



Form-Based Codes: Lessons Learned from a Mount Holly, NJ Case Study

March 2012



Form-Based Codes: Lessons Learned from a Mount Holly, NJ Case Study

March 2012

The Delaware Valley Regional Planning Commission is dedicated to uniting the region's elected officials, planning professionals, and the public with a common vision of making a great region even greater. Shaping the way we live, work, and play, DVRPC builds consensus on improving transportation, promoting smart growth, protecting the environment, and enhancing the economy. We serve a diverse region of nine counties: Bucks, Chester, Delaware, Montgomery, and Philadelphia in Pennsylvania; and Burlington, Camden, Gloucester, and Mercer in New Jersey. DVRPC is the federally designated Metropolitan Planning Organization for the Greater Philadelphia Region — leading the way to a better future.



The symbol in our logo is adapted from the official

DVRPC seal and is designed as a stylized image of the Delaware Valley. The outer ring symbolizes the region as a whole while the diagonal bar signifies the Delaware River. The two adjoining crescents represent the Commonwealth of Pennsylvania and the State of New Jersey.

DVRPC is funded by a variety of funding sources including federal grants from the U.S. Department of Transportation's Federal Highway Administration (FHWA) and Federal Transit Administration (FTA), the Pennsylvania and New Jersey departments of transportation, as well as by DVRPC's state and local member governments. The authors, however, are solely responsible for the findings and conclusions herein, which may not represent the official views or policies of the funding agencies.

DVRPC fully complies with Title VI of the Civil Rights Act of 1964 and related statutes and regulations in all programs and activities. DVRPC's website (www.dvrpc.org) may be translated into multiple languages. Publications and other public documents can be made available in alternative languages and formats, if requested. For more information, please call (215) 238-2871.

Table of Contents

Executive Summary	3
Introduction	5
■ Why Mount Holly?	5
■ Why a Form-Based Code?	7
Process	11
■ Understanding the Existing Environment	11
■ Visioning for the Future	14
Form-Based Code	15
■ Transects	15
■ Street Segments	16
■ Building Types	18
■ Uses	20
■ Implementation	21
Lessons Learned	23
■ 1. Consult the Master Plan and Relevant Local Documents	23
■ 2. Facilitate the Community's Vision	23
■ 3. Walk Everywhere	24
■ 4. Stay Focused on Project Purpose and Scope	24
■ 5. Be Flexible When Creating the Code's Definitions	24
■ 6. Design for the Market	24
■ 7. Educate the Public and Municipal Officials	25

Figures and Tables

Figure 1: Study area	6
Figure 2: Community character preferred by residents	7
Figure 3: Setbacks required by existing zoning	8
Figure 4: Process Overview	11
Figure 5: Synoptic survey sheet	13
Figure 6: Plan showing transects and street segments	16
Figure 7: Example of a typical pedestrian realm within a frontage type	17
Figure 8: Example of a street type	18
Figure 9: Building type example (stackable townhouse)	19
Figure 10: Excerpt from permitted uses chart	20
Figure 11: User instructions	21

Appendices

Appendix A

Transect A	A-1
------------------	-----

Appendix B

Municipal Project Team	B-1
------------------------------	-----

Executive Summary

Unlike conventional zoning codes, a form-based code encourages a mix of uses and building types while emphasizing the form and function of public and private realms. Form-based codes are concerned with the character of the public realm, specifically how public realm character is affected by the development of private property. They document desired relationships and establish expected outcomes for building types, block and street patterns, street standards, and public spaces. This type of code does not regulate architectural styles, but instead governs building massing, streetscapes, and parking locations, thereby promoting the development and/or redevelopment of the neighborhood fabric. Municipalities benefit from the predictable development environment created by form-based codes that allows for preservation of unique community characteristics and facilitates appropriate growth and change.

The strongest legal basis for form-based codes is the zoning police power that allows the public to envision, design, and control development of the public realm. Form-based codes empower municipalities to do this through the use of public thoroughfare (street) regulating plans and public space plans ("official maps" of predictable rights-of-way). While many municipalities simply map land use zoning districts and hand over decisions about future streets, plazas, and parks to developers, form-based codes provide a mechanism to exercise greater control over these public realm assets.

Because form-based codes create and/or preserve desirable community forms, many municipalities are interested in adopting such codes. The Mobility and Community Form Initiative, sponsored by the New Jersey Department of Transportation (NJDOT), began an effort in 2008 to develop form-based codes in several municipalities across the state of New Jersey, including Mount Holly (Burlington County), Edison (Middlesex County), North Arlington (Bergen County), Dover (Morris County), and Hammonton (Atlantic County). Form-based codes are important to NJDOT because they merge design specifications for land development with transportation elements in order to attain the desired built environment. While a few communities in the region have already adopted form-based codes (Haddonfield, NJ; Woolwich Township, NJ; and Woodbury City, NJ), the process of writing and adopting a form-based code in the Township of Mount Holly is intended to serve as a demonstration for other municipalities.

This report focuses on the development of Mount Holly's form-based code and on lessons learned throughout the process that can be applied to other municipalities as they pursue development and adoption of their own form-based codes.

Introduction

Why Mount Holly?

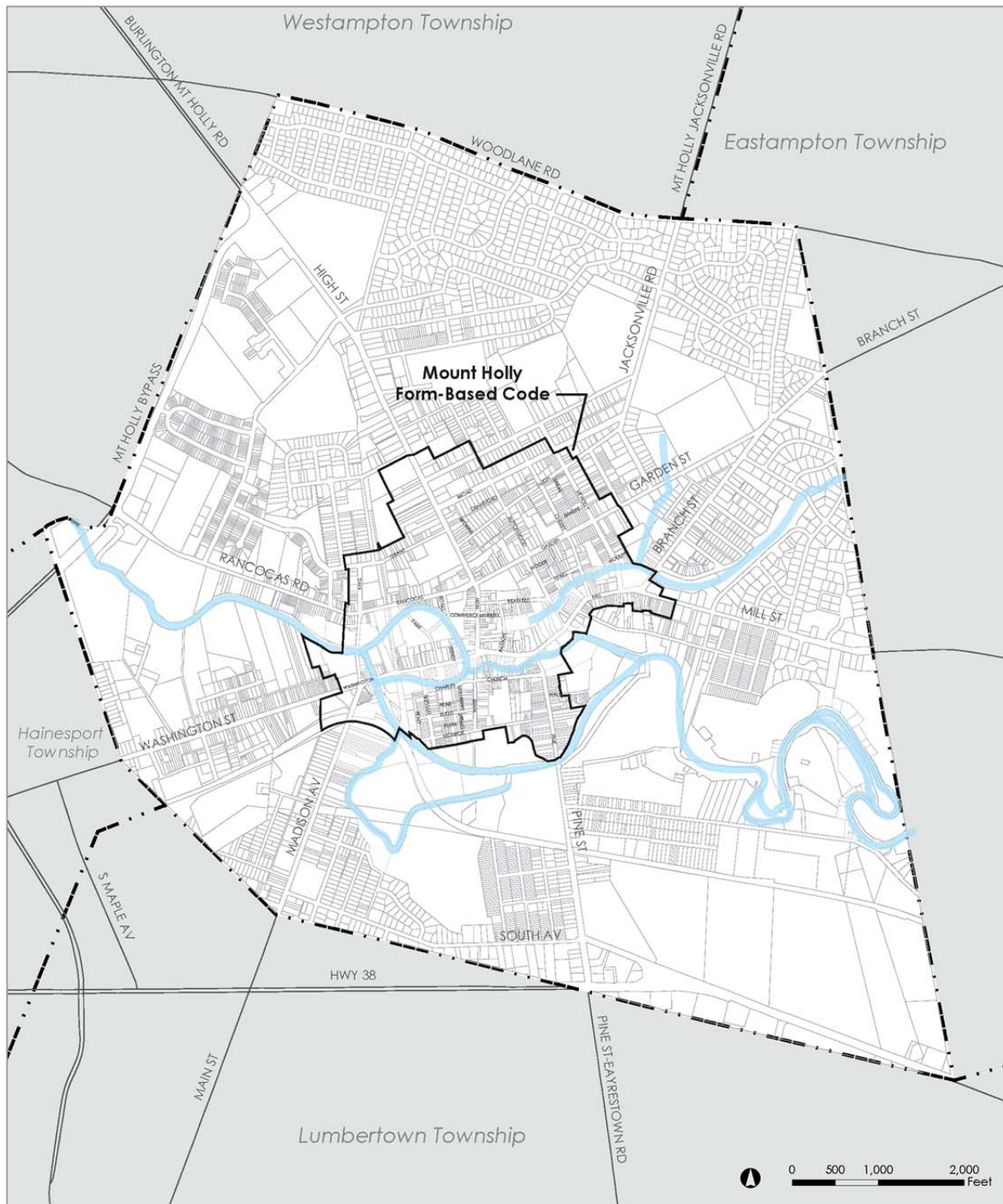
Mount Holly Township, originally founded in 1688 as Northampton, is the county seat of Burlington County, New Jersey and home to over 10,000 people in just under three square miles. Historically an important regional center in the county, Mount Holly seeks to strengthen that position through public and private investment in its core downtown area facilitated by a new form-based zoning code.

The existing zoning is outdated, and the regulations do not allow development to occur in a manner that fosters a desirable community character. Through the development of a new zoning code, Mount Holly seeks to implement the land use goals of the Township Master Plan (2000) and the goals and objectives of the Mount Holly Township Strategic Revitalization Plan (2008).

This study includes only selected areas within the township in order to concentrate resources within areas where they will have the greatest impact. The initial study area, proposed by staff at the Municipal Land Use Center of The College of New Jersey and based largely on discussions with local municipal officials, focused on Mount Holly's downtown, which already has a unique sense of place. Part of the form-based code district is co-extensive with the historic preservation district, where New Jersey's Municipal Land Use Law (MLUL) encourages specific building form and architectural detailing standards. The standards allow a municipality to evaluate "appropriateness" in building alterations and infill construction. Much of the study area was publicly owned, either by the municipality or county, neither of which were not adverse to the form-based code concept. Furthermore, it is adjacent to the County Administrative and Court Complex and has been designated as an Urban Enterprise Zone (UEZ) and a Main Street New Jersey community.

However, after initial investigation, the study area for the new form-based code was expanded to better represent a larger segment of the community. The final study area is a legally supportable place to implement such a design code and includes the downtown, the municipal complex, the Creekside Redevelopment Area, and two portions of the township that serve as gateways to the community but are in need of redevelopment: the intersection of Washington and King streets with Madison Avenue and the intersection of Mill and Branch streets. By including all these areas, Mount Holly will ensure that future development complements the character of the community and that eventually welcoming gateways will be developed that exemplify the assets of the township.

Figure 1: Study area



Source: Mount Holly Form-Based Code, 12/06/2010 draft

The form-based zoning code project was led by consultants Group Melvin Design and Hurley-Franks Associates in conjunction with DVRPC staff. The project also included a Municipal Project Team with members from Burlington County, NJDOT, The Municipal Land Use Center, and local Mount Holly

Township representatives and planning professionals. A Mount Holly resident was also included on the Municipal Project Team. See Appendix B for the names of those on the Municipal Project Team.

Why a Form-Based Code?

Form-based codes aim to improve the public realm by setting standards for the built environment rather than merely regulating land uses. The primary motivation for changing the zoning code in Mount Holly was the fact that the current zoning does not reflect the community's vision, nor does it reflect many of the desirable characteristics that are currently on the ground. Protecting the community character to ensure that future development adds value is the primary goal of the new form-based code.

In some cases, the type of development allowed by the existing zoning code is not desirable to the community. For instance, the majority of properties on Garden Street are built to the public right-of-way with little to no private frontage space. This frontage type is preferred by the community, yet the current zoning code requires minimum setbacks and breaks with the existing character of Garden Street.

Similarly, current zoning regulations along Pine Street require a minimum front setback and allow for parking to be located in the front of buildings, neither of which are characteristics of existing properties. Recently, these regulations resulted in new homes being built along Pine Street with large front setbacks and residential parking along the street edge, disrupting the neighborhood character.

Figure 2: Community character preferred by residents



Source: DVRPC, 2009

Figure 3: Setbacks required by existing zoning



Source: DVRPC, 2009

Mount Holly chose to develop a form-based code over a more conventional zoning code to achieve the following specific objectives:

1. Create an active mixed-use, walkable downtown that is able to support a variety of housing types; day, night, and weekend commercial uses; government services and active public spaces
2. Build upon the existing transportation infrastructure to promote a highly connected, multi-modal system
3. Enhance Mount Holly's gateways and unique features
4. Preserve the character of Mount Holly
5. Create appropriate transitions to outlying neighborhoods
6. Foster positive economic development.

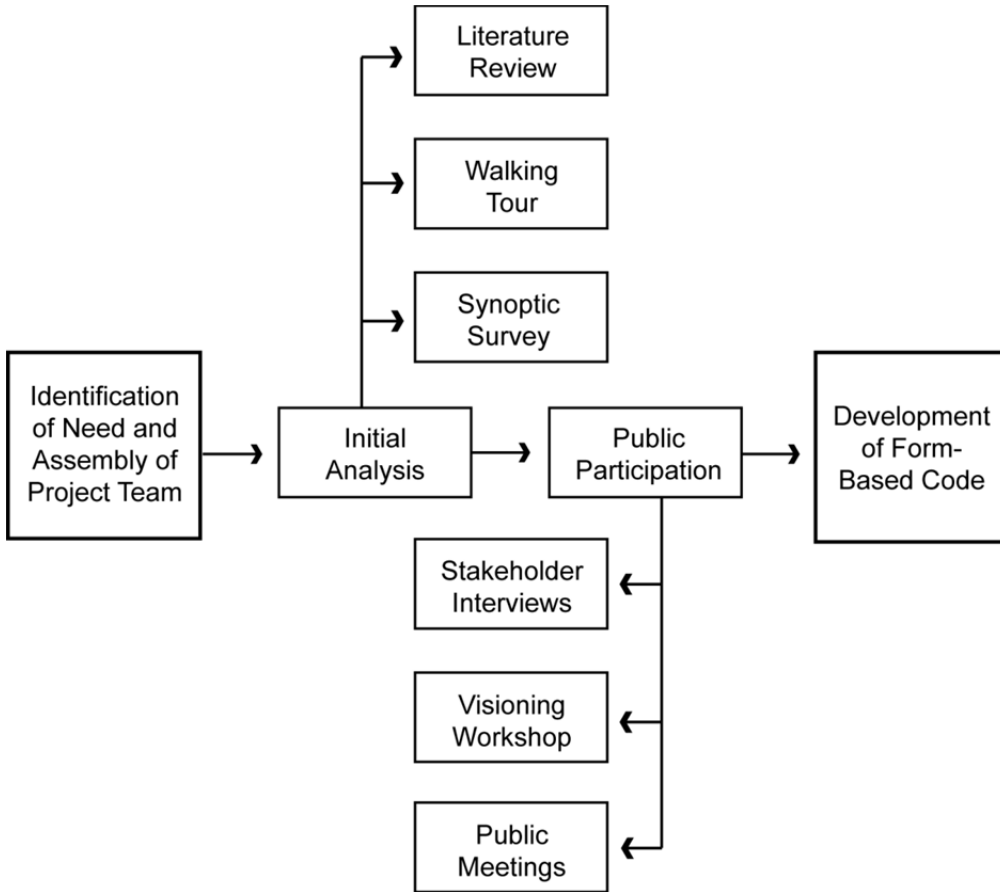
Another benefit of the new form-based code is that it reduces the length and cost of the variance process created by the existing zoning code, streamlining the development process in the most active commercial segment of Mount Holly. The ease of use and predictability of outcomes associated with implementation of a form-based code frequently attracts developers and encourages current business owners and residents to improve their properties as the process is considerably more direct, less cumbersome, and less costly. Replacing the existing conventional zoning code entirely within the

study area will accomplish this more efficiently than a revision of the existing code or the development of an overlay district.

Furthermore, much of the study area is within the Rancocas Creek floodplain. After discussions with the Department of Environmental Protection, it was determined that where this occurs, state and local floodplain regulations will override the form-based code. In order to help developers and local officials determine the highest and best uses of properties constrained by environmental regulations, the form-based code provides a list of appropriate development strategies in the floodplain.

Process

Figure 4: Process Overview



Source: DVRPC, 2010

Understanding the Existing Environment

A comprehensive literature review was the first step in understanding the community context within Mount Holly. The township’s previous studies, reports, and plans were examined and the regional context was established through a review of master plans from neighboring municipalities and the long-range plans of Burlington County, DVRPC, and other regional planning agencies. GIS data and maps were analyzed to determine if there were scheduled Transportation Improvement Projects or environmentally sensitive areas. This review enabled the consultant team to identify future plans that will affect growth and development in Mount Holly as well as establish the township’s role in the region.

Next, the existing conditions within the built environment were assessed through two primary methods, a walking tour and a synoptic survey (documentation of the physical characteristics of the study area). The walking tour revealed the variety of land uses, building types, site designs, and characteristics present in the study area. Observations of community character elements ranged from features such as building height and setback to trees, lawns, and parking accommodations. Informal interviews with community stakeholders during the walking tour provided an opportunity for the project team to learn what kinds of urban form are preferred and where change is desired.

During the synoptic survey, the project team studied streets throughout the study area that exemplify characteristics common in Mount Holly. Observations and measurements were recorded that detailed both public and private frontages. Typical data collected for public frontages included right-of-way width, number of moving and parking lanes, width of sidewalk, and tree planting patterns. Data collected for private frontages included the amount of window glazing, building height, lot coverage, setbacks, and land use. This survey allowed the consultant team to identify the range of characteristics and street types in the study area. The synoptic survey sheet was developed to help the team record and organize the information collected.

Figure 5: Synoptic survey sheet

LOCATION:

TRANSECT ZONE:

insert orthophoto (plan view aerial) here

insert street section photo here

insert elevation of buildings photo here

PLAN VIEW DIMENSIONS	PUBLIC FRONTAGE**	PRIVATE FRONTAGE**
Block Width	Public Frontage Type	Private Frontage Type
Block Depth	Spatial Width	% Ground Fl Glazing
Block Perimeter	Posted Speed	% Upper Fl Glazing
Units per Acre*	ROW Width	Principal Bldg Height
Average Lot Width*	Curb to Curb Width	Outbuilding Height
Average Lot Depth*	Moving Lanes	1st Floor Above Grade
Average Lot Coverage*	Parking Lanes	Building Disposition
Parked Cars per Acre*	Pavement Width	Lot Width
Trees per Acre*	Curb Type	Lot Depth
	Curb Radius	Lot Coverage %
	Median	Frontage Buildout %
	Sidewalk	Primary Front Setback
	Planter Type	Secondary Frt Setback
	Planter Width	Side Setback
	Planting Pattern	Rear Setback
	Tree Type	Outbldg Side Setback
	Bike Way Type	Outbldg Rear Setback
	Bike Way Width	Front Encroachment
		Side Encroachment
		Ground Fl Function
		Upper Fl Function

*measure from GIS or orthophoto

**record range

Source: Group Melvin Design, 2010

Visioning for the Future

An effective visioning process allows community members to identify the characteristics that they love about their neighborhood and what they would like to see change in the future. In Mount Holly, the visioning process began with a one-day listening session in which the project team individually interviewed township staff, public officials, business owners, and community activists. Informal discussions were held with local residents, business owners, and other stakeholders at the local coffee shop, “The Daily Grind.” People offered opinions about the current zoning code, ideas for improvement in the study area, and their views on the many design elements that comprise Mount Holly’s urban fabric, such as parking, fences, alleyways, housing types, and land uses. The information gathered allowed the project team to understand the local “flavor” and citizens’ collective vision for the township. The single biggest complaint about the current zoning ordinance is that it discourages or prohibits people from doing good things with their property unless they are willing to go through the tedious, burdensome, and expensive process of getting use and bulk variances.

Based on information gathered during the walking tour and discussions with stakeholders, the project team developed six principles below to guide the form-based code project:

1. Preserve the existing character of the downtown and adjacent residential neighborhoods
2. Support opportunities for desirable economic development
3. Provide clear graphics to accompany code language, allowing users to visualize specific regulations
4. Decrease the frequency of variances needed for common urban design features
5. Encourage vibrancy along High Street with mixed-use development
6. Enhance Mount Holly’s gateways and unique features, such as Rancocas Creek.

A community visioning workshop open to the public was then held at the local library. Attendees were educated about form-based codes and the ongoing project in Mount Holly, including the visioning principles and proposed transect zones (see Chapter 3), and then asked to provide input. Participants broke into small groups, viewed photos of typical development scenarios (single-family homes, industrial buildings, downtown main streets, arterial commercial strips, public gathering spaces, etc.), and were asked to detail their “likes” and “dislikes” in relation to the photos.

A second community meeting was held that detailed the difference between each transect zone and explained the specific code elements for each area. This event gave residents and other local stakeholders an opportunity to gain clarification on the form-based code, ask questions about the specific regulations, and suggest changes to the draft code elements.

Mount Holly officials were included at each step in the process through representation on the Municipal Project Team, presentations to Council and Planning Board meetings, inclusion in the stakeholder interview proceedings, and a small group meeting toward the close of the project.

Form-Based Code

Transects

Nine transects, or areas that exemplify a particular built environment in Mount Holly, were identified by the project team. The standards for each transect were developed in response to the prevailing urban landscape character of the public realm and private land uses in each. The standards serve to either protect the existing character, to evolve and grow the character, or to change the character of the area through future development.

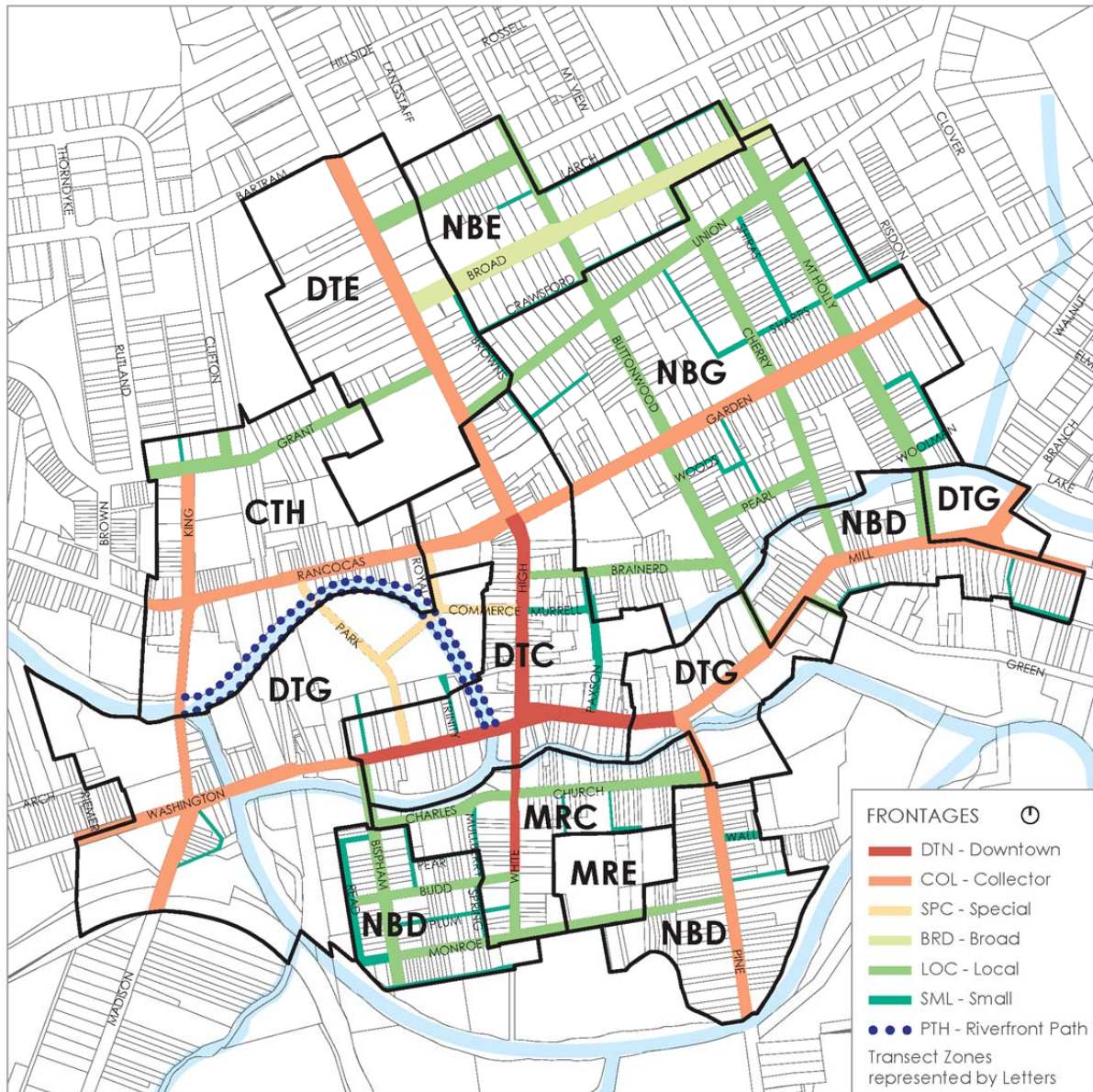
Four of the nine total transects consist largely of stable residential areas and feature items such as sidewalks and tree lawns that were considered to be desirable by public participants. The goal for these areas is to protect the existing environment and, as such, the standards set by the form-based code are designed to maintain the building type, massing, and character already present in these areas.

Two other transects cover areas that exhibit development patterns and building frontages desirable to the downtown core, but also include parcels that are vacant, underutilized, or otherwise available for infill development. The goal of evolving and growing is appropriate for these areas since new development is desired by the community. Furthermore, workshop participants envisioned changes to form in this area, such as taller building heights, so the code reflects the opportunity for future evolution of the neighborhood character in these transects.

The final three transects include areas that serve as gateways to Mount Holly, but are currently underutilized and where redevelopment is most likely to occur. These areas currently do not contribute to the character and vibrancy of the Mount Holly community, so the goal for the future is to encourage change.

See Appendix A for an example of a transect district plan.

Figure 6: Plan showing transects and street segments



Source: Mount Holly Form-Based Code, 12/06/2010 draft

Street Segments

Mount Holly’s form-based code integrates street types and frontage types through the Street Regulating Plan. Seven unique frontage types – Downtown, Collector, Special, Broad, Local, Small, and Riverfront Path (shown in Figure 6) – were identified based on existing public rights-of-way, desired widths, road hierarchies, building scales, and pedestrian amenities. Guidelines for the frontage types regulate building façade forms and the pedestrian realm in relation to the public streets upon which they front. This parameter is integral to creating the appropriate nexus between the public and private realms within a street or block. The uniform application of the frontage type

guidelines allows the vision for the area to be realized over time despite incremental development and changing architectural styles and materials.

Figure 7: Example of a typical pedestrian realm within a frontage type

14.1.C Typical Pedestrian Realm and Associated Elements

- 1 Street Tree Spacing
- 2 Street Light Spacing
- 3 Bench
- 4 Bicycle Rack
- 5 Trash Receptacle
- 7 Planter

14.1.D Pedestrian Realm Amenity Requirements

AMENITY TYPE		REQUIREMENT		AMENITY TYPE		REQUIREMENT	
1	Street Tree Spacing	Avg. 30' On Center		8	Outdoor Cafes	Permitted	
2	Street Light Spacing	Avg. 85' On Center		9	Private Setback	Paved	
3	Bench	1 per 150 Linear Feet		10	Mid-Block Connection	1 per 200 Linear Feet	
4	Bicycle Rack	1 per 200 Linear Feet		11	Planting Strip	Tree Pits	
5	Trash Receptacle	1 per 150 Linear Feet		12	Storefronts	Required on non-government buildings	
6	Bus Shelter	--		13	Signs	Permitted	
7	Planter	Permitted		14	--	--	

14.1.D(i) Permitted Street Trees

Gleditsia triacanthos
'Skycole'
(Skyline Honeylocust)

Tilia cordata
(Little Leaf Linden)

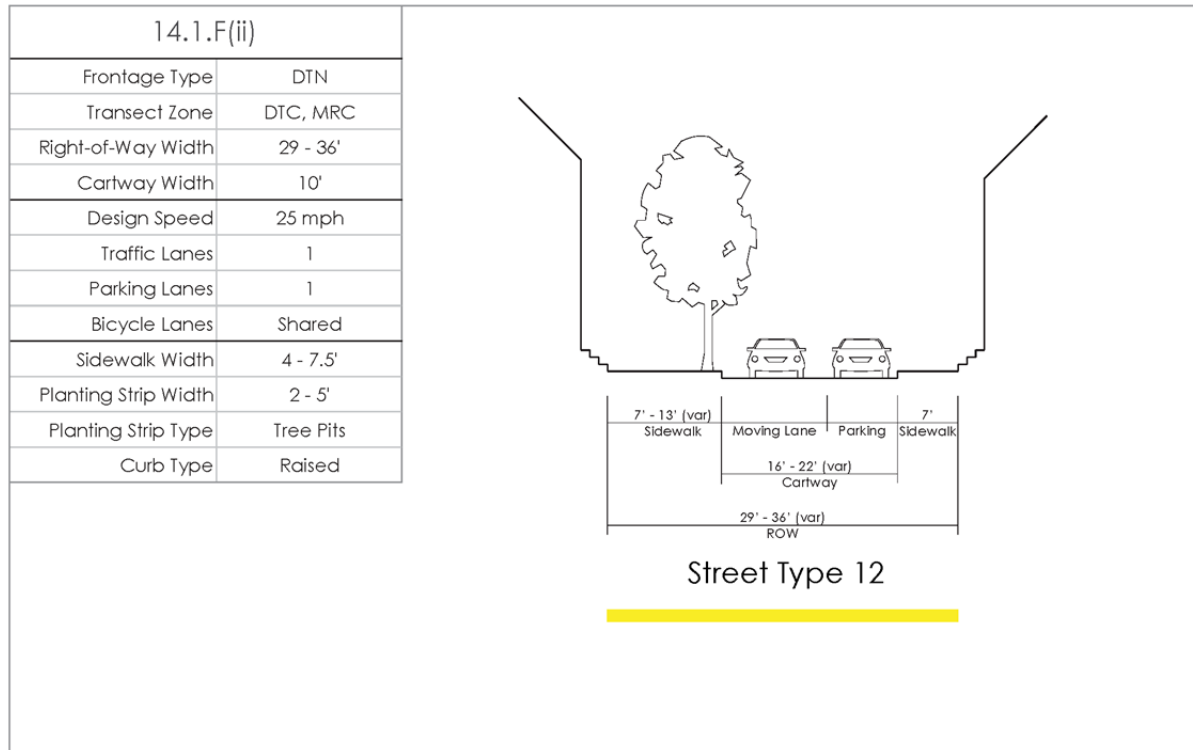
Fraxinus pennsylvanica
(Green Ash)

- Transparent foliage and upright branching habit does not obscure signage on commercial streets
- Well suited to dense urban environments

Source: Mount Holly Form-Based Code, 12/06/2010 draft

In Mount Holly, like in many other municipalities, some public rights-of-way are not uniform in width. To address this, each frontage type contains one or more street types. Each street type provides detailed, dimensioned cross-section diagrams that adhere to the purpose and definition of each frontage type.

Figure 8: Example of a street type



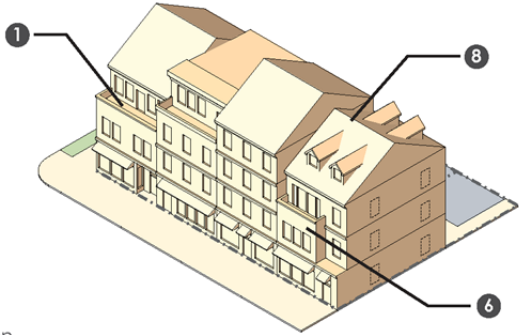
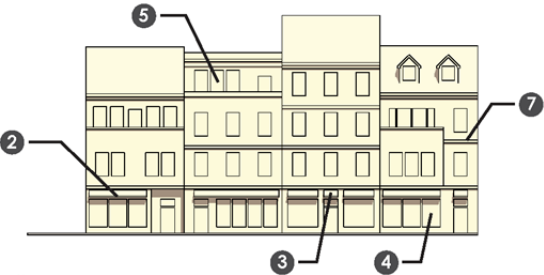
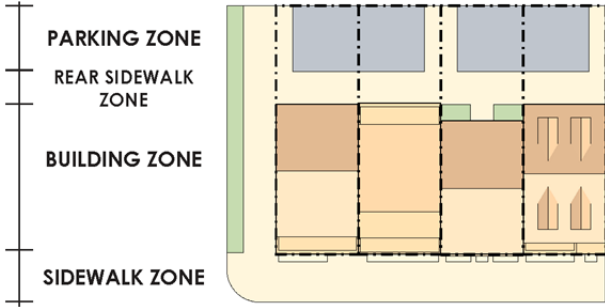
Source: Mount Holly Form-Based Code, 12/06/2010 draft

Mount Holly’s form-based code includes 14 street types as well as two different alley types and one riverfront path category. Alleys and paths were separated from the other local street types because of differing goals for these streets. For example, while a cross-section of an alley may be very similar to that of a small local street, the type of development supported by the alley is very different.

Building Types

Another common element detailed for each transect in Mount Holly’s form-based code is building type. The 13 building types, which range from single-family dwellings and office buildings to live/work units, govern building function, disposition on the lot, and configuration, including frontage and height. Each building type is addressed individually in the form-based code. Building types may contain one or more uses and are required to incorporate certain design forms and functional elements meant to encourage high-quality design and construction while meeting modern occupancy standards. Each transect zone allows specified building types and regulates their location, while the frontage types regulate how each building type relates to the public right-of-way upon which it fronts.

Figure 9: Building type example (stackable townhouse)

13.9 Live/Work	13.9.A Purpose/Definition																																																																															
 <p>Axon</p>	<p>13.9.A Purpose/Definition</p> <p>A hybrid commercial/residential building that may be new infill construction or a conversion of an existing home into a combination ground-floor business and upper-floor single-family dwelling unit. This building type is modeled on the traditional residence above storefront buildings in Downtown Mount Holly.</p>																																																																															
 <p>Elevation</p>	<p>13.9.B Suggested Building Elements</p> <p>Vertical Breaks: porches, awnings or overhangs (2, 3), horizontal bands (7), offset roof line (8), balconies or balconettes (1)</p> <p>Horizontal Breaks: vertical windows (5), building offsets (6), offset roof line</p> <p>Ground Floor: storefronts (4), awnings or overhangs (2, 3)</p> <p>Upper Floor: vertically-oriented window openings (reflective of function), private outdoor spaces (1)</p>																																																																															
 <p>Plan</p>	<p>Pedestrian Accommodations: at-grade street entrances, awnings or overhangs (2, 3), rear-yard parking</p> <p>Open Space: front setback, balconies or balconettes (1), porches, decks</p>																																																																															
13.8.C	<table border="1"> <thead> <tr> <th></th> <th colspan="8">Transect Zone</th> </tr> <tr> <th></th> <th>DTC</th> <th>DTG</th> <th>NBD</th> <th>MRC</th> <th>MRE</th> <th>CTH</th> <th>DTE</th> <th>NBG</th> <th>NBE</th> </tr> </thead> <tbody> <tr> <td>Min Lot Size</td> <td>2,000 sf</td> <td>3,000 sf</td> <td>--</td> <td>2,000 sf</td> <td>3,000 sf</td> <td>3,000 sf</td> <td>2,000 sf</td> <td>--</td> <td>--</td> </tr> <tr> <td>Min Lot Width</td> <td>25 ft</td> <td>35 ft</td> <td>--</td> <td>25 ft</td> <td>35 ft</td> <td>35 ft</td> <td>25 ft</td> <td>--</td> <td>--</td> </tr> <tr> <td>Min Building Width</td> <td>25 ft</td> <td>35 ft</td> <td>--</td> <td>25 ft</td> <td>35 ft</td> <td>35 ft</td> <td>25 ft</td> <td>--</td> <td>--</td> </tr> <tr> <td>Max Building Width</td> <td>40 ft</td> <td>50 ft</td> <td>--</td> <td>40 ft</td> <td>50 ft</td> <td>50 ft</td> <td>40 ft</td> <td>--</td> <td>--</td> </tr> <tr> <td>Min Building Depth</td> <td>40 ft</td> <td>40 ft</td> <td>--</td> <td>40 ft</td> <td>40 ft</td> <td>40 ft</td> <td>40 ft</td> <td>--</td> <td>--</td> </tr> <tr> <td>Max Building Depth</td> <td>--</td> <td>--</td> <td>--</td> <td>--</td> <td>--</td> <td>--</td> <td>--</td> <td>--</td> <td>--</td> </tr> </tbody> </table>		Transect Zone									DTC	DTG	NBD	MRC	MRE	CTH	DTE	NBG	NBE	Min Lot Size	2,000 sf	3,000 sf	--	2,000 sf	3,000 sf	3,000 sf	2,000 sf	--	--	Min Lot Width	25 ft	35 ft	--	25 ft	35 ft	35 ft	25 ft	--	--	Min Building Width	25 ft	35 ft	--	25 ft	35 ft	35 ft	25 ft	--	--	Max Building Width	40 ft	50 ft	--	40 ft	50 ft	50 ft	40 ft	--	--	Min Building Depth	40 ft	40 ft	--	40 ft	40 ft	40 ft	40 ft	--	--	Max Building Depth	--	--	--	--	--	--	--	--	--
	Transect Zone																																																																															
	DTC	DTG	NBD	MRC	MRE	CTH	DTE	NBG	NBE																																																																							
Min Lot Size	2,000 sf	3,000 sf	--	2,000 sf	3,000 sf	3,000 sf	2,000 sf	--	--																																																																							
Min Lot Width	25 ft	35 ft	--	25 ft	35 ft	35 ft	25 ft	--	--																																																																							
Min Building Width	25 ft	35 ft	--	25 ft	35 ft	35 ft	25 ft	--	--																																																																							
Max Building Width	40 ft	50 ft	--	40 ft	50 ft	50 ft	40 ft	--	--																																																																							
Min Building Depth	40 ft	40 ft	--	40 ft	40 ft	40 ft	40 ft	--	--																																																																							
Max Building Depth	--	--	--	--	--	--	--	--	--																																																																							

Source: Mount Holly Form-Based Code, 12/06/2010 draft

Uses

When addressed through form-based zoning, uses are permitted or prohibited by transect zone. For easy reference, Mount Holly indicates whether a use is permitted, conditionally permitted, or prohibited in a given transect zone in chart format. Prohibited uses include those prohibited in all transects and listed in the form-based code as well as any uses not expressly permitted.

Figure 10: Excerpt from permitted uses chart

USE	TRANSECT									
	DTC	DTG	NBD	MRC	MRE	CTH	DTE	NBG	NBE	
Commercial Retail Services										
14 Bakery, Confectionery Shops, Grocery Stores	P	P	NP	NP	NP	NP	NP	NP	NP	NP
15 Laundromats, Dry Cleaning	NP	P	NP	NP	NP	NP	NP	NP	NP	NP
16 Funeral Homes	NP	P	NP	NP	NP	NP	P	NP	NP	NP
17 Personal Services	P	P	NP	P	NP	NP	NP	NP	NP	NP
18 Bed & Breakfast	NP	NP	NP	P	NP	NP	P	NP	NP	NP
19 Restaurants (carry out/fast food), Coffee Shops, Cafes	P	P	NP	P	NP	P	NP	NP	NP	NP
20 Galleries, Craft/Antique Stores, Artisanal Workshop	P	P	NP	P	P	NP	NP	NP	NP	NP
21 Photo or Art Studios	P	P	NP	P	P	NP	NP	NP	NP	NP
22 Taverns and Bars	P	P	NP	P	NP	NP	NP	NP	NP	NP
23 Waterfront Commercial Use	P	P	NP	P	NP	P	NP	NP	NP	NP
24 General and Professional Offices	P	P	NP	P	NP	P	P	NP	NP	NP
25 Business Services	P	P	NP	NP	NP	P	P	NP	NP	NP
26 Laboratory (medical/dental)	NP	P	NP	NP	NP	P	NP	NP	NP	NP
27 Entertainment	P	P	NP	P	P	NP	NP	NP	NP	NP
28 Child Care Center	P	P	P	P	P	P	P	P	NP	NP
29 Hotel	P	P	NP	NP	NP	P	NP	NP	NP	NP
30 Office (professional, dental, medical, veterinary, administrative)	P	P	NP	P	NP	P	P	NP	NP	NP
31 Restaurant (full service/sit down)	P	P	NP	P	NP	NP	NP	NP	NP	NP
32 Retail Sales	P	P	NP	P	P	P	NP	E	NP	NP
33 Retail Services	P	P	NP	P	NP	NP	NP	NP	NP	NP

P – Permitted NP – Not Permitted E - Permitted Where Currently Existing (at the date of adoption of this code)

Source: Mount Holly Form-Based Code, draft dated 12/06/2010

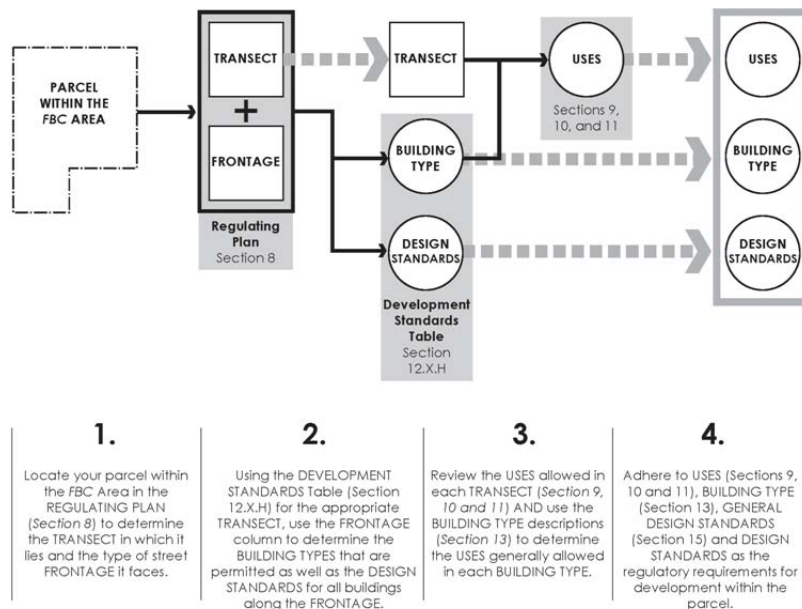
Implementation

Like most form-based codes, Mount Holly’s code looks very different than a conventional zoning code. Many of the regulations and design standards are presented in graphic format, which ultimately increases ease of use by developers, local officials, and stakeholders. However, the new code structure did require education for users on how to interpret the variety of regulations and restrictions placed on each individual property. In Mount Holly, a variety of education and outreach efforts were included in the project scope.

Multiple community presentations offered general facts about form-based codes as well as information about Mount Holly’s specific regulations and how to use the new code. Two presentations were made to the Township Council and Township Planning Board, one during the creation of the code and one upon code completion. Mount Holly’s code enforcement officials were included in discussions about the code throughout the process and were educated on how to use the form-based code once the final draft was complete. Effective communication between the project team and local stakeholders throughout the process was critical to the future success of the new form-based code.

Mount Holly’s form-based code applies to the development of new structures, additions to existing structures, and exterior renovations of existing structures. Figure 11 illustrates how a property owner would determine the applicable land use, building type, development standards, and design standards for their property if located within the form-based code area.

Figure 11: User instructions



Source: Mount Holly Form-Based Code, 12/06/2010 draft

The General Design Standards apply to the entire form-based code area, regardless of transect, frontage, and building type.

Lessons Learned

Every community is unique and presents its own opportunities and challenges. However, there are similarities that allow for application of the lessons learned by Mount Holly during the development of their form-based code to other municipalities.

1. Consult the Master Plan and Relevant Local Documents

The Master Plan of a community is one of the most valuable tools used to determine the focus for a form-based code. The Master Plan details opportunities within the municipality and identifies characteristics that the local community would like to preserve in addition to identifying the challenges and areas where improvement is needed. Other local documents that discuss plans for future redevelopment, historic features, environmentally sensitive areas, etc. can also provide critical information for the form-based code.

2. Facilitate the Community's Vision

Having a clear understanding of a community's vision is the foundation of a successful form-based code. Much more so than conventional zoning codes, form-based codes aim to create or preserve a distinct community character and the interaction between public and private space. Furthermore, the character of the community may change slightly throughout the municipality. Involvement of key local stakeholders from the beginning of the project can help to preserve these small nuances.

To successfully facilitate the community's vision, it is imperative that community members have their say. Consultants must listen without presuming that they understand the problem or know the answer. Many times, local residents, business owners, and municipal officials know what the issues are but may not be able to communicate them directly. In Mount Holly, the consultant team was exceptionally good at this, explaining that locals knew the town better than anyone else and that they were there to learn.

Understanding the vision of the community will also help the project team determine whether a new form-based code will replace current zoning entirely, become an update to existing zoning, or create a zoning overlay district. The disparities between the current zoning and the community's vision led Mount Holly officials to decide to replace their current zoning code within the study area with the new form-based code.

3. Walk Everywhere

A successful project team will walk everywhere in the study area, with as many sets of eyes as possible. In Mount Holly, the consultant team organized sidewalk and backyard tours to get locals familiar with areas they see every day but do not observe. This was a helpful public education and bonding experience between the locals and the consultants that not only built confidence in the consultants, but later enabled them to say, “Remember when we did this or saw that?”

4. Stay Focused on Project Purpose and Scope

A continual focus on the community’s vision allowed the Mount Holly project team to retain the work scope’s integrity and purpose throughout the process and ensured that the finished product placed the identified opportunities within reach. Without a strict focus on the purpose and scope of the code, the project could easily have grown to a proportion where its usefulness was lessened.

Early agreement on the purpose and scope of the project was critical. This gave the project team the ability to focus the work plan and stay on schedule with the project. It also provided rationale for maintaining the boundaries of the study area even when some stakeholders wanted the project expanded to include the entire township. Not all community input directly relates to a specific project, nor can one project accommodate all requests. Maintaining the purpose and scope of the project allowed for a quality product to be developed within a limited budget.

5. Be Flexible When Creating the Code’s Definitions

While creating the Mount Holly form-based code, the project team found it necessary to deviate from the standards commonly accepted by planners when identifying the transect zones. Within the planning community, the use of transects is widespread and frequently utilized to provide a common understanding of a given intensity of development within a landscape. However, the end users of a form-based code may not be well versed in typical transect language; therefore, using this terminology could result in confusion.

In Mount Holly, the bulk of the form-based code area falls into one of two traditional transect types, yet the variety of characteristics and the community’s vision necessitated the development of more individual transects. The project team’s flexibility allowed for the creation of nine transects, rather than the traditional two, which will preserve the neighborhood nuances unique to Mount Holly.

Moreover, each transect zone was given a generic letter for ease of use and clarity, yet the word “transect” was included to help elevate this concept among code users.

6. Design for the Market

Fortunately for Mount Holly, the consultant team had real estate development experience and included a real estate market analyst who communicated volumetric needs (building widths, depths, heights, etc.) for a variety of building uses that were either for sale or rent in the study area. The

market analysis helped educate the public and the design consultants on realistic building opportunities while tempering the expectations of overzealous individuals.

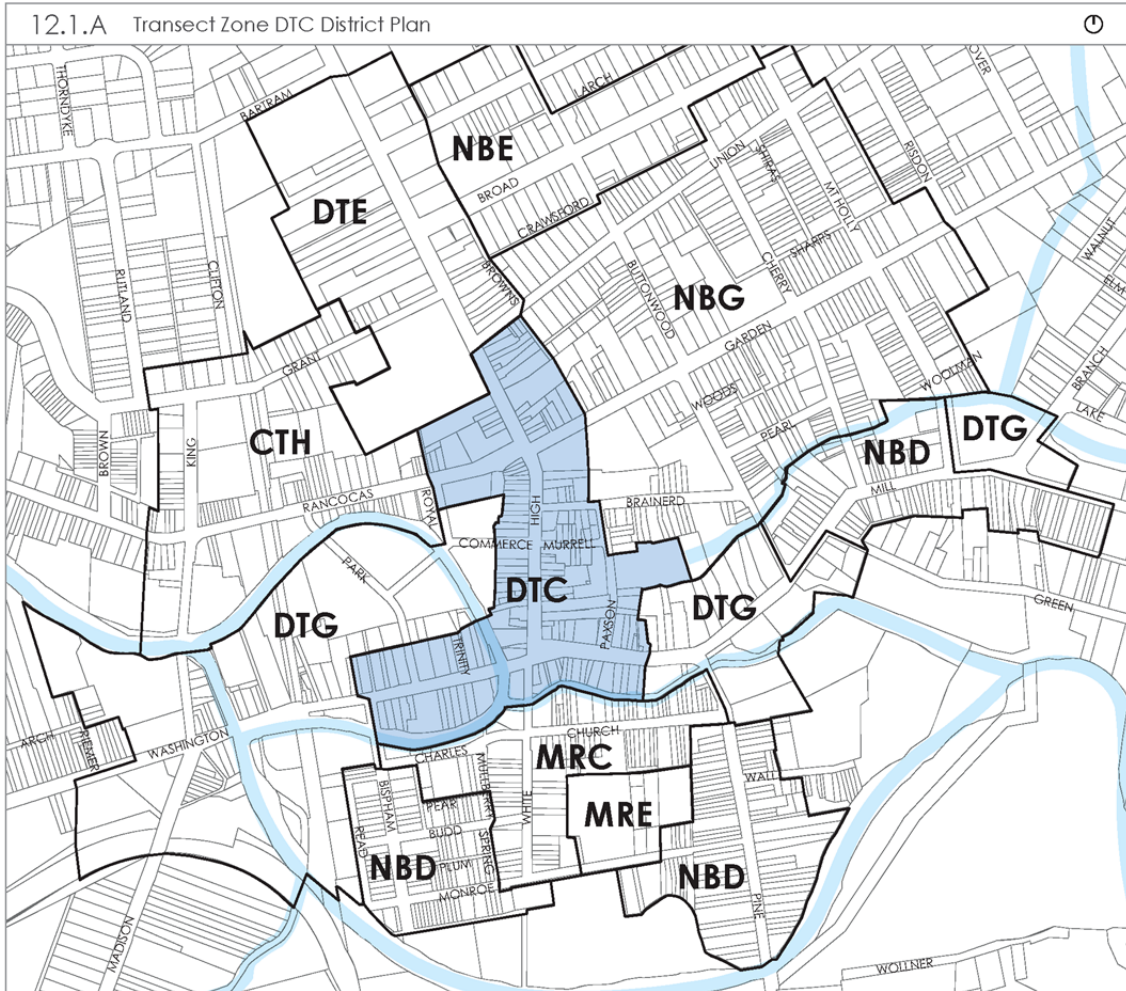
For example, the historic storefront pattern in Mount Holly is narrow and deep because that layout suited 19th and early 20th century merchants who kept their clients in the front of the store and their stock on site in the rear. Clients did not browse; merchants fetched items for them. Today, clients like to browse and merchants manage stock differently. At least one-half of the deep, narrow ground floors are wasted. The consultants helped Mount Holly fashion the form-based code to comport to real estate demands.

7. Educate the Public and Municipal Officials

Form-based codes are a relatively new concept, especially in the Delaware Valley region. Therefore, educating the public about form-based codes and their implementation is a necessary step to ensure understanding and acceptance at the local level. In Mount Holly, formal adoption of the form-based code has been hindered because of a lack of understanding among local officials regarding how to implement it. The Municipal Land Use Center at The College of New Jersey has partnered with the New Jersey Department of Transportation to provide technical assistance and education support to municipalities undertaking form-based code projects.



Transect DTC (Downtown Core)



12.1.B Permitted Frontages and Building Types

Building Types and Frontages that are not allowed within this Transect Zone are shown as faded images with strikeouts.

Frontages	Building Types						
	* Not all building types allowed on all frontages (see Section 12.1.H)						
DTN - Downtown							
COL - Collector	Government/Civic/Institutional	Mixed Use	Warehouse/Loft	Residential Elevator Flat	Public Garage	Liner	Office/Commercial
SPC - Special							
BRD - Broad	Single-Story Commercial	Live/Work	Townhouse	*Twin	*Single-Family Dwelling	Accessory Dwelling	Private Garage
LOC - Local							
SML - Small							
PTH - Riverfront Path							

Source: Mount Holly Form-Based Code, 12/06/2010 draft

12.1.C Transect Zone DTC Typical Character Section



12.1.D Definition/Purpose

The core of Mount Holly's Downtown, it is intended to serve as the primary shopping, professional office, cultural and entertainment district of the Township. This Transect Zone is envisioned to be the highest density district. New development shall be modeled on the historic form and function of the Downtown, and characterized by mixed-use buildings up to four (4) stories high with active ground floor commercial uses that support a full spectrum of community needs and upper floor residential and commercial uses. It is intended that the Transect Zone evolve over time to incorporate larger floorplate buildings that respect the historic rhythm of the street wall. Realizing such density through growth and expansion is essential to support day, night and weekend commercial uses. Streetscapes are intended to accommodate heavy pedestrian activity and as such are characterized by wide sidewalks, sidewalk cafes and high quality pedestrian amenities.

12.1.D(i) Definition/Purpose Illustrative Examples

- Existing form of the Downtown is represented through ground floor storefronts, and two to three upper floors with office or residential uses.
- The traditional live-work model may be used in new infill.
- The rhythm of existing storefronts sets the modulation for future infill and redevelopment.



- New development brings the opportunity for larger, more usable upper-floor floor plates for residential and office spaces with modern amenities.
- Infill development should match the historic form of the Downtown using horizontal and vertical elements and materials to modulate the façade.
- Setting back individual storefronts in new construction helps to widen the pedestrian realm where pedestrians enter and exit businesses.

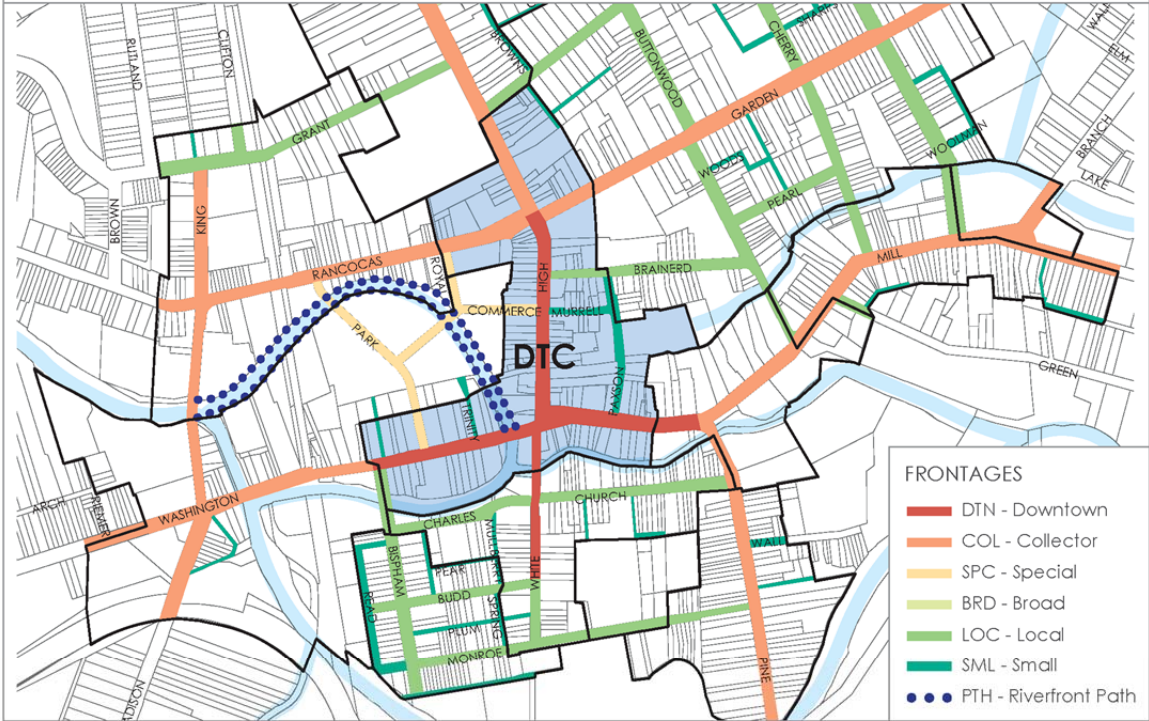


- Parking should be accommodated in shared, public lots such as the existing lot on Paxson Street.
- Surface Lots should be landscaped to mitigate their impact on surrounding uses.
- Parking should be physically and visibly connected with the streets and uses its serves as well as become part of a legible parking network within the Downtown.

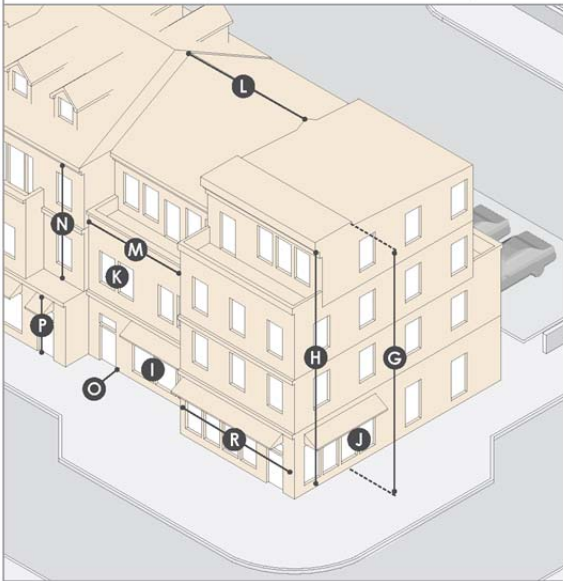


Source: Mount Holly Form-Based Code, 12/06/2010 draft

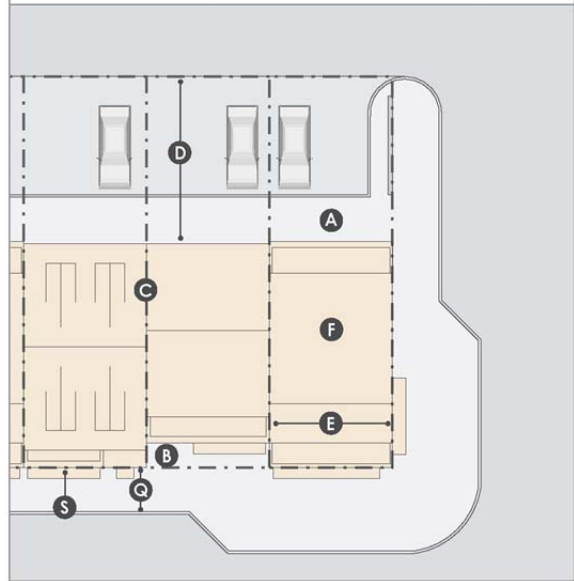
12.1.E Transect Zone DTC Frontage Plan



12.1.F Development Standards Table Key - Axon



12.1.G Development Standards Table Key - Plan



Source: Mount Holly Form-Based Code, 12/06/2010 draft

12.1.H Transect Zone DTC Development Standards Table

PUBLIC FRONTAGE

			DTN	COL	SPC	BRD	LOC	SML	PTH		
DESIGN STANDARDS	A	Lot Size	Min Max	SEE BUILDING TYPES STARTING IN SECTION 13							
	B	Front Yard Setback	Min Max	-- 5 ft	-- 5 ft			-- 5 ft	-- 5 ft	10 ft --	
	C	Side Yard Setback	Min Max	0 or 3 ft --	0 or 3 ft --			5 ft --	5 ft --	Use Primary Frontage Standards	
	D	Rear Yard Setback*	Min Max	10 ft --	10 ft --			20 ft --	20 ft --		
	E	Frontage Percentage	Min Max	100% --	100% --			65% --	65% --		
	F	Building Lot Coverage	Min Max	-- 100%	-- 100%			-- 65%	-- 65%		
	G	Building Height	Min Max	2 st, 30 ft 4 st, 60 ft	2 st, 30 ft 4 st, 60 ft			2 st, 25 ft 3 st, 40 ft	2 st, 25 ft 3 st, 40 ft		
	H	Eave Height	Min Max	25 ft 65 ft	25 ft 65 ft			20 ft 35 ft	20 ft 35 ft		
	I	Ground Floor Front Façade Fenestration	Min Max	60% 80%	60% 80%			25% --	25% --		
	J	Ground Floor Side/Rear Façade Fenestration	Min Max	50% --	50% --			20% --	20% --		
	K	Upper Floor Façade Fenestration	Min Max	30% 50%	30% 50%			20% --	20% --		
	L	Distance between Roofline Offsets	Min Max	-- 40 ft	-- 40 ft			-- 30 ft	-- 30 ft		
	M	Distance between Horizontal Façade Breaks	Min Max	-- 40 ft	-- 40 ft			-- 24 ft	-- 24 ft		
	N	Distance between Vertical Façade Breaks	Min Max	-- 24 ft	-- 24 ft			-- 24 ft	-- 24 ft		
	O	First Floor Elevation	Min Max	-- 0 ft	-- 0 ft			-- 3 ft	-- 3 ft		
	P	First Story Clear Height	Min Max	16 ft 25 ft	16 ft 25 ft			12 ft --	12 ft --		
	Q	Pedestrian Realm Width	Min Max	10 ft --	10 ft --			10 ft --	10 ft --		
	R	Storefront Width	Min Max	20 ft 40 ft	20 ft 40 ft			-- --	-- --		20 ft 40 ft
	S	Front Façade Encroachments	Min Max	-- 3 ft	-- 3 ft			-- 6 ft	-- 6 ft		-- --
	T	Accessory Building Setback* Front	Min Max	-- --	-- --			-- --	-- --		-- --
	U	Accessory Building Setback* Side/Rear	Min Max	10 ft --	10 ft --			-- --	-- --	-- --	
	V	Accessory Building Height	Min Max	-- 18 ft	-- 18 ft			-- --	-- --	-- --	
	W	Front Yard Parking		NP	NP			NP	NP	--	
	X	Side Yard Parking		NP	NP			NP	NP	--	
	Y	Rear Yard Parking		P	P			P	P	--	
	BUILDING TYPES	AA	GOVERNMENT/CIVIC/INSTITUTIONAL		P	P			NP	NP	--
		BB	MIXED USE		P	P			NP	NP	--
		CC	WAREHOUSE/LOFT		NP	NP			NP	NP	--
DD		RESIDENTIAL ELEVATOR FLAT		NP	NP			NP	NP	--	
EE		GARAGE (PUBLIC)**		P	P			P	P	--	
FF		LINER (FOR PUBLIC GARAGE)		P	P			P	P	--	
GG		OFFICE/COMMERCIAL		NP	NP			NP	NP	--	
HH		SINGLE-STORY COMMERCIAL		NP	NP			NP	NP	--	
II		LIVE/WORK		P	P			P	P	--	
JJ		TOWNHOUSE (STACKABLE)		NP	NP			NP	NP	--	
KK		TWIN		NP	NP			P	P	--	
LL		SINGLE-FAMILY DWELLING		NP	NP			P	P	--	
MM		ACCESSORY DWELLING ("IN-LAW SUITE")		NP	NP			NP	NP	--	
NN		GARAGE (PRIVATE-DETACHED)		NP	NP			NP	NP	--	

* Min setback of rear façade from rear parking lot shall be 10 feet

** Parking structures must be located in rear yards or internal to blocks

P - Permitted

NP - Not Permitted

E - Permitted as Existing prior to FBC

Code adoption

Source: Mount Holly Form-Based Code, 12/06/2010 draft



Municipal Project Team

Kathy Hoffman, Mount Holly Township

Kevin Mizikar, Mount Holly Township

Josh Brown, Mount Holly Township

Bill Beetle, Municipal Land Use Center, The College of New Jersey

Carmen Valetin, Municipal Land Use Center, The College of New Jersey

Paul Cohn, New Jersey Department of Transportation

Monica Etz, New Jersey Department of Transportation

Karin Morris, Delaware Valley Regional Planning Commission

Kelly Rossiter, Delaware Valley Regional Planning Commission

Ed Fox, Burlington County

Bob Melvin, Group Melvin Design

Martha Cross, Group Melvin Design

Jennifer Hurley, Hurley-Franks & Associates

Angie Dixon, HFA Hurley-Franks & Associates

Regan Young, Mount Holly Township resident

Publication Title: Form-Based Codes: Lessons Learned from a Mount Holly, NJ Case Study

Publication Number: 12071

Date Published: March 2012

Geographic Area Covered: Mount Holly, NJ

Key Words: Form-based code, zoning, Mount Holly, mobility & community form, transect, building type, synoptic survey, public frontage, private frontage, street regulating plan, design standards

Abstract: Unlike conventional zoning codes, a form-based code encourages a mix of uses and building types while emphasizing the form and function of public and private realms. This report focuses on the development of Mount Holly's form-based code and on lessons learned throughout the process that can be applied to other municipalities pursuing development and adoption of their own form-based codes.

Staff Contact:

Emily Costello
Senior Planner, Office of Smart Growth
☎ (215) 238-2865
✉ ecostello@dvrpc.org

Delaware Valley Regional Planning Commission
190 N. Independence Mall West, 8th Floor
Philadelphia PA 19106
Phone: (215) 592-1800
Fax: (215) 592-9125
Internet: www.dvrpc.org

