An Introduction to Form Based Codes

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NNECAPA
Portsmouth, NH
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Form Based Codes for New England

- Form Follows Regulation
- Tools of Conventional Zoning
- The Form Based Code
  - What does it do differently?
  - How is it documented?
  - How is it administered?
  - Where is it used?
  - What do people say about it?
Form Follows Regulation:
Form Follows Regulation: If this is what we want?
Form Follows Regulation:
If this is what we want?
Form Follows Regulation:
New England Towns
Form Follows Regulation:
If this is what we want?
Form Follows Regulation:
If this is what we want?
Form Follows Regulation: If this is what we want?
Form Follows Regulation:
If this is what we want?
Form Follows Regulation:
If this is what we want?
Form Follows Regulation:  
If this is what we want?
Form Follows Regulation:
How do we make sure not to get this instead?
Form Follows Regulation: How do we make sure not to get this instead?
Form Follows Regulation:
How do we make sure not to get this instead?
Form Follows Regulation:
How do we make sure not to get this instead?
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Form Follows Regulation: How do we make sure not to get this instead?
Form Follows Regulation: How do we make sure not to get this instead?
**Conventional Zoning Tools:**

**The Limitations Of Zoning**

- Emphasis on regulation by use
- Density regulations often do not address form or design
- Design is often covered in a ‘guideline’ that is not clearly defined
- Administration rarely balances certainty and flexibility
- Difficult to build public support for regulatory changes because it is difficult to answer the ‘what will it look like’ question
Conventional Zoning Tools: Other Land Use Regulation

- Subdivision, street standards, etc.
- State and local wetlands laws
- Flood plain regulations
- Building codes, fire codes, etc.
- Health codes
- Design and historic review
Conventional Zoning Tools:
The Limitations Of Zoning: Existing Tools

- Setbacks
- Open space
- Parking requirements
- Subdivision / street standards
- Density
- Regulation of uses
Zoning Tools: 
Setbacks
Zoning Tools:
Setbacks
Zoning Tools: Open Space
Zoning Tools: Open Space
Zoning Tools:
Parking Requirements
Zoning Tools: Street Standards
Zoning Tools: Density

Shaker Heights: 3.9; Visualizing Density Library
Zoning Tools: Density

Shaker Heights: 15; Visualizing Density Library
Zoning Tools: Density

Boston: Visualizing Density Library
Zoning Tools: Density

Brooksville: 4.0: Visualizing Density Library
Zoning Tools: Density

Tampa: 15: Visualizing Density Library
Zoning Tools: Density

Tampa: 19: Visualizing Density Library
Zoning Tools:
Regulation of Allowed Uses

19. Baths, Turkish
25. Boxing arena
28. Chinchillas, retail sales
41. Eleemosynary institutions
42. Embalming business
95. Physical culture institution
109. Potato chip manufacturing
127. Tombstones, retail sales
135. Turkish Baths
NOT IN MY BACKYARD
CAVE PEOPLE
CITIZENS AGAINST VIRTUALLY EVERYTHING
Can a land use regulation system reflect what a community wants, rather than just prohibit what a community does not want?

Can a land use regulation system reflect community character?
"If we know what the appliance is . . . .

- Christopher Alexander
"If we know what the appliance is . . . .

We need to find the plugs to connect it to the existing power grids."

- Christopher Alexander
The Appliance and The Grid

Sustainable New England Communities

• Town Meetings
• Zoning Boards of Appeals
• Planning Boards
• Conservation Commissions
• Town Engineers
• Fire Departments
• State Regulators
• Etc.

“If we know what the appliance is . . . .

We need to find the plugs to connect it to the existing power grids.”

- Christopher Alexander
The Form Based Code
The Form Based Code

- What does it do differently?
- How is it documented?
- How is it administered?
- Where is it used?
- What do people say about it?
The Form Based Code

- What does it do differently?
  - How is it documented?
  - How is it administered?
  - Where is it used?
  - What do people say about it?
The Form Based Code: What Does It Do Differently?
The Form Based Code: What Does It Do Differently?

- Primarily works to define and create a “place”
- Regulatory focus on form instead of density and use
- Emphasize mixed uses
- Greater attention to streetscape, design, public realm and role of individual buildings in shaping public realm
- Up-front public participation during creation of the code limits the need for discretionary individual project review
The Form Based Code: What Does It Do Differently?

The Charrette
The Form Based Code
What Does It Do Differently?

1. Prescriptive not proscriptive
2. Public can see ‘what happens where’
3. Regulate development on a lot by lot basis
4. Reflect a diversity of architecture within a community vision and legal framework
5. Define and codify a neighborhood ‘DNA’
6. Concise, organized, and written for non-planners to understand
7. Reduce the need for ‘design guidelines’ and replace them with more enforceable regulation
8. Less oversight of individual projects by review bodies

By Peter Katz: Form Based Codes Institute
The Form Based Code

- What does it do differently?
- How is it documented?
- How is it administered?
- Where is it used?
- What do people say about it?
The Form Based Code: How is It Documented?

Tools of Traditional Zoning:
• Regulation of uses
• Setbacks
• Open space
• Parking requirements
• Subdivision standards
• Density
• Site plan review
• Special permits
• Design guidelines

Tools of the Form-Based Code:
• Regulating plan
• Open Space Standards
  • Thoroughfare Standards
  • Public Open Space Standards
  • Private Open Space Standards
• Functional Design Standards
• Building Form Standards
  • Site Configuration
  • Building Configuration
  • Building Elements
  • Uses
• Administrative Process
• Architectural standards (optional)
The Form Based Code: How Is It Documented?

Regulating Plan:

Frontage Based

Farmer’s Branch, TX
The Form Based Code: How Is It Documented?

Regulating Plan: Transect Based

Fort Worth, TX
The Form Based Code: How Is It Documented?

Regulating Plan: Lot Based

Benicia, CA
The Form Based Code: How Is It Documented?

Public Spaces:

Thoroughfare Standards

Park Road

Park Road will serve as a primary access route for trucks and bicycles. The street should be designed with 11' travel lanes, to accommodate tracks, and 5' bicycle lanes in both directions. The portion of Park Road between Adams and Jefferson Street should continue the large street trees which begin at Military East and continue along Jefferson Street. These trees should have a consistent species and spacing with the trees along Jefferson Street. The rest of the street trees along Park Road should be of a different species.

This Street section should be used for Adams Street from Military East to Park Road.

<table>
<thead>
<tr>
<th>Design Standards</th>
</tr>
</thead>
<tbody>
<tr>
<td>Design Speed:</td>
</tr>
<tr>
<td>R.O.W. Width:</td>
</tr>
<tr>
<td>Width of paving:</td>
</tr>
<tr>
<td>On-Street Parking:</td>
</tr>
<tr>
<td>Travel Lane Width:</td>
</tr>
<tr>
<td>Bicycle Lane Width:</td>
</tr>
<tr>
<td>Drainage Type:</td>
</tr>
<tr>
<td>Width of Sidewalk:</td>
</tr>
<tr>
<td>Sidewalk Easements:</td>
</tr>
<tr>
<td>Width of Planter:</td>
</tr>
<tr>
<td>Type of Trees:</td>
</tr>
<tr>
<td>Spacing of Trees:</td>
</tr>
</tbody>
</table>
The Form Based Code: How Is It Documented?

Public Spaces:

Open Space Standards

Winter Springs, FL
The Form Based Code:
How Is It Documented?

Public Spaces:
Open Space Standards

Jefferson Ridge Zone Open Spaces

The Jefferson Ridge includes two prominent open spaces: the Officer’s Square and the CorkOak Ridge. Due to the historic significance of this area, landscape treatments should be carefully selected to ensure compatibility with existing historic structures and heritage trees, such as the area’s existing cork oak grove.

Officer’s Square
The Officer’s Square is characterized by a formal, open lawn that is framed by the former Lieutenant’s Quarters to the west, the Commanding Officer’s Quarters to the east, an extended Jefferson Street to the south, and a new building that is institutional in character to the north. The park will have a strong, visual visual element such as a prominent pavilion or monumental flagpole, and will be defined along its southern edge with a uniform hedge along Jefferson Street. The north, west, and east sides of the park may be planted with palms or trees with a high canopy that allow maximum visual permeability.

Type: Publicly Accessible Institutional Park
Size: .90 Acres
Uses: Formal gardens, passive open space, walking bicycling
Features: Central pavilion and/or monumental flagpole, public walks, seating areas.
The Form Based Code: How Is It Documented?

Functional Design Standards

City of Fort Worth
The Form Based Code: How Is It Documented?

Building Form Standards

These houses represent only a fraction of the variety possible within the Neighborhood House type. There are houses in Versailles; one in a contemporary house plan.

Whether large or small, Neighborhood Houses are the standard of any Small Community or Neighborhood. Their unique form and private yards contribute to the life and success of the street. Careful building placement provides the Neighborhood House with a comfortable, generous and private back yard, even on a very small lot.
The Form Based Code: How Is It Documented?

Building Form Standards

Like the Town House, the Row House is an extremely efficient and sociable form of urban housing. Row Houses define the street with a solid plane wall. A consistent size and shape gives the back yard complete privacy from the neighbors. Row Houses typically have front porches or stoops and the front porch is used as a Town House.

Floor plans should be relatively shallow to allow natural light and cross ventilation. Because they have fewer exterior walls, Row Houses can be cooled more efficiently than detached houses.
The Form Based Code: How Is It Documented?

Building Form Standards
The Form Based Code: How Is It Documented?

Building Form Standards

Benicia, CA, Opticos Design
The Form Based Code: How Is It Documented?

### Optional Architectural Standards

#### Special Elements

Chimneys shall be incorporated into the design of all buildings.

Porches and stoops shall be residential in character, provide usable outdoor space, and shall be characterized by tall, classical proportions in keeping with overall massing.

Bay Windows may be one or two stories in height. If they are two stories, they should be designed with horizontal break between stories. Bay windows should be used minimally.

Roof dormers, when used, shall be in character with the rest of the building's architectural character. Hipped gables with deep overhangs are preferred.

Traditionally proportioned cornices and eaves shall be built as a transition between the walls and roof forms.

#### Materials:

1. Trim may be wood or composition board.
2. Posts, balconies, porches, and stoops shall be made of wood, or masonry. Vinyl or vinyl-clad materials are not permitted.
3. Columns and pilasters shall be made of wood, brick, or cast stone. Vinyl or vinyl-clad materials are not permitted.
4. Railings shall be wood, wrought iron, or simulated wrought iron. Vinyl materials are not permitted.
5. Soffits and porch ceilings shall be architecturally compatible. Wood, or concrete.
6. Railings shall be wood or metal, and may be open or covered.

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Special Elements

<table>
<thead>
<tr>
<th>Special Elements</th>
<th>Images</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chimneys</td>
<td><img src="image1" alt="Chimney" /></td>
</tr>
<tr>
<td>Porches</td>
<td><img src="image2" alt="Porch" /></td>
</tr>
<tr>
<td>Bay Windows</td>
<td><img src="image3" alt="Bay Window" /></td>
</tr>
<tr>
<td>Roof Dormers</td>
<td><img src="image4" alt="Dormer" /></td>
</tr>
<tr>
<td>Traditional Cornices</td>
<td><img src="image5" alt="Cornice" /></td>
</tr>
<tr>
<td>Materials</td>
<td><img src="image6" alt="Material" /></td>
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Architectural Standards

<table>
<thead>
<tr>
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</tr>
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<tbody>
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<td>Chimneys</td>
</tr>
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<td>Porches</td>
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<td>Traditional Cornices</td>
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<tr>
<td>Materials</td>
</tr>
</tbody>
</table>
The Form Based Code: How Is It Documented?

Optional

Architectural Standards
The Form Based Code: How Is It Documented?

Optional

Architectural Standards

Awnings and canopy signs are painted on or attached to an awning or canopy above a business door or window.

Awnings and canopy signs may be allowed on the shed portion of the awning, but is preferred on the valence flap. The flap height should be large enough for letters and symbols to be read easily.

- Maximum letter height: 75% percent of the height of the valence flap/shed area.
- Minimum valence height: 8 inches.
- Minimum vertical clearance: 8 feet.
- Material: Matte finish canvas, glass, or metal.
- Color: Solid or striped.

Awnings and canopies often enhance building architecture, and add color and interest to the streetscape.
The Form Based Code

- What does it do differently?
- How is it documented?
- **How is it administered?**
- Where is it used?
- What do people say about it?
The Form Based Code

Types of Districts

- Downtown and village centers
- Neighborhood or town-wide applications
- Special development districts
The Form Based Code
Administration Process

- Major public review of project objectives will occur at the code development level, with less of a need for scrutinizing individual project applications.
- Site development projects require simpler review for a consistency with the code.
- Variances, special permits and even site plan review can be limited or eliminated from the process if appropriate.
- Special permits may be appropriate for deviation from the code.
The Form Based Code

- What does it do differently?
- How is it documented?
- How is it administered?
- **Where is it used?**
- What do people say about it?
The Form Based Code

Where Is It Used?

- New towns: Kentlands, Seaside, South Main
- California towns: Benicia, Petaluma, Azusa, Ventura
- Arlington, VA, on Columbia Pike
- Peoria, IL, downtown
- Fort Worth, TX, near south side district
- Farmers Branch, TX, transit station area
- Woodford, Kentucky
- St. Lucie County, Florida

- New England Examples . . .
Form Based Codes in New England

- Southfield, Weymouth / Abington / Rockland, MA
- Hamilton Canal District, Lowell, MA
- I-93 Tri-town Development Area Andover / Tewksbury / Wilmington, MA
- Jamestown RI
- Hamden, CT
- Dover, NH
- Newport, VT
Form Based Codes in New England

- **Southfield, Weymouth / Abington / Rockland, MA**
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Form Based Codes in New England
Southfield

Transit Village Rendering

Figure 4.2-1b
### Form Based Codes in New England

**Southfield**

| Site:         | Brownfield, on Commuter Rail  
               | Former navy air station       |
|---------------|--------------------------------|
| Size:         | 1000+ acres                     |
| Project:      | Mixed use center / biotech      |
| Developed by: | Towns, consultants, developer  |
| Type of code: | Floating but Mandatory         
               | Transect Based                  |
| Approval body:| Tri-town Development Corporation |
| Adopted:      | June / July 2005                |
| Build-out to date: | None                       |
Form Based Codes in New England
Southfield: Master Plan
Form Based Codes in New England

Southfield: Regulating Plan
Form Based Codes in New England
Southfield: Street Standards

Standard Neighborhood Street

Parkway: Outside Village Center District, without Parking
Form Based Codes in New England
Southfield: Building Form Standards

<table>
<thead>
<tr>
<th>LOT OCCUPATION</th>
<th>Lot Area</th>
<th>5,001 sq. ft. minimum - 10,000 sq. ft. maximum</th>
</tr>
</thead>
<tbody>
<tr>
<td>BUILDING SETBACKS</td>
<td>Lot Coverage</td>
<td>40% maximum</td>
</tr>
<tr>
<td>Front</td>
<td>10 feet minimum</td>
<td></td>
</tr>
<tr>
<td>Side</td>
<td>15 feet minimum</td>
<td></td>
</tr>
<tr>
<td>Rear</td>
<td>5 feet minimum</td>
<td></td>
</tr>
<tr>
<td>FRONTAGE</td>
<td>20 feet minimum</td>
<td></td>
</tr>
<tr>
<td>BUILDING HEIGHT</td>
<td>Principal Building</td>
<td>40 feet maximum</td>
</tr>
<tr>
<td>Out Building</td>
<td>25 feet maximum</td>
<td></td>
</tr>
<tr>
<td>PARKING</td>
<td>Spaces</td>
<td>maximum 3/unit - minimum 1/unit</td>
</tr>
<tr>
<td>Area</td>
<td>30 feet x 24 feet maximum</td>
<td></td>
</tr>
<tr>
<td>Access</td>
<td>Entered from front or rear. On corner lots, side yard access is permitted.</td>
<td></td>
</tr>
<tr>
<td>USES</td>
<td>Residential</td>
<td></td>
</tr>
<tr>
<td>DISTRICTS</td>
<td>Residential District</td>
<td></td>
</tr>
</tbody>
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Form Based Codes in New England

Southfield: Building Form Standards

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<tr>
<td>BUILDING SETBACKS</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Front</td>
<td>10 feet minimum</td>
<td></td>
</tr>
<tr>
<td>Side</td>
<td>50 feet minimum</td>
<td></td>
</tr>
<tr>
<td>Rear</td>
<td>5 feet minimum</td>
<td></td>
</tr>
<tr>
<td>FRONTAGE</td>
<td>20 feet minimum</td>
<td></td>
</tr>
<tr>
<td>BUILDING HEIGHT</td>
<td>Principal Building</td>
<td></td>
</tr>
<tr>
<td>Front</td>
<td>40 feet maximum</td>
<td></td>
</tr>
<tr>
<td>Side</td>
<td>65 feet maximum</td>
<td></td>
</tr>
<tr>
<td>Rear</td>
<td>3 feet minimum</td>
<td></td>
</tr>
<tr>
<td>PARKING</td>
<td>Area</td>
<td></td>
</tr>
<tr>
<td>Spaces</td>
<td>maximum 3/unit - minimum 1/unit</td>
<td></td>
</tr>
<tr>
<td>Out Building</td>
<td>25 feet maximum</td>
<td></td>
</tr>
<tr>
<td>Access</td>
<td>entered from front or rear. On corner lots, side yard access is permitted.</td>
<td></td>
</tr>
</tbody>
</table>

| USES            | Residential.                                  |
| DISTRICTS       | Residential District.                        |

<table>
<thead>
<tr>
<th>LOT OCCUPATION</th>
<th>Lot Area</th>
<th>2.5 acres minimum</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lot Coverage</td>
<td>50% maximum</td>
<td></td>
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<tr>
<td>BUILDING SETBACKS</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Front</td>
<td>5 feet minimum - 10 feet maximum</td>
<td></td>
</tr>
<tr>
<td>Side</td>
<td>5 feet if lot line is on a street. 3 feet minimum - 10 feet maximum if adjacent to another lot line.</td>
<td></td>
</tr>
<tr>
<td>Rear</td>
<td>3 feet minimum</td>
<td></td>
</tr>
<tr>
<td>FRONTAGE</td>
<td>N/A</td>
<td></td>
</tr>
<tr>
<td>BUILDING HEIGHT</td>
<td>Principal Building</td>
<td></td>
</tr>
<tr>
<td>Front</td>
<td>N/A</td>
<td></td>
</tr>
<tr>
<td>Side</td>
<td>65 feet maximum</td>
<td></td>
</tr>
<tr>
<td>Rear</td>
<td>N/A</td>
<td></td>
</tr>
<tr>
<td>PARKING</td>
<td>Area</td>
<td></td>
</tr>
<tr>
<td>Spaces</td>
<td>maximum 2/unit - minimum 1/unit</td>
<td></td>
</tr>
<tr>
<td>Out Building</td>
<td>N/A</td>
<td></td>
</tr>
<tr>
<td>Access</td>
<td>Entry from side, rear or front. In case of front access, width of access not to exceed 20 feet.</td>
<td></td>
</tr>
</tbody>
</table>

| USES            | Residential. First Floor could include live-work. In case of Main Street Overlay District refer to “Apartments with Commercial”. |
| DISTRICTS       | Village Center District, Mixed-Use Village District, Residential District |
Form Based Codes in New England

Southfield: Building Form Standards

APARTMENTS- PODIUM (AP)

- LOT OCCUPATION
  - Lot Area: 2.0 acres maximum
  - Lot Coverage: 100% allowed

- BUILDING SETBACKS
  - Front: No setback allowed if First Floor is Commercial. For Arcades, 8 feet maximum first floor setback is allowed. In case of First Floor Residential, 5 feet maximum setback is allowed.
  - Side: No required setback. 18 feet maximum setback permitted.
  - Rear: No required setback

- FRONTAGE
  - Principal Building: N/A
  - Out Building: N/A

- PARKING
  - Spaces: maximum 2 (tandem allowed)/unit - minimum 1 unit
  - Area: N/A

- USES
  - Residential. First Floor could include Live-work and Commercial use. See Main Street District for special first floor requirement.

- DISTRICTS
  - Village Center District, Mixed-Use Village District

Note: No Parking or Loading Bay required for Commercial under 4,000 sq ft. Gross Floor Area. Commercial greater than 4,000 sq ft Gross Floor Area requires 1 parking space additional 300 sq ft. Gross Floor Area and loading bay as per the Regulations.

APARTMENTS (A)

- LOT OCCUPATION
  - Lot Area: 2.5 acres maximum
  - Lot Coverage: 90% maximum

- BUILDING SETBACKS
  - Front: 5 feet minimum - 10 feet maximum
  - Side: 5 feet if lot line is on a street. 3 feet minimum - 10 feet maximum if adjacent to another lot line.
  - Rear: 3 feet minimum

- FRONTAGE
  - Principal Building: N/A

- BUILDING HEIGHT
  - Principal Building: 65 feet maximum

- PARKING
  - Spaces: maximum 2/unit - minimum 1 unit
  - Area: N/A

- ACCESS
  - Entry from side, rear or front. In case of front access, width of access not to exceed 20 feet.

- USES
  - Residential. First Floor could include Live-work and Commercial use. See Main Street District for special first floor requirement.

- DISTRICTS
  - Village Center District, Mixed-Use Village District, Residential District
Form Based Codes in New England
Southfield: Building Form Standards

<table>
<thead>
<tr>
<th>LOT OCCUPATION</th>
<th>Lot Area</th>
<th>1.0 acre minimum - 7.5 acres maximum</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Lot Coverage</td>
<td>90% maximum</td>
</tr>
<tr>
<td>BUILDING SETBACKS</td>
<td>Front</td>
<td>75% of frontage built to lot line, 5 feet maximum setback for 25% of frontage. For arcades 8 feet maximum 1st floor setback is allowed.</td>
</tr>
<tr>
<td></td>
<td>Side</td>
<td>5 feet maximum</td>
</tr>
<tr>
<td></td>
<td>Rear</td>
<td>No required setback</td>
</tr>
<tr>
<td>FRONTAGE</td>
<td></td>
<td></td>
</tr>
<tr>
<td>BUILDING HEIGHT</td>
<td>Principal Building</td>
<td>N/A</td>
</tr>
<tr>
<td></td>
<td>Out Building</td>
<td>N/A</td>
</tr>
<tr>
<td>PARKING</td>
<td>Spaces</td>
<td>3 spaces minimum - 4 spaces maximum 1000 sq ft Gross Floor Area</td>
</tr>
<tr>
<td></td>
<td>Area</td>
<td>N/A</td>
</tr>
<tr>
<td>LOADING BAY</td>
<td>Access</td>
<td>Rear or side access</td>
</tr>
<tr>
<td>USES</td>
<td></td>
<td>Anchor Retail, Theater, Movie, Play House, Health and Fitness, Restaurant and General Services.</td>
</tr>
<tr>
<td>DISTRICTS</td>
<td></td>
<td>Village Center District</td>
</tr>
</tbody>
</table>
Form Based Codes in New England

Southfield: Building Form Standards

**LOT OCCUPATION**
- Lot Area: 1.0 acre minimum - 7.5 acres maximum
- Lot Coverage: 90% maximum

**BUILDING SETBACKS**
- Front: 35% of frontage built to lot line, 9 feet maximum setback for 25% of frontage. For Avenues, 8 feet maximum first floor setback is allowed.
- Side: 5 feet maximum
- Rear: No required setback

**FRONTAGE**
- N/A

**BUILDING HEIGHT**
- Principal Building: 80 feet maximum
- Out Building: N/A

**PARKING**
- Spaces: 3 spaces minimum - 4 spaces maximum/1000 sq ft Gross Floor Area
- Area: N/A
- Access: Rear or side access

**LOADING BAY**
- As per Regulations

**USES**
- Anchor Retail, Theater, Movie Play House, Health and Fitness, Restaurant and General Services.

**DISTRICTS**
- Village Center District

**NOTES**
- "F" heights are excluded from 35' maximum height restrictions of mechanical equipment on the roof.
## Form Based Codes in New England
### Southfield: Use and Form Table

<table>
<thead>
<tr>
<th>Use</th>
<th>Permitted Form for Principal Use</th>
<th>Permitted Form for Secondary or Accessory Use</th>
<th>Central Redevelopment Area</th>
<th>Perimeter Area</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>VCD</td>
<td>MUVD</td>
<td>RD</td>
<td>SVCD</td>
</tr>
<tr>
<td>Commercial</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Anchor Retail</td>
<td>AR</td>
<td>n/a</td>
<td>Y</td>
<td>N</td>
</tr>
<tr>
<td>Bed and Breakfast</td>
<td>SF&lt;5, SF&gt;5, TH1, TH2</td>
<td>n/a</td>
<td>Y</td>
<td>Y</td>
</tr>
<tr>
<td>Conference Center</td>
<td>n/a</td>
<td>n/a</td>
<td>SP</td>
<td>N</td>
</tr>
<tr>
<td>Day Care/Center</td>
<td>NC</td>
<td>AC2, AP1, O/C, LI, BPM, AR</td>
<td>Y</td>
<td>Y</td>
</tr>
<tr>
<td>Funeral Home</td>
<td>NC, SF&lt;5</td>
<td>n/a</td>
<td>Y</td>
<td>Y</td>
</tr>
<tr>
<td>General Services</td>
<td>NC, O/C</td>
<td>AC2, AP1, LI, BPM, AR</td>
<td>Y</td>
<td>Y</td>
</tr>
<tr>
<td>Health/Fitness Clubs</td>
<td>NC, O/C</td>
<td>AC2, AP1, LI, BPM, AR</td>
<td>Y</td>
<td>Y</td>
</tr>
<tr>
<td>Hotel</td>
<td>O/C</td>
<td>n/a</td>
<td>Y</td>
<td>SP</td>
</tr>
<tr>
<td>Hotel, Boutique</td>
<td>NC, O/C</td>
<td>n/a</td>
<td>Y</td>
<td>Y</td>
</tr>
<tr>
<td>Medical Laboratory</td>
<td>NC, O/C</td>
<td>n/a</td>
<td>Y</td>
<td>N</td>
</tr>
</tbody>
</table>

**Notes:**
- A: Apartments; AC: Apartments with Commercial; AP: Apartments - Podium; SF<5: Single Family House - up to 5,000 sq.ft. lot; SF>5: Single Family House - 5,000 to 10,000 sq.ft. lot; TH1: Townhouse - 1; TH2: Townhouse - 2; O/C: Office / Commercial; NC: Neighborhood Commercial; AR: Anchor Retail; LI: Light Industrial; BPM: Biopharmaceutical Manufacturing; All Res: Refers to All Residential Building Forms; n/a: Not Applicable.
Form Based Codes in New England Southfield

Code Development Process:
• Code adapted from a zoning code originally developed for construction of a mega-mall.
• Public outcry about the mall brought about the mixed-use alternative.
• Code adopted with master developer’s assistance

Project Review Process:
• Zoning is applied to sites of 20+ acres as they are approved in Development Plans submitted to the Tri-Town Development Corporation.
• Smaller developments subject to site plan review or Zoning Administrator review
• Perimeter area project subject to local Planning Board review

Interesting details:
• Tri-Town Development Corporation is not limited by Mass Zoning Act
• Architectural standards and guidelines adopted after the FBC passed, as a separate document
• Allowed to mix subdivision / zoning in the document
• Biotech forms are actually suburban forms
Form Based Codes in New England

- Southfield, Weymouth / Abington / Rockland, MA
- **Hamilton Canal District, Lowell, MA**
- I-93 Tri-town Development Area
  Andover / Tewksbury / Wilmington, MA
- Jamestown RI
- Hamden, CT
- Dover, NH
- Newport, VT
Form Based Codes in New England
Hamilton Canal District
# Form Based Codes in New England

## Hamilton Canal District

<table>
<thead>
<tr>
<th>Site:</th>
<th>Brownfield, TOD adjacent to downtown</th>
</tr>
</thead>
<tbody>
<tr>
<td>Size:</td>
<td>Community of 100K, 16 sq miles</td>
</tr>
<tr>
<td>Project:</td>
<td>New district development</td>
</tr>
<tr>
<td>Developed by:</td>
<td>Master Developer &amp; City</td>
</tr>
<tr>
<td>Type of code:</td>
<td>Mandatory – Street Based</td>
</tr>
<tr>
<td>Project approval body:</td>
<td>HCD Review Group for FBC Historic Board for Arch. Review</td>
</tr>
<tr>
<td>Adopted:</td>
<td>February 24, 2009</td>
</tr>
<tr>
<td>Build-out to date:</td>
<td>First building under construction</td>
</tr>
</tbody>
</table>
Form Based Code in Lowell: The Hamilton Canal District

Advantages to the Charrette & Form Based Codes Process

Risk Reduction
Site Value
Feasibility
Cohesiveness
Collaboration
Efficiency
Balance
Certainty
Achievement of Objectives
Advantages to the Charrette / Form Based Codes Process:

- **Risk Reduction**: Public-private partnership that limits the risk to both the city and the developer.
- **Site Value**: One entity controls adjacent parcels and achieves economies of scale.
- **Feasibility**: Project elements are feasible for finance and construction.
- **Cohesiveness**: Decisions on disposition and use of the entire site are made at one time,
- **Collaboration**: A public participation process that is focused on finding negotiated solutions and allowing stakeholders to enter the process before a development plan is finalized.
- **Efficiency**: Project will reach the highest use of taxable land in the shortest period of time.
- **Balance**: Site designs encourages a balanced mix of uses, providing more financial stability to both the developer and the city
- **Certainty**: The form-based code creates certainty for the developer, saving time and money in the approval process and limiting reviews
- **Achievement of Objectives**: The process is designed to ensure that the site achieves all of the project objectives.

**Form Based Code in Lowell: The Hamilton Canal District**
Larger office; R&D uses frame Dutton Street entrance and support ground floor retail.

New district park provides focus from Broadway Street entry.

New extension of the trolley to the Gallagher terminal.

Signature building at the Swamp Locks falls.

Swamp Locks are reclaimed as an historic open space feature.

Site of the Point Park and signature building mark the highly visible entry to downtown.

Jackson Street extension allows east/west pedestrian & vehicular access & greater visibility to the district.

Selected site of the Lowell Trial Court to serve as southern anchor to the development.

Complete reconfiguration of the Lord Overpass.

Potential for a 450-seat professional theatre.

New streetscape with a view/peDESTrian corridor from the NPS Visitors Center to the Swamp Locks.

Canal walk along the north side of the Pawtucket Canal.

New streetscape circulates through island aligned with new & rehabilitated buildings.

Historic rehabilitation of the Appleton Mills and the FreiDenberg building.
Form-Based Code

Hamilton Canal District

Parcel 8 (Zoning District HCD-A: HCD Core District)

Zoning District Description:
This is the central zoning district of the HCD with mixed-use midrise buildings. This district is designed to promote preservation of historic buildings and remnant walls and to reflect historic scale of buildings, with the development of a contemporary mill yard.

Parcel Description:
This parcel is one of eight building parcels in Zone HCD-A.

Parcel Size: 0.33 acres

Standards for Parcel 8

A: Site Configuration

<table>
<thead>
<tr>
<th>Side</th>
<th>Build To Line (feet)</th>
<th>Street Wall</th>
<th>Height</th>
<th>Maximum Setback</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Minimum</td>
<td>Maximum</td>
<td>Minimum</td>
<td>Maximum</td>
</tr>
<tr>
<td>N</td>
<td>0</td>
<td>25</td>
<td>65%</td>
<td>55'-70'</td>
</tr>
<tr>
<td>E1</td>
<td>3</td>
<td>28</td>
<td>65%</td>
<td>55'-70'</td>
</tr>
<tr>
<td>E2</td>
<td>n/a</td>
<td>n/a</td>
<td>n/a</td>
<td>n/a</td>
</tr>
<tr>
<td>E3</td>
<td>0</td>
<td>n/a</td>
<td>n/a</td>
<td>n/a</td>
</tr>
<tr>
<td>S</td>
<td>0</td>
<td>10</td>
<td>65%</td>
<td>55'-70'</td>
</tr>
<tr>
<td>W</td>
<td>8</td>
<td>12</td>
<td>65%</td>
<td>55'-70'</td>
</tr>
</tbody>
</table>

* See definitions for an understanding of Build To Line, Street Wall % and Maximum Setback

B: Building Configuration

- Floors: Not allowed
- Projections: Not allowed
- Encroachment: Allowed at 10' minimum above the sidewalk level and is allowed to extend out 4' maximum on North side only.
- Maximum Height: 79'

C: Other Requirements

1) East, South and West walls of existing building to be restored if structurally sound.
2) Reconstruct pedestrian bridge across Hamilton Canal to meet ADA/ADB access requirements.
3) Any vehicular access to below-grade parking must be provided along the West side of the parcel.

D: Uses — See Also Allowed Uses Table at 103.10(4)

Vertical Dimension Standard
Section A-A

Property Line

Projection / encroachment if beyond property line

Projection

Floor of residential development allowed to start up to 3 feet above the sidewalk elevation
Form-Based Code

Hamilton Canal District

Parcel 15 (Zoning District HCD-G: HCD Gateway District)

Zoning District Description:
This district is designed to promote downtown economic development. The district can accommodate commercial, research, retail and/or residential uses in buildings linked together and adjacent to adequately structured parking.

Parcel Description:
This is one of two parcels in Zone HCD-G.

Parcel Size: 1.17 acres

Standards for Parcel 15

A: Site Configuration

<table>
<thead>
<tr>
<th>Side</th>
<th>Build To Line* (feet)</th>
<th>Street Wall Height range</th>
<th>Maximum Setback* Up to x'</th>
<th>Maximum Setback* Up to x'</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Minimum</td>
<td>Maximum</td>
<td>Minimum</td>
<td>Maximum</td>
</tr>
<tr>
<td>NE</td>
<td>30</td>
<td>34</td>
<td>65%</td>
<td>55' - 71'</td>
</tr>
<tr>
<td>SE</td>
<td>0</td>
<td>4</td>
<td>40%</td>
<td>55' - 71'</td>
</tr>
<tr>
<td>SW</td>
<td>0</td>
<td>4</td>
<td>85%</td>
<td>55' - 71'</td>
</tr>
<tr>
<td>NW</td>
<td>24</td>
<td>28</td>
<td>65%</td>
<td>55' - 71'</td>
</tr>
</tbody>
</table>

*See definitions for an understanding of Build To Line, Street Wall's and Maximum Setback

Parcel Coverage: 55% minimum – 85% maximum

B: Building Configuration

Floor Area: 10' minimum clear first floor height

Projections: Allowed at 10' minimum above the sidewalk level and is allowed to extend out 4' maximum

Encroachment: Allowed at 10' minimum above the sidewalk level and is allowed to extend out 4' maximum

Maximum Height: 70'

C: Other Requirements

1. Overhead bridges allowed to connect to Parcel 16 at the third floor and above.
2. Overhead bridges cannot be more than 25' wide and must be setback from the edge of the building a minimum of 10'.
3. There must be a re-entrant corner in the West corner that is set back 25' minimum from the corner in each direction. With a minimum reveal of 7', 50% of the area in the setback is allowed to be filled with built form.
4. Access roads to be built to standards established in appendix A of the Subdivision Regulations.
5. Any vehicular access must be provided along the Southwest side of the parcel within the frontage defined on the plan.
6. Any loading access must be provided along the Northwest side.
7. See R.O.W. street regulation plan for land use on Northwest & Northeast side of the parcel.

D: Uses – See Also Allowed Uses Table at 10.3.10(4)

<table>
<thead>
<tr>
<th>Lower Level (See note #1)</th>
<th>Street Level</th>
<th>Upper Levels</th>
</tr>
</thead>
<tbody>
<tr>
<td>R, IRE, IRC, RGC, UTP, OL</td>
<td>R, IRE, IRC, RGC, UTP, OL</td>
<td>R, IRE, IRC, UTP, OL</td>
</tr>
</tbody>
</table>

Notes under Section 10.4.1.1(U)
Functional Design Standards

- Access
- Loading/Service
- Parking Garage Entries
- Parking Location
- Fenestration
- Rooftop Equipment
- Mechanical Penthouse
- Utility Equipment
- Trash and Recycling
- Snow Removal
- Signs
- Illumination
- Security
- Ground Floor Treatments
- Setback Areas
- Multiple Buildings on a Parcel
- Accessory Buildings
- Rooftop Rainwater Retention and Clean Energy
4. Use Regulations Within HCD Zoning Districts

Uses are allowed in the HCD zoning districts as shown in the following table:

<table>
<thead>
<tr>
<th>District on Map</th>
<th>District Name</th>
<th>Lower Level (See #1)</th>
<th>Canal Level</th>
<th>Street Level</th>
<th>Upper Levels</th>
</tr>
</thead>
<tbody>
<tr>
<td>HCD-B Signature</td>
<td>P, R, IRE, RRC, UTP, OL</td>
<td>n/a</td>
<td>R, IRE, RRC, UTP, OL</td>
<td>R, IRE, RRC, UTP, OL</td>
<td>R, IRE, RRC, UTP, OL</td>
</tr>
<tr>
<td>HCD-D Canal Point</td>
<td>n/a</td>
<td>n/a</td>
<td>IRE, RRC, UTP, OL</td>
<td>IRE, RRC, UTP, OL</td>
<td>IRE, RRC, UTP, OL</td>
</tr>
<tr>
<td>HCD-F Courthouse</td>
<td>IRE, RRC, P, UTP, OL</td>
<td>n/a</td>
<td>IRE, RRC, UTP, OL</td>
<td>IRE, RRC, UTP, OL</td>
<td>IRE, RRC, UTP, OL</td>
</tr>
</tbody>
</table>

Notes to the Use Standards Table:
1. Lower levels are levels below street grade, except that lower levels that border Canals are considered 'canal level' uses, and are not 'lower level' uses.
2. Structured Parking as a use shall be set back at least 20 feet from a building wells closest to Canals, except in the case of Historic rehabilitation along the south side of the Pawtucket Canal.
3. See 10.3.11(4)

Key to Allowed Uses (See § 10.3.10(11)):
R = Residential
IRE = Institutional, Recreational and Educational
RRC = Retail, Restaurant and Consumer Services
P = Structured Parking
UTP = Utilities, Telecommunications and Public Service
OL = Office and Laboratory
Site Description
Park Square will consist of two public parks on either side of “Street F” into the District. Together, these parks are intended to open up the center of the HCD and define the edges of the two primary streets in this area: “Street F” leading to the new bridge across the Upper Pawtucket Canal, and “Street E” leading from the Market Mills doorway to the Swamp Locks. These parks will serve as a critical center of activity within the HCD, and should allow for flexible formal and informal programming.

Site Requirements
Parcel 13
1. The park shall be open to pedestrians from all three sites and offer a substantial amount of landscaped space and seating along with deciduous shade trees.
2. Street trees and street lights along the narrow roadway to the east of the park (Street E) shall be provided within the park itself (at the back of the sidewalk) to maintain a clear sidewalk area for possible emergency access along this narrow street.
3. Options for seating in shall be provided on benches, planters, and other landscape elements.
4. The park shall include a combination of shade and ornamental trees, and pedestrian scaled lighting in walkways and seating areas.

Parcel 12
1. A ramp or stairway follows the east facade of the building on Parcel 11 to provide access to the Pawtucket Canal walk.
2. The entry to the building on Site 11 shall be accessed from this park.
3. The park shall provide seating utilizing a variety of landscape elements such as benches, landscape planters, and sculptural pieces.
4. The park shall include a combination of shade and ornamental trees, and pedestrian scaled lighting in walkways and seating areas.

Site Guidelines
The northern end of Parcel 13, at the apex of the triangle, offers an opportunity for a landmark vertical landscape element. The designer may include an art installation or water element located in the central space serving as a focal feature attracting users to the center.

Openings for pedestrians along the two streets ought to be limited by a fence, screening wall, or other landscape devices allowing the public to view into the site while channeling access to the main pedestrian path and creating an opportunity to view the site from multiple perspectives. Location of openings should be located so as to discourage cut through traffic in the private landscape space on Parcel 11 and encourage a sense of passive refuge.
Definitive Certificate Of Consistency: Development Proposal

Pursuant to the regulations of Section 10.3.5 of the Zoning Ordinance of the City of Lowell (Chapter 298 of the City of Lowell Code of Ordinances), the Hamilton Canal District Review Group (HCDRG) issues this Definitive Certificate of Consistency for the following Development Proposal:

Development Proposal Name: Appleton Mill Phase 18

HCD Parcel: 6

Applicant: Trinity Appleton Limited Partnership

Owner: City of Lowell

Date Submitted: June 17, 2009

Referred to HCDRG: June 19, 2009

HCDRG meetings on this topic: June 22, 2009, June 25, 2009

Decision date: June 15, 2009

Decision: Unanimous approval of Definitive Certificate of Consistency

The application checklist and documentation for this development proposal are complete and adequate and this Development Proposal is in all respects consistent with the Hamilton Canal District Form Based Code and all provisions of the City of Lowell Zoning Ordinance as it applies to this site.
Form Based Codes in New England

- Southfield, Weymouth / Abington / Rockland, MA
- Hamilton Canal District, Lowell, MA
- **I-93 Tri-town Development Area**
  Andover / Tewksbury / Wilmington, MA

- Jamestown, RI
- Hamden, CT
- Dover, NH
- Newport, VT
Form Based Codes in New England
I-93 Interchange Area

Study Area and Constraints:
- Base Plan
- Study Area
- Town Lines
- Rail Line
- Utilities
- 100 Year Flood Plain
- Wetlands and Setbacks
- Habitat Areas
- Open Space
- Interchange Option 1
- Interchange Option 2

Information shown is preliminary and subject to change as data gets refined.
Form Based Codes in New England
I-93 Interchange Area

Site: Mainly undeveloped near highway
Size: 700 acres across three towns
Project: New development
Developed by: Consultants with town planners
Type of code: Floating
Frontage Based Code
Project approval body: Local Planning Boards
Adopted: not yet adopted
Form Based Codes in New England

I-93 Interchange Area

Vision Plan

1) Riverfront Development
2) Research/Employment/Infill Districts
3) Corporate Campus
4) Mixed-Use Center
5) Hamlet (Residential)
6) Mixed-Use (Commercial)
7) Hamlet (Employment)
Form Based Codes in New England
I-93 Interchange Area

Code Development Process:
• Public involvement / participation process in three towns

Project Review Process:
• Code is applied by local Planning Board Review

Interesting details:
• Challenges include:
  • Competing visions in three towns
  • Greenfield site with environmental constraints
  • Highway infrastructure location unsettled
Form Based Codes in New England

- Southfield, Weymouth / Abington / Rockland, MA
- Hamilton Canal District, Lowell, MA
- I-93 Tri-town Development Area
  Andover / Tewksbury / Wilmington, MA
- **Jamestown, RI**
- Hamden, CT
- Dover, NH
- Newport, VT
Form Based Codes in New England
Jamestown
# Form Based Codes in New England Jamestown

**Site:** Small downtown  
**Size:** Island Community of 5,600  
9 sq miles of land area  
**Project:** Protection / infill downtown  
**Developed by:** Town planner w/ consultants  
**Type of code:** Mandatory / Modified Smartcode  
Modified Transect Based Code  
**Project approval body:** Planner / Plan Review Committee  
**Adopted:** October 22, 2009
Form Based Codes in New England

Jamestown: Master Plan

The Jamestown Master Plan is designed to preserve the historic character of the village while promoting growth and development. The plan is based on an analysis of the existing conditions and seeks to create a framework for future development that respects the unique qualities of Jamestown.

Key elements of the Jamestown Master Plan include:

- **Historic Preservation:** Emphasis on preserving the historic integrity of the village.
- **Transportation:** Improved connectivity and access to the town center.
- **Open Space:** Protection of critical open space areas.
- **Public Infrastructure:** Enhancement of utilities and public amenities.

The Jamestown Master Plan is a comprehensive approach to guiding the future development of the village, ensuring a balance between growth and preservation.

Jamestown Vision

- **Vision:** A vibrant, walkable community with a strong sense of place.
- **Values:** Respect for history, connectivity, and community.

The Jamestown Master Plan is a clear and concise plan that provides a roadmap for future development, ensuring that Jamestown remains a special place for generations to come.
Form Based Codes in New England
Jamestown: Regulating Plan
Form Based Codes in New England
Jamestown: Regulating Plan
Form Based Codes in New England

Jamestown: Building Placement

### TABLE 11-2: BUILDING PLACEMENT

This Table approximates the location of the building relative to the boundaries of each individual lot. See Table 3.2 for setbacks. Each of these general types is intrinsically more or less urban, depending on the extent that it complements the frontage.

<table>
<thead>
<tr>
<th>Type</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Edgyard</td>
<td>Specific Types - single-family House, Cottage, Villa, Estate House, urban villa. A building that occupies one side of the lot with setbacks on all sides. This is the least urban type as the front yard is set back from the frontage, while the side yard remains the spatial definition of the public thoroughfare space. The front yard is intended to be visually continuous with the yards of adjacent buildings. The rear yard can be secured for privacy by fences and a well placed back building and/or out building.</td>
</tr>
<tr>
<td>Sidyard</td>
<td>Specific Types - Charleston single House, double house, porch, porch house, town house. A building that occupies one side of the lot with the setback to the other side. A shallow frontage setback defines a more urban condition. If the adjacent building is similar with a blank side wall, they may be quite private. This type permits systematic climatic orientation in response to the sun or the breeze. If a Sidyard House abuts a neighboring Sidyard House, the type is known as a Twin or double house. Energy costs, and sometimes noise, are reduced by sharing a party wall in this disposition.</td>
</tr>
<tr>
<td>Rearyard</td>
<td>Specific Types - Townhouse, Rowhouse, Live work unit, loft building, Apartment House, Mixed use Block, Flex Building, parallel Block. A building that occupies the full frontage, leaving the rear of the lot as the sole yard. This is a very urban type as the continuous facade steadily defines the public thoroughfare. The rear elevations may be articulated for functional purposes. In its residential form, this type is the Rowhouse. For its commercial form, the rear yard can accommodate substantial parking.</td>
</tr>
<tr>
<td>Courtyard</td>
<td>Specific Types - patio House. A building that occupies the boundaries of its lot while defining one or more private patios or courtyards. This is the most urban of types, as its ability to shield the private realm from sides while strongly defining the public thoroughfare. Because of its ability to accommodate incompatible activities, masking them from all sides, it is recommended for workshops, lodging facilities. The high security provided by the continuous facade is useful for crime-prone areas.</td>
</tr>
</tbody>
</table>
Form Based Codes in New England
Jamestown: Private Frontages

TABLE 11.3: PRIVATE FRONTAGES.
The Private Frontage is the area between the building Façade(s) and the Lot line(s).

<table>
<thead>
<tr>
<th>SECTION</th>
<th>PLAN</th>
</tr>
</thead>
<tbody>
<tr>
<td>Common Yard: a planted Frontage whose Façade is set back substantially from the Frontage Line. The front yard created a matrix of buildings and is visually continuous with adjacent yards, supporting a common landscape. The deep setback provides a buffer from the higher speed Thoroughfares.</td>
<td>![Diagram of Common Yard]</td>
</tr>
<tr>
<td>Porch &amp; Roofa: a planted Frontage where the Façade is set back from the Frontage Line with an attached porch permitted to project. A tree at the Frontage Line maintains street spatial definition. Porches shall be no less than 8 feet deep.</td>
<td>![Diagram of Porch &amp; Roof]</td>
</tr>
<tr>
<td>Terrace or Derooyard: a Frontage where the Façade is set back from the Frontage Line by a terrace or small front garden with a low wall. This type buffers residential use from Sidewalks and encloses the private yard from public encroachment. Terraces are suitable for conversion to outdoor cafes.</td>
<td>![Diagram of Terrace or Derooyard]</td>
</tr>
<tr>
<td>Forecourt: a Frontage where the Façade is close to the Frontage Line and the central portion is set back. The Forecourt is suitable for vehicular drop-offs. This type should be allocated in conjunction with other Frontage types. Large trees within the Forecourts may encourage the Sidewalks.</td>
<td>![Diagram of Forecourt]</td>
</tr>
<tr>
<td>Stoep: a Frontage where the Façade is aligned close to the Frontage Line with the first story raised from the Sidewalk sufficiently to ensure privacy for the windows. The window is usually an exterior stair and landing. This type is recommended for ground-floor Residential use.</td>
<td>![Diagram of Stoep]</td>
</tr>
<tr>
<td>Shopfront: a Frontage where the Façade is aligned close to the Frontage Line with the building entrance at Sidewalk grade. This type is conventional for Retail use. It has substantial glassing on the Sidewalk level and an Awning that may overlap the Sidewalk to within 2 feet of the Curbs. Sync Retail Frontage.</td>
<td>![Diagram of Shopfront]</td>
</tr>
</tbody>
</table>
Form Based Codes in New England
Jamestown: Pattern Book

A JAMESTOWN VISION

PATTERN BOOK & DESIGN GUIDELINES
FOR BUILDING IN THE VILLAGE
JUNE 19, 2008
Form Based Codes in New England

Jamestown: Pattern Book

The Lot & the Block

1. The three layers signify the proper zones for the location of the entry, the building, parking and any outbuildings.

2. Trees create a separation between the public zone of the sidewalk and the private zone of the front porch.

3. A successful corner lot creates a strong frontage along both the primary and secondary streets. Landscaping elements soften the hard edges of the building along the front and side setbacks.

Avoid

4. It is important to maintain the rhythm of the street when building on new lots in traditional neighborhoods. Houses that are set too far back and do not align with the other houses on the street disrupt the continuity of the neighborhood.
Form Based Codes in New England Jamestown

Code Development Process:
• Interactive charrette followed by code drafting

Project Review Process:
• Major development review by Plan Review Committee
• All projects reviewed by Town Planner

Interesting details:
• Zones and review system simplified between completion of consultant report and approval of zoning
• Pattern book provides guidelines for project review
• Smartcode in Jamestown approved on the same day that Miami, FL approved their citywide smartcode.
Form Based Codes in New England

- Southfield, Weymouth / Abington / Rockland, MA
- Hamilton Canal District, Lowell, MA
- I-93 Tri-town Development Area
  Andover / Tewksbury / Wilmington, MA
- Jamestown, RI
- **Hamden, CT**
- Dover, NH
- Newport, VT
Form Based Codes in New England
Hamden
Form Based Codes in New England
Hamden

Site: Small downtown
Size: Suburban town 58,000
32 sq miles of land area
Project: Protection / infill downtown
Developed by: Town planner w/ consultants
Type of code: Mandatory / Integrated / Smartcode
Modified Transect
Project approval body: Planning Commission
Adopted: December 7, 2009
Form Based Codes in New England
Hamden: Charrette
Form Based Codes in New England
Hamden: Zoning Map / Regulating Plan
## Form Based Codes in New England

### Hamden: Transect Descriptions

<table>
<thead>
<tr>
<th>Transect</th>
<th>Description</th>
<th>General Character</th>
<th>Building Placement</th>
<th>Frontage Types</th>
<th>Typical Building Height</th>
<th>Type of Civic Space</th>
</tr>
</thead>
<tbody>
<tr>
<td>T1 NATURAL</td>
<td>Natural landscape with some agricultural use</td>
<td>Natural landscape with some agricultural use</td>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Parks, Greenways</td>
</tr>
<tr>
<td>T2 RURAL</td>
<td>Primarily agricultural with woodland &amp; woodland and scattered buildings</td>
<td>Primarily agricultural with woodland &amp; woodland and scattered buildings</td>
<td>Variable setbacks</td>
<td>Not applicable</td>
<td>Not applicable</td>
<td>Parks, Greenways</td>
</tr>
<tr>
<td>T3 SUBURBAN</td>
<td>Low density residential area adjacent to higher density that some mixed use. Home occupations and businesses are allowed. Planting in naturalistic and setbacks are relatively deep. Blocks may be large and the roads irregular to accommodate natural conditions.</td>
<td>Lawns, and landscaping surrounding detached single-family houses; pedestrian occasionally</td>
<td>Large and variable front and side yard setbacks</td>
<td>Porches, fences, naturalistic tree planting</td>
<td>Parks, Greenways</td>
<td></td>
</tr>
<tr>
<td>T4.5 &amp; T4 GENERAL URBAN</td>
<td>Mixed use, townhouses &amp; small apartment buildings, with scattered commercial activity; balance between landscaping and buildings; presence of pedestrians</td>
<td>Shallow to medium front and side yard setbacks</td>
<td>Porches, fences, doorways</td>
<td>2- to 3-story building</td>
<td>Squares, Grains</td>
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<tr>
<td>T5 URBAN CENTER</td>
<td>Mixed-use, large apartment buildings, offices, workplaces, and civic buildings; predominantly attached buildings; trees within the public right-of-way; urban pedestrian activity</td>
<td>Shallow setbacks or none; buildings oriented to streets defining a street wall</td>
<td>Stoops, shopfronts, galleries</td>
<td>3- to 5-story with some variation</td>
<td>Parks, plazas, and squares, median landscaping</td>
<td></td>
</tr>
</tbody>
</table>
Form Based Codes in New England
Hamden: Use Table

### Table 1: Allowed Uses by Zone

<table>
<thead>
<tr>
<th>USES</th>
<th>R1</th>
<th>R2</th>
<th>R3</th>
<th>R4</th>
<th>R5</th>
<th>R6</th>
<th>T1</th>
<th>T2</th>
<th>T3</th>
<th>T4</th>
<th>T5</th>
<th>M</th>
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### Table 2: Additional Uses by Zone

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<tr>
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<th>T2</th>
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<th>T5</th>
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</tbody>
</table>

Note: Y = Yes, N = No, SP = Special Permit
Form Based Codes in New England
Hamden: Other Graphical Standards

Table 5.7 Required Queue Spaces

<table>
<thead>
<tr>
<th>Use</th>
<th>Required Queue Spaces*</th>
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</thead>
<tbody>
<tr>
<td>Automatic Teller Machine (ATM), drive-up type</td>
<td>4 per machine</td>
</tr>
<tr>
<td>Bank Drive-up window</td>
<td>8 for each window in a separate lane</td>
</tr>
<tr>
<td>Pharmacy Drive-up window</td>
<td>4 for each window</td>
</tr>
<tr>
<td>Take-out food service</td>
<td>8 for each window</td>
</tr>
<tr>
<td>Other</td>
<td>As determined by the Commission</td>
</tr>
</tbody>
</table>

*Unless modified by the State Traffic Commission

Examples of re-design of existing drive through designs

![Diagram of drive-through designs](image)

Figure 5.1 Location(s) of Accessory Buildings on Lot.
Form Based Codes in New England
Hamden

Code Development Process:
• Charrette followed by extensive townwide review process

Project Review Process:
• Residential and very small projects by right
• Most development requires Planning Commission Special Permit

Interesting details:
• Town-wide rezoning included transect districts regulated by FBC and residential districts regulated by conventional zoning regulations
Form Based Codes in New England

- Southfield, Weymouth / Abington / Rockland, MA
- Hamilton Canal District, Lowell, MA
- I-93 Tri-town Development Area
  Andover / Tewksbury / Wilmington, MA
- Jamestown, RI
- Hamden, CT
- **Dover, NH**
- Newport, VT
Form Based Codes in New England
Dover

Site: Small downtown
Size: Community of 27,000, 29 sq miles
Project: Protection / infill downtown
Developed by: Town planner w/ consultant
Type of code: Mandatory / Integrated Frontage-Based Code
Project approval body: Planning Board
Adopted: December 9, 2009
Form Based Codes in New England Dover

Code Development Process:
• Charrette followed by additional public review

Project Review Process:
• Varies: most projects require Planning Board Site Plan Review

Interesting details:
• Won Plan NH 2010 Merit Award and NH Planners Association 2009 Project of the Year Award
Form Based Codes in New England

- Southfield, Weymouth / Abington / Rockland, MA
- Hamilton Canal District, Lowell, MA
- I-93 Tri-town Development Area
  Andover / Tewksbury / Wilmington, MA
- Jamestown, RI
- Hamden, CT
- Dover, NH
- Newport, VT
Form Based Codes in New England
Newport
Form Based Codes in New England  
Newport

Site: Small downtown

Size: Town of 5,000 near Canada  
7.6 sq miles of land area

Project: Protection / infill downtown

Developed by: Town planner w/ volunteers

Type of code: Mandatory / Integrated  
Frontage and Transect Based

Project approval body: not yet completed

Adopted: not yet adopted
Form Based Codes in New England

Newport: Regulating Plan

BUILDING BREAK & STOREFRONT FRONTAGE STANDARDS—WORK IN PROGRESS
Form Based Codes in New England
Newport

Code Development Process:
• 2009 Rural Urban Design Assistance Team (RUDAT) from AIA led the initial community discussions about future of downtown
• Town planner used local students to catalog existing conditions and draft information for standards

Project Review Process:
• Code administrative process still being developed

Interesting details:
• Local planner is seeking to complete the form based code on a $15,000 consulting budget
• Vermont state government seeking to replicate the model if it is successful in Newport
The Form Based Code

- What does it do differently?
- How is it documented?
- How is it administered?
- Where is it used?
- **What do people say about it?**
“It shortens the review time for projects and gives developers a better idea of what the city requires”

Mike Moore, City of Petaluma, CA
“(Form Based Codes) will provide a consistency of how neighboring properties will be improved.”

Michael Arendt, Luther Burbank Savings Bank
"The easiest way to facilitate . . . projects is for municipalities to conduct and complete the environmental review, establish the desired land use, proscribe design guidelines and expedite the application review."

Frank Denney, Home Builders Assoc. of Northern CA
The Form Based Code
What Do People Say About It?

“We can’t tell if the (form-based code) is a radical, green left-wing document or a developer-friendly, market based right-wing one”

Jose Sanchez, Santa Rosa Press-Democrat

From: Form Based Codes Institute