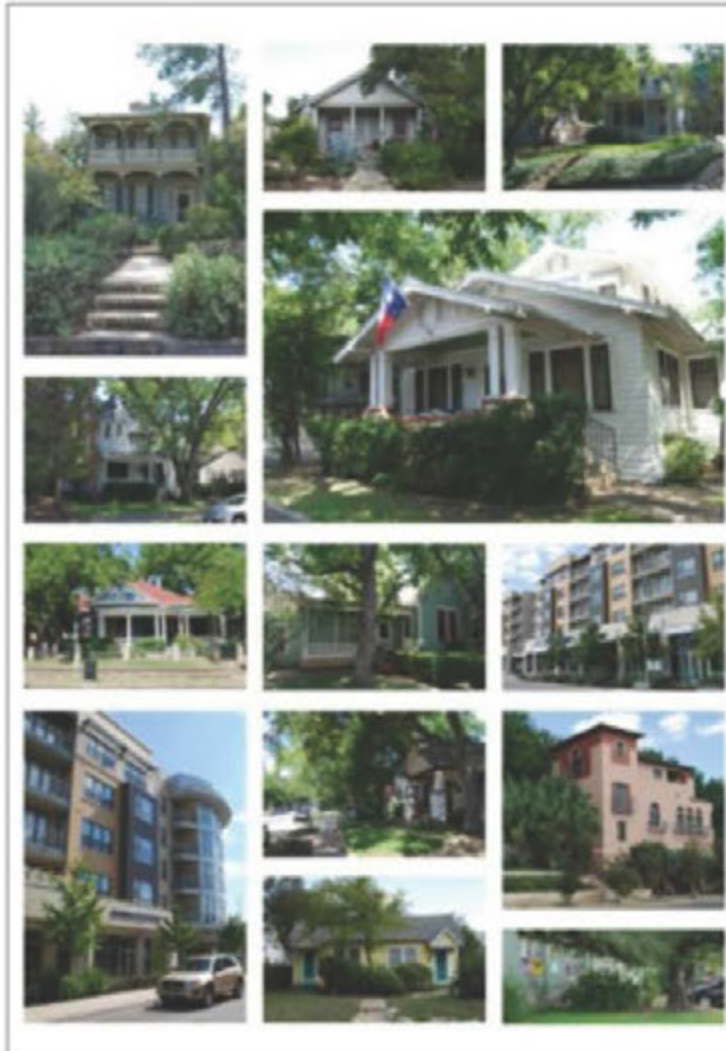
The Three Step Process for Creating an FBC



Step 1: Documentation and Analysis

Extracting the DNA of a Place

Photo Documentation: A Central Austin Neighborhood



Old West Austin: Residential Character

Austin, Texas
November 2013

CODENEXT
SHAPING THE AUSTIN WE IMAGINE

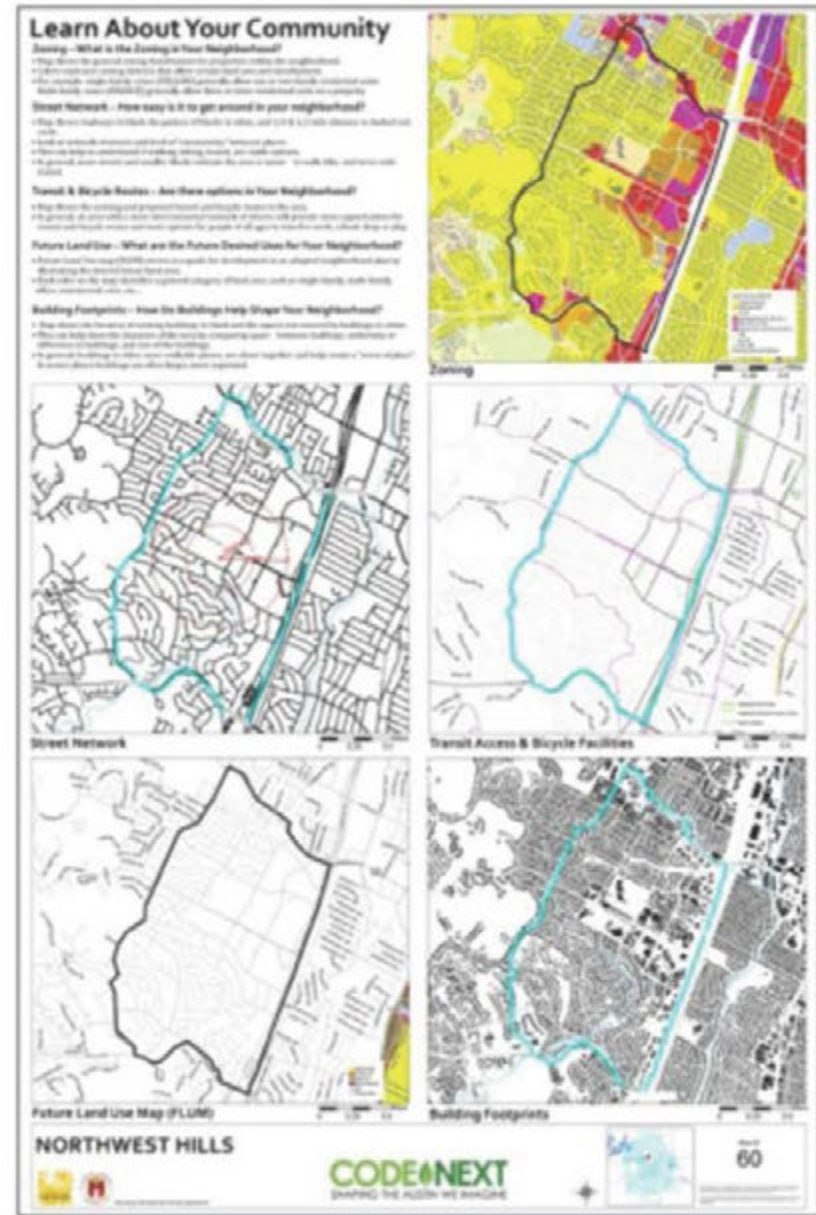
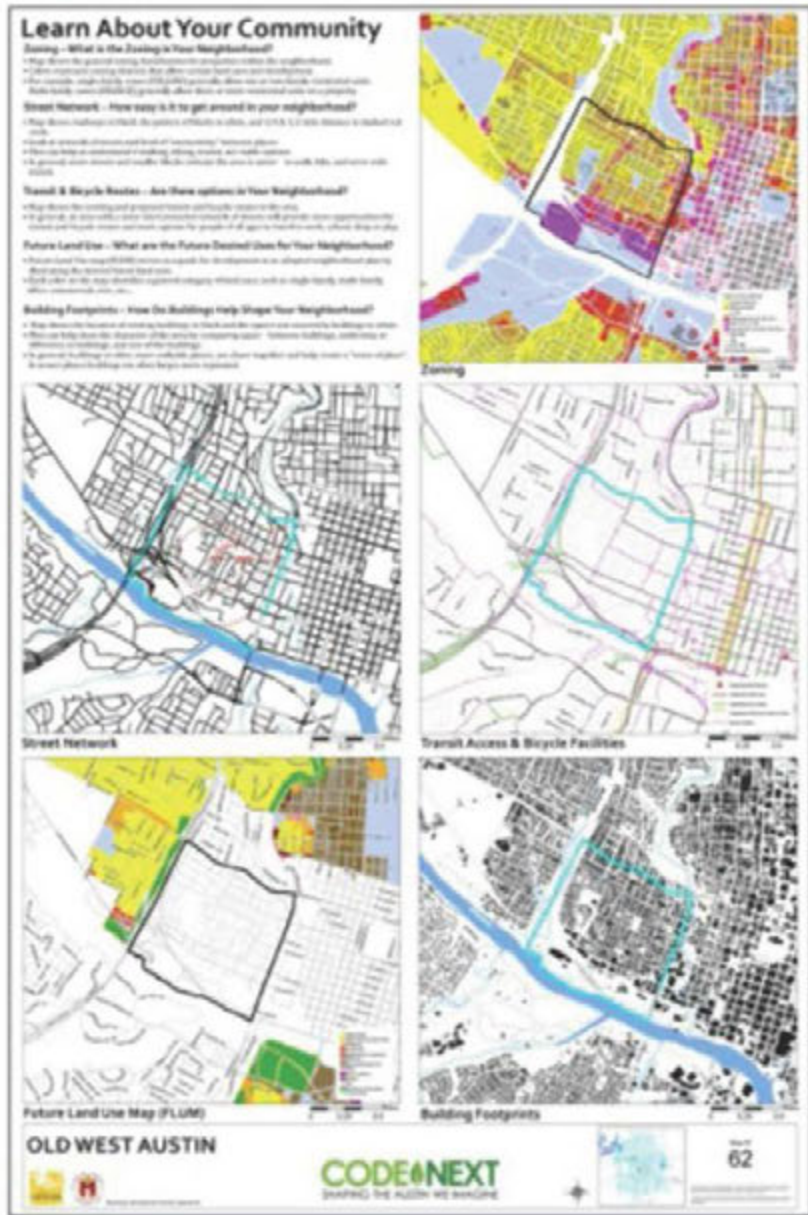


Old West Austin: Commercial Character

Austin, Texas
November 2013

CODENEXT
SHAPING THE AUSTIN WE IMAGINE

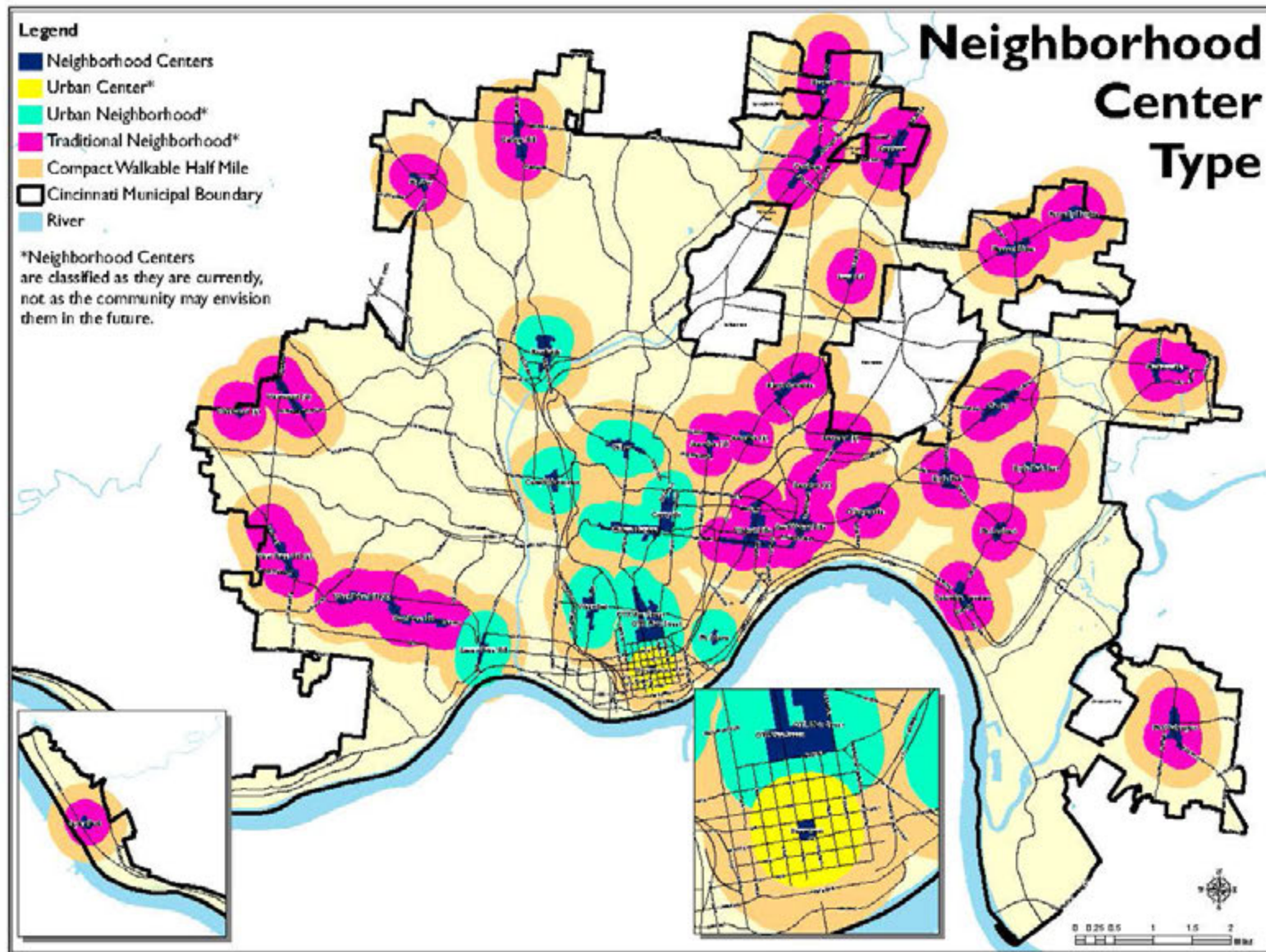
Mapping Typical Characteristics: Allows Comparison



Step 2: Visioning

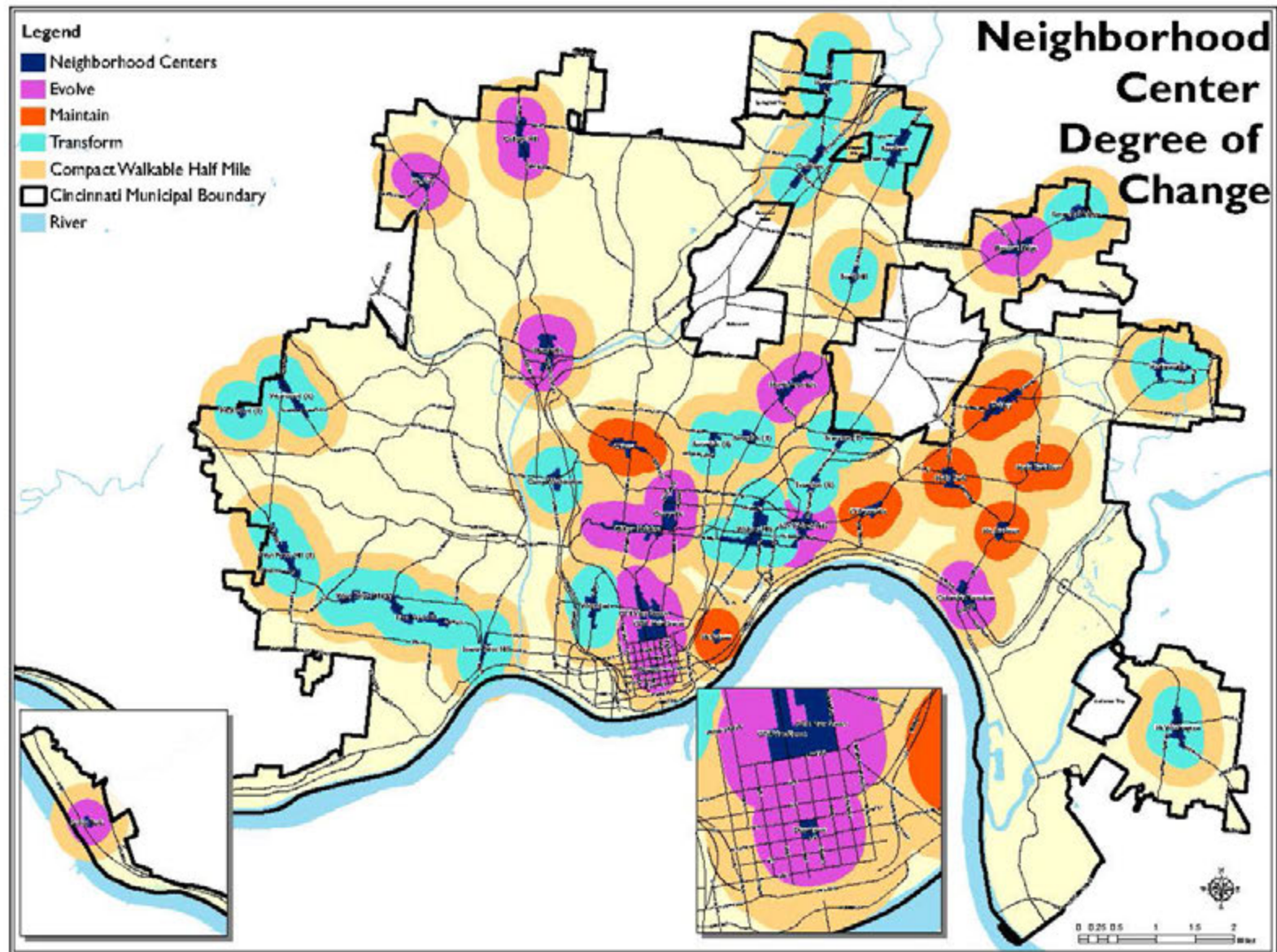
Putting a Vision in Place for the Code to Implement

Must Determine FBC Application Areas: Walkable Urban Places



This Replaced the Land Use Map

Degree of Change for Each is Important





Not Just About Zoning, but Also About A Future Vision



Harrison Avenue @ Urwiler Avenue

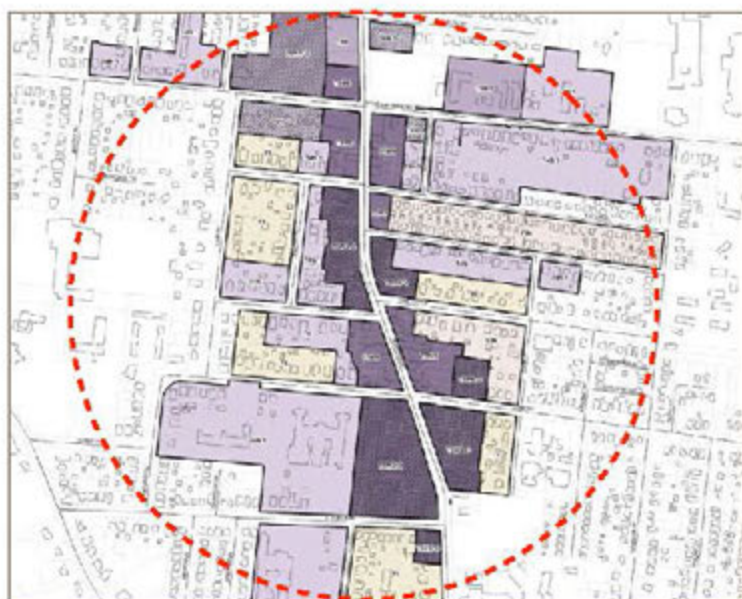
Not Just About Zoning, but Also About A Future Vision



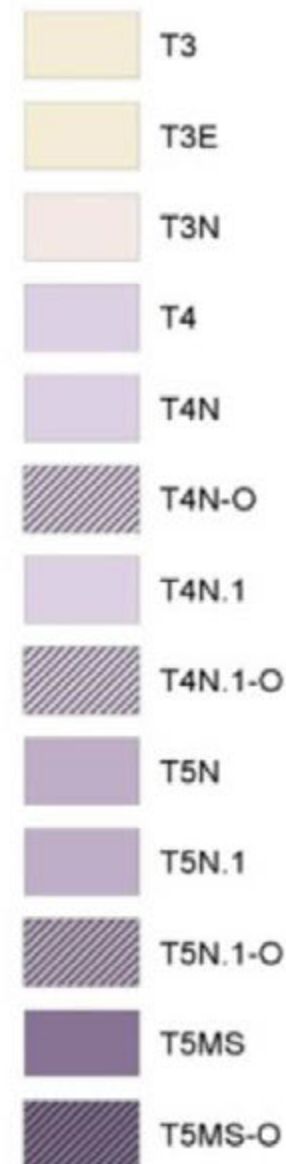
Harrison Avenue @ Urwiler Avenue

Urban Design Associates

4 Focus Neighborhoods: 42 Total Will Have FBC



TRANSECT

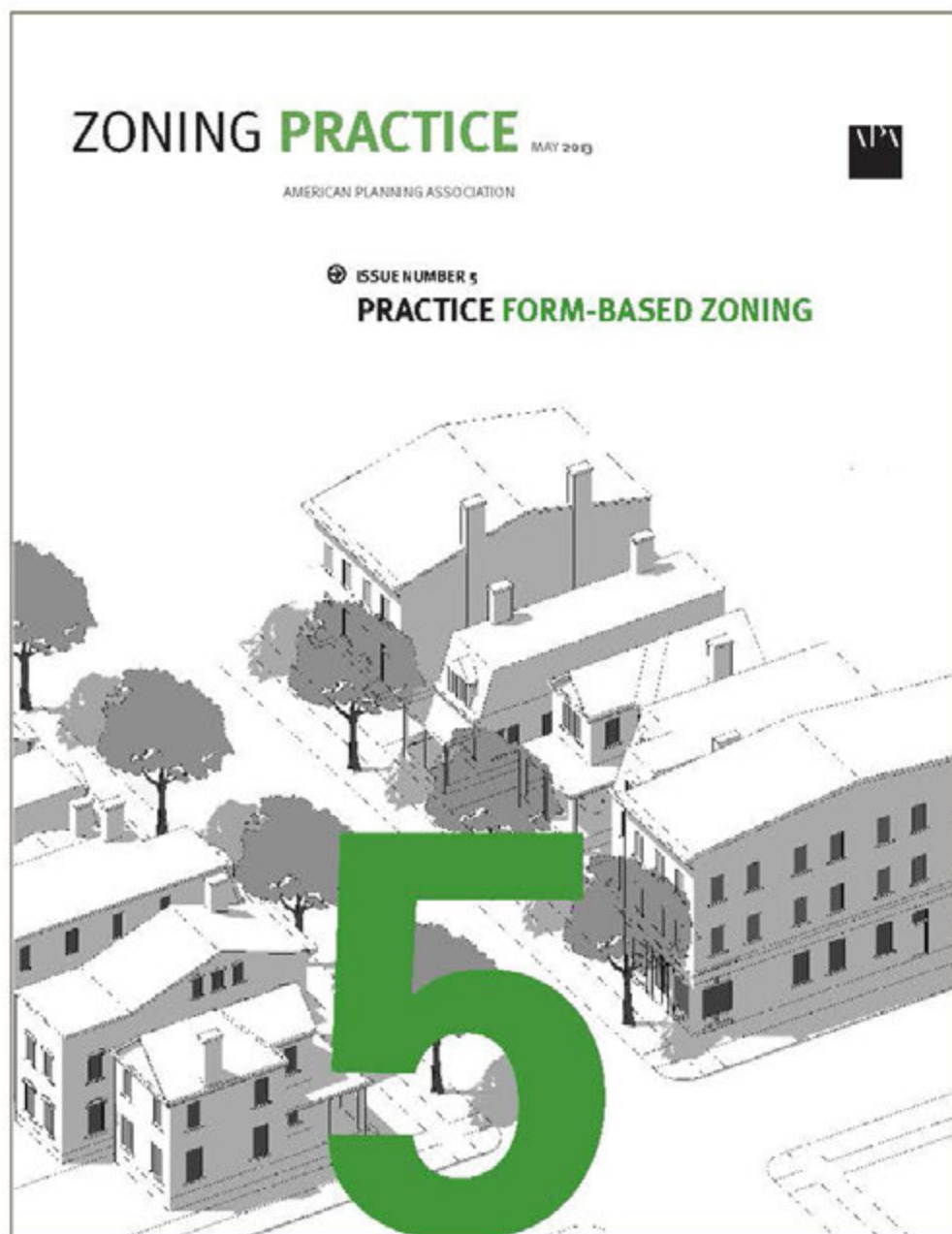


2

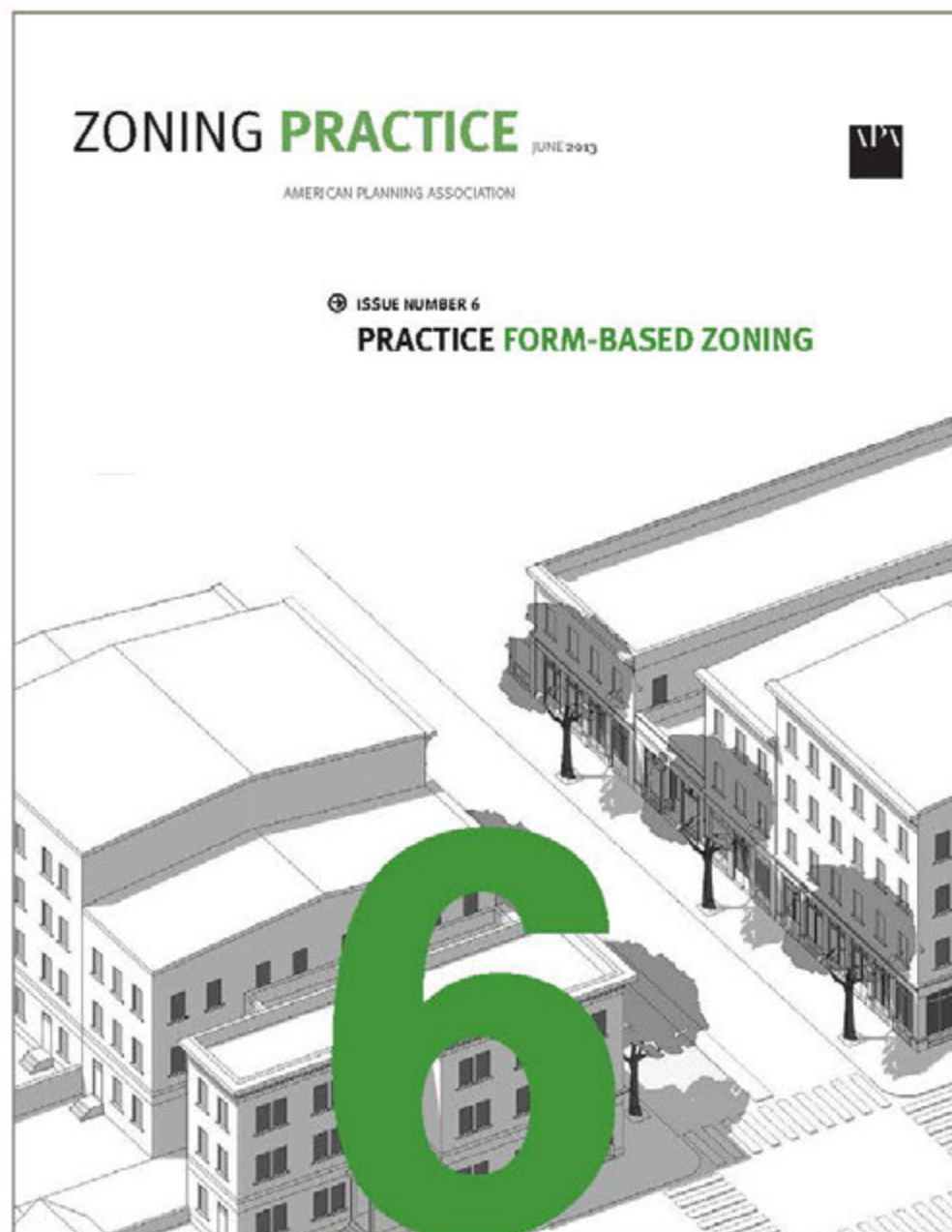
Know What You are Getting/ Delivering

Comparing Different Approaches to Zoning Urban Form

A Good Resource:



CODENEXT
SHAPING THE AUSTIN WE IMAGINE



Classifying and Clarifying Different Approaches

↑

LESS COMPREHENSIVE & EFFECTIVE

↓

Typical Approaches to Zoning Urban Form (from least to most effective)	What Should this Approach be Called?
1. Adding graphics to a Euclidean, use-based code	Graphics-Based Code
2. Adding design guidelines/ site planning guidelines to a Euclidean, use-based code	Design Guidelines or Design Standards
3. Adding mixed use zones to a Euclidean, use-based code	Targeted Mixed Use Zone Application
4. Adding graphics, reorganizing code, cleaning up administration, and minor changes to development standards	Code Clean Up and Re-organization

↑

MORE COMPREHENSIVE & EFFECTIVE

↓

Typical Approaches to Zoning Urban Form (from least to most effective)	What Should this Approach be Called?
5. Optional Form-Based Code overlay	Form-Based Code Overlay
6. Integrating a complete Form-Based Code within a pre-existing zoning code	Parallel Form-Based Code
7. Using Form as an organizing principle for the entire zoning code and using Form-Based Code components as the driver for your Table of Contents	Citywide Form-Based Code

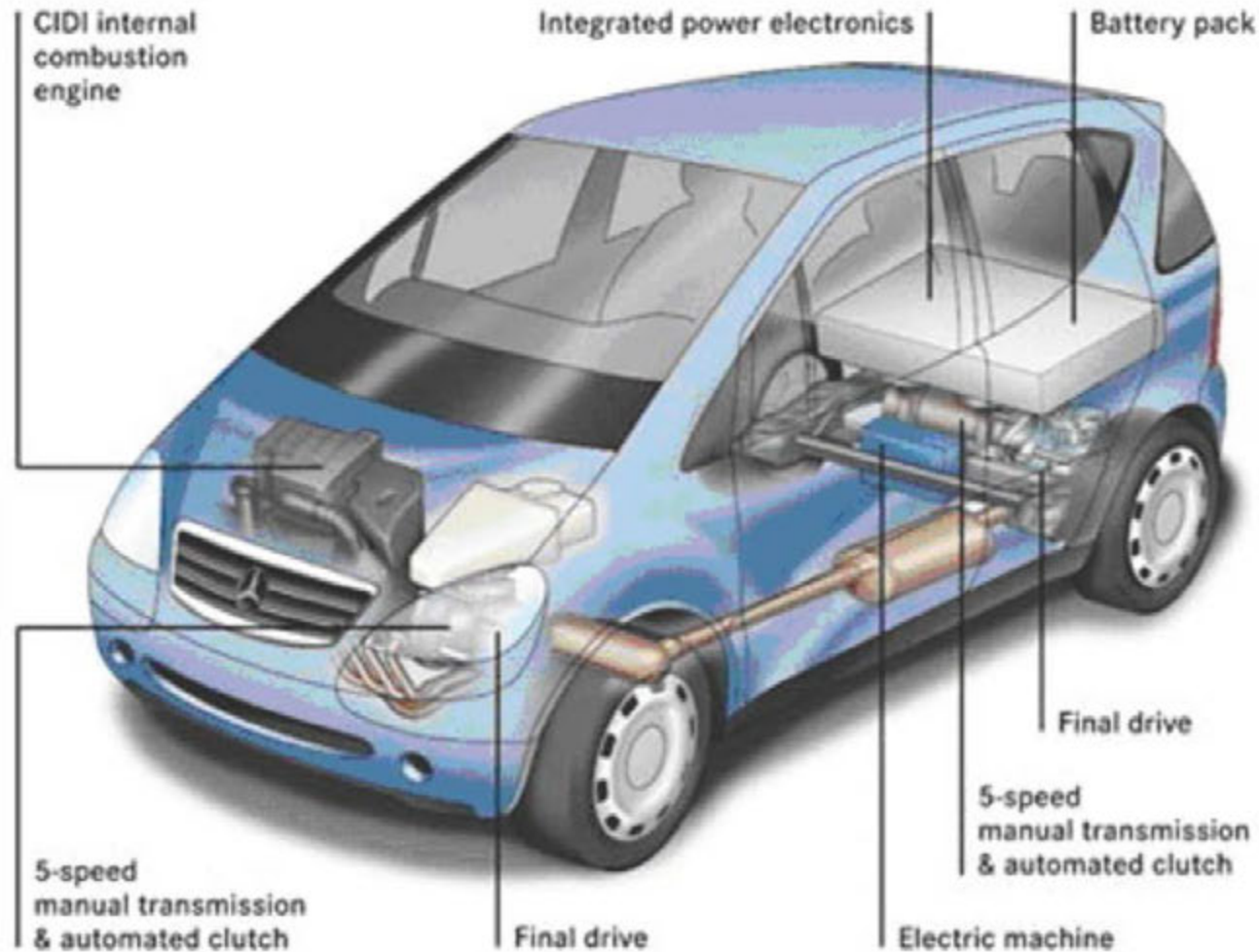
This is Not Form-Based: Staff was Confused

4.2 REGULATING PLAN AND ZONES

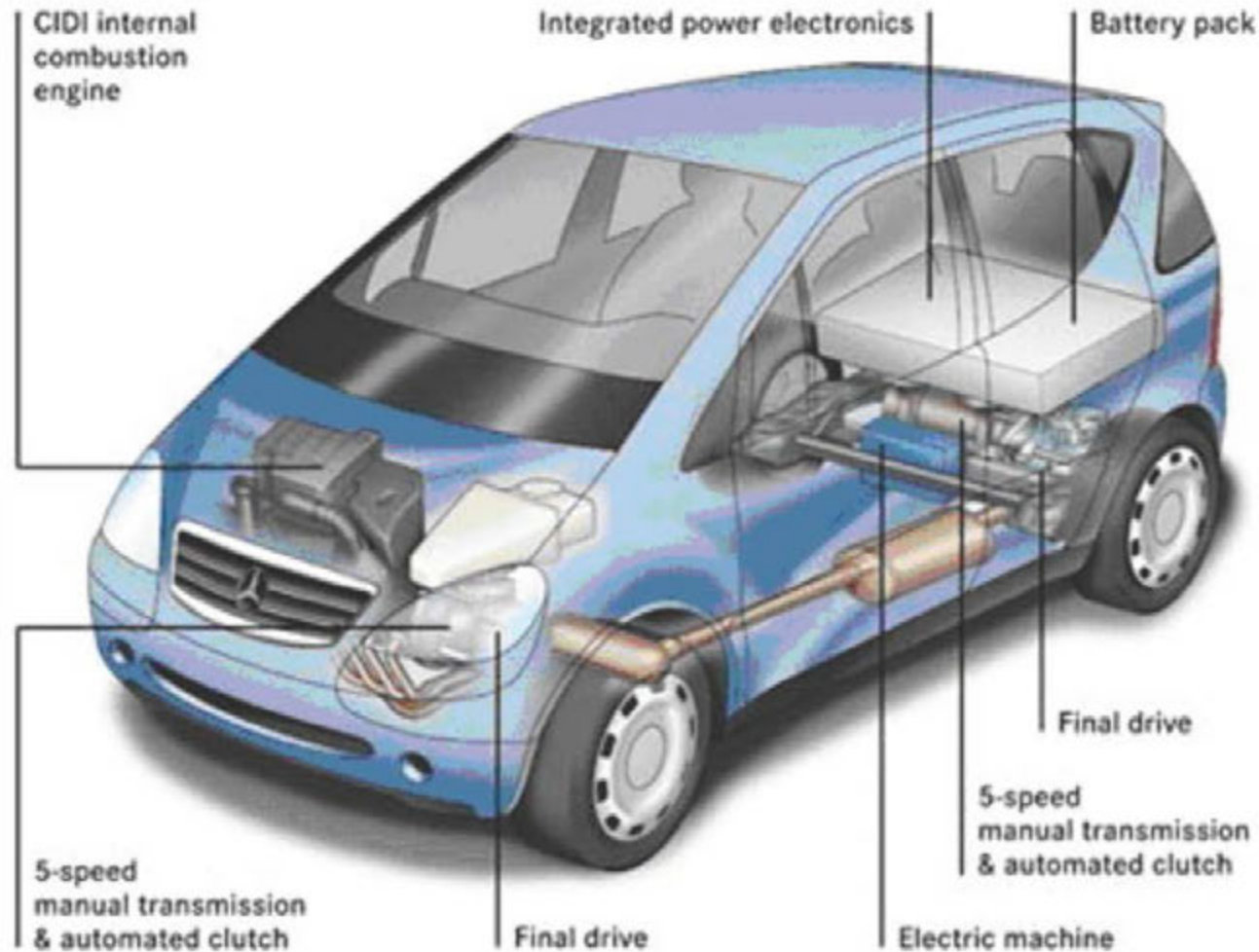
This section establishes five unique zones that are applicable to the properties within the Specific Plan area and include:

- Retail Commercial (RC) Zone
- Business Park (BP) Zone
- Community Service (CS) Zone
- Mixed-Use (MU) Zone
- Open Space (OS) Zone

A Hybrid Code is Good: A Hybrid FBC Not So Good



A Hybrid Code is Good: A Hybrid FBC Not So Good



Beware of the Consultant Who Says First: You Need a Hybrid FBC

4

Case Study: Richmond Livable Corridors

Richmond, CA

Winner of 2013 CNU Charter Award

Corridor Sub-Areas

1 West Macdonald Avenue
Pages 15-23

2 Downtown
Pages 25-31

3 East Macdonald Avenue
Pages 33-41

4 Macdonald/San Pablo Gateway
Pages 43-49

5 San Pablo Avenue
Pages 51-65

6 South 23rd Street
Pages 67-77

7 North 23rd Street*
See 2009 Report

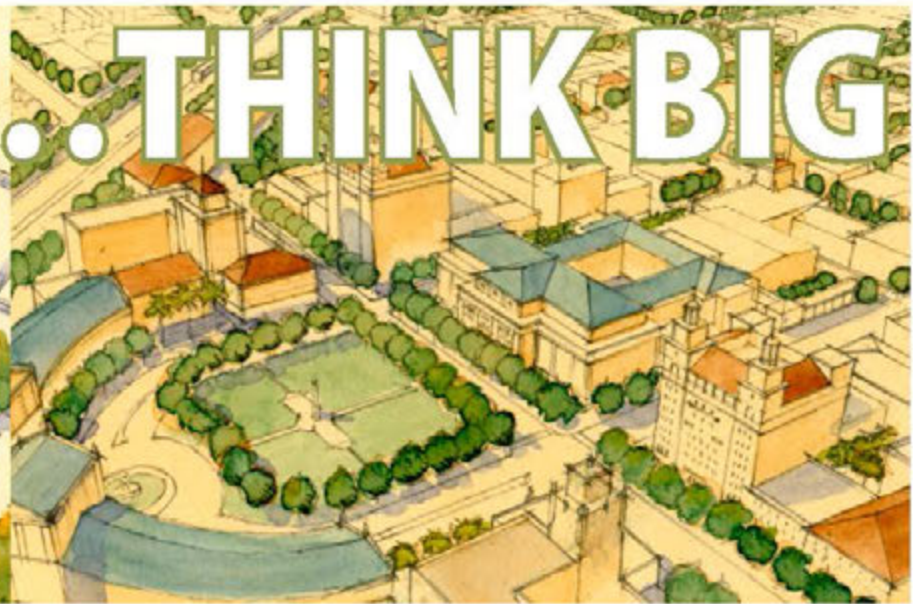
8 Uptown*
see 2009 Report

* North 23rd Street and Uptown are included in the August 2009 Charrette Summary Report for the 23rd Street Corridor Form-Based Code Project.



Richmond Livable Corridors

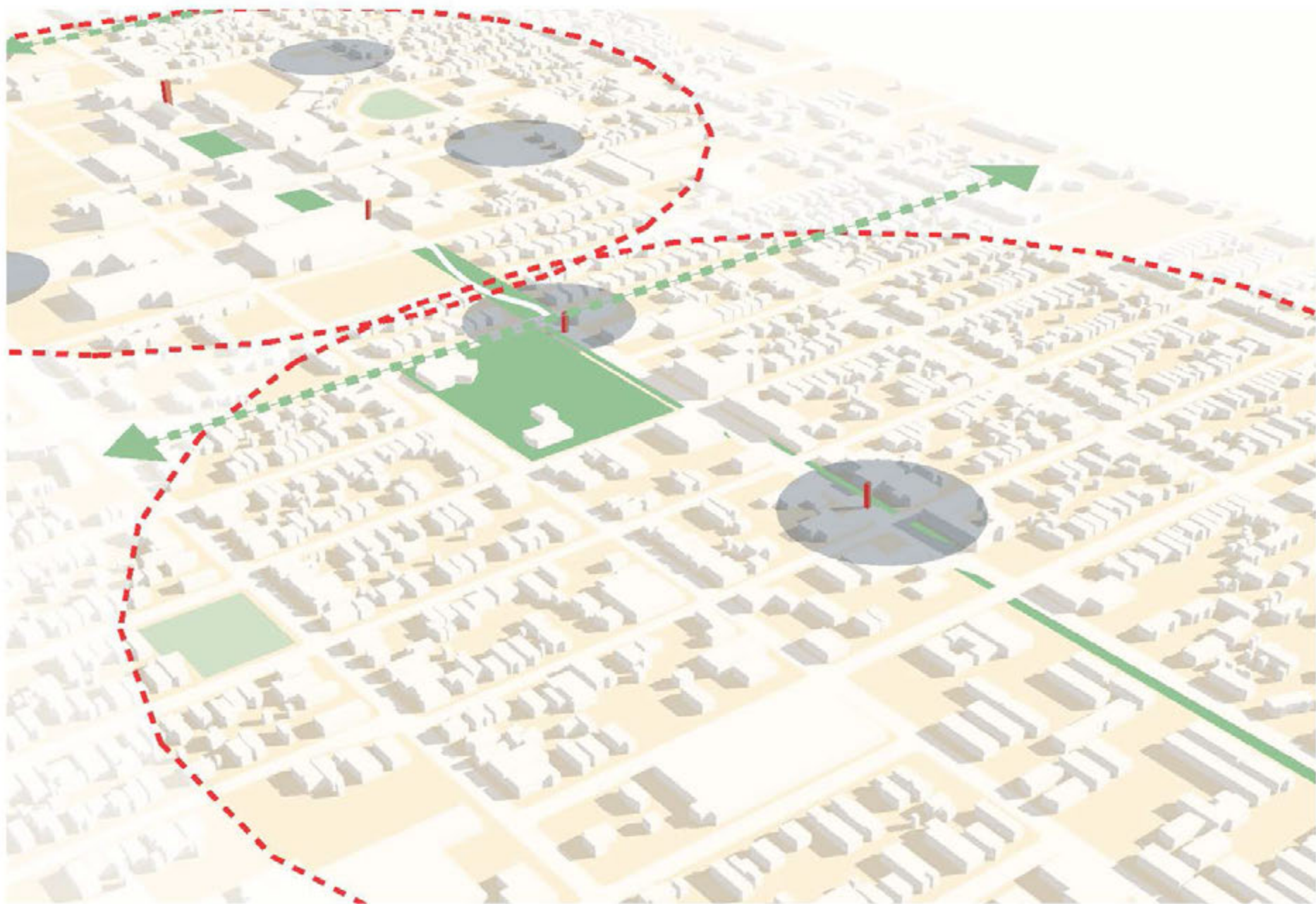
THINK SMALL... THINK BIG



Thinking Small: Supporting Small, Local Businesses



Reintroducing a Hierarchy Along the Corridor



Rebranding a Disadvantaged City by Transforming Downtown



Proposed market hall would reinforce the City's urban agriculture efforts and establish an new image for their downtown



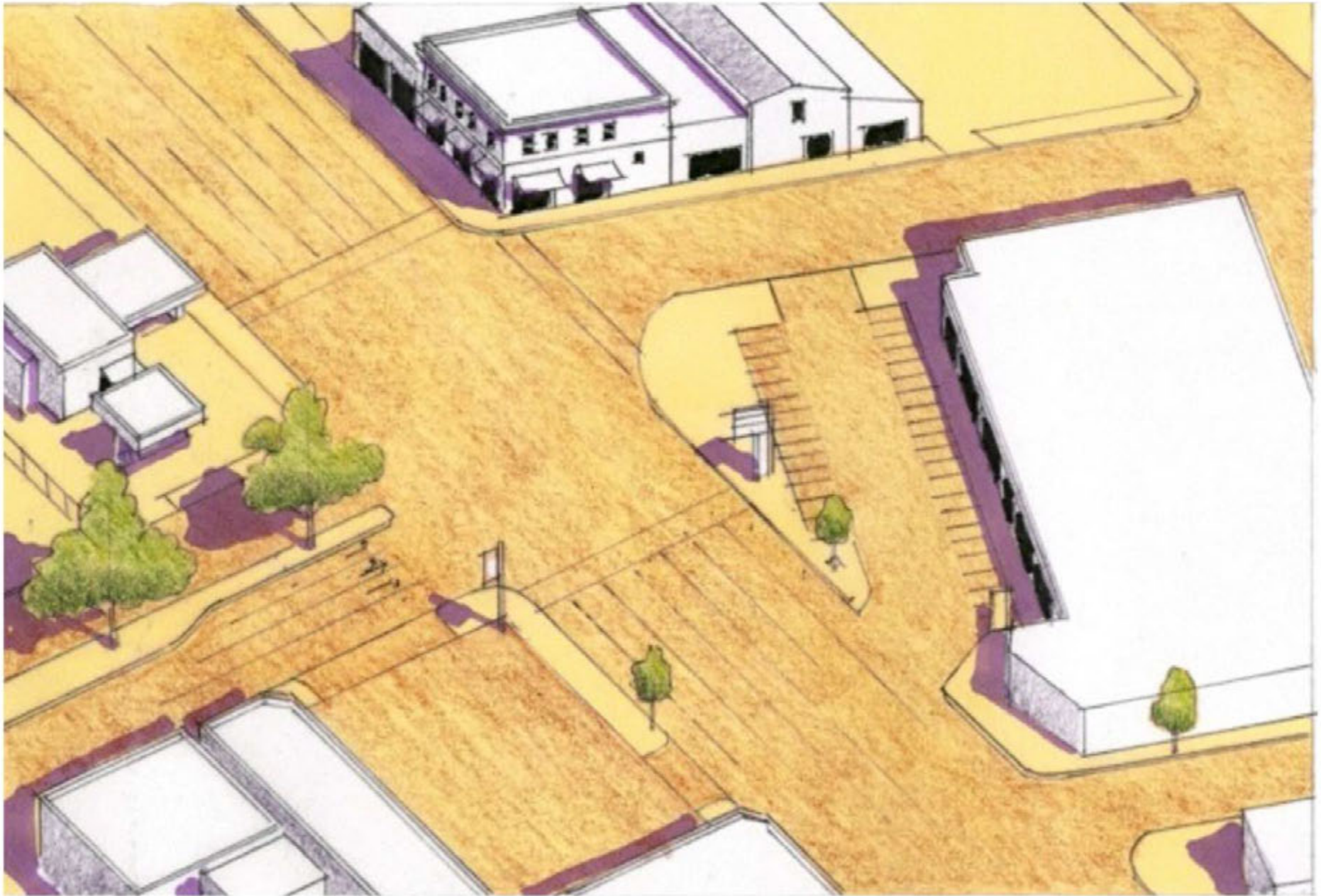
Existing downtown; compromised by bad infill and tear downs



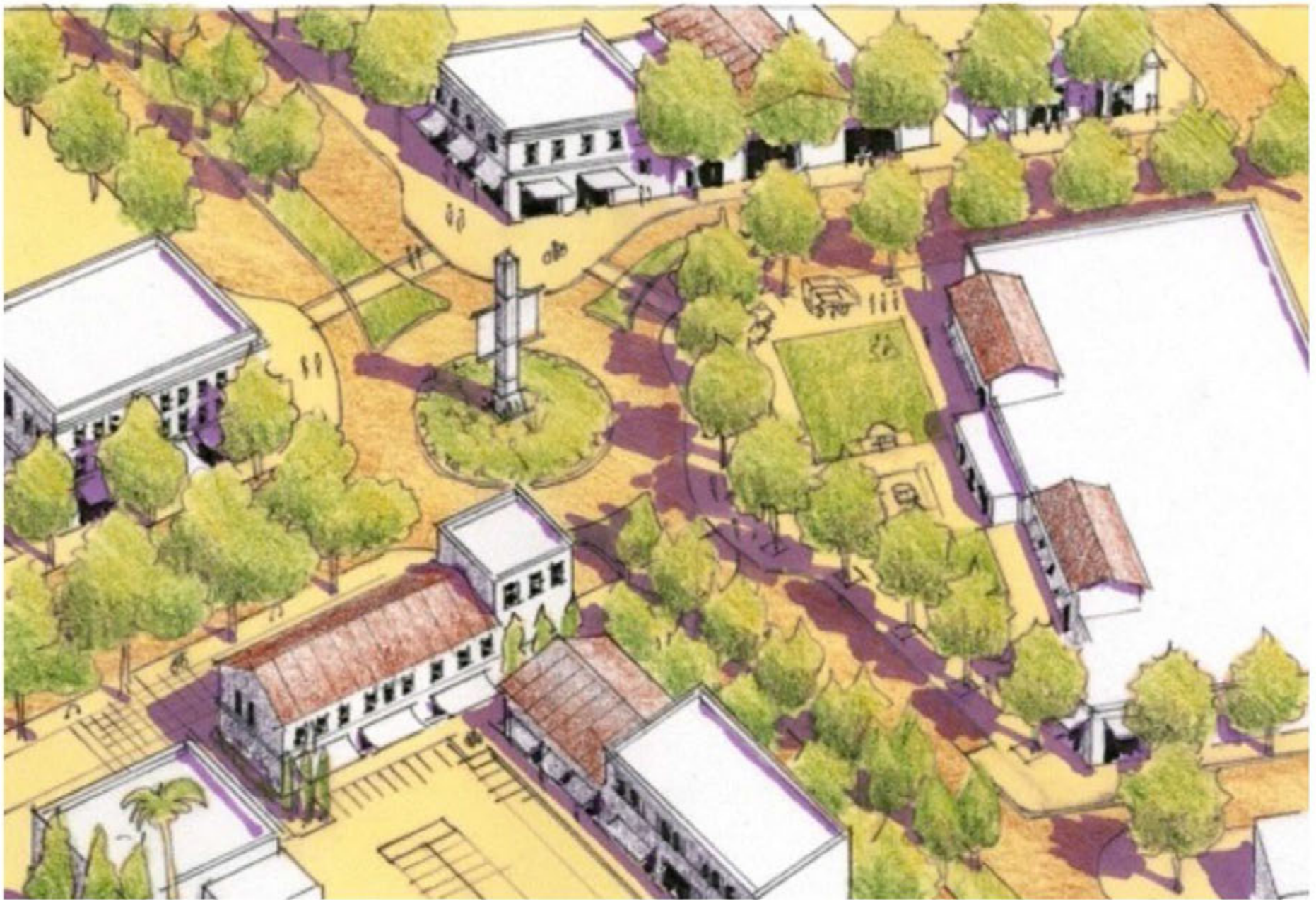
Proposed downtown: re-generated by urban infill with new city square and market hall

Charter Awards 2013

Thinking Big: Transforming a Primary Corridor



Thinking Big: Transforming a Primary Corridor

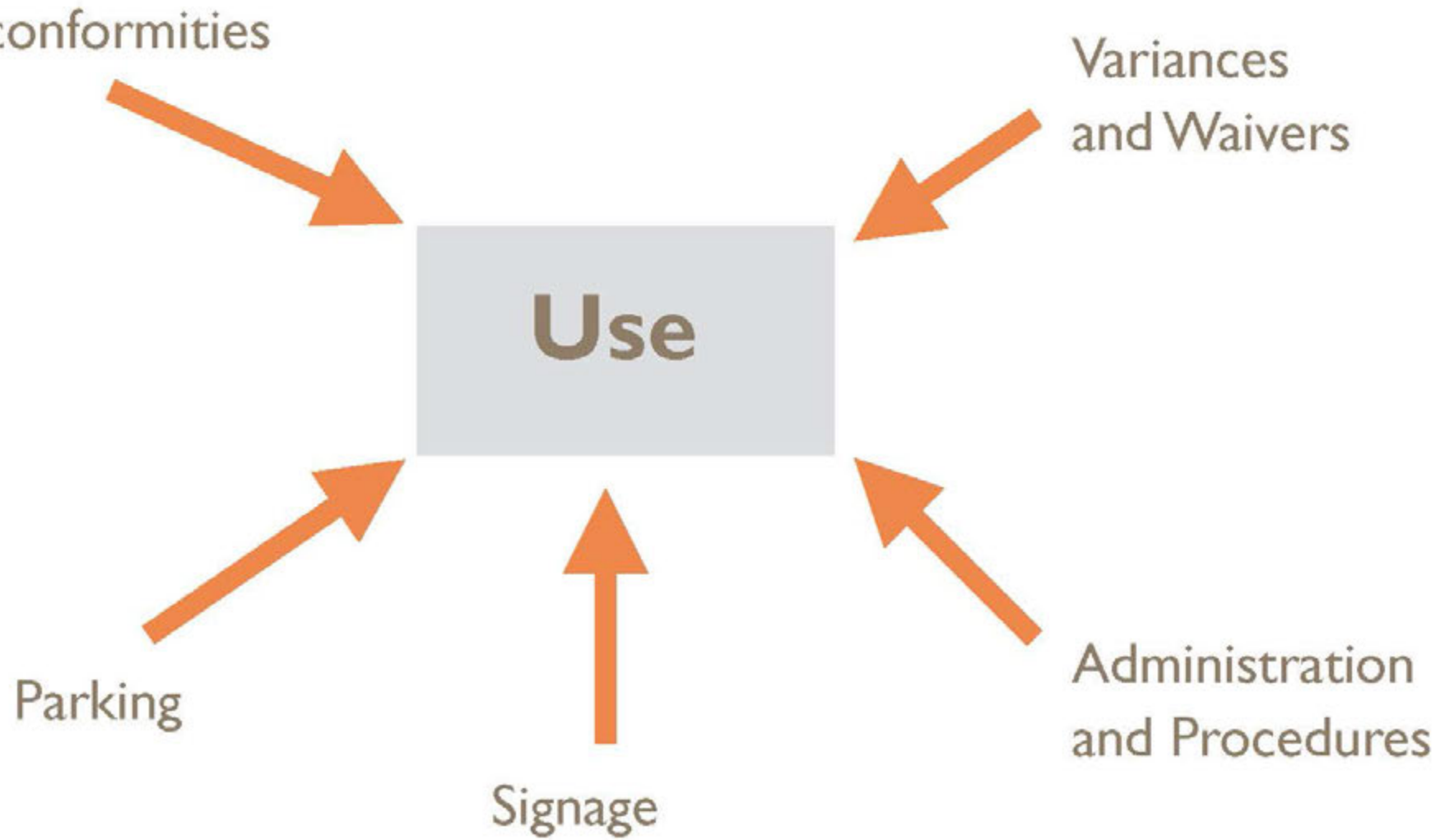




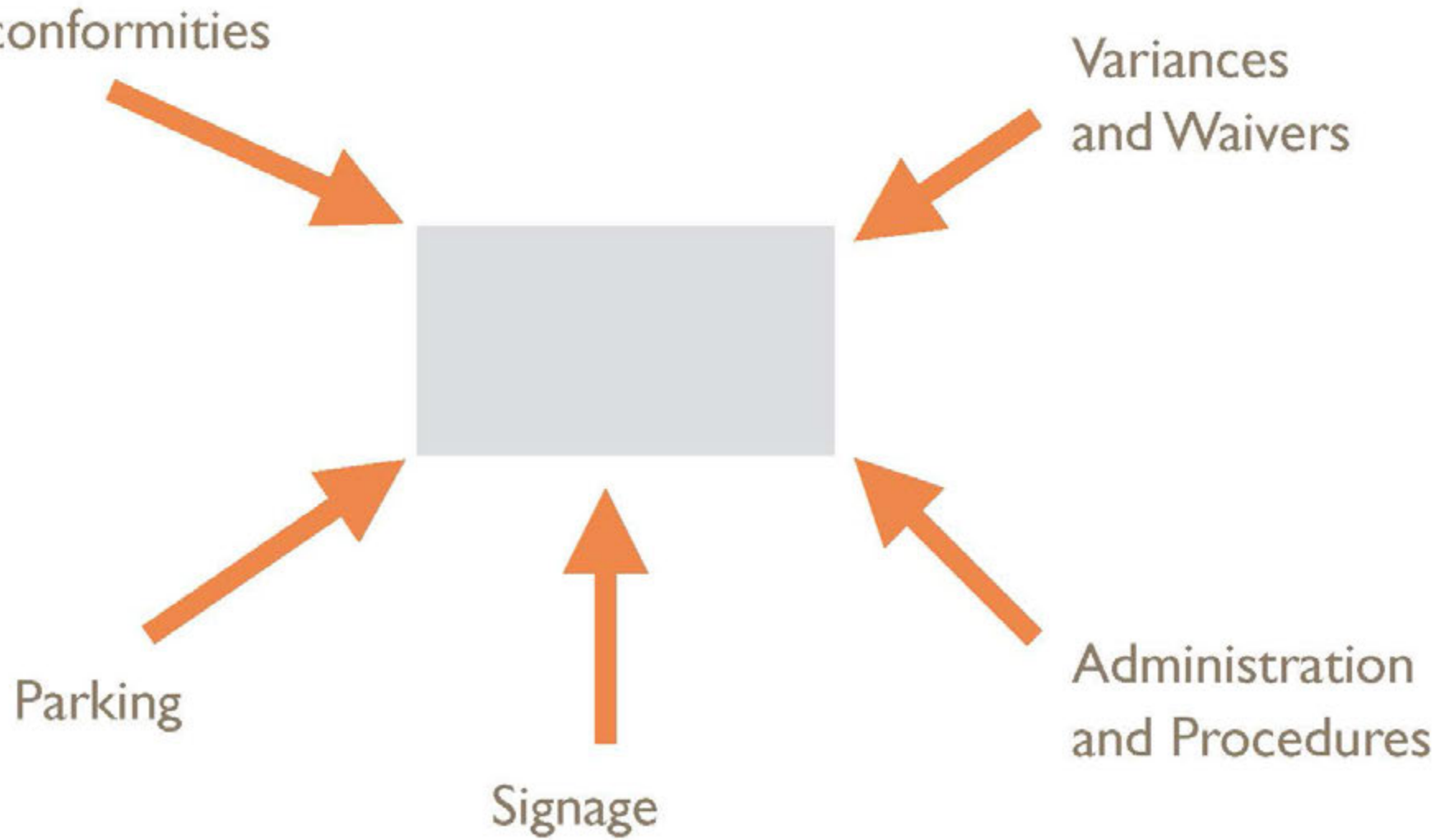
Conclusion

A Few Closing Thoughts

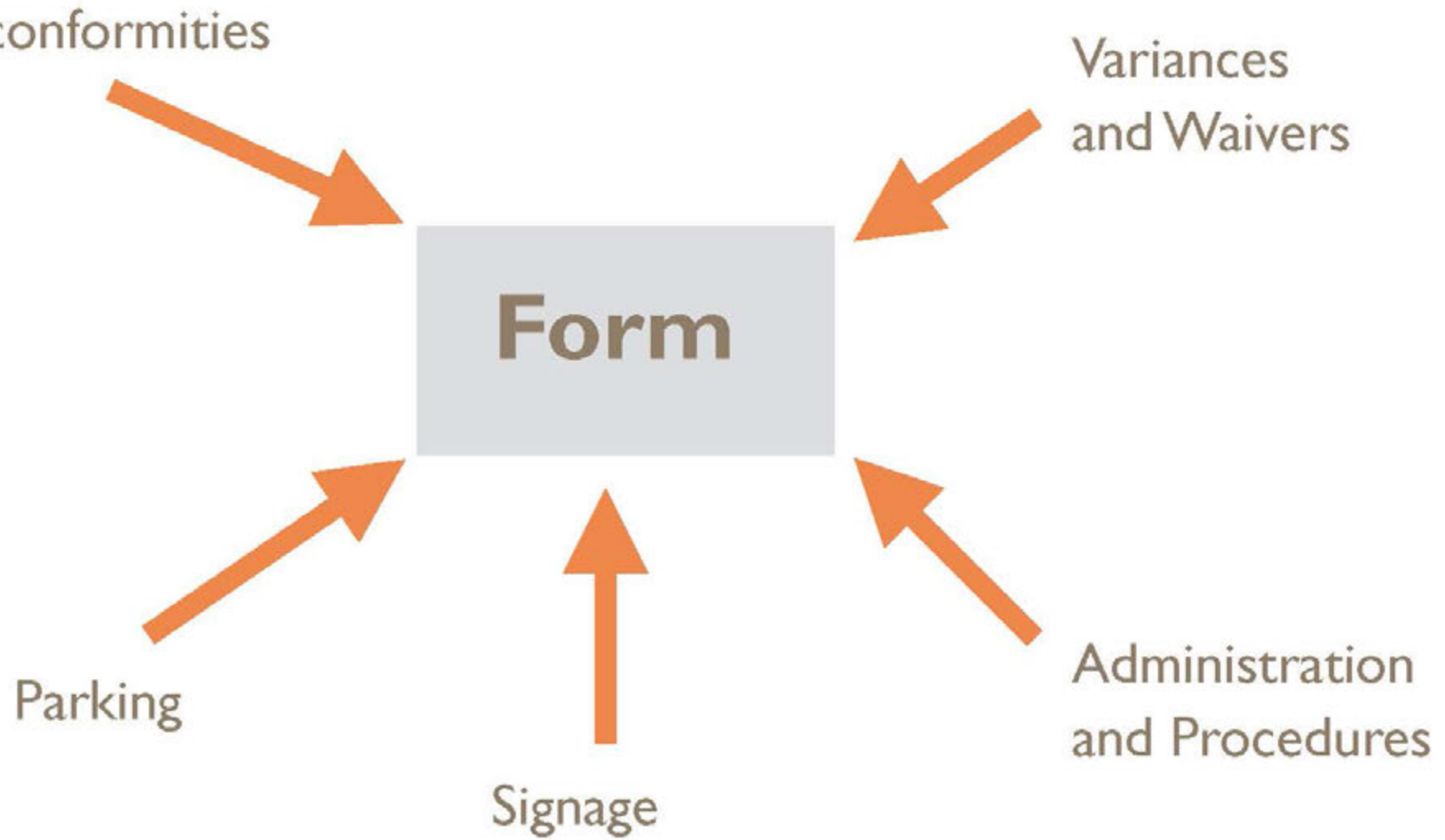
All Components of the Code Tie Back to Form not Use



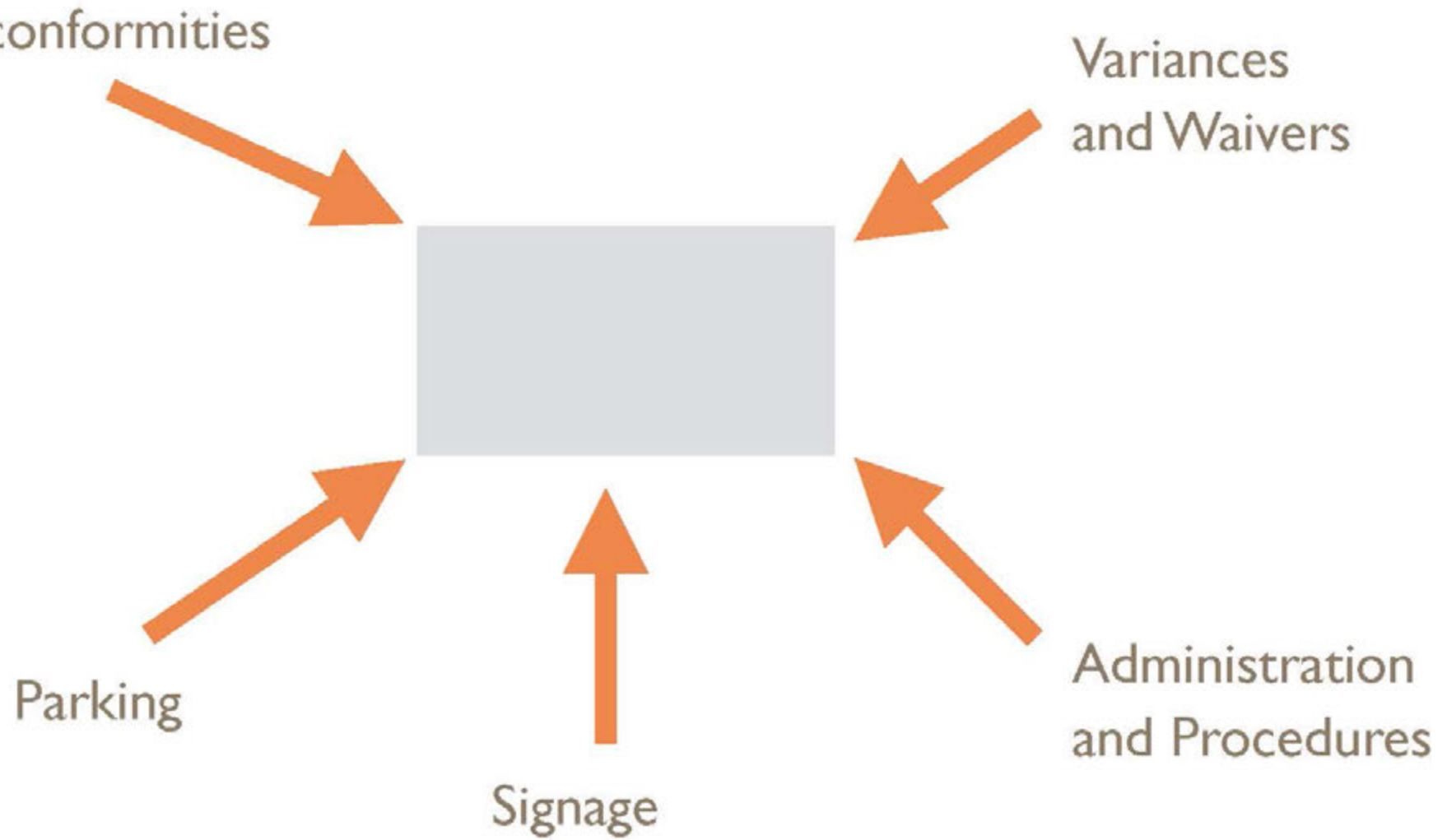
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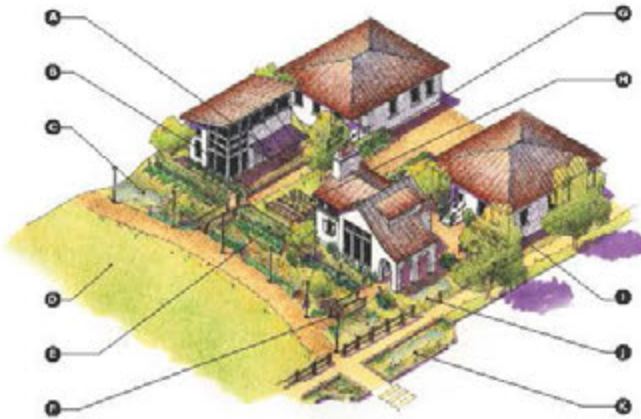
All Components of the Code Tie Back to Form not Use



Integrating Sustainability/Environment

Relate to Form Hierarchy

Considering Sustainability Along the Transect



T3: Single Family and Carriage House

Strategic Shading.

Glazing. Design glazing to heat the structure from the south, and cool through cross-ventilation.

Water Infiltration. Allow water to percolate in sub-surface conditions.

Greenway. Use the greenway as a stormwater capture, conveyance and treatment feature.

South-Side Planting. Consider solar access on the south side of buildings when planting landscape.

Public/Private Portal.

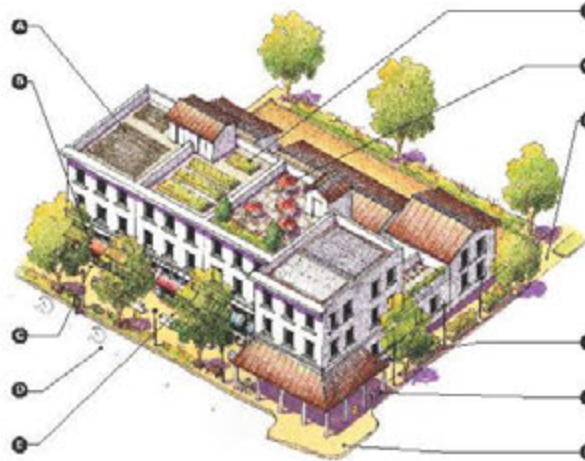
Compost Bins. Require compost bins with instructions for homeowners.

Urban Farming. Encourage small-scale cultivation.

No Hose Bibs. Exclude external hose bibs from home design, thereby irrigating only by rain barrel or reuse water.

Rain Garden. Provide lot treatment rain gardens.

Flow-Through Stormwater Treatment Planter.



T4: Live/Work Building

Active Space. Allow some portion of outdoor space to be used for public open-space, potentially active space.

Retractable Awnings. Encourage the use of retractable awnings in storefront design, to protect from the summer sun.

Outdoor Seating. Encourage establishments to provide outdoor seating and outdoor spaces.

Car Charging Stations. Provide electric charging stations to promote the use of alternate-fuel vehicles.

Recycling and Compost Bins. Encourage establishments to have an area for compost and recycling bins, in addition to trash bins.

Vegetated Roofs. Promote vegetated roofs, skylights or directed sunlight to improve the quality of life in interior apartments.

Residential Access. Provide residential access to flat rooftops, creating usable open space.

Private Driveway. Require minimal curbcuts and curb return radii.

Roof Materials. Use high SRI roof materials where PV or vegetated roofs are not practical.

Covered bicycle storage.



T5: Mid-Rise Building Type

Urban Rooftop Farming/Gardening.

Roof Access. Encourage rooftop access to maximize value of views and open space.

Outdoor Seating. Activating sidewalk space in front of mixed-use development encourages community vitality.

Awnings. Awnings provide street-level shading and rain shelter.

Diverse Rooftop Usage. Encourage both commercial and residential use of roof space.

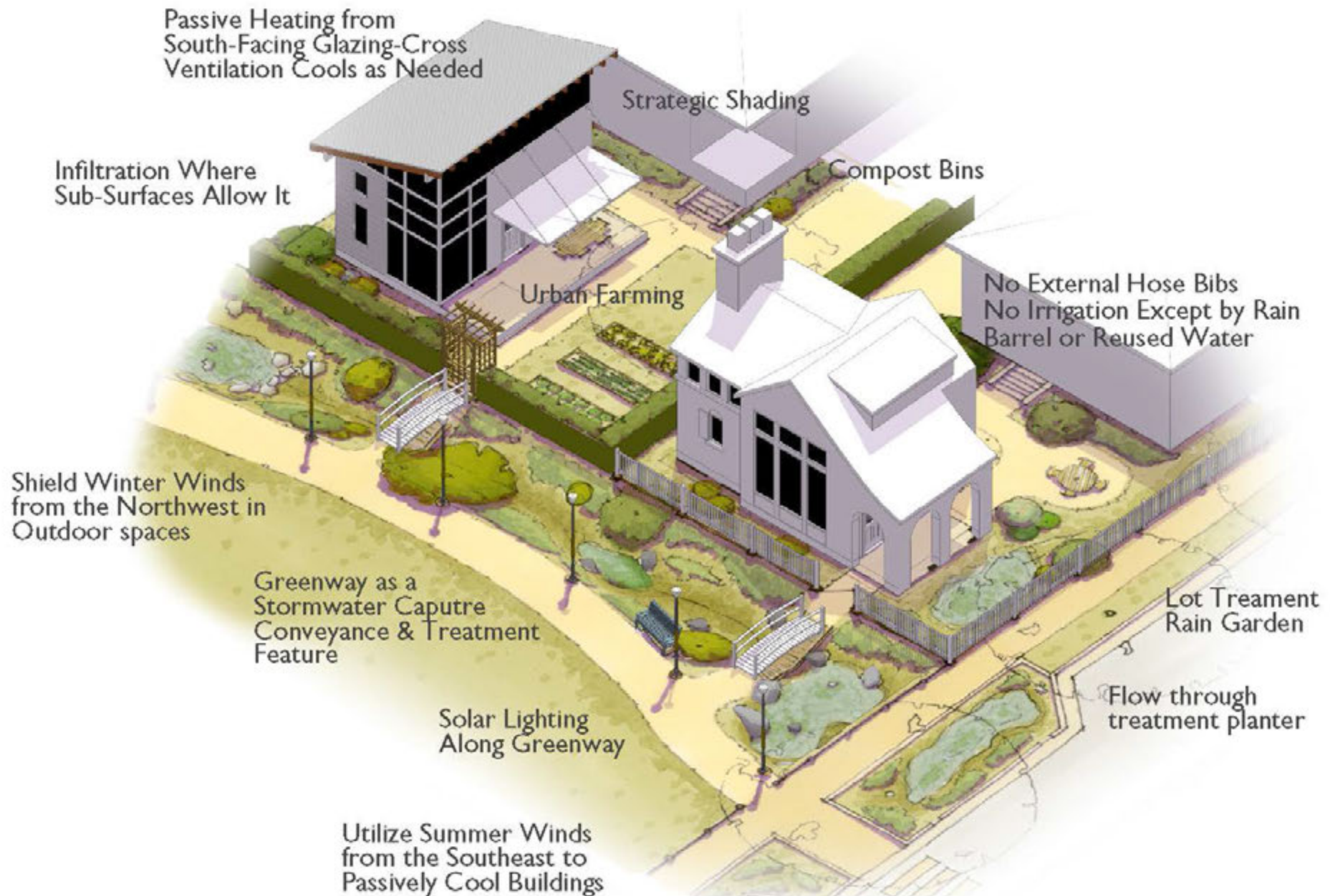
Urban Gardening. Garden space available for residential tenants.

Bioswales. Bioswales improve stormwater quality, mitigate urban flooding, and give opportunity for infiltration where subsurface conditions allow.

Bike Racks. Encourage tenants and patrons to cycle by providing regular amenities for bike parking.

Street Trees. Tree boxes/wells improve thermal comfort and street character.

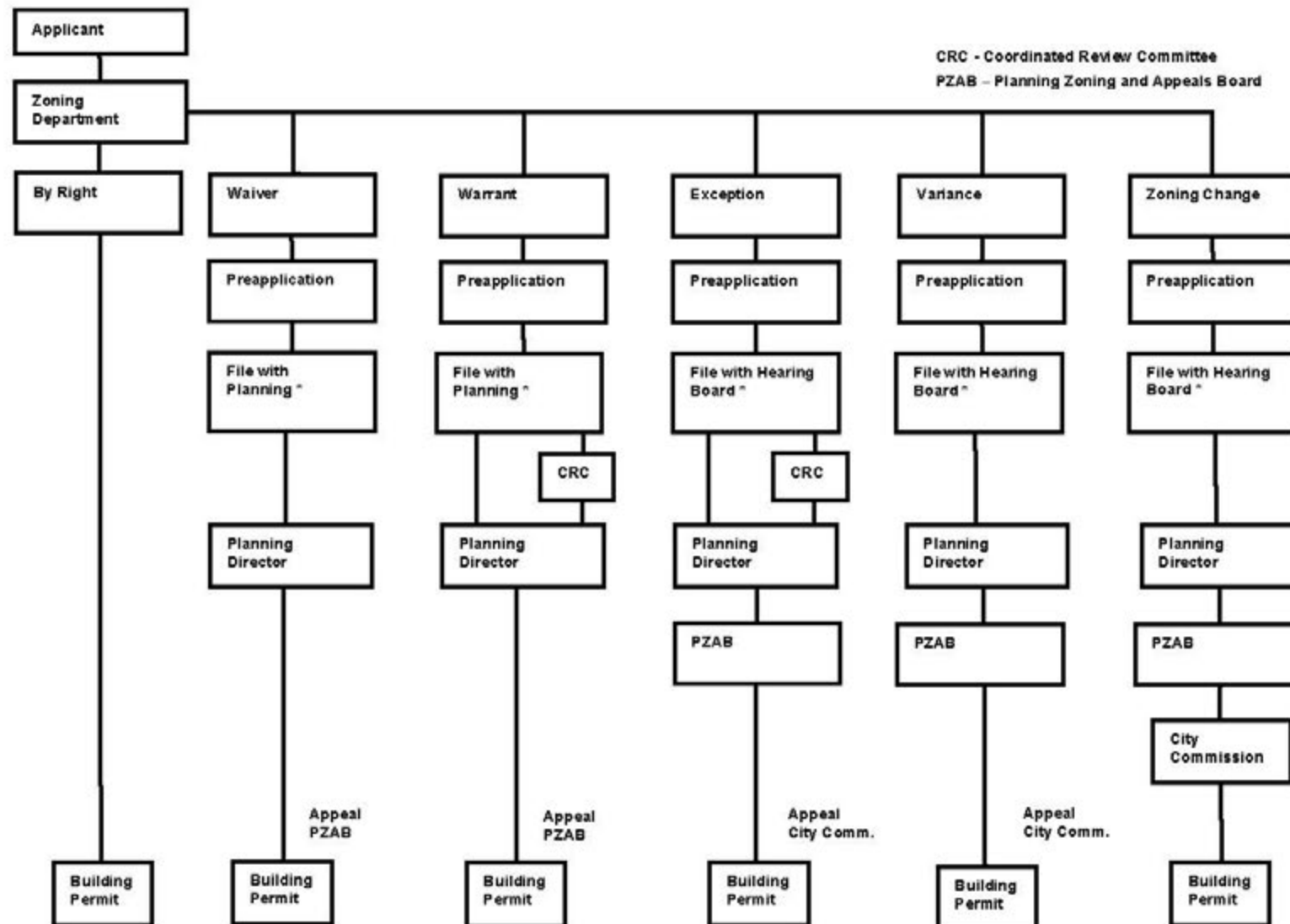
Considering Sustainability Along the Transect



Providing Predictability: Getting Quick Results

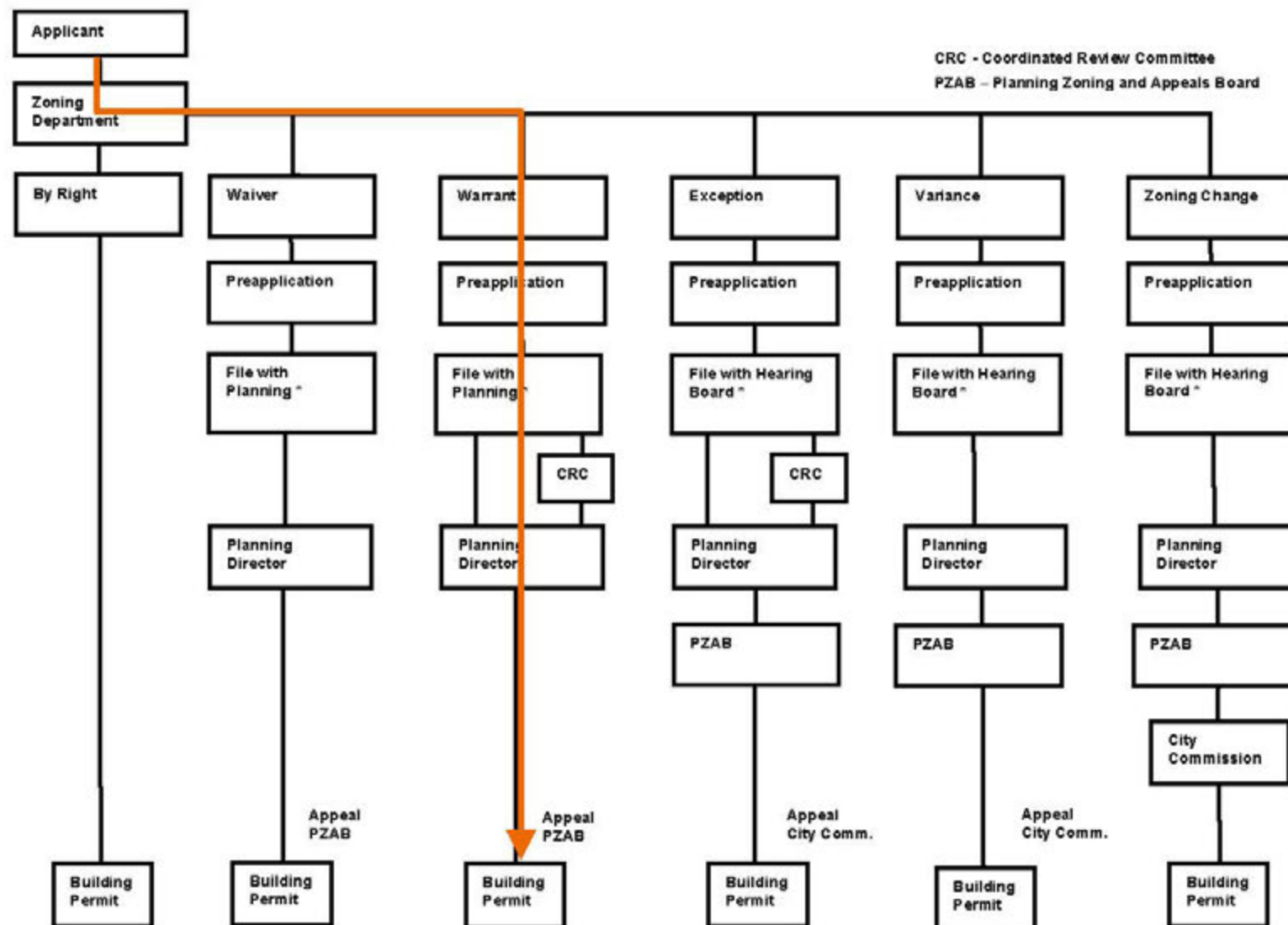
Market Demand is Waiting

Predictable, Clear Process is The Goal



* All applications shall include required notice

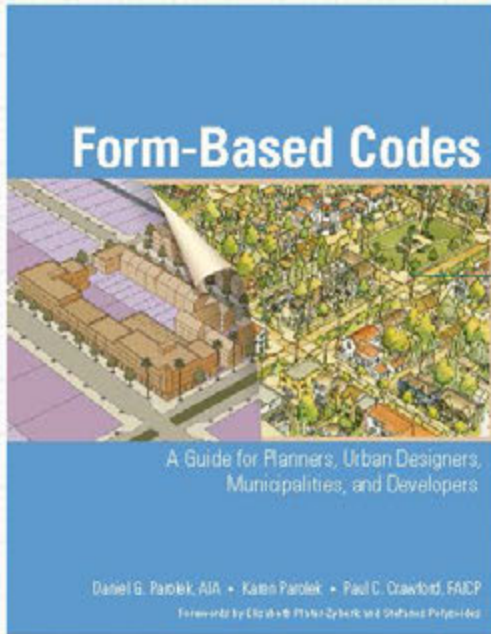
Predictable, Clear Process is The Goal



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Mesa, AZ: Less Than 6 Months Year after Adoption





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Q&A