

**Honorable City Planning Commission  
Cincinnati, Ohio**

**April 30, 2010**

**SUBJECT:** An informational report on the preferred approach to form-based code application for the City of Cincinnati.

The implementation of form-based codes will require significant changes to the Cincinnati Zoning Code. At this time, City Planning Staff is requesting input from City Planning Commission on the preferred strategy for developing and integrating form-based codes into the Zoning Code.

**BACKGROUND:**

In December 2008, City Council adopted a motion that directed the Department of City Planning and Buildings (“City Planning”) to include the use of Form-Based Codes Overlay Districts and to develop administrative procedures and design capacity to implement them. The motion also directed City Planning to review and recommend changes to any current building codes, streets standards, regulations, guidelines, administrative standards or regulations.

The Form-Based Code Study (“FBC Study”) was undertaken to determine how form-based codes could be incorporated into the existing Zoning Code. Form-based codes are an innovative alternative to conventional zoning that focusing on the form of buildings rather than the land use (e.g., the physical character of buildings, and the relationship of buildings to each other and to the street). Form-based codes allow communities to code for character – to protect the existing character of an area to ensure new development is compatible.

Form-based codes are established through a charrette design process that includes all community stakeholders (residents, business owners, property owners, community leaders, and other). The shared vision resulting from the charrette is then implemented through development standards. Cities throughout the country have found form-based codes to be a valuable tool in building strong, vibrant neighborhoods that provide numerous benefits to all stakeholders. Form-based codes result in mixed-use, compact, walkable neighborhoods that are consistent with well-established traditional neighborhood patterns.

**STUDY OVERVIEW:**

The Study has been led by City Planning in collaboration with a consultant team (Dan Parolek from Opticos Design, Inc. and Lisa Wise of Lisa Wise Consulting, Inc.), a Working Group, and Steering Committee (see “Study Review” for composition). Following is an overview of Study tasks completed or underway:

- **Analysis of Existing Regulations.** The *Existing Regulatory Obstacles for Form-Based Code Application* (see attached) is an initial review of development regulations and policies. The intent of this report is to identify regulations and policies that may require modification with the implementation of form-based codes. Regulations and policies reviewed include zoning, street standards, and subdivision regulations. This report was also informed by meetings with the Working Group and Steering Committee.

- **Review of Best Practices.** The *Form-Based Code Best Practice Report* (see attached) includes a review of key form-based code components and case studies of implemented form-based codes from across the country that offer direction on the process of developing and codifying form-based codes in Cincinnati.
- **Review Options for Implementation.** The two key components of form-based code application include process and integration. Process includes public outreach and visioning while integration refers to how the form-based code is inserted into the Zoning Code. Several options were presented and discussed by the Working Group and Steering Committee.
- **Selection of a Preferred Implementation Strategy.** Following a review of all implementation options, a preferred approach was selected (summarized in attached memo, see below).

### **STUDY REVIEW:**

A FBC Study Working Group and Steering Committee were formed to ensure that the preferred strategy for implementing form-based codes would be achievable and would have a positive impact on Cincinnati's neighborhoods. Both the Working Group and Steering Committee have provided direction, oversight, and input throughout the Study. The Working Group is composed of Staff from the following departments, offices, agencies, and boards: City Planning and Buildings, City Planning Commission, Transportation and Engineering, Community Development, Economic Development, Law, Metropolitan Sewer District, Fire, and Police. The Steering Committee is composed primarily of leaders from neighborhoods interested in implementing form-based codes, including the following: Avondale, Clifton, College Hill, Madisonville, Northside, Pleasant Ridge, Roselawn, Walnut Hills, and Westwood. The Steering Committee also includes representatives from organizations and associations with interest in the design, development, and function of the built environment.

### **PREFERRED APPROACH SUMMARY:**

The *Preferred Approach to Form-Based Code Application Memo* is attached. The memo includes the proposed preferred process and integration.

The process would involve pre-charrette, charrette, and post-charrette work resulting in zoning text and map amendments with all work to be completed by a consultant. One charrette could be conducted for three to four neighborhoods with similar characteristics (e.g., geography, degree of desired change). An Urban Design/Form-Based Code studio consisting of City staff would be started at the beginning of the form-based coding process and would administer the adopted form-based code and would encourage future form-based code application by leading the visioning process and making minor code adjustments for each neighborhood as needed.

The recommended option for integrating the form-based code in the Zoning Code is to create a separate chapter with all of the form-based code components. The components included would include Building Form Standards, Regulating Plan, Building Type Standards, Civic Space Standards, Thoroughfare Standards, Frontage Standards, and Site Planning Standards. As proposed, in selected areas, the form-based code would override all other zoning district regulations with the exception of the Hillside Overlay and Historic Districts.

The memo also includes general notes regarding the application of form-based codes, including the need to connect form-based codes with the analysis and recommendations of the comprehensive plan, the need for an economic analysis at the beginning of the form-based coding process, and the need for street standards that will support the vision developed during the form-based coding process. The memo notes that this groundwork “may actually be more important than the Form-Based Code itself in relations to the revitalization of the main streets.”

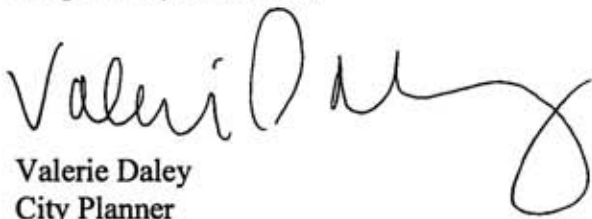
**DISCUSSION:**

Form-based codes have proven to be a valuable tool in creating vibrant, walkable, attractive, active, and sustainable neighborhoods. In the case of Cincinnati, form-based codes would initially be applied to defined areas interested in preserving, evolving, or transforming the character of their built environment. Form-based codes assess economic conditions, the public realm, and the form of structures in a comprehensive and focused way to create a common shared vision. While the level of specificity involved in the form-based coding process creates a predictable end result that represents shared community vision, it also requires a great deal of time and resources prior to code implementation. The selected strategy should be available to any neighborhood or property owner wishing to use it as a tool for implementing a common vision.


**NEXT STEPS:**

Following input from the City Planning Commission, City Planning staff will continue its collaboration with City departments and neighborhoods and expand the discussion to other interested parties that will be impacted by changes to the Zoning Code, including the development, real estate, building communities. The preferred strategy will be refined based on all input received and the final strategy presented to Planning Commission and City Council for approval by the Fall of 2010.

Respectfully submitted,

  
Valerie Daley  
City Planner

APPROVED:

  
Charles C. Graves, III  
Director of the City Planning Department

Attachments



4/20/10

## **Preferred Approach to Form-Based Code Application Memo**

The purpose of this memo is to summarize a preferred approach to the application of Form-Based Codes (FBC) to select focus neighborhoods in the City of Cincinnati and to the establishment of a framework for continued FBC application, ideally by staff. This approach has two main elements: the proposed process by which the public outreach, vision plans, and Form-Based Codes are created and applied to these select neighborhoods, together with the benefits and challenges of this process; and the FBC Integration – the means in which to integrate or “plug” the Form-Based Code into the existing zoning code document. Furthermore, this memo will also outline additional general notes to keep in mind throughout the entire process.

This approach is based on a series of previously completed steps, which included:

- Assessment of the existing zoning code to highlight obstacles to FBC applications,
- Touring of focus neighborhoods;
- Meetings with the Steering Committee and Technical Advisory Group;
- Initial mapping and analysis of the current list of focus neighborhoods;
- The creation of a Form-Based Code Best Practice Report; and
- The preparation of a memo summarizing three potential approaches to FBC application.

### **The Proposed Process - public outreach, vision plans, and Form-Based Codes are created and applied to the focus neighborhoods**

#### **Process Objectives**

This outline gives an overview of the proposed means of integrating the FBC into the existing zoning code document and the objectives of the FBC process.

1. Select a process that provides short-term, positive results in select areas, but establishes a framework for the long-term application of Form-Based Coding throughout the City
2. Work actively with the community, developers, stakeholders, and property owners to guide the process and to build consensus to move the process forward
3. Consolidate focus areas as much as possible in order to minimize the cost of the charrette process, while ensuring this does not compromise the results of the process
4. Create a Form-Based Code and integrate it into the existing zoning code in a way that enables easy future applications, requiring only minor changes for application to other areas
5. Establish a framework to enable City staff to implement future plans and codes through the creation of an Urban Design/Form-Based Code Studio within staff
  - a. Be sure staff is engaged in the process early and often
  - b. Create a manual to guide staff on future applications

Opticos Design, Inc.

1285 Gilman Street

Berkeley, CA 94706

p: 510.558.6957

f: 510.898.0801

w: [opticosdesign.com](http://opticosdesign.com)

### **The Process**

This outline gives an overview of the proposed neighborhood visioning and Form-Based Code creation process. It is our recommendation that the City focus on the completion of one charrette and the associated FBC integration first to get a “win” on the ground. But as a quick follow up, and subsequent to the initial charrette, several or all of the original list of focus neighborhoods can quickly initiate the charrette process and FBC application as the City’s budget allows. Based on this thought, this approach summary is broken into two steps: Step 1 - Initial Charrette and FBC Application; and Step 2 - Subsequent Charrettes and FBC Applications.

For both the Initial and Subsequent Form-Based Code application process there are three primary phases: the pre-charrette, the charrette, and the post charrette. The major milestone for this process is a multi-day (three- to five-day is typical) public charrette for a focus neighborhood or a grouping of neighborhoods. The tasks completed, timing, and cost estimates for each task are attached (see Attachment 1 and Attachment 2).

As this process is set up, it is necessary for a consultant to take the lead on the Initial Charrette, but possible for the City to take the lead on Subsequent Charrettes and FBC application to ensure its long-term viability and success. The most effective way to accomplish this goal is to establish an Urban Design/Form-Based Code Studio within the staff, similar to Nashville, Tennessee’s structure. This being said, it is likely that the City will need to bring a consultant on-board to complete the charrettes and coding for the group of initial focus neighborhoods while building the capacity to lead future applications within the new studio.

### **Step 1 - Initial Charrette and FBC Application**

During this step, the Project Team will work with the focus neighborhoods and the City to complete an initial charrette and visioning process and to create a Form-Based Code and integrate it into the existing Zoning Code.

#### **1. Phase I: Pre-Charrette (Foundation)**

During this phase, the Project Team will work to build their foundation of physical and market analysis through effective public outreach and background studies. We propose a one- to two-day Initial Public Workshop with stakeholder interviews as the centerpiece of this step, alongside an educative work session with the Planning Commission and City Council and an initial public presentation. The initial public presentation will provide an opportunity to summarize the results of the initial physical and market analysis, and gain an understanding of key opportunities and constraints from the community. In addition, a draft (60-75%) of the Form-Based Code is completed prior to the charrette to enable the team to come to the charrette with specific questions for staff, and to vet and refine the FBC during the charrette.

The following are sample tasks that would be included in this step:

- A. Project kick-off meeting in Cincinnati
- B. Laying the groundwork for a successful charrette:
  - 1. Neighborhoods to complete the following:
    - a. Neighborhood to do list
    - b. Micro scale documentation (two to three sampling areas per present transect zone)

- c. Neighborhood main street documentation table
  - 2. Consultant works with City to finalize the neighborhood documentation and to determine the degree of change for each neighborhood
  - 3. Consultant works with City to determine appropriate grouping of neighborhoods for subsequent charrettes
    - a. Note: These charrettes are intended to be case studies that can provide lessons learned for future FBC application
    - b. The City can likely complete all focus neighborhoods with three to four charrettes, assuming three to five focus neighborhoods are grouped per charrette based on complexity.
- C. Initial Public Workshop
  - a. Stakeholder interviews completed
  - b. Comments gathered from participants
- D. Communication (web and mailings) about the charrette completed
- E. Background studies completed (market, retail, circulations, etc.)
- F. Charrette logistics planning
- G. Draft of Form-Based Code completed (60-75% Draft)

## **2. Phase II: Charrette (Visioning and Testing)**

During this phase, the Project Team will conduct a four- to five-day public design charrette. This should be organized around the National Charrette Institute's, standards. The charrette will bring all members of the multi-disciplinary team together for an intensive multi-day public process that will provide multiple feedback loops and breakout sessions with interest groups and community stakeholders. The design team will work in a highly visual manner, preparing initial design proposals for public review and feedback that will be finalized for a public presentation at week's end. In addition, the draft Form-Based Code will be tested and refined during the charrette process as well, enabling the team and staff to discuss details of the FBC. Key public presentations could utilize live voting procedures that allow for instant review of results. While the final schedule is typically determined at a later date in order to tailor it specifically to the process and the community, a typical charrette schedule is presented below. Sample tasks typically completed at the charrettes include:

- A. Detailed vision plan completed with community (Detailed site plans and supportive and evocative illustrative drawings)
- B. Testing and refinements to FBC regulations
- C. Regulating Plan Draft: Form-based zones mapped
- D. Community and stakeholder engagement throughout the process
- E. Technical meetings with City staff

## **3. Phase III: Post Charrette (Crafting the Documents)**

After the charrette, the Project Team will work to produce two items:

- A. The Charrette Summary Report; and
- B. An Administrative Draft of the Form-Based Code.

The process will begin with further refinements of the potential build-out illustrations prepared during the charrette in order to test and finalize the FBC

content options. The Project Team will work through an Administrative Draft with City staff and then proceed to a Public Review Draft. The Project Team will then work with staff to take the Charrette Summary Report and Draft FBC through the Public Review and approval process. This FBC integration into the existing zoning code will include any zoning text and map amendments in addition to the new FBC content.

At the completion of this phase, the Form-Based Code will be fully integrated into the existing Zoning Code and ready to be used for future FBC application, and each neighborhood will have the Charrette Summary Report to refer to as future projects arise.

### **Step 2 - Subsequent Charrettes and FBC Application**

During this step, the Project Team will work with City staff to apply Form-Based Coding to the remainder of the focus neighborhoods and potentially to other planning areas.

The following items would be completed in this step:

1. Subsequent multi-day charrettes are completed for groupings of the initial focus neighborhoods
  - A. These could be completed approximately 6-8 weeks apart if the background analysis is coordinated with Phase I listed above
  - B. The pre-charrette and charrette tasks are the same as defined above for Phase I
  - C. What is completed during this step:
    1. Charrette Summary Report for each charrette area
    2. Form-based zone mapping on Regulating Plan
    3. Any refinements or additions to the FBC
2. The consultant creates a manual to determine typical conditions and parameters of how the FBC should be applied to future selected neighborhoods
3. An Urban Design/Form-Based Code studio (started at project initiation) is established to administer the FBCs in place. The studio will encourage future FBC application by leading the visioning and making minor code adjustments for each neighborhood as needed.
4. Ongoing peer review by outside consultant(s) as needed

### **Benefits of this Approach**

You get the experts (in the consulting team) to get community buy-in, to create a compelling vision, to create a Form-Based Code framework, and to map the initial application of form-based zones

1. It allows for a good amount of customization for each neighborhood
2. Mid-range budget-wise
3. Mid-range time-wise for completion
4. It provides long-term sustainability by developing staff's abilities
5. The manual provides a clear framework for staff's future applications

### **Challenges of this Approach**

1. The cost of creating an Urban Design/Form-Based Code Studio within the City
2. It will be a challenge to appropriately group the neighborhoods for combined charrettes while still ensuring effectiveness

3. The consultant needs to be sure that the Form-Based Code created is flexible enough to accommodate future applications, but clear enough to provide predictable built results

### **The FBC Integration – the means in which to integrate or “plug” the Form-Based Code into the existing zoning code document**

#### **Options for how to plug the Form-Based Code into your zoning code**

One of the least understood aspects of Form-Based Coding is the appropriate way to integrate an FBC into an overall city zoning code. Careful thought must be given to how the new regulations relate to the existing regulatory system. There are two options presented below. Option I is the recommended option because it is the easiest way to integrate the FBC without needing major changes to the overall code. Option II creates a zoning code that is much more form-based oriented overall, but requires a lot more work.

#### **Option I (Recommended Option): Create a separate chapter with all of the FBC components in it within the current zoning code**

1. Integrate FBC components into the zoning code:
  - A. Building Form Standards
  - B. Regulating Plan
  - C. Building Type Standards
  - D. Civic Space Standards
  - E. Thoroughfare Standards
  - F. Frontage Standards
  - G. Site Planning Standards
2. Make sure these regulations override all others within the zoning code and elsewhere

#### **Option II: Integrate the FBC elements throughout the zoning code**

1. Add form-based zones/Transect zones to the same chapter as the conventional zones
2. Create new chapters
  - A. Building Type Standards
  - B. Civic Space and Thoroughfare Standards
  - C. Frontage Standards
  - D. Site Planning Standards

### **General Notes:**

1. Not all focus neighborhoods are created equal:
  - a. Economic existing conditions
  - b. Physical existing conditions
  - c. Degree to change (or preservation) intended for each area
  - d. The size and number of opportunity sites within the focus areas
2. Neighborhood Main Streets seem to be the primary focus for many of the focus neighborhoods
3. The strong sense of place or “there” that was once present in these Neighborhood Main Streets has been completely compromised in most instances. Most have been compromised by traffic circulation decisions and the location of large-format retailers nearby. In order to revitalize these main streets, the following needs to be done as part of this process:



- a. The City cannot continue to compromise the walkability of these areas if you want them to revitalize, prosper, or survive. This is the primary competitive advantage that these places have over strip malls and big box stores.
  - b. Traffic needs to be slowed down and the street design and character transformed to reestablish a sense of place in these areas
  - c. On-street parking must be present in any main street area in order to revitalize or remain solvent
  - d. Policy decisions need to be made to balance or prioritize the desired pedestrian-oriented nature of these areas versus the flow of traffic through them
  - e. These policy and circulation decisions should be a component of the FBC process, a more important element in the revitalization of these main streets than the regulation of the building form
4. There should be a strong tie in between the Comprehensive Plan (CP) and the Form-Based Code effort, in particular the urban design, land use, transportation and housing elements to tie visioning back to policy reinforcement, The following should be completed during the CP Update:
- a. Ensure that the CP reinforces the neighborhood framework that is so prominent in Cincinnati
  - b. Introduce all Form-Based Code elements (Frontage types, building types, transect zones, etc.) in the Comprehensive Plan to establish a common vocabulary
  - c. Reinforce a collective effort and buy-in with all City staff
  - d. Include implicit policy reinforcement of the FBC integration
  - e. Comprehensively assess neighborhood main streets (neighborhood business districts) from an economic and geographic standpoint
  - f. Classify each neighborhood by degree of change (preservation, evolution transformation) and general mix of Transect zones
5. In all FBC options we would recommend hiring (at beginning of process):
- a. Economic consultant to complete the following:
    - i. Citywide retail assessment and strategy with focus on reinforcing and revitalizing neighborhood main streets
    - ii. Determination of where are the best locations to allow auto-dependent retail and a targeted square footage amount in order to minimize impacts on neighborhood main streets
    - iii. Commercial and residential market studies as necessary
  - b. Retail consultant
    - i. Programming and management strategy for pilot main street(s)
  - c. Transportation consultant
    - i. Work with City's transportation department staff to create a context-sensitive approach to place making and circulation through neighborhood main streets

Note:

- This ground work may actually be more important than the Form-Based Coding itself in relations to the revitalization of the main streets
  - It will be difficult to find these consultants. It has to be someone who can think outside the box, who has strong experience with revitalizing neighborhood main streets, and can give specific recommendations for all neighborhood main streets
  - This economic work should be closely integrated with the economic work on the Comprehensive Plan
6. Community, property owner, and developer/builder support is necessary for this process to be successful

7. The City needs to address how the FBC will be administered successfully before rushing into the Codes
  - a. The City must think long term about staffing, implementation and administration to ensure long term effectiveness of FBC application
8. Form-Based Codes should not be seen as the silver bullet, but rather an important component to a comprehensive strategy to help the selected areas meet their community goals
9. The Urban Design Overlay will likely be replaced with the FBC, but the Hillside and Historic Overlays would likely stay in place
10. We recommend a mandatory application to Neighborhood Main Streets and possible to all of focus areas
11. To ensure the predictability intent of the FBC is reinforced, the use of variances should be minimized, and likely not allowed for certain regulations. A table should be created in the procedures portion of the code that defines which sections of the FBC (if any) are allowed to be modified with a variance and to what maximum percentage they can be modified.
12. The FBC would be set up to be optionally applied elsewhere as a overlay or floating zone as is desired
  - a. Ex. Transformation of old shopping center into walkable urban neighborhood
13. The goal of any FBC is to streamline the review and approval process, so the review and permitting process needs to be carefully considered in relation to the FBC application
14. In both options, the form-based zones/Transect zones would be mapped directly onto the zoning map once the neighborhood was planned or vision verified with the community

## Attachment 1: Overview of timing of the process

Schedule	Month 1	Month 2	Month 3	Month 4	Month 5	Month 6	Month 7	Month 8	Month 9	Month 10	Month 11
<b>Step 1 - Initial Charrette and FBC Application</b>											
Phase I - Pre-Charrette	1	2									
Phase II - Charrette			3								
Phase III - Post Charrette				4	5	6					
<b>Step 2 - Subsequent Charrettes and FBC Application</b>											
Charrette 2 (6-8 weeks)							7				
Charrette 3 (6-8 weeks)								8			
Charrette 4 (6-8 weeks)										9	

- 1 Kick-off meeting
- 2 Initial public workshop
- 3 Four- to five-day Charrette
- 4 Meet to discuss Administrative Draft
- 5 Meet to discuss Public Review Draft
- 6 Two to three public hearings
- 7 Charrette 2
- 8 Charrette 3
- 9 Charrette 4

## Attachment 2: Estimated Costs

Budget		Fee Range		Total Fee and Expenses		
<b>Step 1 - Initial Charrette and FBC Application</b>						
Range		low	high	low	high	
Phase I - Pre-Charrette	Charrette prep	Lead consultant / Urban Design	\$25,000.00	\$45,000.00	\$65,000.00	\$95,000.00
		Sub-Consultants**				
	Draft code writing	\$40,000.00	\$50,000.00			
Phase II - Charrette*		\$63,000.00	\$68,000.00	\$63,000.00	\$68,000.00	
Phase III - Post Charrette	Charrette Summary Report		\$10,000.00	\$15,000.00	\$65,000.00	\$102,000.00
	Admin Draft FBC		\$25,000.00	\$35,000.00		
	Public Review Draft FBC		\$10,000.00	\$20,000.00		
	Final Draft FBC		\$5,000.00	\$10,000.00		
	2 Public / Draft Review Meetings		\$6,000.00	\$10,000.00		
	3 Public Review hearings		\$9,000.00	\$12,000.00		
<b>Total - Step 1</b>				<b>\$193,000.00</b>	<b>\$265,000.00</b>	

<b>Step 2 - Subsequent Charrettes and FBC Application</b>						
Range		low	high	low	high	
Charrette 2* (6-8 weeks)	Pre-Charrette		\$10,000.00	\$20,000.00	\$88,000.00	\$113,000.00
	Charrette*		\$63,000.00	\$68,000.00		
	Post Charrette		\$15,000.00	\$25,000.00		
Charrette 3* (6-8 weeks)	Pre-Charrette		\$10,000.00	\$20,000.00	\$88,000.00	\$113,000.00
	Charrette*		\$63,000.00	\$68,000.00		
	Post Charrette		\$15,000.00	\$25,000.00		
Charrette 4* (6-8 weeks)	Pre-Charrette		\$10,000.00	\$20,000.00	\$88,000.00	\$113,000.00
	Charrette*		\$63,000.00	\$68,000.00		
	Post Charrette		\$15,000.00	\$25,000.00		
<b>Total - Step 2</b>				<b>\$264,000.00</b>	<b>\$339,000.00</b>	

\*Four (4) day targeted team - see also Definitions and Estimated Cost Variations below.

<b>**Potential Sub-Consultants for Phase I - Pre-Charrette</b>					
Range		low	high	low	high
Transportation Consultant		\$20,000.00	\$30,000.00	TBD	TBD
Market Studies		\$35,000.00	\$60,000.00		
Economic Development		TBD	TBD		

<b>Definitions</b>	
Full team	5 lead consultant staff members, 1 economist, 1 transportation, and 1 retail consultant for the full charrette
Targeted team	4 lead consultant staff members full charrette, 2 subconsultants half time and 1 subconsultant full time

<b>Estimated Cost Variations: (for Charrettes only, not including Pre- or Post Charrette)</b>			
Range		low	high
1. 3-Day (min length): Full team		\$65,000.00	\$75,000.00
2. 3-Day (min length): Targeted team		\$50,000.00	\$55,000.00
3. 4-Day: Full team		\$82,000.00	\$88,000.00
4. 4-Day: Targeted team		\$63,000.00	\$68,000.00
5. 5-Day: Full team		\$97,000.00	\$104,000.00
6. 5-Day: Targeted team		\$75,000.00	\$80,000.00

## Attachment 3: Typical Participation in a Charrette

1. Typical consultant team:
  - A. Team leader (Principal level)
  - B. Charrette manager
  - C. Two or three designers/planners/renderers/communication (based on complexity)
  - E. Economist
  - F. Transportation Engineer
2. Typical City staff involvement:
  - A. 1-2 people to greet and man the door (entire time)
  - B. Project manager available entire time (can be same as above)
  - C. Daily morning meeting with City team
  - D. Technical meetings with staff on specific issues such as thoroughfare design, zoning, etc. throughout the charrette. Times determined 6 weeks prior to the charrette
  - E. Attendance of Steering Committee at milestone presentations
3. Typical Steering Committee, Planning Commission, City Council participation:
  - A. Throughout the charrette, but in particular attendance at milestone presentations and any topic-specific meetings they have an interest in

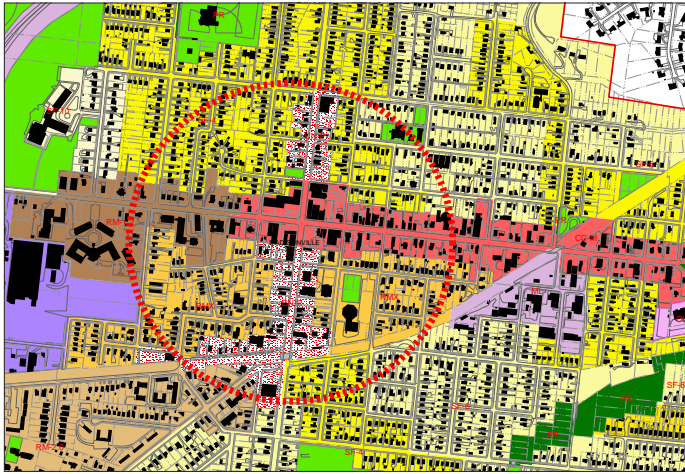
#### **Attachment 4: List of Initial Focus Neighborhoods (in alphabetical order)**

- 1 Avondale
- 2 Clifton
- 3 College Hill
- 4 Hyde Park East
- 5 Hyde Park Square
- 6 Madisonville
- 7 Northside
- 8 Oakley Square
- 9 O'Bryonville
- 10 Pleasant Ridge
- 11 Roselawn
- 12 Walnut Hills
- 13 Westwood

# Attachment 5: Sample 4-Day Charrette Schedule

4-Day Charrette					
	Monday	Tuesday	Wednesday	Thursday	Friday
8:00 AM					
9:00 AM		Team Meeting	Team Meeting	Team Meeting	Final Design & Code Production
10:00 AM		Open Studio Starts Meeting with Stakeholders as needed	Open Studio Starts Meet with Staff as needed	Open Studio Starts Meet with Staff as needed	
11:00 AM		Lunch brought in for team	Lunch brought in for team	Lunch brought in for team	
12:00 PM		Brown Bag Lunch Presentation: Pedestrian-Oriented Street Design	Brown Bag Lunch Presentation: Form-Based Codes	Brown Bag Lunch Presentation: Main Street Retail	Lunch brought in for team
1:00 PM		1:30 - 3:30 Meetings with Staff: Code discussions Street network and design	Transportation and Traffic Meeting	Meeting with stakeholder groups as needed	
2:00 PM				Studio Closed to public	
3:00 PM	Team Arrives Studio Setup			Team Meeting	Review presentation with staff
4:00 PM					
5:00 PM	Setup for presentation			Design & Code Production	
6:00 PM	Opening Presentation	Public Open House	Public Open House		Closing Presentation
7:00 PM	Dinner brought to Studio space	Dinner brought to Studio space	Team dinner out	Dinner brought to Studio space	Team dinner / debriefing
8:00 PM				Late Night Studio Work	

Opening Presentation	Studio Open to Public
Brown Bag Lunch Open to Public	Studio Closed to Public
Public Open House	



Chapter 4: Form-Based Code  
**Town Core (TC) Standards**

**Key**  
 --- Property Line    --- Subback Line  
 --- Build-to Line (BTL)    ■ Building Area

Building Placement		Use
<b>Build-to Line (Distance from Property Line)</b>		
Front	0'	Ground Floor    Service, Retail, or Recreation, Education & Public Assembly*
Side Street	0'	Upper Floor(s)    Residential or Service*
<b>Setback (Distance from Property Line)</b>		*See Table 4.1 for specific uses. Ground floors that face the west front shall be commercial and shall not include parking, garages, or similar uses.
Side	0'	
Rear	Adjacent to NC Zone    8'	
	Adjacent to any other Zone    5'	
Building Form		Height
Primary Street Facade built to BTL	50% min.*	Building Min.    22'
Side Street Facade built to BTL	30% min.*	Building Max.    2.5 stories and 40'
Lot Width	125' max.	Max. in East/Tip of Parcel    35'
Lot Depth	100' max.	Auxiliary Building Max.    2 stories and 25'
Street Facades must be built to BTL along first 30' from every corner.		Finish Ground Floor Level    4' max. above sidewalk
<b>Notes</b>		First Floor Ceiling Height    12' min. clear
All floors must have a primary ground-floor entrance that faces the primary or side street.		Upper Floor(s) Ceiling Height    8' min. clear
Loading docks, overhead doors, and other service entries are prohibited on street-facing facades.		<b>Notes</b>
Any building over 20' wide must be broken down to read as a series of buildings no wider than 50' each.		Manured roof forms are not allowed.
		Any variation along the BTL must be defined by a building mass defined by a 2' 9" to 4' 6" high fence or stone or masonry wall.

4-6      Downtown Mixed Use Master Plan  
 Opticos Design, Inc.

# City of Cincinnati, Ohio Existing Regulatory Obstacles for Form-Based Code Application

Opticos Design, Inc.  
 with Lisa Wise Consulting

February 1, 2010



Opticos Design, Inc.  
 1285 Gilman Street  
 Berkeley, CA 94706

p: 510.558.6957  
 f: 510.898.0801  
 w: opticosdesign.com



## Existing Regulatory Obstacles for Form-Based Code Application

Prepared for the City of Cincinnati

By: Opticos Design, Inc. with Lisa Wise Consulting

The primary objective of the following report is to summarize obstacles to Form-Based Code application currently in place within the City's adopted regulations. The documents that were assessed were the Zoning Code, Rules and Regulations of the Cincinnati City Planning Commission for the Subdivision of Land, and the Rules and Regulations for Engineering Design of Streets for Private Subdivisions or Developments and Procedure for Obtaining Approval and Acceptance Thereof. In addition, a preliminary meeting was held with both the Steering Committee and the Working Group to document other potential obstacles outside of these documents. The intent of the report is to ensure that when a Form-Based Code is created for the City, these obstacles are specifically addressed, modified, and/or overridden.

Some items listed are not specifically obstacles to FBC application but are highlighted to provide recommendations that will improve the clarity and usability of the Code. For the zoning code portion of the analysis the report also gives a brief explanation of why the current regulation is an obstacle and recommendations on how to remove the obstacle. At this point, the recommendations are general but provide insight into what a potential solution would look like and, in some instances, provide an example of a solution. The recommendations will be developed further over the next several months.

Some general terminology should be clarified to ensure clarity in the reading of this document. The term *walkable urbanism* is used to refer to areas that are pedestrian oriented in nature such as the historic neighborhoods. The term *drivable suburban* is used to refer to areas that are more auto-dependent in nature. This classification builds upon the pedestrian, mixed, and auto-oriented classifications used in your zoning code for existing commercial areas. The source of these terms is Chris Leinberger's "The Option of Urbanism," if more information is desired on this subject. Also, neighborhood business districts are referred to as *neighborhood main streets* to reinforce the walkable, mixed use nature of these areas.

### General Comments:

1. *Municode*. One of the biggest technical obstacles in place for Form-Based Code application is the location of the current zoning code within MuniCode. Because of MuniCode's inability to successfully deal with graphics, no Form-Based Code (FBC) has successfully been integrated into a MuniCode document. The solution would be for the City to simply leave a reference to the zoning code document within the Municipal Code and MuniCode document and pull the document out of the Municipal Code, letting it reside outside the document. This will also give much more flexibility to the formatting options of the final FBC. The City Clerk, or whoever manages the Municipal Code document, should be consulted on this topic.
2. *Neighborhood Main Streets*.
  - a. *Never compromise walkability*. This is the primary advantage these areas have over strip malls in competing for customers. The fact that the on-street parking goes away during rush hours in these areas is an enormous detriment to the economic vitality of these areas.
  - b. *The concept of the business districts (neighborhood main streets) being too big*. We have heard from several people that feel the neighborhood main streets are too big. The potential size of these main streets should be seen as an advantage not a disadvantage, and the City should take steps to reinforce these main street areas. Neighborhood main streets are an invaluable asset to these neighborhoods and help to define the community while reducing automobile trips. For example, during the FBC process, changes to zoning should be made to require commercial uses at primary nodes and allow more flexibility in uses outside of these nodes within the same physical form and type of building. The bigger question that needs to be asked about these areas is what planning decisions are being made that compromise the viability of these neighborhood main streets. Two examples include allowing big box stores in proximity to neighborhood main streets, which puts these places at a

- disadvantage, and giving through traffic the priority by removing on-street parking during rush hour, which compromises the quality and viability of these areas.
- c. *Creating a viable and vibrant program mix.* The City may also want to consider hiring an economic consultant who works in neighborhood main street environments. An economic consultant can help create a strategy to attract the right type and mix of businesses to these areas that will enable them to compete with larger stores.
3. *Education on the Use of the Form-Based Code.* In initial meetings there was some concern about users needing to be educated on how to use a new FBC. This issue can be addressed when the FBC is created. It should be very graphic and include a clear diagram on how to use the code at the beginning of the document. In addition, efforts should be made on the part of the City to reach out to primary potential users as the code is being created. This will educate them on the new terminology and aspects of the FBC to ensure they are familiar with the code elements once they are drafted.
  4. *Streamlining the Review Process.* Streamlining the review process was discussed as one of the necessary incentives to encourage the desired form of development. This may mean that the review boards, Planning Commission, and City Council will need to be comfortable giving up some review authority for projects that meet the intent of the FBC application.
  5. *Review of Projects.* The City should take steps to ensure that the staff with urban design/architectural design backgrounds is integrated into the review process for the FBC application areas.
  6. *The "Notwithstanding Ordinance."* This process for approving projects that may not conform to desired and regulated forms could quickly compromise the intent of FBC application. Limitations to applying this to designated FBC areas should be considered to prevent such compromises.
  7. *The EPA-Federal lawsuit/moratorium on sanitary flows that contribute to sewer overflow.* Consideration needs to be given to this topic to determine whether or not it is an obstacle for development in the right locations. It may create more of a problem for particular uses, like restaurants that are critical to the function of neighborhood main streets, then with residential due to credits needed.
  8. *Neighborhood Schools.* Ensure that schools in proximity to neighborhood main streets remain in that location. This activity is important for the viability of these commercial areas.
  9. *Parking covenants that tie parking to buildings.* This process should be further reviewed to determine how it might cause obstacles, particularly to the turnover of uses within main street areas.
  10. *Traffic Studies.* If traffic studies are currently required for all projects in neighborhood main street areas, this provides yet another obstacle for the right kind of infill and redevelopment projects.

## I: City of Cincinnati Zoning Code

### General Comments:

1. *Organizing Principle (include image of the transect and Cincinnati Transect).* The Organizing Principle (framework) of the existing zoning code is use. Therefore the FBC will need to introduce a place-based organizing principle such as the urban-to-rural transect or a similar tool for the new form-based zones.
2. *Zoning Text Amendments and Variances.* Once the FBC is drafted there must be an assurance to stakeholders that text amendments and variances, which currently appear to be happening frequently, will not compromise the intent of the FBC.
3. *Mapping of zones.*
  - a. Ideally like uses should face like uses as much as is possible on a street. Therefore, as land uses are reviewed in the Comprehensive Plan Update and zone boundaries created during visioning processes, the zone selection, specific boundaries, and transition between form-based zones should be carefully considered.
  - b. FBC application should allow for auto-oriented commercial zones to transform into pedestrian-oriented places in selected locations. This could be done with optional overlays of form-based zones.
  - c. Currently the public right-of-way (ROW) is mapped within the zones. This makes it hard to read and reinforce the important element of the street and block network. Consider removing

- the zone designation from the public ROW in order to reinforce the importance of the public realm in defining the character of these places/neighborhoods.
- d. Transition from Main Streets into Neighborhoods (RMX, OL, RM-1.2 zones). These are the most important and complex areas within the neighborhoods; therefore these transitions should be carefully studied in the visioning process.

Location	Obstacle	Why is it an obstacle?	Recommendation on how to fix the obstacle
Chapter 1400. General Provisions and Rules for Measurement.			
§ 1400-03. Purposes.	Purposes are not specific to creating walkable urban places or reinforcing the character of existing neighborhoods.	Since a majority of zoning codes default to drivable suburbanism it is important to establish up front that there will be designated areas for walkable urbanism and other for drivable suburbanism and that they are regulated differently.	<ol style="list-style-type: none"> <li>1) Make purposes specific to intent of walkable urbanism and reinforce the transect, New Urbanism, smart growth, etc.</li> <li>2) Remove purposes that may be contrary to intent.               <ol style="list-style-type: none"> <li>a) Ex. 1400-03 (l) Lessen congestion in the public streets by providing for off-street parking and loading areas for commercial uses.</li> </ol> </li> <li>3) Tie these purposes to the Comprehensive Plan purposes.</li> </ol>
§ 1400-07. Zoning Designation System.	b) Residential Density Designator. Square footage of lot required per unit.	Regulating density in this way produces unpredictable physical form and is potentially limiting to desired character/urban form. What does 700 square feet of lot per unit look like?	Use desired building types tied to minimum lot sizes within the Form-Based Code to create predictable built results that reinforce the specific community character of a neighborhood.
§ 1400-11. Establishment of Zoning Districts. 1) Schedule 1400-11: Establishment of Zoning Districts.	Organizing Principle (framework) of the code is use.	The Euclidean zoning system was created to separate uses. Therefore it is very difficult to use this system to create mixed-use environments under these use-based regulations.	<ol style="list-style-type: none"> <li>a) Establish non-use based zones to reinforce walkable urban areas.</li> <li>b) Use the transect or a modified transect as the organizing principle for this.</li> <li>c) Replace the term multi-family with a more "marketable" term.</li> </ol>

Location	Obstacle	Why is it an obstacle?	Recommendation on how to fix the obstacle
§ 1400-27-H. Height.	Measuring to top of parapet or mid point of slope discourages tall floors which are more typical of historic buildings and is often a driving factor behind poorly-designed buildings with inappropriate roof forms in relation to their context.	It creates unpredictable built results and encourages flat-roofed and or low-sloping roof forms that may not be appropriate for building upon community character.	Regulate heights primarily by number of floors. If more regulation is needed, measure height to the eave rather than the mid point of the slope for more predictable built results.
§ 1400-27-S1. Setback Averaging.	Potentially overly restrictive setbacks in an urban context.	Depending on the existing urban form, it may make sense for a building to be allowed to have the least restrictive setback to reinforce a certain form or intended place.	When applying FBC to focus areas, be sure the average setback for corner lots is not overly restrictive.
<b>Chapter 1401. Definitions.</b>			
			Be sure to clearly define new terminology that is included in the FBC and include it here.
<b>Chapter 1403. Single-family Districts.</b>			
	Combining all areas with detached housing as “single family” despite them being dramatically different in character and form is confusing and falsely assumes regulations should be similar.	This combining of zones makes it hard to understand the intent in terms of intensity, form , etc., especially for more walkable urban contexts.	Break down these zones further by intended form, character of place, and building types. 1) Form-Based Zones/Transect: T2 Neighborhood, T3 Neighborhood, T4 Neighborhood, T5 Neighborhood 2) Building Types: Rowhouse-detached, Mansion Apartment, Duplex, Fourplex, Sixplex, etc.
§ 1403-05. Land Use Regulations (for Single Family Zones).			Continue to reinforce the three-tiered permitting process (P, L,C). 1) In walkable urban areas use size to determine level of permitting required.

Location	Obstacle	Why is it an obstacle?	Recommendation on how to fix the obstacle
Schedule 1403-05: Use Regulations - Single-family Districts. 1) Specific Limitations.			Consider moving these to another section of the code to improve clarity and usability.
Schedule 1403-07: Development Regulations - Single-family Districts.			<ol style="list-style-type: none"> <li>1) Verify these numbers through micro scale documentation of typical conditions within a neighborhood.               <ol style="list-style-type: none"> <li>a) Example: 35' min lot width for SF-4 is too small, except where it already exists.</li> <li>b) Lot widths should be tied to building types in form-based regulations.</li> </ol> </li> <li>2) Study obstacles of minimum lot widths for walkable urban development during the neighborhood planning process.</li> </ol>
§ 1403-13. Cluster Housing General Regulations.			This section should not apply to Form-Based Code areas except where topography exists.
<b>Chapter 1405. Residential Multi-Family Districts.</b>			
§ 1405-03. Specific Purposes of the Multi-Family Sub-Districts.			<ol style="list-style-type: none"> <li>1) Differentiate (create separate zones) suburban multi-family and walkable urban multi-family.</li> <li>2) Consider replacing the term multi-family because it has negative connotations.</li> <li>3) Translate all MF zones (in walkable urban contexts) into transect zones or other Form-Based Zones/Transect zones based on intended form and appropriate building types.</li> </ol>

Location	Obstacle	Why is it an obstacle?	Recommendation on how to fix the obstacle
§ 1405-03. Specific Purposes of the Multi-family Subdistricts. a) RMX Residential Mixed.	Regulating intended built form with numeric parameters (2,000 sf of lot size required per unit) that are impossible to directly translate into intended form or result.		Use building types tied to specific lot sizes to replace the 2,000 sf currently required for each unit to create more predictable built results.
§ 1405-05. Land Use Regulations (For Multi-Family).			Specific Limitations: 1) Remove the “specific limitations” from the land use tables because they overcomplicate them. Some of them are additional development standards that do not belong in the land use table.
§ 1405-07. Development Regulations (For Multi-Family).	Increasing setbacks based on number of units in a building.	Increasing the required setbacks for buildings with more than 2 units discourage these types of units from being built, thus decreasing the variety of urban housing options. This is a very suburban way to regulate for multi-unit buildings.	1) Make setbacks the same for all unit types. 2) Use building types standards to ensure a compatible scale 3) Add maximum building width to regulations to ensure a compatible scale of building. 4) Reducing rear setbacks.

Location	Obstacle	Why is it an obstacle?	Recommendation on how to fix the obstacle
Chapter 1407. Office Districts.			
<p>§ 1407-03. Specific Purposes of the Office Subdistricts.</p> <p>a) Office Limited (OL) District:</p>	<p>Not necessarily an obstacle, but a good application for Form-Based Coding. The purpose of the OL district needs to be clarified. The purpose states "To provide sites for offices, research and development facilities and limited commercial uses in a low intensity manner. Mixed-use developments with residential uses are also allowed," yet the land use tables allow a wider range of uses including single-family residential.</p>	<p>These areas typically provide an important transition from neighborhood main streets into the residential neighborhoods and if not regulated appropriately can cause conflicts in form and uses that compromise the quality and character of the neighborhood.</p>	<ol style="list-style-type: none"> <li>1) Study these carefully in the neighborhood plans! (a very important part of neighborhood plans)</li> <li>2) Determine if a residential form or commercial shopfront form is more appropriate and regulate that form.               <ol style="list-style-type: none"> <li>a) Ex. If a residential form is more appropriate for the transition, regulate the residential form, but allow uses to be flexible within this form.</li> </ol> </li> <li>3) Allow the uses to be flexible: Regulate uses such that it allows these areas to evolve into uses that support the main street area, whether it is medium density residential building types, commercial, or retail. Let the market determine what the best use is for these areas.</li> <li>4) Be sure to use low parking requirements too so that large parking lots do not dominate the new or renovated buildings.</li> </ol>
<p>§ 1407-07. Development Regulations</p>			<ol style="list-style-type: none"> <li>1) Find a more predictable way to regulate urban form to replace FAR and minimum lot area for every dwelling unit. Design the intended built form and create regulations to support it.</li> <li>2) Do not increase setbacks with taller buildings except when adjacent to or backing to residential lots.</li> </ol>

Location	Obstacle	Why is it an obstacle?	Recommendation on how to fix the obstacle
Chapter 1409. Commercial Districts.			
	It is hard to regulate walkable, mixed-use environments with conventional, use-based zoning.	Conventional zoning was established to separate uses and therefore was not set up to create complex mixed-use environments.	Regulate walkable urban commercial districts with Form-Based Codes. 1) Consider translating these zones into transect zones or other form-based zones: a) CN-P b) CN-M (study intent first) c) CC-P d) CC-M (study intent first) e) CC-A: Optional overlay for future transformation in designated areas only f) CG-A Optional overlay for future transformation in designated areas only
	Not an obstacle for FBC application, but an obstacle to the long-term viability of these neighborhood centers is having a concentrated, continuous groupings of ground floor retail, commercial, and service uses at designated nodes, but at the same time not requiring ground floor commercial uses above and beyond what there is a market demand for.	As soon as the pattern of ground floor commercial uses are broken, the viability of the commercial area is compromised.	1) Study these neighborhood main street areas carefully in the neighborhood plans! (A very important part of neighborhood plans) 2) Designate areas within these zones that require ground floor commercial uses and shopfront forms. 3) Create a flex or open zone at the peripheries or transition areas to allow commercial or residential uses in a compatible form to support the evolution of the main street areas. 4) Utilize an economist in the neighborhood planning that specializes in the function of neighborhood main streets.



Location	Obstacle	Why is it an obstacle?	Recommendation on how to fix the obstacle
Schedule 1409-07: Use Regulations - Commercial Subdistricts			1) Further simplify use tables. 2) Simplify the regulation of retail uses by size, hours of operation, etc. (See Grass Valley, CA Development Code use table for Form-Based Zones). 3) Permit and incentivize a wide variety of uses of a small size, but discourage larger footprint uses in neighborhood main streets, especially CN-P. a) Ex: P for uses less than 10,000 sf, L for uses 10,00-15,00,C for uses greater than 15,000 sf
§1409-09. Development Regulations.			Study how to add additional regulations to 50' tall height allowance to ensure compatibility to adjacent (side and rear) smaller buildings without increasing the setback.
Chapter 1410. Urban Mix District.			
			Need to be careful where this zone is located so as not to discourage investment in residential properties.
§ 1410-01. Purpose			Clarify the purpose of this district and consider making a form-based district.
Schedule 1410-05: Use Regulations – Urban Mix District			Simplify the land use tables (currently 3 plus pages) 1) The L2 through L7 designations a) Overcomplicate the tables b) Generally, place these as standards elsewhere

Location	Obstacle	Why is it an obstacle?	Recommendation on how to fix the obstacle
§ 1410-09. Off-Street Parking and Loading Requirements.			<p>Consider not having off-street parking requirements at all (let the market determine parking requirement) or lowering one space per unit in walkable neighborhoods or sites proximate to transit.</p> <p>If parking requirements are kept:</p> <ol style="list-style-type: none"> <li>1) Count on-street parking adjacent to lot toward requirement.</li> <li>2) Consider requirements by bedroom.               <ol style="list-style-type: none"> <li>a) Studio units or unit less than 700 sf: .5 spaces (rounded down for 1 unit).</li> <li>b) 1 bedroom or greater: 1 space/unit.</li> </ol> </li> </ol>
Chapter 1419. Additional Development Regulations.			
§ 1419-09. Bed and Breakfast Homes and Inns.	One parking space for every guest room.	Most Bed and Breakfasts in traditional neighborhoods rely on on-street parking to meet the parking demand. The added complication of finding off-street parking nearby or the cost of having to buy more land to park on usually prohibits these types of uses from happening.	Consider removing or reducing off-street parking requirements for B&Bs in walkable urban areas (ex. T3, T4, T5).
§ 1419-17. Home Occupations.	Strict limitations on home occupations.	Often this is the way small businesses are incubated in walkable neighborhoods. Allowing more flexibility in regulations can reduce driving.	<ol style="list-style-type: none"> <li>1) Consider allowing home occupations with up to 3 employees in walkable urban neighborhoods (T3, T4, T5), especially if ancillary units are present or there is a potential for them to be built.</li> <li>2) Allow office uses (and potentially other art studio related uses) up to a maximum size (ex. 650 sf) in ancillary structures in walkable urban neighborhoods (T3, T4, T5).</li> </ol>

Location	Obstacle	Why is it an obstacle?	Recommendation on how to fix the obstacle
§ 1419-21. Limited or Full Service Restaurants and Drinking Establishments. (i) Required Buffer Yards.			This should not apply in pedestrian commercial areas.
Chapter 1421. General Site Standards.			
§ 1423-11. Applicability of Buffer Yard Standards.			Buffer yards should not apply in form-based application areas.
Chapter 1425. Parking and Loading Regulations.			
			<ol style="list-style-type: none"> <li>1) Parking needs to be calibrated to walkable urban areas.</li> <li>2) On-street parking adjacent to lots should be counted toward parking requirements.</li> </ol>
§ 1425-01. Purposes.	Purposes do not coincide with the goals of creating walkable urban environments in targeted locations.  1) Ex “(a) Require adequate off-street parking and loading, thereby reducing traffic congestion” is a current purpose statement that does not apply to walkable urban areas.	Requiring adequate off-street parking and loading is not a tool for reducing traffic congestion in urban areas and will compromise the community character. On-street parking is an important aspect of the function of these walkable urban areas.	Write new purposes that apply to walkable urban areas independent of those for drivable suburban areas.

Location	Obstacle	Why is it an obstacle?	Recommendation on how to fix the obstacle
§ 1425-15. Location of Parking.	Shared parking is required to be too close. 1) (c) Parking on Nearby Lots. Parking lots or spaces may be on a lot within 600 feet of the principal lot except when that lot is in an SF or RMX District.	It is often very difficult to find shared parking opportunities within 600 feet of an already developed neighborhood.	This distance should be at least 1/4 mile (approx. 1,300 feet) to make this a truly viable option for walkable urban areas, especially commercial areas.
§ 1425-17. Units of Measurement.	Gross Floor Area calculation includes outdoor eating and drinking areas.	This discourages these outdoor eating and drinking areas that are typically found in a vibrant, walkable, urban environment.	The FBC should not include outdoor areas in these calculations.
§ 1425-19. Off-Street Parking and Loading Requirements.	Required parking is not terribly high, but could be lower or removed in urban areas to encourage the right character of development.	Parking requirements are often the biggest obstacle to the adaptive reuse of building or construction of infill projects that can serve as a catalyst to an area due to limited space available and cost of building structured parking. Also parking demand for uses in walkable urban environments is lower than drivable suburban environments.	<ol style="list-style-type: none"> <li>1) General: Differentiate parking in walkable urban areas (lower is necessary) from that in drivable suburban areas (higher requirements ok).</li> <li>2) Residential uses.               <ul style="list-style-type: none"> <li>In walkable urban areas, consider not having off-street parking requirements at all (let the market determine parking requirements) or lowering one space per unit in walkable neighborhoods of sites proximate to transit (form-based zones).</li> <li>a) If parking requirements are kept:                   <ol style="list-style-type: none"> <li>i) Count on-street parking adjacent to lot toward requirement;</li> <li>ii) Consider requirements by bedroom so as not to discourage smaller units:</li> </ol> </li> </ul> </li> </ol>

Location	Obstacle	Why is it an obstacle?	Recommendation on how to fix the obstacle
			<ul style="list-style-type: none"> <li>(1) Studio units or units less than 700 sf: .5 spaces (rounded down for 1 unit);</li> <li>iii) 1 bedroom or greater: 1 space/unit.</li> <li>3) Commercial uses.               <ul style="list-style-type: none"> <li>a) Keep existing requirement: "Under 2,000 square feet of gross floor area: No spaces required".</li> <li>b) Make sure that when existing uses in walkable urban areas turnover new parking requirements are not prohibitive to a new use filling the space.</li> <li>c) Simplify requirements so that all retail and commercial uses in a walkable urban environment have the same requirements.</li> </ul> </li> </ul>
§ 1425-25. Off-Street Parking and Loading Dimensions.			Consider adding a percentage of smaller, economy-sized spaces allowed in each parking lot (ex. 20%) in walkable urban areas.
Chapter 1427. Sign Regulations.			
			<ul style="list-style-type: none"> <li>1) General usability note: move all definitions to rear of document.</li> <li>2) Include graphic-based signage standards in the FBC.</li> </ul>

Location	Obstacle	Why is it an obstacle?	Recommendation on how to fix the obstacle
Chapter 1429. Planned Development Districts.			
			<ol style="list-style-type: none"> <li>1) For ease of administration, the use of PDs should be limited.</li> <li>2) In order to encourage the creation of new, walkable neighborhoods, Planned Development District regulations should be created for Traditional Neighborhood Development (TND) potentially in a TND Ordinance.</li> <li>3) See City of Flagstaff, AZ and Birmingham, AL SmartCode-based TND Ordinances.</li> </ol>
Chapter 1431. Interim Development Control Overlay Districts			
			None.
Chapter 1435. Historic Landmarks and Districts.			
			<ol style="list-style-type: none"> <li>1) Be sure that the process for receiving a Certificate of Appropriateness is as objective as possible.</li> <li>2) In the review process established by the FBC, reinforce the role of the Urban Conservator as a means to streamline approval in historic districts for conforming projects. Clearly define submittal requirements, processes, and goals.</li> </ol>
Chapter 1437. Urban Design Overlay District.			
			Change terminology of Neighborhood Business Center to Neighborhood Main Street to reinforce the mixed-use nature of these areas and their role as social centers as well as commercial centers.

Location	Obstacle	Why is it an obstacle?	Recommendation on how to fix the obstacle
	Permits limited for eating and drinking establishments.	Eating and drinking establishments serve as anchors for neighborhood main streets and are the primary draw of customers. Therefore limiting these uses is detrimental to the viability of these areas. If these areas become so active that they have a "parking problem" it would mean they are revitalizing.	Do not limit these types of uses.
	Additional review necessary to renovate and build in these areas.	Developing in these areas is high risk due to the complexity of mixed-use development. The additional layer of regulation and review only add to this risk, thus disincentivizing development in these areas vs. large undeveloped sites.	Ensure the vision plan and FBC provide a clear, streamlined process for the right projects in these areas.

**Administration & Procedures in Cincinnati**

**General Obstacles and Observations:**

In FBC zones, procedures could be streamlined to allow for more ministerial/administrative approvals and would reduce the requirements for conditional use permits. Consider establishing a zoning administrator role that could make administrative decisions such as zoning clearance or site plan review.

Location	Obstacle	Why is it an obstacle?	Recommendation on how to fix the obstacle
Chapter 1439. Decision Making Bodies and Officials			
General	<p>The City does not have a Design Review body or Architectural Review Commission to promote high quality design.</p> <p>Consider adding the position of Town Architect to assist with the design review of projects regulated by the FBC.</p>		

Location	Obstacle	Why is it an obstacle?	Recommendation on how to fix the obstacle
§ 1439 -07. Zoning Hearing Examiner	Zoning Hearing Examiner conducts public hearings and can apply conditions to new development and demolitions in the Urban Overlay Districts.	Hearings and conditions of approval can delay projects and add time to processing. Projects are reviewed on a case-by-case basis and may lead to unpredictable results.	The FBC code provides more prescriptive standards, reduces the need for discretionary review and can allow more uses "as of right".  Consider establishing a zoning clearance procedure (over-the-counter) for FBC zones that can be ministerially approved.
Chapter 1441. Application Procedures, Permits and Certificates			
General	Consider establishing a system for fast-tracking approvals in FBC areas and concurrent processing through Departments.		
Chapter 1443. Zoning Hearing Examiner Procedures			
General	See comments above on § 1439 -07- Zoning Hearing Examiner.		
Chapter 1445. Variances, Special Exceptions and Conditional Uses			
None noted.			
Chapter 1447. Nonconformities			
General	<p>The manner in which the city treats nonconformities is an indicator of the extent and speed of the changes it hopes to achieve by updating the zoning code.</p> <p>What is the City's perception of the demand for private redevelopment in the neighborhood in relation to the extent of change anticipated by the planning and coding effort in the area?</p> <p>Decisions makers need to determine the degree of flexibility that they wish to provide physical nonconformities and for the new code to reflect their determination.</p> <p>The FBC could eliminate or reduce nonconforming uses and structures in the neighborhoods through analysis and fine grade zoning.</p> <p>Expansions and alterations of nonconforming uses and structures should be carefully considered in FBC zones.</p>		
§ 1447-09(b). Expansion of Nonconforming Use	Except provided for two-family structures in single-family residential zone.	Nonconforming uses face obstacles for improvements.	These nonconforming structures could be reviewed on a neighborhood and block basis in the FBC.  If they are appropriate residential types, they could be permitted as conforming.
Chapter 1449. Zoning Appeals			
None noted.			
Chapter 1451. Enforcement			
None noted.			

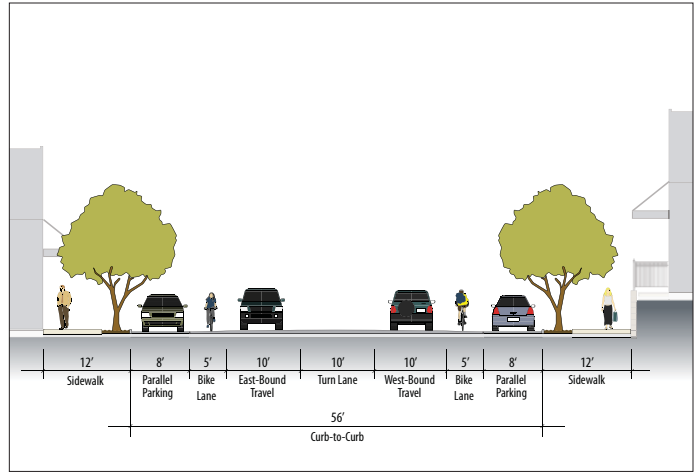
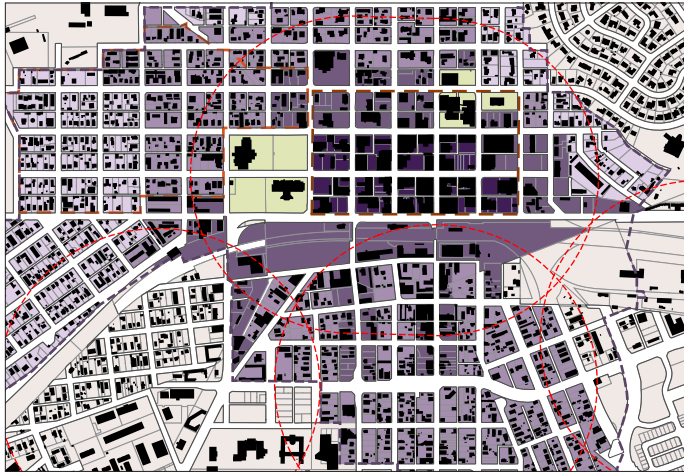


## Rules and Regulations for Engineering Design of Streets for Private Subdivisions or Developments

- 1) General:
  - a) Most work on thoroughfares in the City is being done on existing streets, so these standards are less important than in other places where a lot of new streets are being built.
  - b) The current DOTE staff seems fairly progressive and are for the most part making context-sensitive decisions outside of formal City standards.
  - c) That being said, it would be good to establish new standards so that when and if the progressive staff members go away that the policy is to implement context-sensitive solutions.
- 2) Did not spend a lot of time reviewing this knowing that the Complete Streets Manual had been drafted.
- 3) IV. Subdivision Improvement Plan-Street Designs and Highway Details
  - a) IV.B.4: All intersecting streets shall have a minimum cur radius of 25 feet.
    - (1) This is too large of a radius for a walkable urban context.
    - (2) Required radii should be calibrated to context along the transect.
  - b) IV.B.8: Minimum radius of curvature.
    - (1) This could prevent well-designed infill projects on larger sites.
  - c) IV.C.1b: Min. pavement width.
    - (1) Should be lane width based instead.
    - (2) Unclear if on-street parking is allowed or included.
    - (3) Should be context-based.
  - d) IV.C.c: Min. pavement width by size of project.
    - (1) Required widths are too large for walkable urban environment.
    - (2) Does not make sense to require wider widths for more dwelling units.
      - (a) More dwelling units should translate into more urban context and less wide streets.
  - e) IV.H.: Design of utilities-General
    - (1) Utilities need to be encouraged, or at least allowed in alleys, especially dry utilities.
- 4) VIII.C.2.i: Stormwater Detention
  - a) Be sure that in walkable urban areas stormwater requirements are addressed by watershed, not on a lot-by-lot basis and that BMPs are calibrated along the transect.

**Rules and Regulations of the Cincinnati City Planning Commission for the Subdivision of Land**

- 1) General:
  - a) Should write separate standards for walkable urban development projects/Traditional Neighborhood Design (TND).
- 2) SEC 400.6. Circulation:
  - a) Existing: Minor residential streets should be planned to discourage their use by non-local traffic
    - i) Be sure this does not discourage an interconnected street network, which is desirable in walkable urban environments.
    - ii) Require an interconnected network.
- 3) SEC 400.9. Alleys
  - a) Alleys are not currently allowed in residential districts. This should be changed.
- 4) SEC. 410.1. Minimum right of way widths
  - i) This section is unclear and should be modified to clearly reinforce context-sensitive thoroughfare design.
- 5) SEC 410.4. Block Standards
  - i) These standards are way too large and should be reduced.
  - ii) Orientation onto thoroughfares: Be sure not to discourage an interconnected street network with small blocks by encouraging "as few intersections as possible."



Chapter 4: Form-Based Code  
**Town Core (TC) Standards**

**Key**  
 --- Property Line  
 --- Setback Line  
 --- Build-to Line (BTL)  
 ■ Building Area

Building Placement	Use
<b>Build-to Line (Distance from Property Line)</b>	Ground Floor
Front	Service, Retail, or Recreation, Education & Public Assembly
Side Street	Residential or Service
<b>Setback (Distance from Property Line)</b>	Upper Floor(s)
Side	*See Table 4.3 for specific uses. Ground floors that face the waterfront shall be commercial and shall not include parking, garages, or similar uses.
Rear	
Adjacent to NC Zone	
Adjacent to any other Zone	
<b>Building Form</b>	<b>Height</b>
Primary Street Facade built to BTL	Building Min.
Side Street Facade built to BTL	Building Max.
Lot Width	Max. no. East/Tip of Parcel
Lot Depth	Ancillary Building Max.
Notes	Finish Ground Floor Level
All floors must have a primary ground-floor entrance that faces the primary or side street.	First Floor Ceiling Height
Loading docks, overhead doors, and other service entries are prohibited on street-facing facades.	Upper Floor(s) Ceiling Height
Any building over 50' wide must be broken down to read as a series of buildings no wider than 50' each.	Notes
	Manicured roof forms are not allowed.
	Any variation along the BTL must be defined by a building mass defined by a 2' 9" to 4' 6" high fence or screen or masonry wall.

4-6 **Downtown Mixed Use Master Plan**  
 Opticos Design, Inc.

# City of Cincinnati, Ohio Form-Based Code Best Practices Report

Opticos Design, Inc.  
 with Lisa Wise Consulting

March 1, 2010



Opticos Design, Inc.  
 1285 Gilman Street  
 Berkeley, CA 94706

p: 510.558.6957

f: 510.898.0801

w: opticosdesign.com



---

# Introduction

The primary objective of the following report is to give an overview of best practice standards for Form-Based Code writing and application.

There are three primary parts of this report:

1. What is a Form-Based Code;
2. A summary of how four different case studies from *Form-Based Codes* are applicable to Cincinnati; and
3. Two new Form-Based Code case studies from Livermore, California and Nashville, Tennessee and a clarification of how techniques used and lessons learned apply to Cincinnati.

This report is intended to be used alongside the report titled, “Existing Regulatory Obstacles for Form-Based Code Application” and the “Focus Neighborhood Mapping” document to inform the future application of Form-Based Coding in the City of Cincinnati.

The following three topics repeatedly came up while reviewing these case studies and thinking about how Cincinnati could learn from them:

1. How to use Form-Based Codes to reinforce neighborhood main streets;
2. How Form-Based Codes can be successfully integrated into an otherwise conventional zoning code;
3. How the Urban-to-rural transect can be modified in its application to relate to complex, existing, built conditions.

These ideas are further explained throughout this report.



---

# Form-Based Code

BEST PRACTICE STANDARDS

# Form-Based Codes

## Placemaking with a New Approach to Zoning

### Why are Form-Based Codes Needed?

The current zoning system is broken: It has produced auto-dependent development patterns that have compromised community character, our nation’s health and the environment and have left communities searching for tools to address these issues.

Form-Based Codes are an alternative to Euclidian Zoning that focus on the creation, revitalization, and preservation of vibrant, walkable urban places. As Elizabeth Plater-Zyberk states in *Form-Based Codes*, “as Global Society swings into action to reduce carbon emissions, the data ever more clearly points to the need to reduce dependence on vehicular mobility and to remake the built environment as transit- and pedestrian-friendly places of dense economic and social interaction. Only the Form-Based Code can ensure such an urbanism.” Even developers are supporting this push for zoning reform: at the 2009 New Partners for Smart Growth Conference in Albuquerque, developer Rob Dixon presented his “Top 20 Ways to Make a Green, Smart City,” and “replace your Euclidean zoning with Form-Based Codes” was number two on his list.

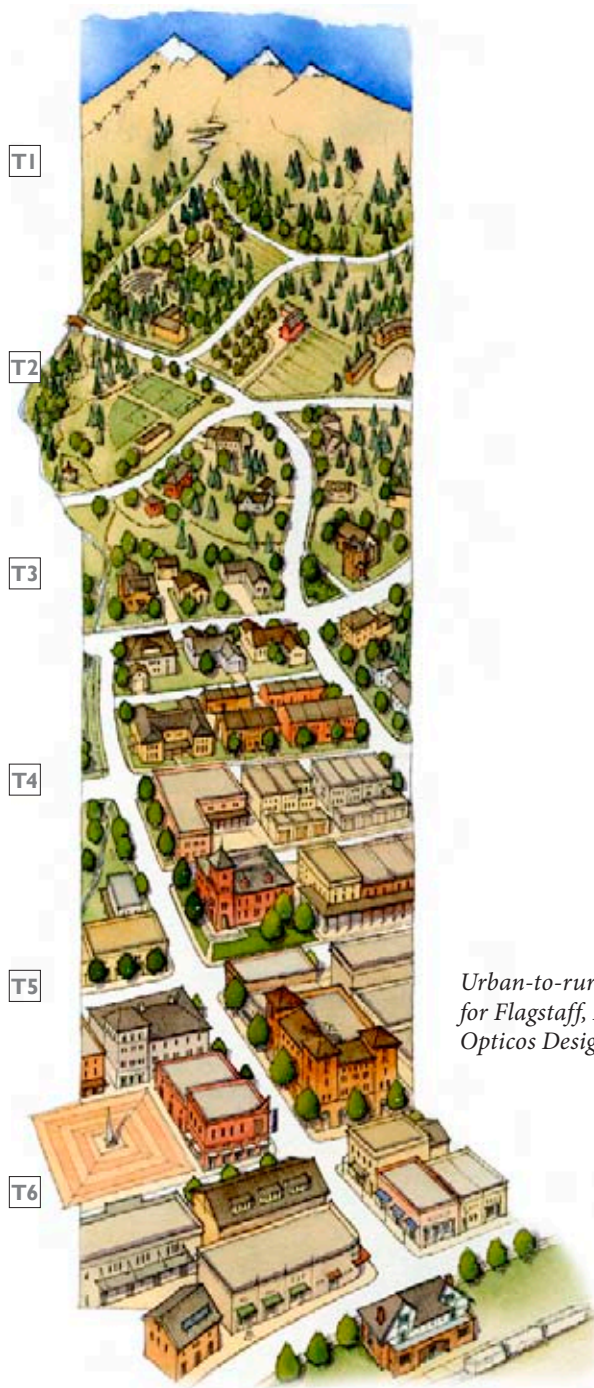
As the market demand for walkable urbanism grows and demographics shift, Form-Based Codes, when created according to these best-practice standards, have proven to be an effective tool for breaking down the barriers to developing and revitalizing urban places and ensuring high-quality predictable built results.

### What is a Form-Based Code?

The Form-Based Code Institute defines Form-Based Codes (FBCs) as follows:

Form-based codes foster predictable built results and a high-quality public realm by using physical form (rather than separation of uses) as the organizing principle for the code. These codes are adopted into city or county law as regulations, not mere guidelines. Form-based codes are an alternative to conventional zoning.

The most important aspect of this definition in terms of differentiating FBCs from Euclidean zoning is that the intended physical form or desired place replaces use as the organizing principle, or framework, for the overall code. So instead of a zone being labeled “single-family residential,” it might be called “traditional neighborhood,” and instead of a zone being called “commercial,” it might be called “neighborhood main street.” The terms “neighborhood” and “main street” tie back into the intended physical form or place, both of which may include a mix of uses and different building types that create a vibrant walkable urbanism. The urban-to-rural Transect, which categorizes a spectrum of urban to rural contexts in six Transect zones (from the most urban T6 to the most rural T1-see image to right of an urban-to-rural Transect for Flagstaff, Arizona), is a prominent organizing principle within Form-Based Code practice. The second important aspect of this definition is that FBCs replace zoning and are not merely design guidelines.



*Urban-to-rural transect for Flagstaff, AZ. Opticos Design, Inc.*



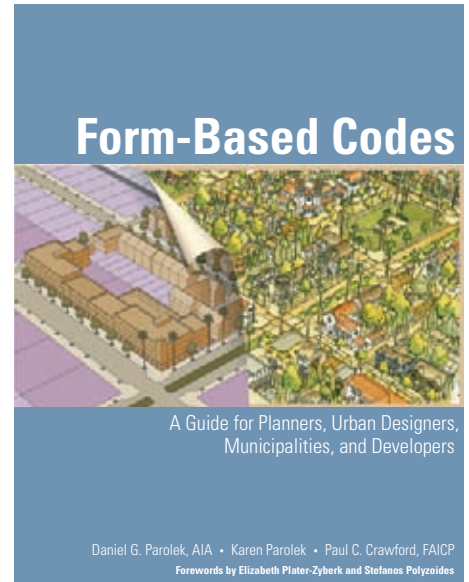
## Form-Based Code Components

There is a list of Form-Based Code components that have proven necessary to an effective FBC: the Regulating Plan (which replaces the zoning map), Building Form Standards, Public Space Standards (which consist of Thoroughfare Standards and Civic Space Standards), Frontage Type Standards, Subdivision Standards, and Administration.

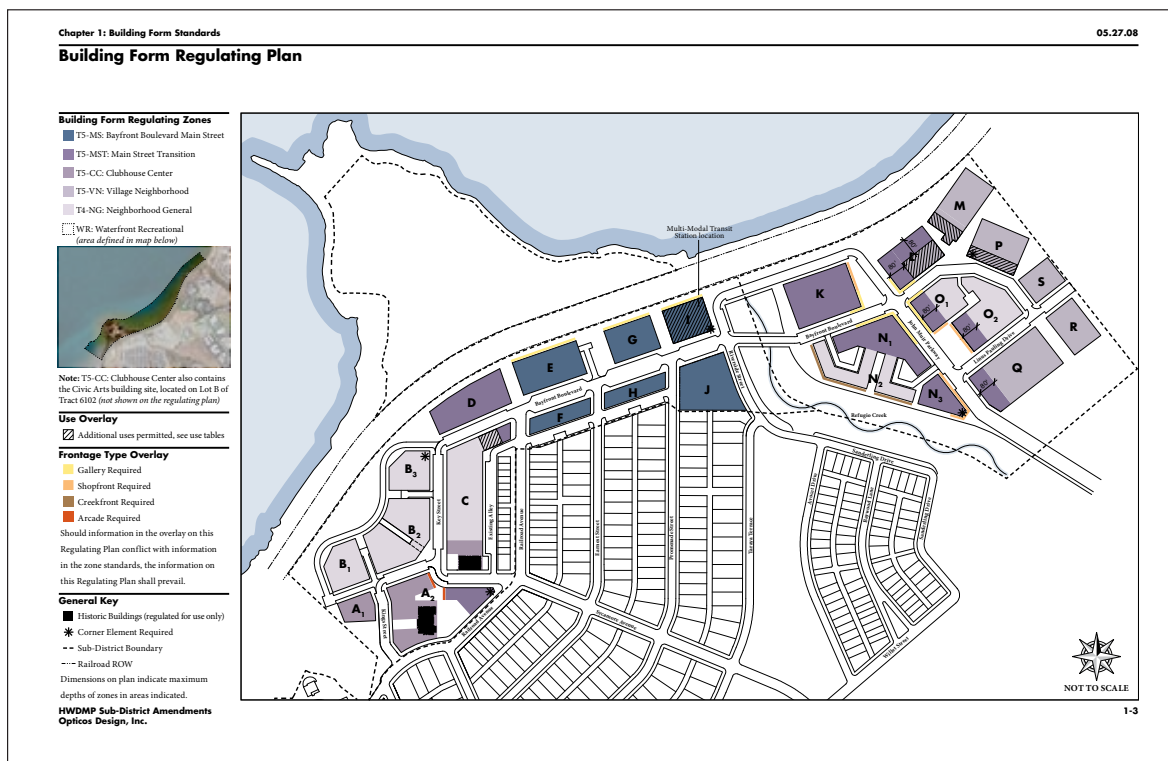
There is also a list of supplementary components that are not mandatory for an effective code, but that can give further clarity to the intended type of place. The more of these components that you can include in your code, the more predictable the implementation will be. This list includes Building Type Standards, Architectural Standards, Landscape Standards, Sustainability Standards (such as stormwater, alternative energy, greywater, etc.), and Green Building Standards.

## The Regulating Plan

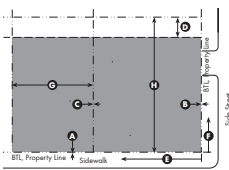
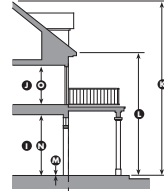
The Regulating Plan takes the place of the zoning map in Form-Based Codes. This map looks a lot like a zoning map at first glance, but upon further review it is clear that this map regulates with intended physical form and type of place as the Organizing Principle, which should be reinforced by form-based zone names that are not use based.



*Above: For a more detailed description of Form-Based Codes see "Form-Based Codes," by Parolek or go to the Form-Based Code Insutite's web site at [www.formbasedcodes.org](http://www.formbasedcodes.org). Below: Regulating Plan Example from the Hercules Bayfront FBC.*



**Chapter 4: Form-Based Code**  
**Town Core (TC) Standards**

**Key**  
 --- Property Line    --- Setback Line  
 --- Build-to Line (BTL)    ■ Building Area

Building Placement	
<b>Build-to Line (Distance from Property Line)</b>	
Front	0' <b>A</b>
Side Street	0' <b>B</b>
<b>Setback (Distance from Property Line)</b>	
Side	0' <b>C</b>
Rear	
Adjacent to NC Zone	8' <b>D</b>
Adjacent to any other Zone	5' <b>E</b>

Use	
Ground Floor	Service, Retail, or Recreation, Education & Public Assembly* <b>F</b>
Upper Floor(s)	Residential or Service* <b>G</b>

\*See Table 4.1 for specific uses. Ground floors that face the waterfront shall be nonresidential and shall not include parking, garages, or similar uses.

Building Form	
Primary Street Facade built to BTL	80% min.* <b>H</b>
Side Street Facade built to BTL	30% min.* <b>I</b>
Lot Width	125' max. <b>J</b>
Lot Depth	100' max. <b>K</b>

\*Street facades must be built to BTL along first 30' from every corner.

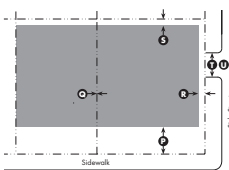
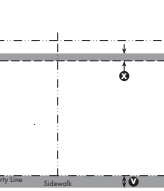
**Notes**  
 All floors must have a primary ground-floor entrance that faces the primary or side street.  
 Loading docks, overhead doors, and other service entries are prohibited on street-facing facades.  
 Any building over 50' wide must be broken down to read as a series of buildings no wider than 50' each.

Height	
Building Min.	22' <b>L</b>
Building Max.	2.5 stories and 40' <b>M</b>
Max. to Eave/Top of Parapet	35' <b>N</b>
Ancillary Building Max.	2 stories and 25' <b>O</b>
Finish Ground Floor Level	6" max. above sidewalk <b>P</b>
First Floor Ceiling Height	12' min. clear <b>Q</b>
Upper Floor(s) Ceiling Height	8' min. clear <b>R</b>

**Notes**  
 Mansard roof forms are not allowed.  
 Any section along the BTL not defined by a building must be defined by a 2' 6" to 4' 6" high fence or stucco or masonry wall.

**Downtown Mixed Use Master Plan**  
 Opticos Design, Inc.

**Chapter 4: Form-Based Code**  
**Town Core (TC) Standards**

**Key**  
 --- Property Line    --- Setback Line  
 ■ Parking Area    --- Build-to Line (BTL)    ■ Encroachment Area

Parking	
<b>Location (Distance from Property Line)</b>	
Front Setback	30' <b>S</b>
Side Setback	0' <b>T</b>
Side Street Setback	5' <b>U</b>
Rear Setback	5' <b>V</b>

Encroachments	
<b>Location</b>	
Front	12' max. <b>W</b>
Side Street	8' max. <b>X</b>
Rear	4' max. <b>Y</b>

Required Spaces	
Ground Floor	
Uses < 3,000 sf	No off-street parking required
Uses > 3,000 sf	1 space/500 sf
Upper Floors	
Residential uses	1 space/unit; 5 space/studio
Other uses	1 space/1,000 sf

**Notes**  
 Parking may be provided off-site within 1,300' or as shared parking.  
 Bicycle parking must be provided and in a secure environment.  
 Parking drives are highly discouraged along First Street and only permitted if there is no other option for access to parking areas.

**Downtown Mixed Use Master Plan**  
 Opticos Design, Inc.

Allowed Frontage Types (see page 4-26)	
Gallery	
Clearance	1' min. back from curb line
Height	9' min. clear, 2 stories max.
Awning	
Depth	10' max.
Forecourt	
Depth	15' min., not to exceed width
Width	20' min., 50% of lot width max.

Left: Building Form Standards from Benicia Downtown Mixed Use Master Plan; Below: Thoroughfare Standards from Hercules Waterfront District Master Plan

**Building Form Standards**

This is the component that most people visualize when they think about a Form-Based Code. This component has the primary role in defining and regulating the intended physical form. Typical elements within this component are building form, building placement, building height, general land use, parking location and requirements, encroachments, and allowed frontage types.

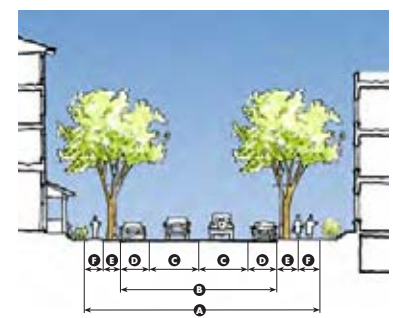
**Civic Space Standards**

This is an important element to ensure that a full menu of civic spaces is included in the Code and that the scale and design approach is calibrated according to where the space resides in the urban to rural continuum.

**Thoroughfare Standards (See image below right)**

In most cities streets comprise nearly 25% of all space and make up a large percentage of provided public space as well. Therefore in creating and reinforcing walkable urban environments it is important to consider thoroughfares as a critical element. Also, details matter tremendously when it comes to thoroughfare design, therefore the exact desired dimensional parameters for the retrofit of existing and creation of new thoroughfares should be included in a Form-Based Code.

**Chapter 4: Street and Circulation Standards**    05.27.08  
**Neighborhood Street I**




Application	
Movement Type	Slow
Design Speed	25-30 mph
Pedestrian Crossing Time	7 seconds
Zones	T5-MST T5-MS T4-NG

Edges	
Curb Type	Square
Planter Type	6' continuous <b>1</b>
Landscape Type	Medium trees @ 30' on center average. Not allowed along galleries/arcades.
Walkway Type	6' sidewalk <b>2</b>

Overall Widths	
Right-of-Way (ROW) Width	64' <b>A</b>
Curb Face to Curb Face Width	40' <b>B</b>

Lanes	
Traffic Lanes	2 @ 12' (2-way travel) <b>C</b>
Bicycle Lanes	None
Parking Lanes	2 @ 8' parallel <b>D</b>
Medians	None

Intersection	
Curb Radius	15' max. (bulb-outs required)
Distance Between Intersections	400' max.



**HWDMP Sub-District Amendments**  
 Opticos Design, Inc.

4-9

### Frontage Type Standards

Frontages create an appropriate transition from the private realm (inside of a building) to the public realm (sidewalk or yard), providing a clear threshold for this mental transition to occur. A typical starting point for a menu of frontage types includes porches, terraces, forecourts, stoops, shopfronts, galleries, and arcades. The final menu used within the Form-Based Code should be modified to include any unique frontage types that have occurred historically or that address climatic conditions, and remove any of these typical type that would not be appropriate for the context.

TABLE 7. PRIVATE FRONTAGES		SMARTCODE Municipality	
TABLE 7: Private Frontages. The Private Frontage is the area between the building Facades and the Lot Lines.			
	SECTION	PLAN	
	LOI + PUBLIC FRONTAGE	LOI + PUBLIC FRONTAGE	
a. Common Yard: a planted Frontage wherein the Facade is set back substantially from the Frontage Line. The front yard created remains unfenced and is visually continuous with adjacent yards, supporting a common landscape. The deep Setback provides a buffer from the higher speed Thoroughfares.			T2 T3
b. Porch & Fence: a planted Frontage wherein the Facade is set back from the Frontage Line with an attached porch permitted to Encroach. A fence at the Frontage Line maintains street spatial definition. Porches shall be no less than 8 feet deep.			T3 T4
c. Terrace or Lightwell: a Frontage wherein the Facade is set back from the Frontage Line by an elevated terrace or a sunken Lightwell. This type buffers Residential use from urban Sidewalks and removes the private yard from public Encroachment. Terraces are suitable for conversion to outdoor cafes. Syn: Dooryard.			T4 T5
d. Forecourt: a Frontage wherein a portion of the Facade is close to the Frontage Line and the central portion is set back. The Forecourt created is suitable for vehicular drop-offs. This type should be allocated in conjunction with other Frontage types. Large trees within the Forecourts may overhang the Sidewalks.			T4 T5 T6
e. Stoop: a Frontage wherein the Facade is aligned close to the Frontage Line with the first Story elevated from the Sidewalk sufficiently to secure privacy for the windows. The entrance is usually an exterior stair and landing. This type is recommended for ground-floor Residential use.			T4 T5 T6
f. Shopfront: a Frontage wherein the Facade is aligned close to the Frontage Line with the building entrance at Sidewalk grade. This type is conventional for Retail use. It has a substantial glazing on the Sidewalk level and an awning that may overlap the Sidewalk to within 2 feet of the Curb. Syn: Retail Frontage.			T4 T5 T6
g. Gallery: a Frontage wherein the facade is aligned close to the Frontage Line with an attached cantilevered shelf or a lightweight cantilevered overlapping the Sidewalk. This type is conventional for Retail use. The Gallery shall be no less than 10 feet wide and should overlap the Sidewalk to within 2 feet of the Curb.			T4 T5 T6
h. Arcade: a colonnade-supporting habitable space that overlaps the Sidewalk, while the Facade at Sidewalk level remains at or behind the Frontage Line. This type is conventional for Retail use. The Arcade shall be no less than 12 feet wide and should overlap the Sidewalk to within 2 feet of the Curb. See table 8.			T5 T6

Table 7 from the SmartCode (DPZ) gives a good overview of potential frontage types.

### 3-Step Process for Creating a Form-Based Code

There are three important steps in the process of creating a Form-Based Code: Documentation, Visioning, and Assembling. The two scales of Documentation are the macro-scale, which establishes a framework of existing neighborhoods, districts, and corridors, and the micro-scale, which documents blocks, lots, building placement, frontage types and other small scale elements that add to the character and quality of the built environment. The Visioning phase engages the community and allows them to participate in the creation of a detailed design vision that the Form-Based Code will implement. The Assembling phase is the process of compiling the code content into a usable format and structure and plugging it into the existing zoning code if it is not going to completely replace it.

Form-Based Coding Process	Plan	Regulations	Administration
	<b>Macro Scale</b> 1.1 Existing Framework Plan (N/D/C)	<b>Micro Scale</b> 1.2 Existing Transect Matrix and Micro Element Documentation Sheets	
	<b>Illustrative Plan and Imagery</b> 2.1 Illustrative Plan	Transect Zone Vision Sheets and Micro Element Type Vision Sheets	
	<b>Regulating Plan and Regulations</b> 2.2 Regulating Plan	Transect Regulation Matrix and Micro Element Regulation Matrices	Development Review Process
			<b>Splicing</b> 3.1 Additional Code Text
	<b>Formatting</b> 3.2 Form-Based Code		

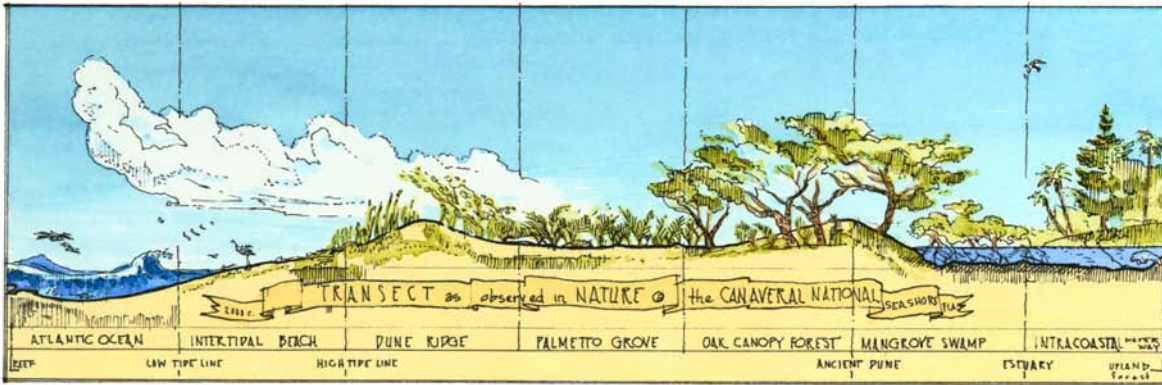
**The Transect**

The Transect is an Organizing Principle often used in Form-Based Coding that focuses first on the intended character and type of place and second on the mix of uses within. This flips the framework used in conventional or Euclidean zoning, in which use is the primary focus and form comes second. Transect zones are used to reinforce existing or to create new walkable mixed-use urban environments.

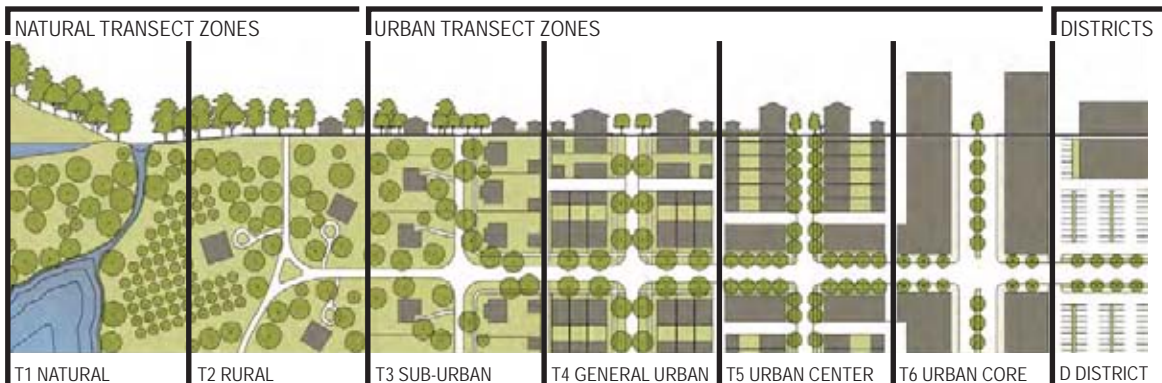
“The rural-to-urban Transect is a means for considering and organizing the human habitat in a continuum of intensity that ranges from the most rural condition to the most urban. It provides a standardized method for differentiating between the intentions for urban form in various areas using gradual transitions rather than harsh distinctions. The zones are primarily classified by the physical intensity of the built form, the relationship between nature and the built environment, and the complexity of uses within the zone.”

~ Form-Based Codes

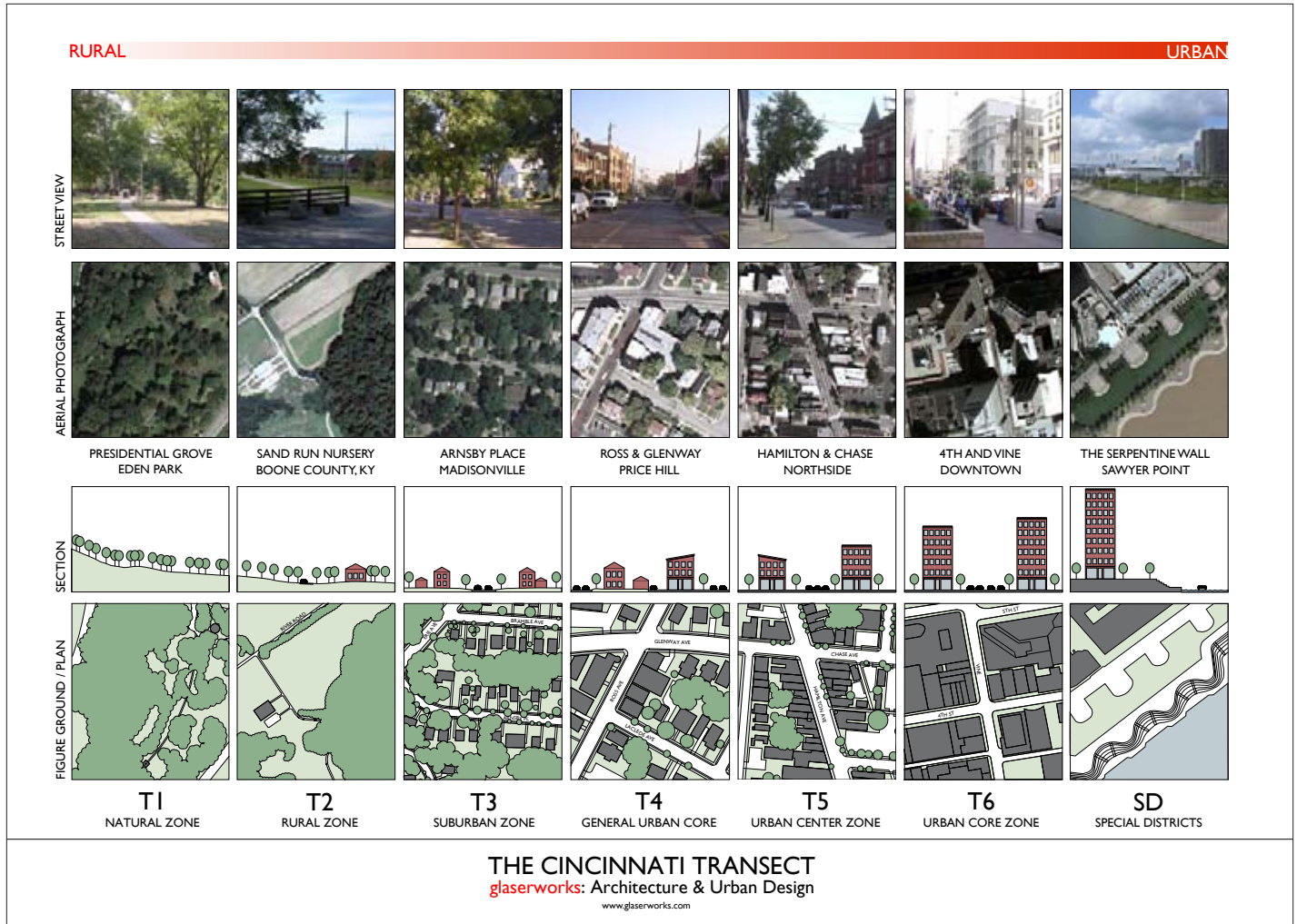
The model Transect for American towns is divided into six Transect zones or T-zones: Natural (T1), Rural (T2), Sub-urban (T3), General Urban (T4), Urban Center (T5), and Urban Core (T6), together with a Special District (SD) designation for areas with specialized purposes (e.g., heavy industrial, transportation, entertainment, or university districts, among other possibilities). Each T-zone is given a number: higher numbers designate progressively more urban zones, and lower numbers designate more rural zones.



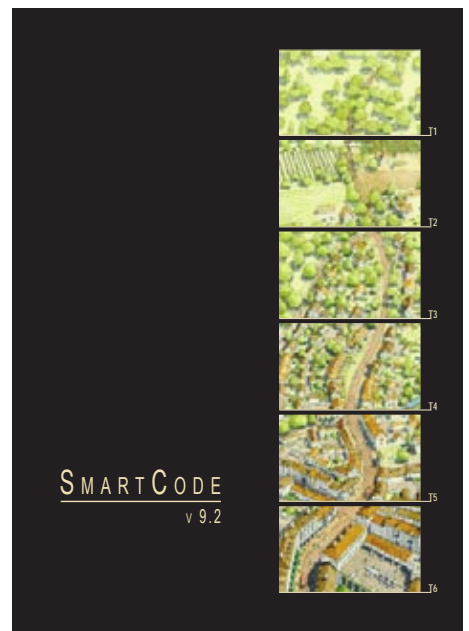
RURAL ||||| TRANSECT ||||| URBAN



SmartCode: DPZ



*Above:* Cincinnati Urban-to-Rural Transect by Glaserworks, a local architecture and urban design firm. *Right:* The SmartCode is a model, Transect-Based, Form-Based Code.





---

# Case Studies

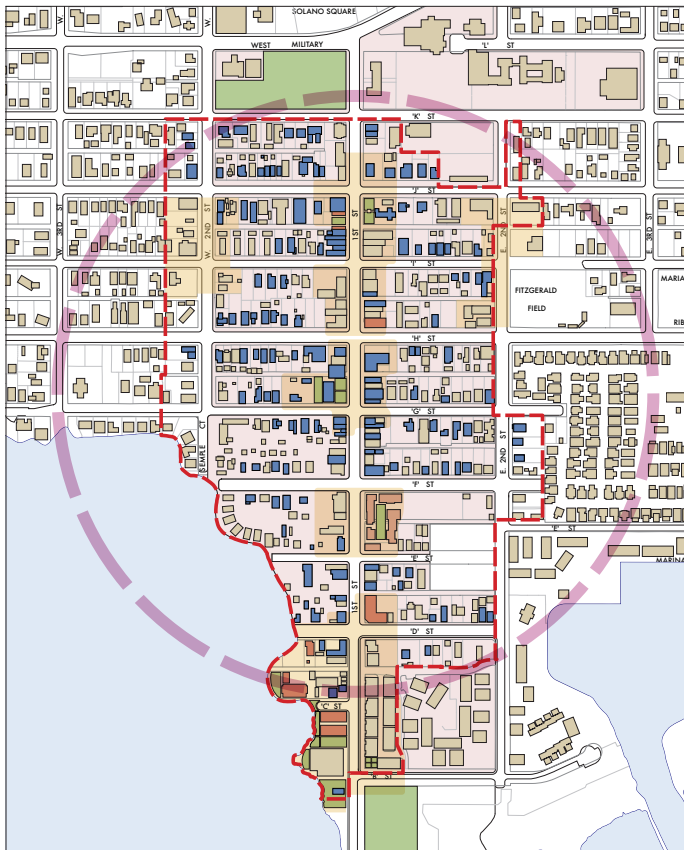
FROM *FORM-BASED CODES*  
& *HOW THEY ARE RELEVANT TO CINCINNATI*

# Benicia, California

## Downtown Master Plan and Form-Based Code Application

The City of Benicia has a population of approximately 28,000 people and is located along the Carquinez Strait in the San Francisco Bay Area.

<b>Status:</b>	Adopted April 3, 2007
<b>Scale:</b>	Part of City/Town
<b>Implementation Method:</b>	Mandatory & Integrated
<b>Site Context:</b>	Redevelopment/Infill
<b>Site Size:</b>	N/A
<b>Administration:</b>	City/County Staff
<b>Organizing Principle:</b>	Modified Transect
<b>Buildings Completed Under Code:</b>	2 infill buildings
<b>Code Consultants(s):</b>	Opticos Design, Inc. Lisa Wise Consulting
<b>Agency:</b>	City of Benicia, California Community Development Department
<b>Contact:</b>	Charlie Knox Community Development/Public Works Director 707-746-4280 charlie.knox@ci.benicia.ca.us



### How is this relevant to Cincinnati?

#### The Evolution and Revitalization of a Small Town Neighborhood-Scale Main Street

The primary focus was on the revitalization and evolution of a small town main street, which is similar in scale to most of the neighborhood main streets in Cincinnati, and defining and regulating appropriate transitions from the main street into the residential areas. This code removed barriers that were in place and provided incentives for the right types of projects in the right locations.

#### Refining the Application of Mixed Use in Historic Neighborhoods

This code and plan refined the vaguely defined mixed-use classification that existed. This was done in both the physical form regulations and the land use tables within the Form-Based Code. This type of careful thought and refinement is necessary in Cincinnati's Form-Based Code application in order to help refine the intent and function of the CN-P, CN-M, RMX, OL, and RM zones that are part of and adjacent to the neighborhood main streets in Cincinnati.

#### A Model Code for Simplicity and Clarity

The last reason this was chosen as a case study was to illustrate the simplicity and clarity that should be inherent in Form-Based Codes created for the Focus Neighborhoods in Cincinnati. The usability is not just inherent in the graphic integration, but also in the basic intent of each zone and the concise regulatory content.

Left: Illustrative Plan; Right: Images from the Master Plan process.





**Chapter 4: Form-Based Code**  
**Neighborhood General-Open (NG-O) Standards**

**Key**  
 --- Property Line  
 --- Setback Line  
 --- Build-to-Line (BTL)  
 ■ Building Area

Building Placement	
<b>Build-to-Line (Distance from Property Line)</b>	
From	20' *
Side Street	10'
Rear, Ancillary Building	5'

\* May be reduced to meet farthest back adjacent BTL if adjacent BTL is 4'-6" than 20' from property line.

Setback (Distance from Property Line)	
Side	4' one side, 8' other
Rear, Main Building	35' *

\* Setback shall be measured from 120" from front property line if no alley adjoins the property.

Building Form	
Primary Street Façade built to BTL	50% min.
Side Street Façade built to BTL	30% min.
Lot Width	50' max.
Lot Depth	150' max.
Distance between buildings	10' min.
Depth of ancillary building	28' max.
Footprint of ancillary building	1000 sq. ft. max.

Use	
Ground Floor	Residential, Retail, or Service
Upper Floor(s)	Residential

\*See Table 4.5 for specific uses.

Height	
Building Max.	2.5 stories and 20' max.
Ancillary Building Max.	1.5 stories and 15' max.
Finish Ground Floor Level	18" min. above sidewalk*
First Floor Ceiling Height	10' min. clear
Upper Floor Ceiling Height	8' min. clear
*6" on downslope lots.	

**Notes**  
 Mansard roof forms are not allowed.  
 The windows along any portion of a building that project beyond the rear façade of adjacent homes must be privacy windows if the façade is 10' or less from the side property line.  
 Any decks on the rear of homes greater than 2' above grade must have a privacy screen toward neighboring lots.  
 Monument and illuminated signs are prohibited.

4-22 Downtown Mixed Use Master Plan  
 Opticos Design, Inc.

**Chapter 4: Form-Based Code**  
**Neighborhood General-Open (NG-O) Standards**

**Key**  
 --- Property Line  
 --- Setback Line  
 --- Build-to-Line (BTL)  
 ■ Parking Area  
 ■ Encroachment Area

Parking	
<b>Location (Distance from Property Line)</b>	
Front Setback	20'
Side Setback	0'
Side Street Setback	5'
Rear Setback	5'

Required Spaces	
Residential Uses	
Studio units	1/2 space
1-2 bedroom unit	1 space
3+ bedroom unit	1 space plus additional 1/2 space for every bedroom over two
Other uses	1 space/1,000 sq. ft.

On lots without alley access, a one-unit ancillary structure up to 400 sq. ft. may be built without requiring additional parking.

**Notes**  
 Parking Drive Width 11' max.  
 No more than a single space of parking is allowed in front of the front façade plane.  
 50% of the on-street parking spaces adjacent to lot can count toward parking requirements.

Encroachments	
<b>Location</b>	
Front	10' max.
Side Street	8' max.

**Notes**  
 Porches, Balconies, and Bay Windows may encroach into the setback on the street sides, as shown in the shaded areas.

Allowed Frontage Types (see page 4-26)	
Scoop	
Depth	4' min., 6' max.
Forecourt	
Depth	20' min., not to exceed width
Width	20' min., 50% of lot width max.
Porch	
Depth	8' min.
Height	2 stories max.
Common Lawn	
Porch Depth	8' min.

4-23 Downtown Mixed Use Master Plan  
 Opticos Design, Inc.

**Chapter 4: Form-Based Code**  
**Neighborhood General-Open (NG-O) Standards**

**Table 4.5: Neighborhood General (NG-O) Zone Allowed Land Uses and Permit Requirements**

Land Use Type <sup>1</sup>	Permit Required	Specific Use Regulations	Land Use Type <sup>1</sup>	Permit Required	Specific Use Regulations
<b>Recreation, Education &amp; Public Assembly</b>					
Meeting facility, public or private	MUP		<b>Retail</b>		
Park, playground	P		Arts and Shop	P	
School, public or private	MUP		General retail, except with any of the following features:	P	
Studio: art, dance, martial arts, music, etc.	MUP		Absolute beverage sales	NA	
< 1500 sq. ft.	MUP		Floor area over 8000 sq. ft.	NA	
> 1500 sq. ft.	NA		On-site production of items sold	MUP	
Theater, cinema, or performing arts	MUP		Operating between 9 pm and 7 am	NA	
<b>Residential</b>					
Dwelling: Single family	P		Restaurant, café, coffee shop	MUP	
Home occupation	P		<b>Services: Business, Financial, Professional</b>		
< 300 sq. ft. and 2 or fewer employees	P		Business support service	P	
> 300 sq. ft. and 3 or fewer employees	P		Medical services: Doctor office	P	
> 300 sq. ft. and 3 or more employees	P		Office: Business, service	P	
Live/work unit	P		Office: Professional, administrative	P	
Mixed use project residential component	P		<b>Services: General</b>		
Dwelling: Multi-Family-Duplex	P		Financial Services	P	
Ancillary Building	P		Bed & Breakfast	P	
Residential Care, 7 or more clients	UP		4 guest rooms or less	P	
Residential Care, 6 or fewer clients	MUP		Greater than 4 guest rooms	MUP	
<b>Key</b>					
P = Permitted Use					
MUP = Minor Use Permit Required - staff review only					
UP = Use Permit Required					
NA = Not an allowed use					
<b>End Notes</b>					
<sup>1</sup> A definition of each listed use type is in the Glossary.					

4-24 Downtown Mixed Use Master Plan  
 Opticos Design, Inc.

**Chapter 4: Form-Based Code**  
**Neighborhood General-Open (NG-O) Standards**

**Neighborhood General-Open (NG-O):**  
 The primary intent of this zone is to ensure a residential physical form to relate to adjacent residential buildings along the side streets between First Street and Second Street in order to provide an appropriate transition from First Street into the residential neighborhoods. The physical form of a residential building is regulated while allowing flexibility in use. This zone is applied to buildings with an existing residential form that has been compromised by on-site or adjacent development making pure residential use inappropriate.

**How mixed use is defined within this zone:** Commercial or residential uses are allowed in this area in a residential form both in the main buildings as well as in ancillary buildings.

**How "primary street" is defined within this zone:** The primary street is always the East/West running street.

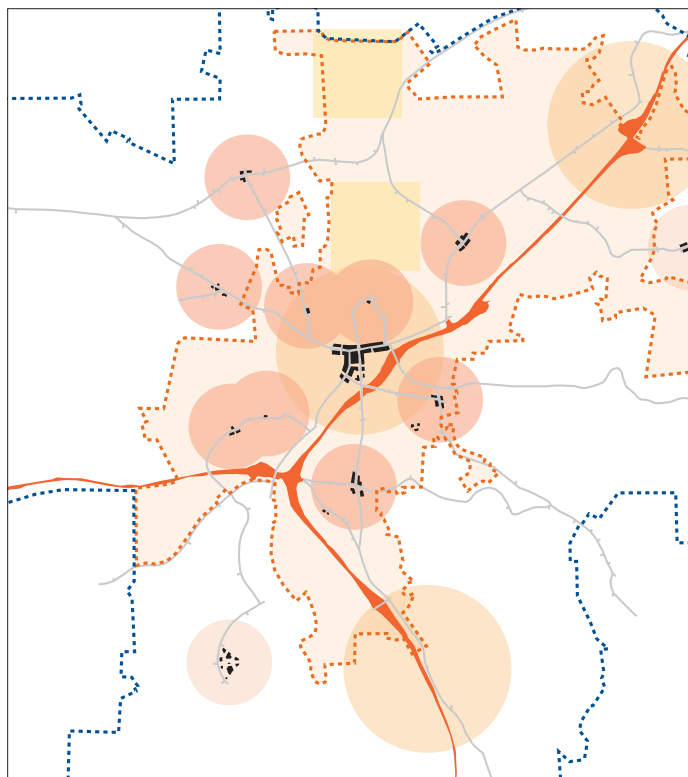
4-21 Downtown Mixed Use Master Plan  
 Opticos Design, Inc.

# Grass Valley, California

## Development Code Update and Form-Based Code Application

The City of Grass Valley is located in Northern California along the Highway 49 corridor in Nevada County with a current population of approximately 12,000.

<b>Status:</b>	Adopted (March 6, 2007)
<b>Scale:</b>	Part of a City/Town
<b>Implementation Method:</b>	Mandatory & Integrated
<b>Site Context:</b>	Greenfield Redevelopment/Infill Greyfield
<b>Site Size:</b>	City-wide
<b>Administration:</b>	City/County Staff
<b>Organizing Principle:</b>	Modified Transect
<b>Buildings Completed Under Code:</b>	None Yet
<b>Code Consultants(s):</b>	Crawford, Multari & Clark Associates Opticos Design, Inc. ( <i>Form-Based Code elements</i> )
<b>Agency:</b>	City of Grass Valley Community Development Department
<b>Contact:</b>	Tom Last Planning Director 530-274-4711 toml@cityofgrassvalley.com



Neighborhood, District, and Corridor Analysis diagram.

### How is this relevant to Cincinnati?

#### Integrating Form-Based Codes into a Conventional Development Code Framework

This case study is yet another good example of how the Form-Based Code was carefully integrated into an otherwise conventional zoning code. In this example, the form-based zones and all applicable regulations were included in a separate chapter titled Traditional Community Development Zones. In addition to form-based zone standards, the code also includes parking and frontages regulations specific to the form-based zones.

#### Reinforcing Neighborhood Main Streets as a Neighborhood Amenity

Many of the decisions made in the Grass Valley Form-Based Code process and content were about reinforcing a walkable neighborhood structure, which is similar to the Form-Based Code application goals in Cincinnati. In looking at the neighborhoods and their main streets during the visioning and coding process the primary elements that should be considered are:

1. How to regulate neighborhood main streets so that obstacles or additional hurdles are not put in place for the right kinds of projects or uses;
2. How to regulate the transition from the main streets to neighborhoods in a way that avoids incompatibilities in form and use; and,
3. How to provide flexible uses at edges of main street to allow retail and commercial to spread as market demands, but allow residential uses to fill the gaps if the market is not there.

In Grass Valley, the Neighborhood Center (NC) zone was intended to reinforce and revitalize existing neighborhood main streets. The Neighborhood Center-Flex zone was intended to work in combinations with the NC zone to promote the vitality of corridors and main streets within the neighborhoods. The Neighborhood General-3 zone was intended to promote evolution of existing neighborhoods with appropriately scaled medium density housing types near the neighborhood main streets

#### Process Driven by a Steering Committee

Due to the scale of the application and its ultimate intent to simply implement the General Plan uses and intensities, the public process did not include public charrettes. The steering committee that has been created for Cincinnati could serve a similar role in expediting the FBC application process. In particular, in areas that want Form-Based Code application but the degree of change is primarily preservation or small levels of evolution, full charrettes may not be necessary. This will allow quicker application of Form-Based Codes to these areas, enabling them to meet their community goals. If transformation is likely in application areas, then charrettes will likely be necessary to gain community buy in for the future change that the FBC will implement.

**Cincinnati FBC Consultation  
Opticos Design, Inc.**

Draft: 01.12.05 Section X.X.X: Section Title

### NC: Neighborhood Center Standards

**Key**  
 --- Property Line  
 ■ Building Area  
 --- Build-to-Line (BTL)

Building Placement		Use	
Build-to-Line (Distance from Property Line)			
Front	0'	Ground Floor	Service, Retail, or Recreation, Education & Public Assembly*
Side	0' min.; 10' max.	Upper Floor(s)	Residential or Service*
Street Side, Corner Lot	0'	*See Table x.x.x for specific uses	

Setback		Height	
Adjacent to residential	15'	Building Minimum	16'
Adjacent to any other use	10'	Building Maximum	3 stories
Street Facade Built-to-BTL	80% min.	Finish Ground Floor Level	12" max. above sidewalk
Street Side, Corner Lot Built-to	30% min.	First Floor Ceiling Height	12" min. clear
Lot Width	100' max.	Upper Floor(s) Ceiling Height	5' min. clear

**Notes**  
 Street facade must be built to BTL within 30' of every corner. All floors must have a primary ground-floor entrance which faces the street.  
 Rear facing buildings, loading docks, overhead doors, and other service entries are prohibited on street facades.  
 Any section along the BTL at a street edge that is not built on must be defined by a 4' to 4 1/2" fence or stucco or masonry wall.

2-4 Grass Valley Development Code

Section X.X.X: Section Title Draft: 01.12.05

**Key**  
 --- Property Line  
 ■ Encroachment Area  
 --- Build-to-Line (BTL)

Parking		Encroachments	
Location		Front	
Distance from Property Line		Galleries	12' max.
Front Setback	20' min.	Upper-Story Balconies	8' max.
Side Setback	0'	Bay Windows	4' max.
Rear Setback	5' min.	Street Side, Corner Lot	
<b>Required Spaces</b>		Galleries	12' max.
Ground Floor		Upper-Story Balconies	8' max.
Uses < 3,000 sf	No off-street parking required	Bay Windows	4' max.
Uses > 3,000 sf	1 space/500 sf	<b>Rear</b>	
Upper Floor(s)		Upper-Story Balconies	5' max.
Residential uses	1 space/unit; 5 space/studio	Upper-Story Bay Windows	4' max.
Other uses	1 space/300 sf	<b>Frontage Type: Galleries</b>	
<b>Notes</b>		Depth	8' min. clear
Parking Drive Width	15' max.	Height	2 story max.
On corner lots, parking drive shall not be located on primary street.		<b>Notes</b>	
Shared drives are encouraged between adjacent lots to minimize curb cuts along the street.		Upper story galleries facing the street must not be used to meet circulation requirements.	
Parking may be provided off-site within 1,300' or as shared parking.		2' max. clear distance between gallery columns and curb.	
Bicycle parking must be provided in a secure environment.			
See page x.x.x for further parking specifications.			

2-5 Grass Valley Development Code

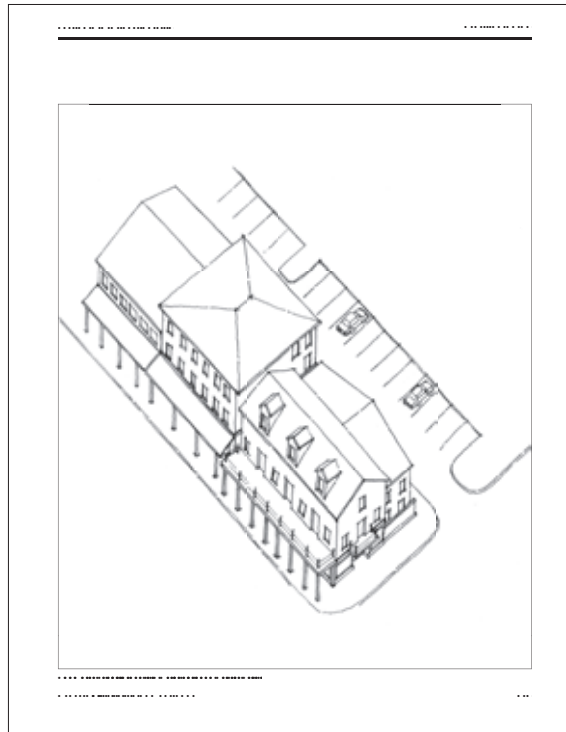
Draft: 01.12.05 Section X.X.X: Section Title

Table x.x.x: Neighborhood Center (NC) Zone Allowed Land Uses and Permit Requirements				
Land Use Type <sup>1</sup>	Permit Required	Specific Use Regulations	Land Use Type <sup>1</sup>	
<b>Recreation, Education &amp; Public Assembly</b>				
Commercial recreation facility:	MUP		Bar, tavern, night club	
Indoor			General retail, except with any of the following features:	
Health/fitness facility	MUP		Alcoholic beverage sales	
Library, museum	P		Drive-through facilities	
Meeting facility, public or private	UP		Floor area over 10,000 sf	
School, public or private	UP <sup>2</sup>		On-site production of items sold	
Studio: Art, dance, martial arts, music, etc.	P		Operating between 9pm and 7am	
<b>Residential</b>				
Home occupation	P	17.44.080	Used merchandise	
Dwelling: Multi-family - Duplex, triplex, fourplex	P	17.44.140	Neighborhood market	
Dwelling: Multi-family - Rowhouse	P	17.44.140	Restaurant, cafe, coffee shop	
Dwelling: Single family	P		<b>Services: Business, Financial, Professional</b>	
Live/work unit	P	17.44.100	ATM	P
Mixed use project residential component	P	17.44.120	Business support service	P
Residential accessory use or structure in a home	P	17.44.020	Medical services: Clinic, urgent care	P <sup>3</sup>
Second unit or carriage house	P	17.44.160	Medical services: Doctor office	P <sup>3</sup>
			Office: Business, service	P
			Office: Professional, administrative	P <sup>3</sup>
			<b>Services: General</b>	
			Day care center: Child or adult	MUP 17.44.050
			Personal services	P
			<b>Transportation, Communications, Infrastructure</b>	
			Wireless telecommunications facility	UP 17.46

**Key**  
 P Permitted Use  
 MUP Minor Use Permit Required  
 UP Use Permit Required  
 - Use Not Allowed

**End Notes**  
<sup>1</sup>A definition of each listed use type is in Article 6 (Glossary).  
<sup>2</sup>Allowed only on second or upper floors, or behind ground floor use.

2-6 Grass Valley Development Code



# Peoria, Illinois

## Heart of Peoria Land Development Code (FBC Component)

Peoria is a town of approximately 113,000 people that is located along the Illinois River in Peoria County.

<b>Status:</b>	Adopted (Date adopted: April 30, 2007)
<b>Scale:</b>	Part of a City/Town 8,000 Acre[nd] pre-WWII core of city except CBD
<b>Implementation Method:</b>	Mandatory and Integrated
<b>Site Context:</b>	Redevelopment/Infill Greyfield
<b>Site Size :</b>	8,000 Acres
<b>Administration:</b>	City/County staff
<b>Organizing Principle:</b>	Frontages
<b>Code Includes:</b>	Frontage Types
<b>Buildings Completed Under Code:</b>	None as of April 2008
<b>Code Consultants(s):</b>	Ferrell Madden Associates (Form-Based Code) Code Studio, Inc. (Conventional elements)
<b>Agency:</b>	City of Peoria. Work led by Planning and Growth Management Department

### How is this relevant to Cincinnati?

#### Integration of Form-Based Zones into a Conventional Code Update

The Form-Based Zones (Form Districts) were integrated into a conventional development code update. The specific areas selected for the application of the Form-Based Zones were carefully considered. The Regulating Plans show the precision that is necessary to establish the boundaries for the Form-Based Zones within the framework of the entire code. As the plans evolved, the boundaries had to be very specifically considered for each of the individual planning areas. The Prospect Road Form District boundary focuses only on the lots facing the Prospect Road corridor; the Sheridan Triangle Form District boundary was extended along the various side-streets to ensure that the goals of the vision plan could be met; the West Main Form district boundary included a block into the side streets to enable an appropriate transition from Main Street into the neighborhoods; and the Warehouse District boundaries established an entire section of town that has the potential to evolve into a mixed-use neighborhood.

#### Revitalizing Pedestrian-Oriented Neighborhood Main Streets and Corridors

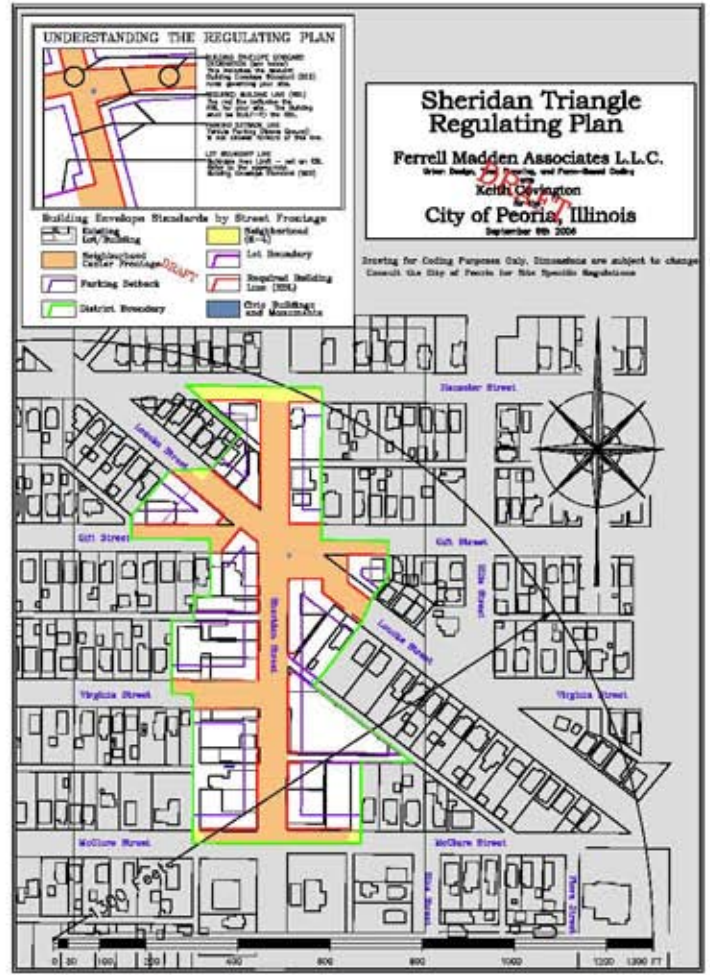
One of the primary reasons for selecting the Sheridan Triangle, Prospect Road, and West Main study areas was to reinvigorate the neighborhood commercial centers and main streets that once served as the focal points for the community. This is similar to the objectives of many of the Focus Neighborhoods in Cincinnati. The goal of the vision plan and FBC application were to remove regulatory obstacles that were in place that prohibited the revitalization of these areas. Thus allowing them to once again serve as vibrant social centers within the community.

#### Utilizing a Unique Aspect of the Community

The warehouse district was selected because it represents a unique group of historic structures that played a vital role in the history of Peoria. The intent in this area was to create a code that would encourage the adaptive reuse of these beautiful historic warehouse buildings and new buildings in character with them to create a mixed-use neighborhood that was unique to Peoria. In Cincinnati many of the Focus Neighborhoods have very unique character inherent in their architecture and urban pattern that should be reinforced by the FBC application.

#### Potential Future Expansion of the Form-Based Code

An option for expansion of Form-Based Code areas, called the Planned Form District, was included in the code. The concept was to allow future charrette work, or expansion of existing Form Code Areas through a defined formal process, similar to the one completed for these subareas. In Cincinnati, the FBC should be set up to allow future FBC application beyond the original Focus Neighborhoods.



Images from Sheridan Triangle FBC application: Reg Plan, Ill Plan (Ferrell Madden Lewis); Bottom: Before and after photo montage (Urban Advantage).

# City of Ventura

## California General Plan and Form-Based Code Application

Since its inclusion in *Form-Based Codes*, the City of Ventura has adopted 5 additional Form-Based Codes (bringing the total to 6) and have 3 more in process.

### Approved FBCs:

1. Downtown Area (Downtown Specific Plan)
2. Midtown Corridors
3. Victoria Corridor
4. Wells Saticoy Community
5. Parklands Specific Plan
6. UC Hansen Specific Plan

### FBCs in Progress:

1. Community Memorial Hospital District (ready for adoption in July)
2. Westview Neighborhood (just initiated)
3. West Side Community Plan (just initiated)

---

Contact: Kaizer Rangwala  
Assistant Community Development  
Director  
805-677-3918  
krangwala@ci.ventura.ca.us

---

### How is this relevant to Cincinnati?

**A Non-Conventional Comprehensive Plan Framework that Reinforces the Intent of the Community:** Since the City of Cincinnati is about to embark on a Comprehensive Plan Update there are a few important lessons learned from Ventura's Comprehensive Plan/General Plan. First of all, the City of Ventura thought "outside the box" in terms of the structure of the document in order to emphasize what was important to the community.

The ten organizing elements are:

1. Our Natural Community
2. Our Prosperous Community
3. Our Well-Planned and Designed Community
4. Our Accessible Community
5. Our Sustainable Community
6. Our Active Community
7. Our Healthy and Safe Community
8. Our Educated Community
9. Our Creative Community
10. Our Involved Community

The "Our Well Planned and Designed Community" chapter integrated the typical land use and housing elements and included other aspects that reinforced community form and character over land use and intensity. Secondly, they made the citywide application of Form-Based Coding a policy within this document to reinforce their commitment to using implementation tools that can get them to their goals. Thirdly, they integrated the Transect into the General Plan

**Building Internal Capabilities to Administer and Create Form-Based Codes:** In terms of long-term application of Form-Based Coding Planning, the City built internal capabilities within their staff to work with consultants to create Form-Based Codes and to effectively administer Form-Based Codes. This process entailed sending staff to training, completing regular internal training efforts, and hiring staff that had the experience with or a strong desire to learn about Form-Based Codes.

**Sample Corridor Applications:** Two of the Form-Based Codes completed were corridor projects, thus applying to many of the main street corridor context of the Focus Neighborhoods in Cincinnati. The importance of the street design, the transitions into the neighborhoods, and the necessity to clearly designate nodes along the corridor were all elements within this code that would apply to Cincinnati.

**Multiple Code Experience:** As a leader in FBC application nationally, the City of Ventura has learned many lessons from the process of creating and administering multiple Form-Based Codes. One of these lessons is to be sure to establish a singular Organizing Principle and format that all the Form-Based Codes will share. After the first several Form-Based Codes were completed by different consultants it became clear that having disparate formats and Organizing Principles was going to cause the administration confusion and headaches over the longer term.

**Cincinnati FBC Consultation  
Opticos Design, Inc.**

---

# Additional Case Studies

& HOW THEY ARE RELEVANT TO CINCINNATI

# Livermore, California

## Development Code and Form-Based Code Application

The City of Livermore is located in Northern California in the eastern-most edge of the San Francisco Bay Area with a current population of approximately 73,345. This Form-Based Code project included the complete rewrite of the City of Livermore’s Development Code with Form-Based Code integration.

<b>Status:</b>	Public Review Draft
<b>Scale:</b>	City Wide
<b>Implementation Method:</b>	Mandatory & Integrated
<b>Site Context:</b>	Greenfield Redevelopment/Infill Greyfield
<b>Site Size:</b>	NA
<b>Administration:</b>	City/County staff
<b>Organizing Principle:</b>	Modified Transect
<b>Buildings Completed Under Code:</b>	None Yet
<b>Code Consultants(s):</b>	Opticos Design, Inc. Lisa Wise Consulting Jacobson & Wack
<b>Agency:</b>	City of Livermore, California Community Development Department
<b>Contact:</b>	Christine Rodriguez (project manager) Associate Planner 925-960-4471 cnrodrigues@ci.livermore.ca.us

### Code Overview

The City of Livermore decided to completely rewrite their entire zoning code to reinforce their General Plan policies that promoted infill and redevelopment over new growth at the edge of the City. They realized that their antiquated zoning was promoting auto-dependent development in all parts of the City, not just at the edges. Therefore they wanted a zoning system that would remove barriers and provide incentives for appropriately scaled development in the historic neighborhoods surrounding the downtown.

This code is a perfect example of a hybrid code. It integrates conventional zoning components that regulate existing drivable suburban developments, so as not to render them non-conforming, with Form-Based Code elements that regulate the walkable urban areas. A hybrid code should not be confused with a hybrid-Form-Based Code, which cannot be effective.

The process started at the macro scale with the team documenting the existing neighborhoods, districts, and corridors. They then created representative diagrams and maps which helped determine the best areas for Form-Based Code application and gave the team a comprehensive understanding of the physical form of the community. Due to the extensive amount of GIS information available, the Opticos team was able to utilize this information for a robust macro-scale analysis. The end result of this analysis was an existing neighborhood and proposed neighborhood and public space framework that the Form-Based Code would reinforce.

The micro scale analysis (synoptic survey) was then completed, documenting the prototypical sampling area for each potential transect zone that existed in Livermore, as well as building types, frontage types, street types, and general architectural elements. All of this information would ultimately enable the team to establish a Livermore Transect and become the DNA for the Form-Based Code content. The City Staff was trained by Opticos on the micro scale documentation process and completed nearly 50% of the work with maps and templates provided by Opticos.

The organizing principle of the Form-Based Code is the Transect, but it was modified to meet the intent of application to the existing conditions. The Form-Based Zones integrated into the code were T3-Neighborhood, T4-Neighborhood, T4 Neighborhood-Open, T4 Main Street, and T4-Main Street-Open. The Neighborhood and Main Street categories relate to the intended physical form and the Open classification illustrates that the uses are flexible or “open” in these areas. Although they were not used in this code, placeholders were put in place for T1, T2, T5, and T6 allowing for future application to the natural edge of town as well as the potential BART transit station.



This structure is a good example of how to create a development code that can default to walkable urbanism in the future while effectively integrating conventional zoning elements that regulate existing and some new drivable suburban development. Instead of the Form-Based Code being the exception the conventional coding elements are.

FBC Application:

1. Mandatory: Historic neighborhoods adjacent to downtown. Transformation of first tier of strip centers into neighborhood main streets.
2. Optional: Larger commercial sites and the few larger residential sites at edge to allow for Traditional Neighborhood Development (TND) and Transit-Oriented Development (TOD).

**Public Process**

The public process focused on Form-Based Code application areas north and south of downtown and the transformation of strip commercial sites into neighborhood main streets.

Steps:


1. Stakeholder interviews
2. Workshop to determine strengths and weaknesses of each neighborhood
3. Pre-charrette presentation
4. 5-Day public charrette
5. Brief charrette summary report

Chapter 2: Form Based Code Applications Draft: 02.20.09

**Conventional vs. Form-Based**

---

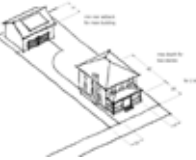
**RL5-O vs T3-N**




*Existing conditions photograph*


**How will this be achieved:**

- No garages along main facade.
- 2-2.5 story maximum height.
- In order to preserve privacy in backyards, full floors above the ground floor are only allowed within 65'-70' from front right of way.
- Encourage porches, stoops and other architectural elements.





*Potential development under existing zoning code*




*Potential development under proposed Form-Based code*

Development Code Update: Charrette Summary  
Opticos Design, Inc. 9

Chapter 2: Form Based Code Applications Draft: 02.20.09

---


**RM vs T4-N**




*Existing conditions photograph*

**How will this be achieved:**

- No garages along main facade.
- 2-2.5 story maximum height.
- In order to preserve privacy in backyards, full floors above the ground floor are only allowed within 65'-70' from front right of way.
- Encourage porches, stoops and other architectural elements.
- Define appropriate building types for medium density housing.



*Potential development under existing zoning code*



*Potential development under proposed Form-Based code*

Development Code Update: Charrette Summary  
Opticos Design, Inc. 11

*Above: Visual Assessment of allowed development under existing code and new Form-Based Code.*

T3N	T4N	T4N-O
		
<b>T3-Neighborhood</b>	<b>T4-Neighborhood</b>	<b>T4-Neighborhood-Open</b>
<b>Desired Form</b>	<b>Desired Form</b>	<b>Desired Form</b>
Residential	Residential	Residential
<b>Intent</b>	<b>Intent</b>	<b>Intent</b>
<p>This Zone's primary intent is to allow additions and new development that respect and protect the integrity and quality of the neighborhoods adjacent to downtown.</p> <p>This zone allows for new additions and single-family houses to be built in the scale and character of the existing neighborhood. Carriage house units provide additional housing opportunities within these walkable neighborhoods.</p>	<p>This zone's primary intent is to build upon the unique characteristics of Livermore's walkable downtown neighborhoods while allowing them to evolve. A mixture of different small-footprint, medium-density building types such as bungalow courts, duplexes, and courtyard apartments help reinforce the walkable nature of the neighborhood and support neighborhood-serving commercial uses adjacent to this zone.</p>	<p>The primary intent of this zone is to provide an appropriate transition from the neighborhood main street into residential areas, and to provide flexible buildings in a residential form that allows neighborhood-serving commercial and service uses to expand as the market desires.</p>

**How is this relevant to Cincinnati?**

**Integrating Form-Based Codes Into an Otherwise Conventional Zoning Code:** Since the Cincinnati development code will become a hybrid code when the Form-Based Code is integrated, it is important for the City to understand the complexities and benefits of integrating Form-Based Code regulations within their conventional zoning code.

**Reinforcing a walkable neighborhood structure:** This code addressed the following issues that Cincinnati will have to address to support the goal of reinforcing their existing neighborhood structure:

1. How to regulate neighborhood main streets;
2. How to regulate the transition from main streets into neighborhoods; and,
3. How to create flexibility of use at the edges of main streets.

**Transformation of early strip malls into neighborhood centers:** Based on initial assessment of existing conditions within the Focus Neighborhoods there are potential opportunities to transform medium-sized lots along the corridor that used to be medium-scaled box retail or small strip malls into projects that integrate neighborhood serving commercial and retail uses with a variety of housing types.

**Range of Transect zones/Level of intensity:** Similar to this code, the Focus Neighborhoods designated to date for Cincinnati have T4/T5 form and character (1-3 story main streets) at their centers transitioning quickly to T4/T3 (townhouses, small apartments, etc), transitioning to single family.

**Modified transect application:** Similar to this code, if the Transect is used in Cincinnati, it would likely have to be refined/modified in order to appropriately relate to the complex existing conditions at a fine-grain scale.

T4MS-O	T4MS
	
T4- Main Street-Open	T4- Main Street
Desired Form	Desired Form
Commercial/Shopfront	Commercial/Shopfront
Intent	Intent

*Modified transect used as the Organizing Principle for the Form-Based Code.*

The primary intent of this zone is to provide an appropriate transition from the neighborhood main street into residential areas, and to provide flexible ground-floor spaces in a commercial form that can allow the ground-floor “shopfront” environment to expand as the market desires.

The primary intent of this zone is to integrate vibrant main street commercial and retail environments into neighborhoods that will provide day-to-day commercial amenities within walking distance, reinforce an existing or potential transit stop, and serve as a focal point for the neighborhoods.



Left (from top to bottom): Existing Shopping Center, Illustrative Plan and Regulating Plan for new neighborhood main street.



**Livermore Shopping Center**

- T3-Neighborhood
- T4-Neighborhood
- T4-Neighborhood Open
- T4-Main Street

Feet 25 50 100 200

# Nashville, Tennessee

## Community Character Manual and Form-Based Code Application

Nashville is the capital of Tennessee, which resides in the north-central part of the state. In 2008 the population of the Nashville-Davidson County region was 626,144. The 2008 population of the Nashville-Davidson-Murfreesboro-Columbia combined statistical area was estimated at 1,632,671.

<b>Status:</b>	CC Manual Adopted August 14, 2008
<b>Scale:</b>	Citywide
<b>Implementation Method:</b>	Mandatory & Integrated
<b>Site Context:</b>	Redevelopment/Infill
<b>Site Size:</b>	NA
<b>Administration:</b>	City/County staff
<b>Organizing Principle:</b>	Modified Transect
<b>Buildings Completed Under Code:</b>	Yes (see photos)
<b>Code Consultants(s):</b>	Completed internally by staff
<b>Agency:</b>	Nashville/Davidson County Planning
<b>Contact:</b>	Rick Bernhardt Executive Director Metropolitan Nashville-Davidson County Planning Department 615-862-7173 rick.bernhardt@nashville.gov  Jennifer Carlat Community Plans Manager Metropolitan Nashville Planning Department 615-862-7210 jennifer.carlat@nashville.gov

2. Provide direction for implementation tools such as zoning
3. Help shape the form and character of neighborhoods, centers, corridors, open space, and districts within communities.

The adoption and use of the CCM represents the evolution in the community's understanding of community planning from one based primarily on land use and density (as established by the Land Use Policy Application (LUPA) in 1992) to a greater emphasis on form and character of development including massing, orientation and scale of buildings, setbacks and spacing, location of access and parking, etc. The original LUPA process, like most citywide Comprehensive Plans/General Plans based on land use and intensity, did not give the Planning Department and communities the tools that they needed to reinforce their commitment to preserving the diversity of rural, urban, and suburban areas developed in the Nashville/Davidson County area. The result has been development that is homogeneous and does not preserve or create the sense of place that community members often call for during Community Planning.

***“Land Use Policies will be replaced with Community Character Policies... Community Character Policies are the primary product of each Community Plan.”***

The CCM's Community Character Policies, which speak to form and character of development in addition to land use and intensity, replace the Land Use Policy Application (LUPA), which primarily focused on density and intensity. As Community Plans are updated, Detailed Design Plans are created, and plan amendments are undertaken, **Land Use Policies will be replaced with Community Character Policies.** Until the Community Plan or Detailed Design Plan is updated or amended, the existing Land Use Policies will remain in effect. All future land use decisions, including recommendations on zone changes and subdivision requests, are made based on the Community Character Policies in each Community Plan.

### Overview

The Community Character Manual (CCM) is not a Form-Based Code (FBC), but rather was a tool used by the City for citywide FBC application. The General Plan consists of many components, including functional plans and Community Plans (formerly known as Subarea Plans). The functional plans cover topics that are addressed briefly in the General Plan, such as housing, economic development, transportation, land use policies, and historic preservation. The Community Character Manual (CCM) is a functional plan component of the Nashville's Concept 2010: A General Plan for Nashville and Davidson County (twenty-year planning horizon).

The CCM, which was created and adopted in 2008, has three main functions:

1. Explain and institute the Community Character Policies that will be applied in each Community Plan;

**Cincinnati FBC Consultation  
Opticos Design, Inc.**

### The CCM Document

Planning Department divided Davidson County into 14 communities for planning purposes. Each community has a Community Plan that is updated every 7 to 10 years through a process that engages community stakeholders – residents, property owners, business owners, institutional representatives, developers and elected officials – in planning for future growth, development and preservation in the community. In some areas, Detailed Design Plans may be developed to further refine the guidance provided by the Community Plan for a specific neighborhood, center or corridor. The Community Plans, including their accompanying Detailed Design Plans, are adopted by the Metropolitan Planning Commission following several community meetings and a public hearing. The plans may be amended in a process that includes a public hear-

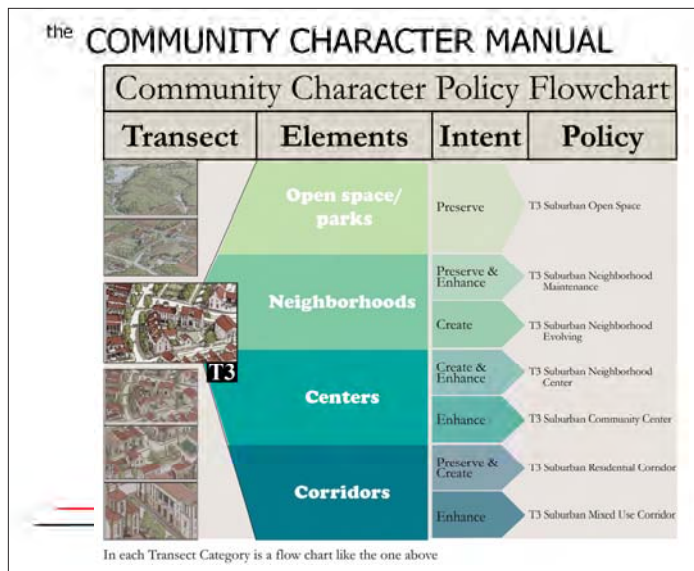


Diagram giving a clear summary of how the CCM is applied.

ing before the Planning Commission and may also involve one or more community meetings prior to the public hearing.

Community Character Policies (CCP) are the primary product of each Community Plan. The CCP discuss the appropriate *form and character* of development – massing, orientation and scale of buildings, setbacks and spacing, location of access and parking, etc. The emphasis on form and character allows communities to preserve existing character and enhance or create areas with distinctive rural, suburban, urban or special use character. The CCP are applied to all the property in the community and have two main functions: to explain the vision of the community for its future growth, development and preservation and to provide direction for implementation tools such as zoning/Form-Based Coding.

The overarching concept behind each Community Character Policy is its location in the Transect – T1 Natural, T2 Rural, T3 Suburban, T4 Urban, T5 Center, T6 Downtown, and District. After its location on the Transect is determined, this is followed by considering the Community Element to be described – Open Space, Neighborhood, Center, Corridor, or District. Finally, the Community Character Policy provides the particular character and form guidance.

Within each Transect Category (T1-T6), the Community Character Policies provide guidance on how to plan, design, and create the appropriate rural, suburban, and urban form for each of four *Community Elements* – Open Space, Neighborhoods, Centers, and Corridors. The result is that the guidance provided in a Community Character Policy for a T2 Rural Neighborhood will be different than the guidance for a T3 Suburban Neighborhood and a T4 Urban Neighborhood. When a Community Plan is updated or amended, or a Detailed Design Plan is created, each property is assigned a Community Character Policy to guide future growth, development and preservation of the land

**How is this relevant to Cincinnati?**

**Providing an Example of a Form-Based Approach to a Comprehensive Plan:** Since the City of Cincinnati is about to embark on a Comprehensive Plan Update that has a goal of reinforcing the character of urban, suburban, and rural areas it may want to consider an approach that replaces the typical land use and intensity based policy, which does not provide a tool for reinforcing the unique character of these places, with an approach similar to Nashville that focuses on form and character first.

**Building Internal Staff Capabilities to Create and Administer the Form-Based Code(s):** In terms of long-term application of Form-Based Coding and Community Planning, the City may also want to consider building internal capabilities into their staff to complete this work in house like is done in Nashville.

**Providing a Foundation for Predictable Future Development Decisions:** Having a Community Character Policy in place to reinforce the Form-Based Code application would provide a foundation for all future land use and development decisions and approvals, thus reassuring residents of the community that only projects that reinforce the policies and FBC would be approved.

**Learning from a Regional Resource:** Nashville already has been used as a good regional resource and should continue to be one. The CCM effort along with the Community Plans and Form-Based Codes put in place have created substantial, high-quality built results that can be used as examples until Cincinnati has its own built examples to point to.

**Community Elements:**

1. Open Space
2. Neighborhoods
3. Corridors
4. Districts

**Included in each Community Character Policy:**

1. Policy intent” Preserve, enhance, or create
2. General characteristics
3. Appropriate land use examples
4. Design principles
5. Zoning districts
6. Building types

the  
**COMMUNITY CHARACTER MANUAL**  
2 0 0 8

*The Nashville  
Transect Summary  
on the cover of the  
CCM.*



Adopted August 14, 2008

Metropolitan Nashville / Davidson County Planning Department