



**INDEX OF DESIGN ELEMENTS**

Overall Goals	C-1
Building Location	C-2
Building Height	C-3
Main Street Environment (MSE)	C-4
MSE- Anchor Store/Parking Garage	C-5
MSE- Commercial Use with Drive-through	C-6
MSE- Convenience Store with Fuel Pumps	C-7
Parking Location	C-8
Alleys	C-9
Public Realm: Overview	C-10
Public Realm: Greens, Squares, and Plazas	C-11
Public Realm: Close	C-12
Streetscape	C-13
Industrial Developments	C-14



**Overall Goals**

Legislative Intent \_\_\_\_\_

- 1.1 This Manual is intended to comply with Section 708-A of the Pennsylvania Municipalities Planning Code titled: Manual of Written and Graphic Design Guidelines.
- 1.2 This Manual is intended to help protect and enhance the character of South Whitehall Township and promote preferred development types.
- 1.3 This Manual is intended to depict and illustrate the Design Standards and Development Regulations for preferred development outcomes.
- 1.4 The graphics provided are intended to illustrate the primary design element listed for each page and no other.



Precedent: Eagleview TND, Uwchlan Township, PA.

Design Standards \_\_\_\_\_

- 1.5 This Manual shall be applied to the Innovation Overlay Districts, as specified within certain zoning districts.
- 1.6 This Manual shall be utilized to plan, design, construct and maintain buildings, structures, streetscapes, and common open space.
- 1.7 The Design Standards depicted in the places, spaces, buildings, and streetscapes shown in this Manual shall be emulated.
- 1.8 This Manual shall be used in conjunction with the full text of the Zoning Ordinance and that of the Subdivision and Land Development Ordinance.
- 1.9 The pictures accompanying the text of this Appendix are for illustrative purposes only and shall not regulate any land use activity. An application's similarity or dissimilarity to any picture contained in this Appendix shall not be a basis of approval or denial of said application. Rather an application shall be judged solely on the basis of its compliance with the text of the Ordinance, including, without limitation, the text of this Appendix.



Precedent: Lantern Hill TND, Doylestown Borough, PA.



Precedent: Main Street at Exton, West Whiteland Township, PA.



***Building Location***

Legislative Intent \_\_\_\_\_

- 2.1 Buildings are intended to be located close to sidewalks and in general alignment with other buildings on a block.
- 2.2 Buildings located along a Build-to Line are intended to help define a pedestrian friendly Streetscape.
- 2.3 Buildings located at corners are intended to provide "anchors" or "bookends" along both streets.



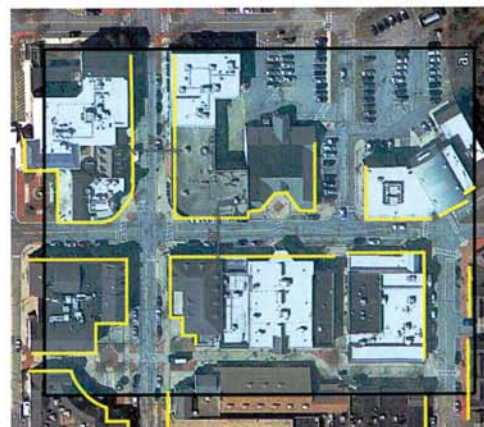
Lantern Hill TND: Residential Buildings in Alignment along Build-to Lines

Design Standards \_\_\_\_\_

- 2.4 New buildings shall be placed at Build-to Lines in accordance with the TND Overlay Districts. A Build-to Line shall be established for each block and shall fall within the following ranges:
  - Neighborhood Infill Overlay Districts:
    - Broadway: 10 feet
    - Greenawalds: 15 to 20 feet
    - Clifford Park: 25 feet
  - All TND-Residential Areas: 10 to 15 feet
  - All TND- Nonresidential Areas: 5 to 15 feet
- 2.5 In the TND Overlay Districts, Build-to Lines shall progress from a shallower depth in the area of highest development intensity (i.e., the Main Street Environment, other nonresidential area, or highest density residential) to a less shallow Build-to Line in the less intense areas of development (typically the lowest density residential option).
- 2.6 New buildings on corner lots shall be placed along both Build-to Lines, unless an approved Green, Plaza, or Square is provided at the same street corner.
- 2.7 A maximum of 25% of the linear frontage of an individual building Facade may be offset from the Build-to Line by four (4) to twenty (20) feet in order to provide to provide visual diversity, architectural enhancement, or Open Space in the form of a Pedestrian Gathering Area or Plaza.



Main Street at Exton: Bookend Buildings Anchor Corners



Mashpee Commons, MA: Nonresidential buildings Anchoring Corners along Build-to Lines.



***Building Height\****

Legislative Intent \_\_\_\_\_

- 3.1 Maximum Building Height is intended to vary by Overlay District and location in relation to major commercial corridors.
- 3.2 Higher building heights are intended to induce more efficient land use while providing opportunities for a vertical mix of uses, particularly along major transportation corridors.
- 3.3 Minimum building heights along Build-to Lines are intended to help define more recognizable Streetscape edges.



Main Street at Exton: 2-story Mixed-Use Building successfully defines a Streetscape

Design Standards \_\_\_\_\_

- 3.4 A minimum Principal Building height of twenty (20) feet shall be provided in all Innovation Overlay Districts.
- 3.5 Maximum Principal Building heights permitted in the following Overlay Districts shall be:
  - Neighborhood Infill Overlay Districts/TND-Residential Cluster Overlay: 3 stories or 45 feet
  - TND-Commercial Retrofit: 3 stories and 45 feet, except along Arterial or Collector Roads: 4 stories and 60 feet; within 2000 feet of intersection with Route 22: 5 stories or 75 feet
  - TND-Industrial Infill: 3 stories and 45 feet, except along Arterial or Collector Roads: 4 stories and 60 feet
- 3.6 Buildings, or portions of Buildings, with heights greater than 35 feet shall be setback a minimum distance from existing residential uses or districts on adjacent non-TND lots, as measured from the lot line of such residential use or district:

Height	Setback
• 35 to 45 feet:	minimum of 50 feet;
• 45 to 60 feet:	minimum of 300 feet;
• 60 to 75 feet:	minimum of 500 feet.



Easton Town Center, OH: 3-story Mixed-Use Building defines a Streetscape



Eagleview TND: 3-story Live-Work Buildings enable vertical mixed use



**Main Street Environment**

Legislative Intent \_\_\_\_\_

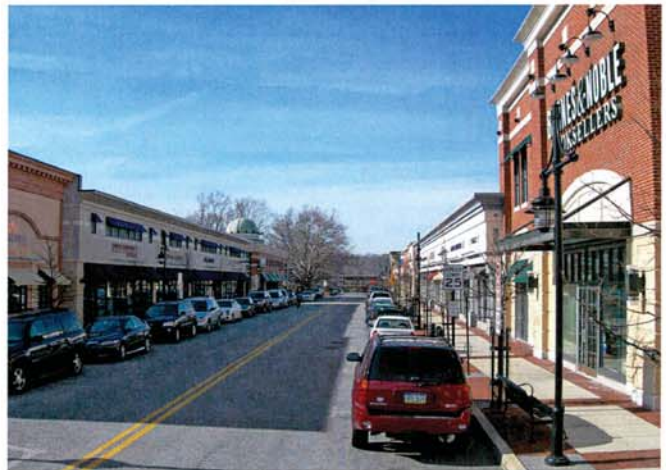
- 4.1 A Main Street Environment (MSE) is intended to serve as the focal point of a neighborhood.
- 4.2 A Main Street Environment is intended to be comprised of a mix of commercial, residential, and public uses, including open spaces, in a pedestrian friendly setting.
- 4.3 A Main Street Environment is intended to be provided in all Commercial Retrofit TND or where commercial uses are proposed in an Industrial TND.

Design Standards \_\_\_\_\_

- 4.4 The blocks that comprise the Main Street Environment shall be designed for a mix of commercial, residential and public uses, including common open space, in a series of attached and detached buildings located along a common Build-to Line.
- 4.5 The Streetscape Width in a Main Street Environment shall be between sixty (60) and one hundred (100) feet.
- 4.6 Buildings shall line the entire length of the Build-to Line along a Main Street Environment, except along curb cuts or where a Common TND Open Space is located.
- 4.7 The Main Street Environment shall provide on-street parking on at least one side of the street.
- 4.8 Off-street parking shall be located to the rear of buildings.
- 4.9 A minimum of 50% of the buildings in the MSE shall provide a second floor useable for apartments or office space.
- 4.10 When anchor stores (larger than 75,000 square feet ground floor area), parking garages, commercial with drive-through service, or convenience stores with fuel pumps are located along a Main Street Environment, the buildings shall comply with the Lot Diagrams shown on the following pages.



Lot diagram for a typical Main Street Environment block with on-street parking and off-street parking in the rear, showing a Streetscape Width in the range of 60 to 100 feet, depending on sidewalk widths and number of vehicular travel lanes.



Main Street Environment in Exton, PA with Bookend Buildings opposite one another. (Note: This Streetscape Width is 65 feet.)



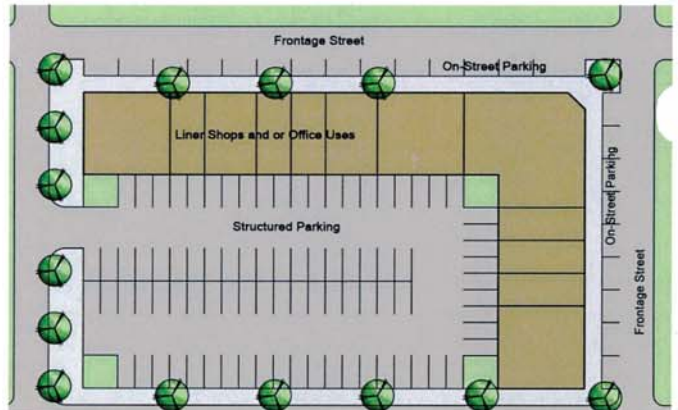
**Main Street Environment\***  
**Anchor Store & Parking Garage**

Design Standards (continued) \_\_\_\_\_

- 4.12 Parking Garages and anchor stores shall meet the applicable build-to line, and where applicable, anchor corners.
- 4.13 Liner shops are strongly encouraged to be incorporated along the "Main Street" frontage of an anchor store in order to break up the facade, maintain a pedestrian friendly Streetscape, and provide a more traditional building width interval.
- 4.14 Parking Garages shall be "wrapped" by liner buildings or shops on the ground floor and shall be designed to have a facade that is consistent with the facades of the surrounding buildings.



Lot Diagram: Anchor store with liner shops maintain the established Build-to Line.



Lot Diagram: Parking garage with liner stores, shops or offices.



Parking garage with facade that is consistent with surrounding development.



**Main Street Environment**  
**Commercial Use with Drive-through (Corner location)**

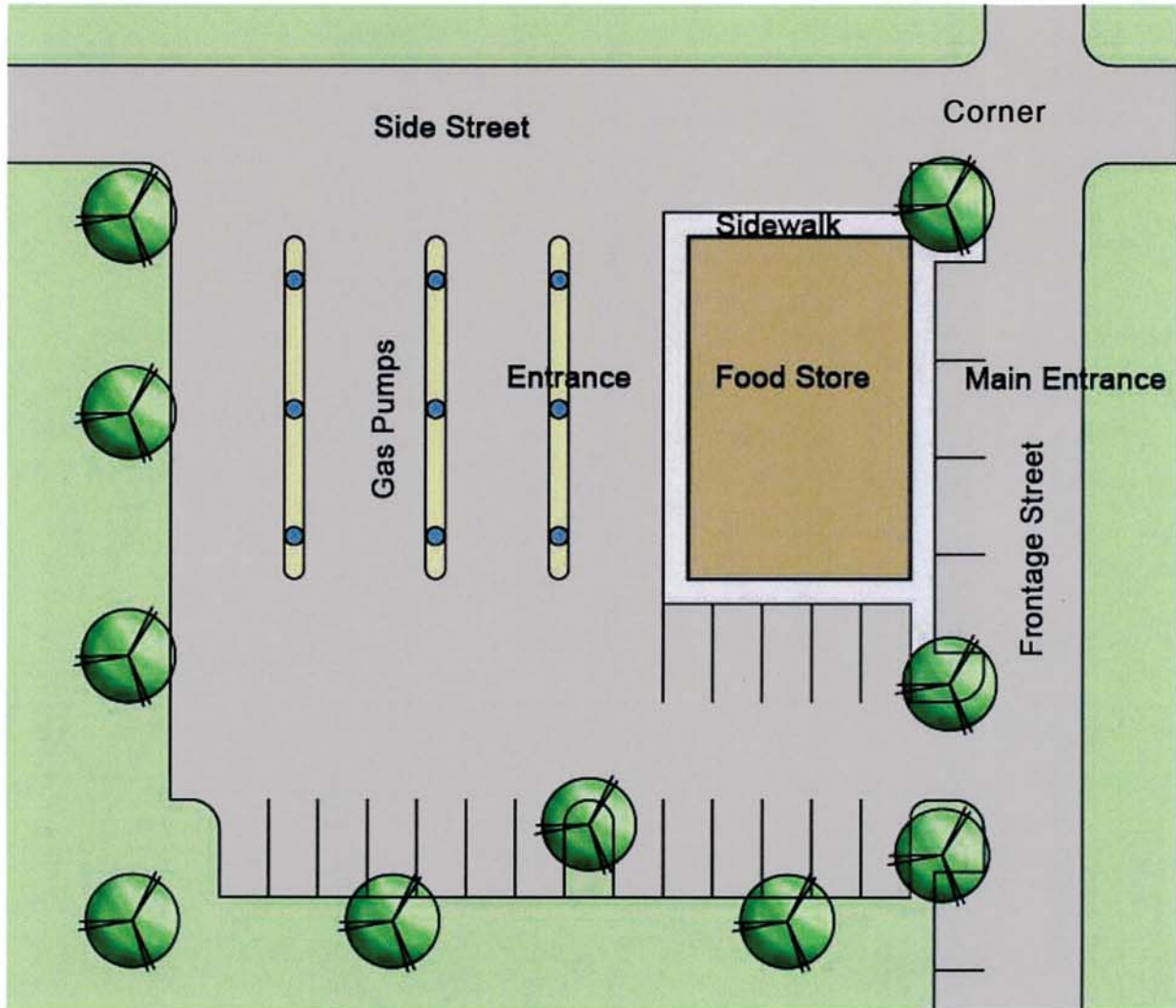


**Lot Diagram: Drive-thru Restaurant, Take-home food shop, or Bank on a Corner (Building "Anchors" Corner)**

4.15 Drive-throughs shall be located away from a corner, and the corner shall be anchored by the building. Access to the drive-through shall be from a side street or alley.



**Main Street Environment**  
**Convenience Store with Fuel Pumps**



**Lot Diagram: Convenience Store with Fuel Pumps**  
**(Building "Anchors" Corner)**

4.16 Fuel pumps shall be located to the rear of a building and accessed via a side street or alley. The building shall anchor the corner.

***Parking Location***

Legislative Intent \_\_\_\_\_

- 8.1 Off-street parking areas are intended to be located to the rear of buildings.
- 8.2 Residential off-street parking is intended to be accessed via alleys to the greatest extent feasible to minimize curb cuts and preserve the streetscape character.
- 8.3 On-street parking is intended to provide necessary convenience parking spaces, while buffering pedestrians from passing vehicular traffic.



Off-street residential parking accessed via alleys (Glen Mills, PA)

Design Standards \_\_\_\_\_

- 8.4 Off-street parking areas shall be located to the rear of buildings.
- 8.5 Off-street parking areas shall not be located at street corners.
- 8.6 A minimum of eighty (80) percent of off-street parking spaces for townhouse units, including garage access, shall be accessed via alleys.
- 8.7 All off-street parking for apartment buildings shall be located to the side or rear of the residential building.
- 8.8 On-street parking shall be provided where feasible, and be used to meet guest parking needs.



On-street parking buffers pedestrians on Main Street (Litz, PA)



Off-Street Parking Areas located to the rear of a Main Street buildings (Middletown Hill, WI)



***Alleys***

Legislative Intent \_\_\_\_\_

- 9.1 Alleys are intended to provide a secondary means of access to the side and/or rear of lots, provide access to required off-street parking, including garages, and installation of utilities.
- 9.2 Alleys are intended to minimize curb cuts and preserve a pedestrian oriented streetscape along the fronts of buildings.



Alley at Kentlands, Gaithersburg, MD

Design Standards \_\_\_\_\_

- 9.3 A minimum of eighty (80) percent of off-street parking spaces for townhouse units, including garage access, shall be accessed via Alleys.
- 9.4 Alleys shall not terminate in a dead end or cul-de-sac.
- 9.5 Alleys shall be designed to have a minimum right-of-way width of eighteen (18) feet and minimum cartway width of sixteen (16) feet.
- 9.6 Garages and other structures shall be set back a minimum of four (4) feet from the alley.
- 9.7 Alleys shall meet the Intersection Standards and Construction Standards contained in the Subdivision and Land Development Ordinance for local roads, except that curbs and sidewalks shall not be required.
- 9.8 Alleys shall be privately owned and operated. The ownership and maintenance document shall be recorded prior to final approval of the Plan.



Alleys at Eagleview, Exton, PA



One-way alley at Eagleview, Exton, PA



*Public Realm: Overview*

Legislative Intent \_\_\_\_\_

- 10.1 The Public Realm is intended to be comprised of the complete network of sidewalks, crosswalks, public parks, and Common TND Open Space.
  
- 10.2 Useable Open Space is intended to be in the form of a Plaza(s); Green(s) or Square(s), Close, or like-type Pedestrian Gathering Area(s).



Plaza

Design Standards \_\_\_\_\_

- 10.3 Provide Common Open Space and Useable Open Space in accordance with the TND Overlay Districts of South Whitehall Township.
  
- 10.4 Greens, Squares, Plazas, Closes, and other Pedestrian Gathering Areas shall comply with the Design Standards on the following pages.



Plaza



Green



Close



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***Public Realm: Greens, Squares and Plazas***

Legislative Intent \_\_\_\_\_

- 11.1 Greens, Squares, and Plazas are intended to provide important public space to add balance and attractiveness to a proposed development.



Residential Green (Glen Mills, PA)

Design Standards \_\_\_\_\_

- 11.2 Unless otherwise specified, Greens and Squares shall be sized in the range of 4,000 to 30,000 square feet.
- 11.3 Unless otherwise specified, Plazas shall be sized in the range of 1,000 to 4,000 square feet.
- 11.4 Greens, Squares, and Plazas shall have benches, shade trees, pavilions, gazebos, and other pedestrian amenities.



Square at Legacy Village TND (Cleveland, OH)



Plaza at Kentlands (Gaithersburg, MD)



**Public Realm: Close**

Legislative Intent \_\_\_\_\_

- 12.1 The Close is intended as a public realm feature that provides green space in the center of the vehicular travel lanes.
- 12.2 The Close is intended to serve as an alternative to a conventional cul-de-sac, and to provide the opportunity for a Pedestrian Gathering Area in the center.
- 12.3 The Close is intended to be enclosed with buildings on three sides.



Residential Close at Sandy Spring, MD

Design Standards \_\_\_\_\_

- 12.4 The Close shall be designed for one lane of counter-clockwise vehicular travel, with on-street parking on the building sides of the vehicular travel lane.
- 12.5 On-Street parking may be angled or parallel with the curb.
- 12.6 Green space of at least 4,500 square feet shall be created in the center of the Close.
- 12.7 The average width (shorter dimension) of the green space shall not be less than 25% of its average length (longer dimension).
- 12.8 The Close shall be wrapped with buildings on three sides, and the buildings shall be a minimum of two (2) stories or twenty (20) feet in height.
- 12.9 The Close may be utilized for development of tracts of 10 acres and greater.
- 12.10 The Close shall be used in lieu of a cul-de-sac.



Close at Lake Forest, IL, with On-Street Angled Parking



Close at Louella Court, Wayne, PA



Close at Lake Forest, IL



***Streetscape***

Legislative Intent \_\_\_\_\_

- 13.1 The Streetscape is intended to be a pedestrian friendly area defined by Mixed-Use Buildings located along Build-to Lines, in close proximity to sidewalks, and buffered by on-street parking.
- 13.2 The Streetscape is intended to be enhanced with such features as street trees, street lights, benches, and like-type amenities.



Residential Streetscape with street trees, tree lawn, and sidewalk.

Design Standards \_\_\_\_\_

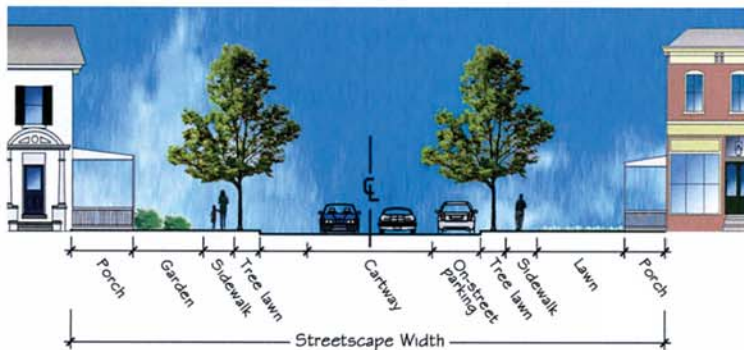
- 13.3 A Streetscape, defined by buildings located in alignment and close to the sidewalk and curb, shall be established and maintained.
- 13.4 Where existing buildings are not located along the Build-to Line, a fence, pier and hedge combination, or a low, free-standing wall shall be installed and maintained along the Build-to Line.
- 13.5 The Streetscape shall be embellished with street trees and street lights, and enhanced with other street furniture and amenities.
- 13.6 Streetscape Width shall range in size from 60 feet to 100 feet, whereby Bookend Buildings opposite one another help to create the outdoor room character of the Streetscape.



Streetscape in a "Main Street Environment" with Bookend Buildings opposite one another



One side of a "Main Street Environment" streetscape



(measured from building wall to building wall on opposite sides of the street)

Left: Typical residential streetscape elements with on-street parking on one-side.



**Industrial Development**

Legislative Intent \_\_\_\_\_

14.1 Industrial Buildings and Industrial Parks within the Innovation Overlay Districts are intended to meet the design standards contained herein, regarding Building location, Building Height, Main Street Environment (where a commercial component is proposed), Public Realm, and Streetscape Design.



Eagleview- Exton, PA: Industrial Park (right) connected to Residential TND and mixed-use center (left and center).



Stanford Research Park, Palo Alto, CA: Industrial and technology campus with buildings lining the streetscape, parking to the side and rear, and central plaza space.



Stanford Research Park, Palo Alto, CA: Industrial building with parking to side.

