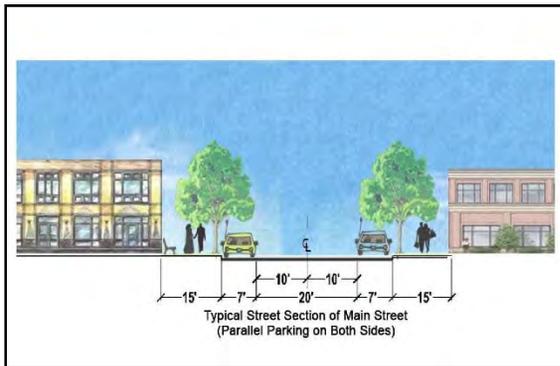


# The ABC's of FBC's

## A Close-Up Look at Form-Based Codes

2015 PHRC Land Development Conference



March 5, 2015

11. Media



12. Devault



1. Rome



10. Doylestown

2. Lisbon



Form-Based Codes  
have evolved from:

- + Old Urbanism
- + Urbanism
- + New Urbanism

3. Santa Fe



9. Exton



4. Berlin



8. Gaithersburg



7. Seaside



6. Stockholm



5. Prague



## Form Based Code Workshops



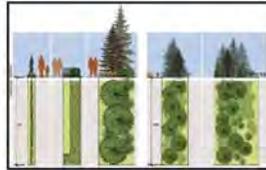
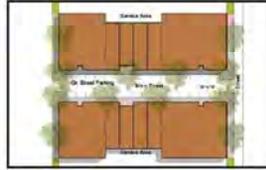
TCA was retained by the PA Department of Community and Economic Development and the Pennsylvania State Association of Township Supervisors (PSATS) in 2009 to conduct Form-Based Code (FBC) Workshops in six (6) places in Pennsylvania, including:

1. Gettysburg;
2. State College;
3. Bethlehem;
4. Media;
5. Greensburg; and
6. Cranberry Township.



Over 150 persons participated in all-day sessions focused on:

- FBC evolution and history;
- FBC examples;
- Measurements & Metrics;
- Definitions;
- Street Sections;
- Public Spaces;
- Building & Parking Placement;
- Code Amendments; and
- Code Enforcement.



The 6 FBC Workshops began by considering the oldest Code pertaining to Placemaking ....  
*The Law of the Indies (1542)*

112 - *“The main plaza is to be the starting point for the town... The plaza should be square or rectangular, in which case it should have at least one and a half its width for length.”*

115 - *“Around the plaza as well as along the four principal streets which begin there, there shall be portals... the eight streets running from the plaza at the four corners shall open on the plaza...”*

Places such as: Santa Fe, N.M.; Antigua, Guatemala; Barcelona, Spain; and Lisbon, Portugal were built following the prescriptions of the *The 1542 Law of the Indies*.

# Evolution of Form-Based Development



**Santa Fe**

ca. 1610



**Lisbon**

ca. 1256

# Evolution of Form-Based Development

**Antigua, Guatemala**

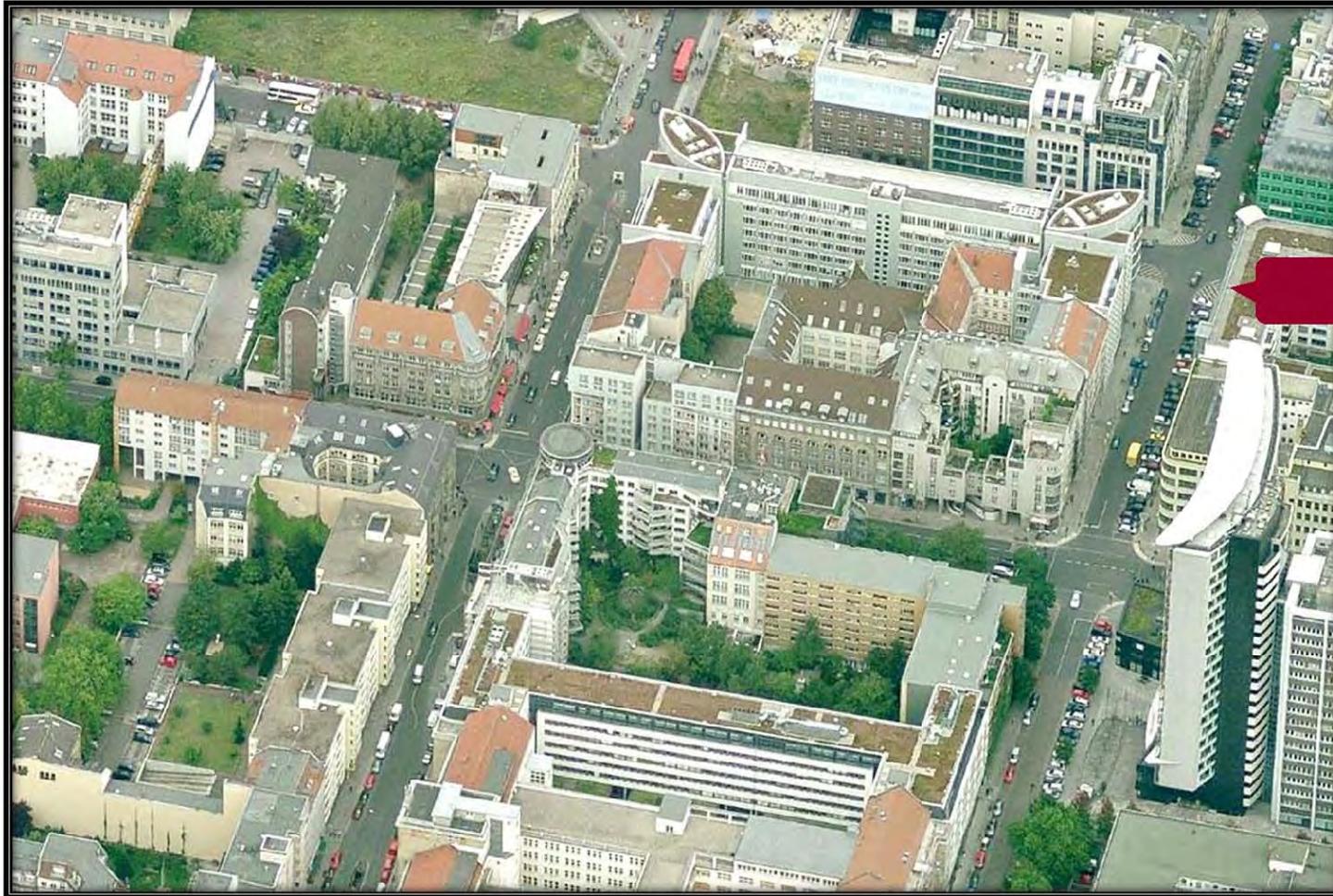
ca. 1542



**Barcelona**

ca. 1899

# Evolution of Form-Based Development



Berlin

ca. 2006

Traditional & Modernist Buildings with good Urban Form



# Pennsylvania Municipalities Planning Code

Act of 1968, P.L. 805, No. 247  
as reenacted and amended.



Commonwealth of Pennsylvania  
Edward G. Rendell, Governor  
[www.state.pa.us](http://www.state.pa.us)

Department of Community and Economic Development  
Dennis Yablonsky, Secretary  
[www.inventpa.com](http://www.inventpa.com)



Article VII-A of the  
Pennsylvania Municipalities  
Planning Code is titled:

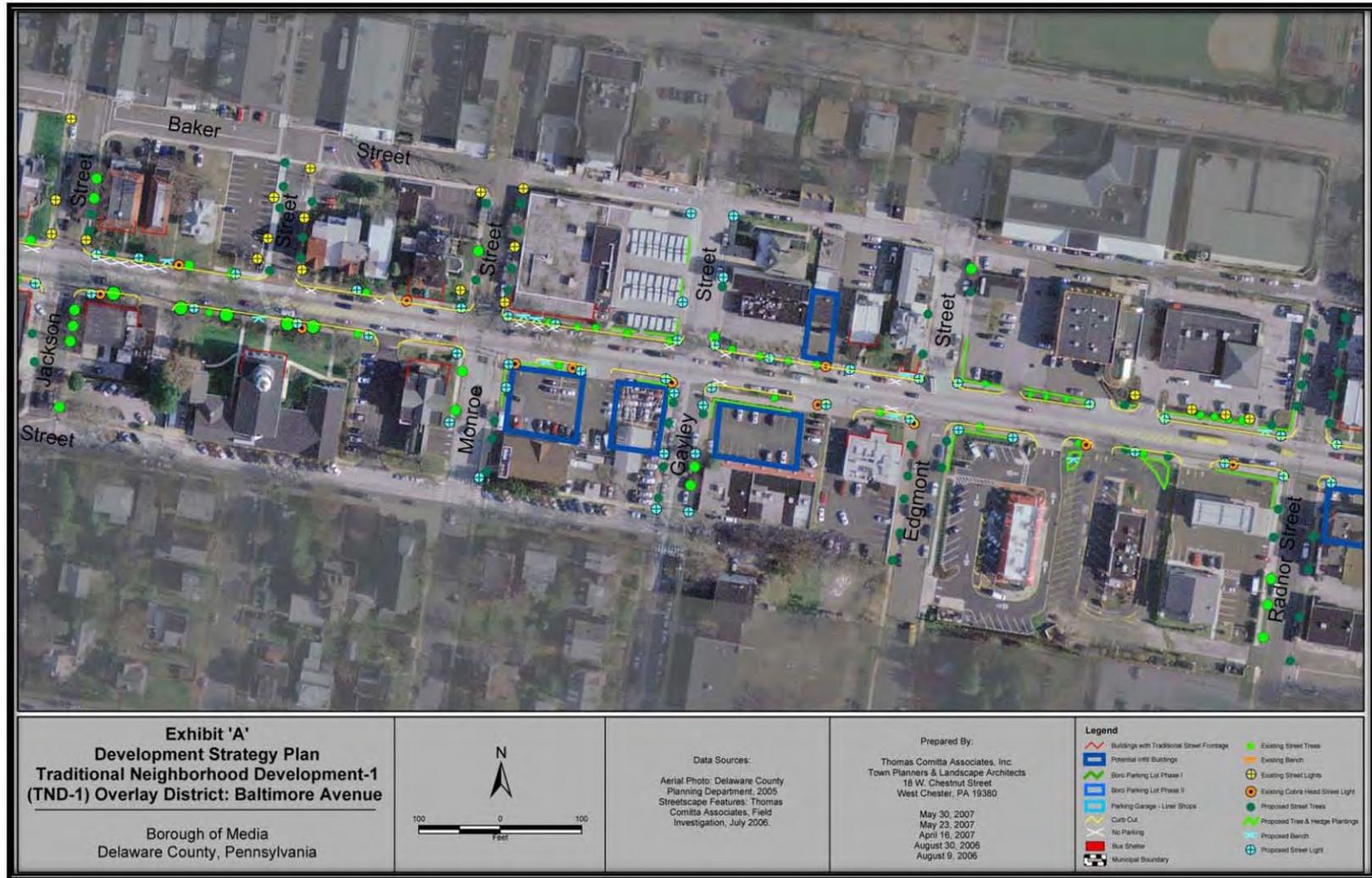
“Traditional Neighborhood  
Development” (TND).

Section 708-A is titled:

“Manual of Written and  
Graphic Design Standards”.

A Form-Based Code,  
therefore, could have such a  
Manual to promulgate Form.

# Promulgating Form

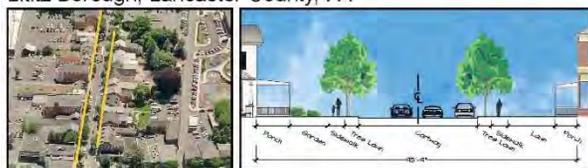


Media Borough – TND-1 Overlay District, adopted 2007  
 Delaware County, PA

## Form Based Code (FBC) Ordinance Amendments

Thomas Comitta Associates, Inc (TCA), Town Planners & Landscape Architects, have completed these FBC Ordinance Amendments, all of which are based on Article VII-A, Traditional Neighborhood Development, of the Pennsylvania Municipalities Planning Code (MPC).



<p>Media Borough, Delaware County, PA</p> 	<p><u>TND-1 Overlay District</u></p> <ul style="list-style-type: none"> <li>• Adopted: 7-19-2007</li> <li>• Focus on Building Positioning and Parking Positioning</li> <li>• Identified Streetscape Enhancement standards</li> <li>• <a href="http://www.ecode360.com/ME1269">www.ecode360.com/ME1269</a></li> </ul>
<p>Haverford Township, Delaware County, PA</p> 	<p><u>TND Overlay District</u></p> <ul style="list-style-type: none"> <li>• Adopted: 4-13-2009 as part of Comprehensive Plan Update</li> <li>• Focused on Infill Development &amp; Redevelopment</li> <li>• <a href="http://www.ecode360.com/HA0527">www.ecode360.com/HA0527</a></li> </ul>
<p>Springfield Township, Delaware County, PA</p>  <p><b>Legend</b></p> <ul style="list-style-type: none"> <li>Existing Street Tree</li> <li>Proposed Street Tree</li> <li>Existing Landscaped Street Edge</li> <li>Proposed Landscaped Street Edge</li> <li>Existing and Proposed Sidewalk</li> </ul>	<p><u>TND-3 Overlay District</u></p> <ul style="list-style-type: none"> <li>• Adopted: 3-22-2010</li> <li>• Focus on Baltimore Pike Corridor</li> <li>• Established "Green Boulevard" requirements/standards</li> <li>• <a href="http://www.springfielddelco.org/Complete%20Zoning%20Packet_Exh_Map.pdf">www.springfielddelco.org/Complete%20Zoning%20Packet_Exh_Map.pdf</a></li> </ul>
<p>Lititz Borough, Lancaster County, PA</p> 	<p><u>C - Commercial District</u></p> <ul style="list-style-type: none"> <li>• Adopted: 4-27-2010</li> <li>• Focused on Downtown</li> <li>• Won 2010 Envision Leadership Award of LCPC</li> <li>• <a href="http://www.co.lancaster.pa.us/litiz/cwp/browse.asp?a=725&amp;PM=1&amp;litizNav= 8134">www.co.lancaster.pa.us/litiz/cwp/browse.asp?a=725&amp;PM=1&amp;litizNav= 8134</a></li> </ul>
<p>Penn Township, Lancaster County, PA</p> 	<p><u>T-5 Mixed Use District</u></p> <ul style="list-style-type: none"> <li>• Adopted: 6-27-2011</li> <li>• Featured Transformation Sketches</li> <li>• Won 2011 Envision Leadership Award of LCPC</li> <li>• <a href="http://www.penn.co.lancaster.pa.us/penn/cwp/view.asp?a=3&amp;q=655518">www.penn.co.lancaster.pa.us/penn/cwp/view.asp?a=3&amp;q=655518</a></li> </ul>
<p>Manheim Township, Lancaster County, PA</p> 	<p><u>T-6 Urban Transition District</u></p> <ul style="list-style-type: none"> <li>• Adopted: 12-14-2011</li> <li>• Featured Transformation Sketches</li> <li>• Focused on Redevelopment Strategies</li> <li>• <a href="http://www.manheimtownship.org/DocumentCenter.i.aspx?FID=143">www.manheimtownship.org/DocumentCenter.i.aspx?FID=143</a></li> </ul>

The FBC has several important elements, including:

- Idealized Build-Out Plan;
- Design Standards in the Zoning Code;
- Design Standards in the Land Development Code; and
- Metrics that are Place-Based, typically from the locale.

# Charter of the New Urbanism (Excerpts)

- The Congress for the New Urbanism views disinvestment in central cities, the spread of placeless sprawl, increasing separation by race and income, environmental deterioration, loss of agricultural lands and wilderness, and the erosion of society's built heritage as one interrelated community-building challenge.
- We stand for the restoration of existing urban centers and towns within coherent metropolitan regions, the reconfiguration of sprawling, suburbs into communities of real neighborhoods and diverse districts, the conservation of natural environments, and the preservation of our built legacy.
- We assert the following principles to guide public policy, development practice, urban planning, and design:
  - + The region: Metropolis, city and town
  - + The neighborhood, the district, and the corridor
    - △ Neighborhoods should be compact, pedestrian-friendly, and mixed-use.
    - △ Interconnected networks of streets should be designed to encourage walking, reduce the number and length of automobile trips, and conserve energy.
    - △ The economic health and harmonious evolution of neighborhoods, districts, and corridors can be improved through graphic urban design codes that serve as predictable guides for change.
    - △ A range of parks, from tot-lots and village greens to ballfields and community gardens, should be distributed within neighborhoods. Conservation areas and open lands should be used to define and connect different neighborhoods and districts.
  - + The block, the street, and the building
    - △ A primary task of all urban architecture and landscape design is the physical definition of streets and public spaces as places of shared use.

## EAGLEVIEW

A Traditional Neighborhood Development  
Lionville, Pennsylvania  
(Town Planning and Design Services)



Eagleview Streetscape with On-Street Parking, Sidewalks, and Front Porches.

TCA assisted Uwchlan Township and the Hankin Group in the 1990's with the Zoning Ordinance Amendments to enable the Gardens at Eagleview. New provisions for: small lots (6,500+ square feet); alleys (one-way, 12 feet wide); and front porches, helped to guide the development of this first TND in Chester County.



Aerial View of Street and Alley Network.

Eagleview is comprised of several neighborhoods including:

- The Gardens (single-family detached homes);
- The Villas (attached townhomes);
- Claremont (single-family, two family and multi-family homes); and
- The Town Center (retail, live-work, civic, and recreational space).



Single-Family Detached Home with Great Curb Appeal.



Rear Home with Detached Garage off of Alley.

The Eagleview TND is:

- Part of the Uwchlan Township, Chester County PCID – Planned Commercial Industrial District;
- Guided by Specific Plans, starting with the 80 acre “Gardens at Eagleview”; and
- the best TND in Chester County, PA, due to its diversity and age (started in 1991).

## Eagleview: Uwchlan Township, Chester County, PA



The Eagleview Traditional Neighborhood Development (TND) progressed from the early 1990's to today with:

- + The Gardens;
- + The Villas;
- + The Town Center, including Live-Work Units; and
- + Claremont

Collectively, Eagleview has an attractive mix of Retail, Office, Residential, Recreational, and Institutional Uses.

The Eagleview Traditional Neighborhood Development, TND, was hatched:

- after a conventional, larger lot, single-family Subdivision was built with  $\frac{1}{2}$  acre lots; and
- after a corporate center was built to establish a significant road infrastructure.

# Eagleview

Exton, PA

A Corporate Center, Traditional Neighborhood Development, and Mixed-Use Town Center



Site Plan of Eagleview Corporate Center, Town Center, and TND



Mixed-Use Commercial Building in Eagleview Town Center

Eagleview is noted for:

- + Corporate Center closer to Route 100;
- + TND and Town Center in South-Central areas;
- + Mixed-Uses and Mixed Housing Types; and
- + Generous landscaping.



Eagleview Town Center, The Villas, and The Gardens



Claremont Neighborhood with Mixed Housing Types

The Eagleview TND:

- started with single-use neighborhoods, The Gardens (all SFD) and The Villas (all SFA); and
- transformed into a mixed housing type neighborhood.

# Eagleview

Exton, PA

A Corporate Center, Traditional Neighborhood Development, and Mixed-Use Town Center



Live-Work Units in Town Center



Town Center Pharmacy

Eagleview is also noted for:

- + Live-Work Units in Town Center;
- + Compact, Walkable Neighborhoods;
- + Pedestrian Connectivity; and
- + A Well Designed Public Realm.



Streetscape at The Gardens



Alleyscape at The Gardens

## The Eagleview TND:

- enjoys proximate access to the West-Chester Pottstown Exit of the PA Turnpike; and
- is in a Township that has directed growth since the 1970's.

**Lantern Hill**  
A Traditional Neighborhood Development  
Doylestown, PA  
(Town Planning and Design Services)



Lantern Hill - Doylestown, PA, A New Traditional Neighborhood Development

In the capacity of Town Planning Consultant to Doylestown Borough, Bucks County, PA, TCA also served as a Mediator. We worked with the Borough, Developer and neighbors, prepared a refined Site Plan, and drafted the TND-1 Zoning Ordinance to enable Lantern Hill.

Lantern Hill, a TND on 19 acres, has 117 homes and 72,000 square feet of office and retail units. This TND is located at Broad Street and Veterans Lane.

The Lantern Hill TND is distinguished due to:

- An interconnected network of streets, sidewalks and paths;
- Building types emblematic of Doylestown Borough;
- Great curb appeal of homes, due to rear alley garages;
- A mix of dwelling unit types; and
- Greens and neighborhood open space.



Civic Green with Gazebo



View through Gazebo to Mixed Housing Types

Lantern Hill is:

- A 19 acre site that involved Brownfield Remediation;
- A TND that was hatched in 2000, just before
- Article VII-A was adopted; and
- A great example of Context-Sensitive infill development.

# Lantern Hill

Doylestown, PA

## A Traditional Neighborhood Development



Sovereign Bank, a 2-story building with the Drive-Thru in the rear, has a context-sensitive location close to perimeter Sidewalks.



Sovereign Bank Drive-Thru in the rear, enables the building to anchor the entrance to the Lantern Hill TND.

The Bank and Retail/Office building form a "bookends" effect at the entrance to Lantern Hill.



The Bank and Retail/Office buildings are at the entrance to Lantern Hill, at Broad Street and Lantern Hill Lane. These buildings serve as gateway features.

The Retail/Office building has ground floor Retail, and 2 floors of Office above.

The Sovereign Bank at Lantern Hill is a distinguished example of:

- a 2-story Bank;
- a Bank with the Drive-thru behind the building, and on the side of the building; and
- a context sensitive building location that "anchors" the corner.

## Traditional Neighborhood Development Overlay District

Baltimore Avenue, Media Borough - Delaware County, Pennsylvania



After completing the Comprehensive Plan for the Borough of Media in 2005, the Borough hired TCA to assist in the implementation of its goal for improved function and appearance of the Baltimore Avenue Corridor. This auto-oriented thoroughfare displays both the best and worst characteristics of the Borough's traditional and suburban development. TCA and the Borough created a Traditional Neighborhood Development (TND) Overlay District ordinance that provides opportunities for context sensitive infill and redevelopment along the corridor.

Written and graphic design guidelines are incorporated into the Borough's Zoning and Subdivision and Land Development Ordinances, and focus on:

- Building Location
- Street Walls
- Building Height
- Building Design
- Parking Location
- Curbing and Curb Cuts
- Sidewalks
- Street Lights
- Street Furniture
- Gateways
- Parking Location
- Signage



New Building, Sidewalk and Landscaping Consistent with Traditional Building Frontage.

A vital component of the Design Guidelines is a Development Strategy depicting proposed locations of potential buildings, street trees, hedges, street lights, and benches. Borough Council unanimously adopted the Ordinance on July 19, 2007.



Excerpt of Development Strategy Plan



## The Media Borough TND Ordinance (2007):

- celebrates existing context-sensitive buildings and Streetscapes; and
- prescribes new locations for infill buildings, and redevelopment sites.

New Suburban Form is informed by historic placemaking precedents, like those in Media, PA.

Actually, this initiative focused on the transformation of a Suburban Highway Character into a Town-Like Character.

## Traditional Neighborhood Development (TND) Districts

Charlestown Township - Chester, Pennsylvania



Development Strategy Plan for TND Districts

The TND Districts of Charlestown Township are intended to:

- Comply with Article VII-A, Traditional Neighborhood Development, of the Pennsylvania Municipalities Planning Code (MPC);
- Promote "Placemaking" to create a more functional and attractive Neighborhood Structure in the Devault area;
- Build Compact, Mixed-Use, Pedestrian-Oriented, and Sustainable Neighborhoods in the five (5) TND Districts (TND-1 through TND-5); and
- Require a Manual of Written & Graphic Design Guidelines to provide quality control in the construction of the TNDs.



Character Sketch for TND-2 Area



Example of Single-Family Detached Dwellings for TND-1 Area

Since 2008, when the Charlestown TND Ordinances were adopted 4 projects have been hatched including:

- Spring Oak;
- Pickering Crossing;
- Village at General Warren; and
- Village at Spring Oak.

## Traditional Neighborhood Development (TND) Districts

Charlestown Township - Chester, Pennsylvania



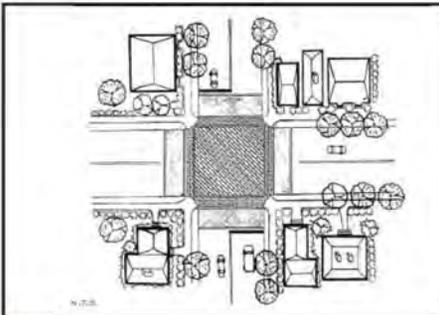
Linear Park at Eagleview, Exton, PA, in Claremont Neighborhood with Mixed Housing Types



Mini-Parks at The Kentlands, Gaithersburg, MD

The Guiding Principles of the TND Ordinance focus on such Key Design Elements as:

- Pedestrian-Friendly Neighborhoods;
- An Interconnected Street & Pathway Network;
- A Well-Defined Public Realm;
- Predictable Building Locations;
- Context Sensitive Building Design; and
- A Diversity of Building and Housing Types.



Speed Table & Crosswalk at Street Intersection



Example of "Green Court" Lot for TND-1 Area

The Charlestown TND Districts, in and near Devault Village (ca. 1860), were identified:

- in the 2001 Comprehensive Plan;
- after several Visioning Sessions with Community Stakeholders; and
- during the re-zoning process of 2008.

## Traditional Neighborhood Development (TND) Districts

Cranberry Township - Butler, Pennsylvania



Town Center, South Side Works



South Side Works Streetscape

The TND Districts in Cranberry Township are intended to:

- Comply with Article VII-A, Traditional Neighborhood Development of the Pennsylvania Municipalities Planning Code;
- Promote "Placemaking" to create a more functional and attractive Neighborhood Structure; and
- Build Compact, Mixed-Use, Pedestrian-Oriented, and Sustainable Neighborhoods.



Buildings in Alignment: Summerset at Frick Park



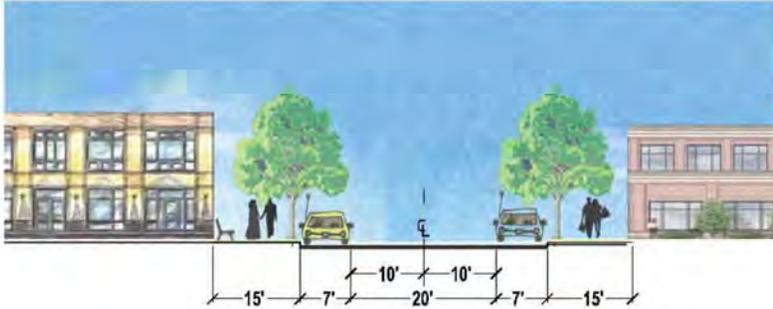
Interconnected Street & Alley Network: Summerset at Frick Park

The Cranberry Township TND Districts, from 2008 through 2012 have included:

- TND - Traditional Neighborhood Development;
- SEO – Streetscape Enhancement Overlay District;
- COD – Corridor Overlay District; and
- CCD – Community Character Districts.

## Traditional Neighborhood Development (TND) Districts

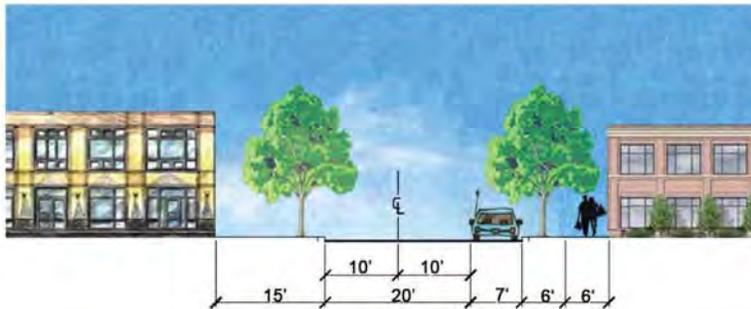
Cranberry Township - Butler, Pennsylvania



Typical Street Section of Main Street  
(Parallel Parking on Both Sides)

The proposed TND Street Network is intended to be guided by Street Sections for:

- Boulevards, Avenues, Parkways;
- Main Streets, with On-Street Parking;
- Neighborhood Streets; and
- Alleys & Service Lanes.



Typical Street Section of Main Street  
(Parallel Parking on One Side)

New Streets have been built to emulate the Streetscapes that were measured from precedents at:

- Sewickley Borough;
- Summerset at Frick Park;
- South Side Works; and
- Waterfront.

## Traditional Neighborhood Development (TND) Districts

Cranberry Township - Butler, Pennsylvania



Summerset at Frick Park TND



Civic Green at Georgetown Square, Cranberry Township

The "Guiding Principles" of the TND Ordinance focus on such key design elements as:

- Pedestrian-Friendly Neighborhood Patterns;
- Predictable Building Locations;
- Public Gathering spaces;
- A Well-Defined Public Realm; and
- Two-Story, Context Sensitive Building Design.



Well-Defined Crosswalks at Street Intersection, Easton Town Center, OH



Articulated Facade with Awnings, Rolliers, Mount Lebanon



To date, the TNDs built in Cranberry Township have included:

- BelleVue Commons;
- Park Place and;
- Cranberry Woods.

In addition, several Commercial establishments, such as Auto Zone and Sheetz, have followed the TND Codes.



New Auto Zone



New Sheetz

## Lititz Borough Form-Based Code

Lititz Borough, Lancaster County, Pennsylvania

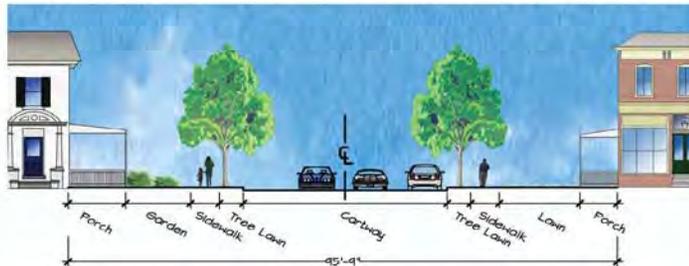
The Borough of Lititz retained TCA to Amend both the Zoning Ordinance and the Subdivision & Land Development Ordinance. Both ordinances have Form-Based Code chapters focused on maintaining the traditional character of this Moravian settlement.

The Form-Based Code (FBC) Components of the Zoning Ordinance include Design Standards for: Streetscapes; Streets, Alleys, and Blocks; Public Space; Lot Types; Mixed-Use and Adaptive Re-Use; and Historic Resource Protection.

Lititz Borough is the "poster-child" of the compact, complete place to live, work, shop, and play. The Form-Based Code is intended to maintain the distinctive character of this great place.



Buildings in Alignment, Main Street, Downtown Lititz  
Build-To Line



Streetscape formed by "Bookend Buildings," and embellished with Street Trees at Spruce Street



The Lititz Borough FBC won the Envision Leadership Award from the Lancaster County Planning Commission in 2011.

New development and redevelopment in Lititz Borough is required to:

- emulate the traditional fabric of this "Coolest Small Town in America" (ca. 2013); and
- continue the mixed-use character of the community.

The Lititz Borough FBC, adopted in 2010, is now being utilized to design "Warwick Woodlands", a new CCRC by Moravian Manor.

**Lititz Borough Form-Based Code**  
Lititz Borough, Lancaster County, Pennsylvania

The Lot Diagrams of the FBC address the following Lot Types:

- Single-Family Detached
- Single-Family Semi-Attached
- Live/Work Units
- Multi-Family
- Multi-Family (With Interior Parking Court)
- Commercial Store
- Deck Parking Structure
- Main Street Environment
- Anchor Store

These Lot Types are intended to fit into the traditional block, street and alley network of the Borough of Lititz.

New development and redevelopment projects shall have an interconnected network of streets and alleys, in keeping with the Traditional Town character of Lititz.

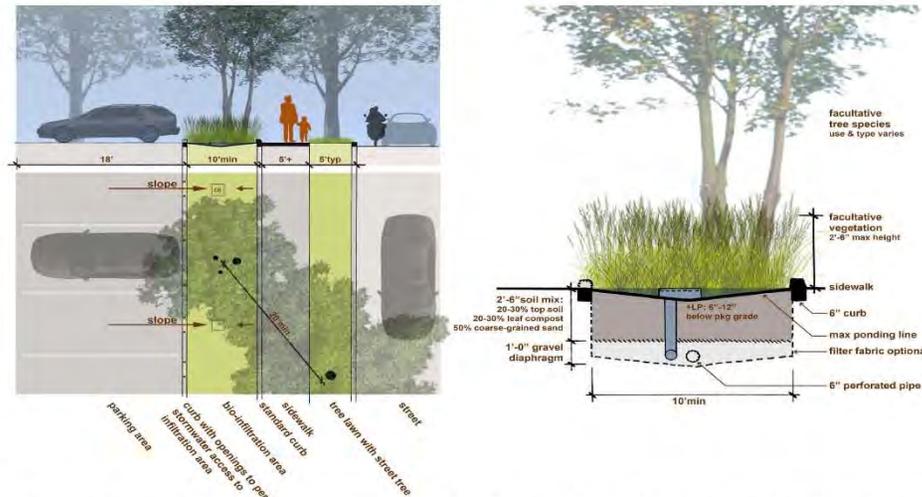


The Lititz Borough FBC also features Blocks & Lot Diagrams to clearly identify the preferred outcomes for:

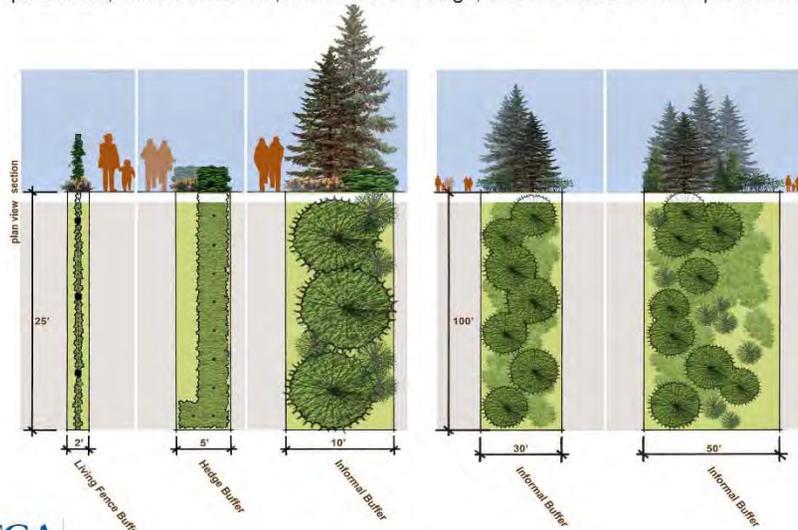
- Lot Types;
- Setbacks/Build-To Lines;
- Parking Location;
- Alleys; and
- Main Street Environment.

These Block & Lot Diagrams are being used for the design of the new Warwick Woodlands CCRC.

**Lititz Borough Form-Based Code**  
Lititz Borough, Lancaster County, Pennsylvania



The Form-Based Code (FBC) Components of the Subdivision & Land Development Ordinance address such features as: Street Furniture, Sidewalks & Crosswalks; Street Lights; Street Trees; Parking Lots; Landscape Buffers; Green Urbanism; Architectural Design; and Maintenance of Improvements.



The Lititz Borough FBC also features considerations for:

- green infrastructure;
- varied landscape buffers; and
- techniques to balance built and conserved lands.

## NEW DALEVILLE

A Traditional Neighborhood Development  
 Daleville, Pennsylvania  
 (Town Planning and Design Services)



Proposed Dwellings Around Green Court.



New Daleville Site Plan.

TCA assisted Londonderry Township and Arcadia Land Company to prepare the TND Ordinance that was adopted in October 2003. The proposed neighborhood with 125 homes and 12,000 square feet of commercial use is an extension of the rural center of Daleville. This TND, located at the intersection of PA Routes 926 and 796 will have over 50% common open space.

The New Daleville TND will feature:

- A compact, walkable, mixed-use community;
- A neighborhood commercial component adjoining active recreational areas;
- A streetscape accented by front porches; and
- Green courts as a civic and neighborhood amenity.



Detail of Site Plan Showing Street and Alley Network.

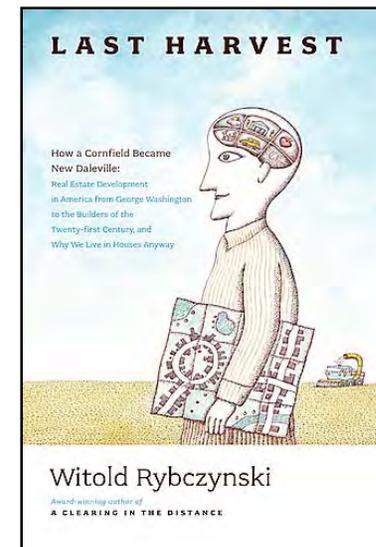


Proposed Mixed-Use Buildings in Neighborhood Center.



THOMAS CORWIN ASSOCIATES, INC.  
 Town Planners & Landscape Architects  
 ©2008

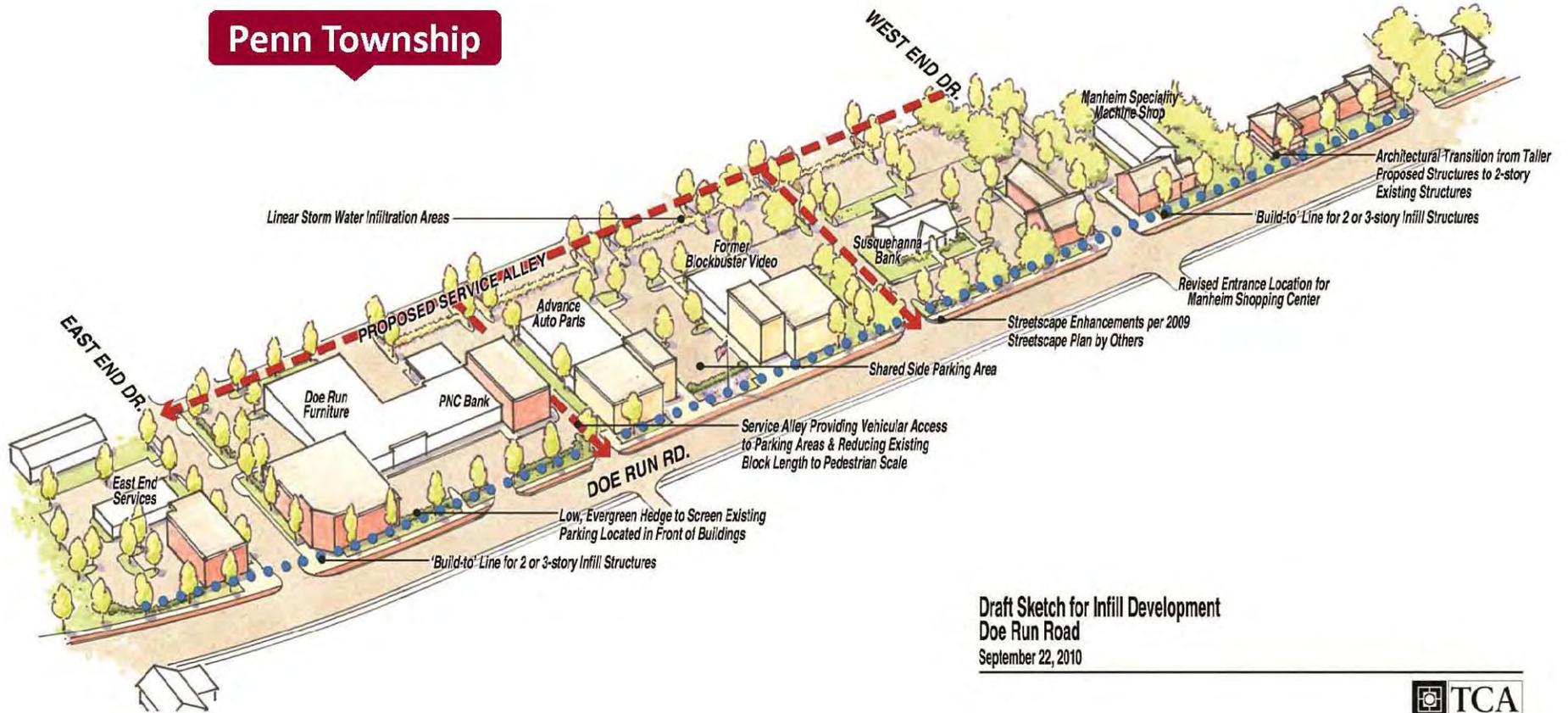
New Daleville (2007 to 2013), was hatched from a cornfield, is memorialized in Witold Rybczynski's book titled "*Last Harvest*" ! (Scribner, 2007)



*Last Harvest* is a chronicle of the approval process during which Arcadia Land Co. and TCA collaborated to amend the Londonderry Township Ordinance, and obtain the approvals ! !

# Form-Based Code: Design Guidelines

## Penn Township



# Form-Based Code: Preferred Outcomes

## Modernist Building in Historic Neighborhood

Food for Thought for the Baltimore Pike Corridor in Media, PA



"Fred & Ginger", Prague, Czech Republic



Modernist Building Along Traditional Streetscape

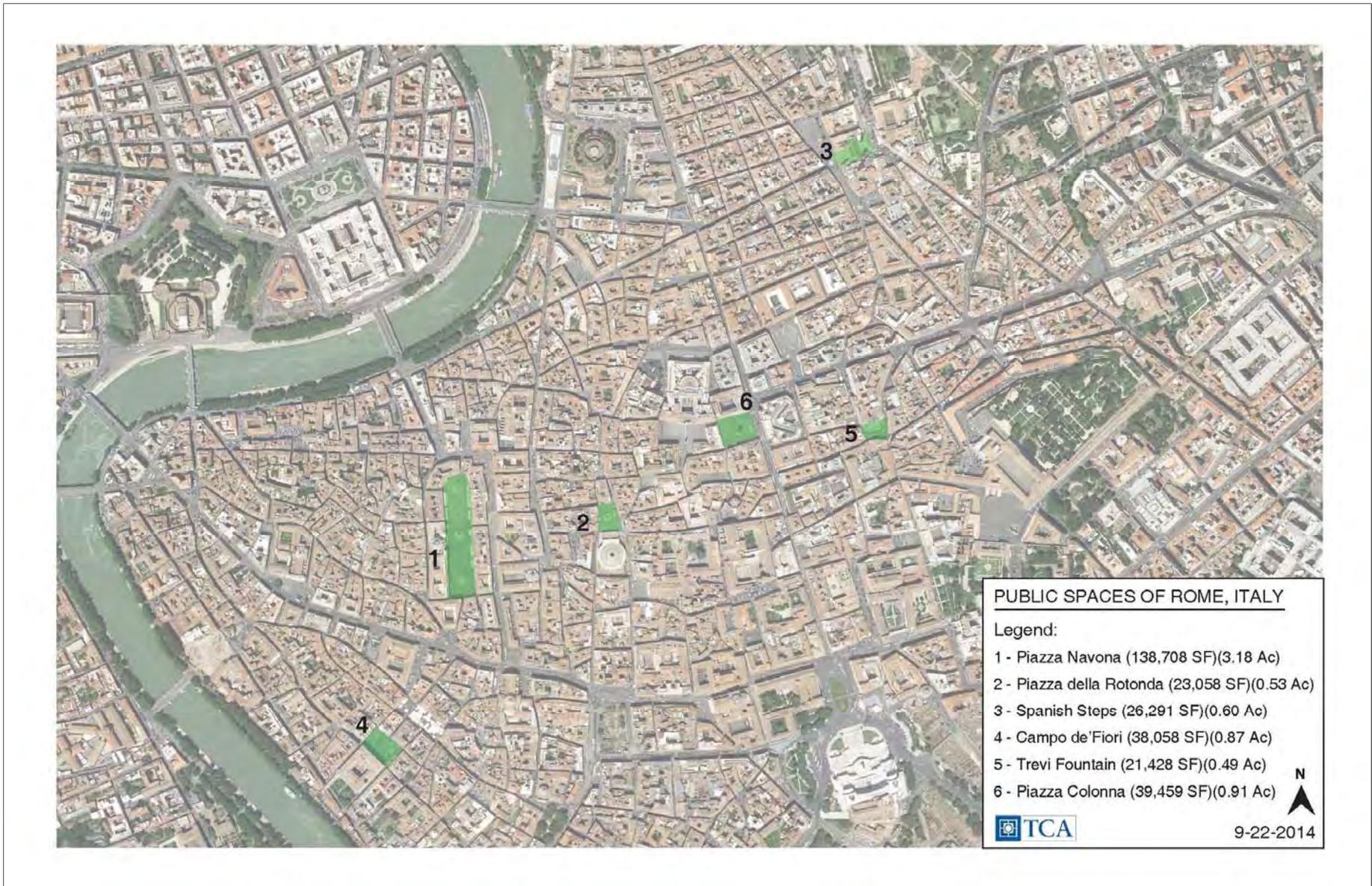
### Overview:

- Traditional urbanism respects street walls, and involves buildings that adjoin sidewalks.
- Modernist buildings can be designed to fit into a traditional streetscape by respecting street walls and engaging the sidewalk.

### Design Guidelines:

1. Align modernist buildings with traditional buildings.
2. Locate modernist buildings to adjoin the sidewalk.
3. Devote ground floor use to retail and related commercial activity.





Note: Most of these Public Spaces of Rome average 0.68 acres. However, most Conventional Suburban Ordinances have requirements for a 1.0 acre minimum Open Space area.

## Form-Based Code, Key Take Aways:

1. Keep Improving the Code;
2. Create Positive Examples;
3. Identify New Practices;
4. Provide Give-Get Incentives;
5. Improve the Public Realm; and
6. Maintain Consistency with Reviews.