

An aerial architectural rendering of a sustainable urban development project. The scene shows a dense cluster of multi-story residential and commercial buildings with varied rooflines and colors (tan, grey, white). The buildings are interspersed with green spaces, including lawns, trees, and a central courtyard with a small pond. To the left, a large green field features several wind turbines and a winding path. A blue water feature, possibly a stream or pond, flows through the site. The overall atmosphere is one of a modern, eco-friendly community.

first, observe.

Victor Dover AICP LEED-AP CNU-a

Dover, Kohl & Partners © 2009

# sustainability is place-based



mediterranean



mountain west

# sustainability is rooted in observation



mediterranean

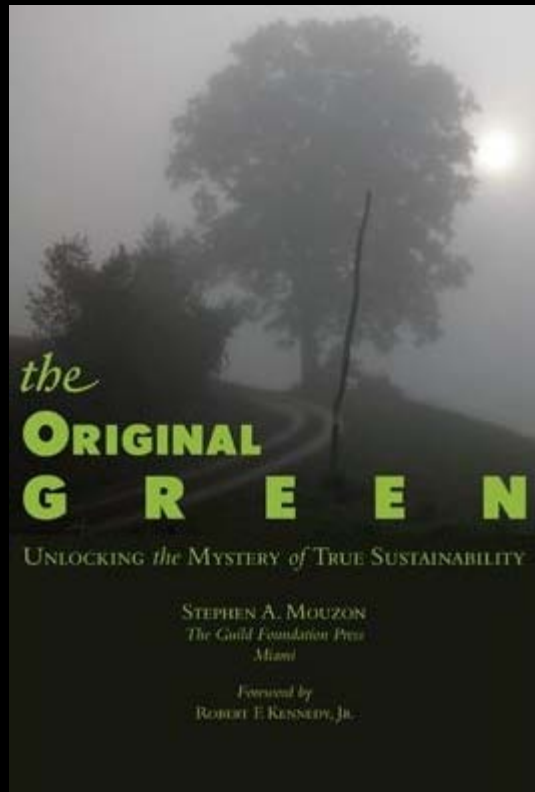


mid-atlantic USA, temperate

# know where you are, and build that way



# “the original green”



# seeking local distinctiveness



western europe



mid-atlantic USA, temperate



# climate-responsive architecture



desert southwest



humid subtropical



# streets



Philadelphia, PA



St. Augustine, FL

northeast USA, temperate

humid subtropical

# street trees



desert southwest



mid-atlantic temperate





private realm

pedestrian realm

multi-modal realm

## Pedestrian Realm

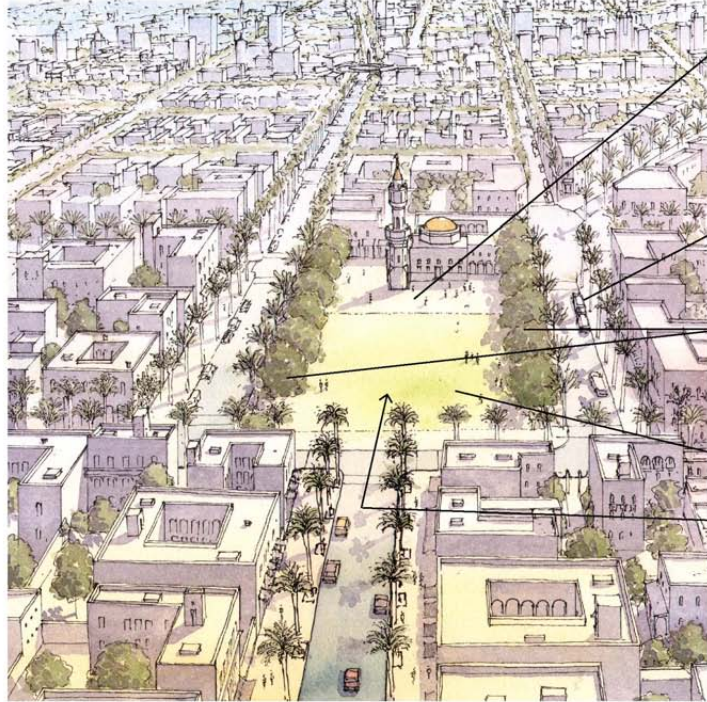


### *Neighborhood square*

Open space at the center of a neighborhood with a mosque or other civic building anchoring the space.

**Size:** Neighborhood square should be no larger than an area equal to one city block of the surrounding neighborhood.

**Nature:** Mostly pervious or landscaped, but could include large paved areas for gathering or ball games.



Part of the square may be hardscaped, especially in front of the mosque or civic building.

Surrounding streets should have on-street parking.

At least two sides of the square should be planted with shade trees and these should be used to frame the view of the civic building.

Part of the square may have a lawn.

Streets should terminate on mosques or other civic buildings.

Figure 3.44: Neighborhood square

# native and adapted landscape



desert southwest



humid subtropical

Restore Rockland habitat -- beginning with pine trees

Plant native shade trees to provide comfort for pedestrians and cyclists. Also reduces urban heat

Doors and windows on adjacent houses add natural surveillance to the park

Houses that are positioned closer to the property line will have larger private rear yards and help reinforce security by their presence



Crushed rock path aligned with striped crosswalk allows for better access to the park

Restore pines and saw palmettos at streets edges to discourage parking in undesignated parking areas

Add sidewalks to increase walkability in the neighborhood

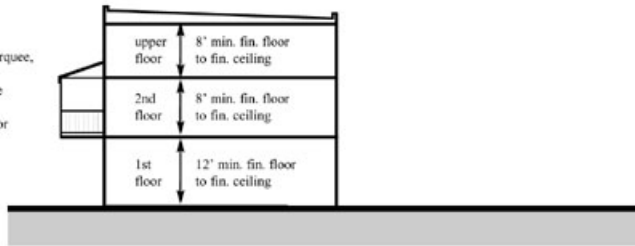
Define edges of the properties with low garden walls, fences, or hedges for privacy that does not sacrifice visibility

# form-based code

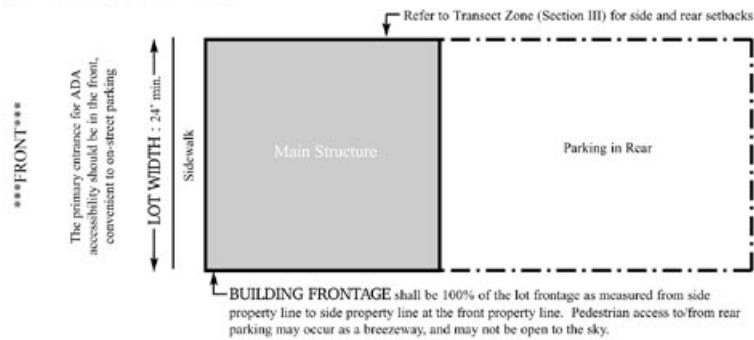
## (MS): Main Street Building Lot

### HEIGHT:

\*An awning/ marquee, balcony, or colonnade/arcade is required - See pages 4.2 - 4.3 for requirements



### BUILDING PLACEMENT:



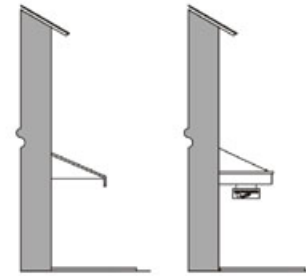
\*Each building shall have separate walls to support all loads independently of any walls located on an adjacent property.

### PRECEDENTS & CHARACTER EXAMPLES:



## A. Special Building Elements and Appurtenances

### 1. Awnings / Marquees



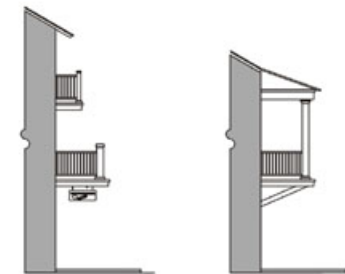
Depth = 5 ft minimum.  
Height = 8 ft minimum clear.  
Length = 25% to 100% of Building Front (for Mixed-Use Buildings only).

The above requirements apply to first-floor awnings. There are no minimum requirements for awnings above the first floor.

Marquees and Awnings shall occur forward of the Build-to Line and may encroach within the right-of-way, but shall not extend into the planting zone.

Awnings shall be made of fabric or metal. High-gloss or plasticized fabrics are prohibited.

### 2. Balconies



Depth = 6 ft minimum for 2nd floor balconies.  
Height = 10 ft minimum clear.  
Length = 25% to 100% of Building Front (for Main Street Buildings only)

Balconies shall occur forward of the Build-to Line and may encroach within the right-of-way with special easement permission, but shall not extend into the planting zone.

Balconies may have roofs, but are required to be open, un-airconditioned parts of the buildings.

On corners, balconies may wrap around the side of the building facing the side street.





# harnessing renewable energy on-site



mediterranean



mid-atlantic USA, temperate

## SUSTAINABILITY MEASURES

Sustainable settlements are those that meet the needs of the present generation without compromising the ability of future generations to meet their own needs. Following are some initial ways the town of Iberville can strive to meet sustainability goals.



Pedestrian paths made of porous materials.



Landscaping without turf grass.



Rain barrel use is encouraged.

### CONSTRUCTION TECHNIQUES

- Wherever possible, green building materials shall be used in the construction of building walls, including siding composed of reclaimed or recycled material, salvaged masonry brick or block, and locally-produced stone or brick.

### LANDSCAPING

- Use drought-tolerant and/or slow-growing hardy grasses, native and indigenous plants, shrubs, ground covers, and trees appropriate for local conditions.
- Permanent irrigation systems may only utilize captured rainwater and/or building graywater (with approved filtration system). Potable water use is not permitted in permanent irrigation systems.
- Use mulches to minimize evaporation, reduce weed growth, and retard erosion.
- All driveways, surface parking areas and alleyways are encouraged to be constructed with pervious paving materials (grass paver systems, gravel, or pervious asphalt) to promote surface water absorption and reduce stormwater run-off quantity and flow rates.
- All at-grade walks and pathways shall be constructed with pervious materials.
- Turf should only be used in areas where it provides functional benefits - limit use of turf grass to a maximum of fifty percent of landscaped areas per lot.

### SOLAR DESIGN FEATURES

- Provide south shading by designing properly sized overhangs on south facing glazing.
- A primary roof facade should face as close to solar south as possible, to allow for installation or retrofit with solar panels.
- Roof-mounted solar hot water and/or photovoltaic panels are encouraged to reduce grid demand energy use.
- Roof-mounted solar panels on the front roof facade shall be flush with the roof.
- Proposed plantings and/or building additions that will shade pre-existing solar panel installations on adjacent properties must be approved by the Town Architect.

### HYDROLOGIC DESIGN FEATURES

- The use of underground or above-grade cisterns to capture rainwater for reuse is encouraged. Approved cistern construction includes concrete, metal or polyethylene; others may be approved by the Town Architect.
- Site grading and planting shall be done in a manner that minimizes off-site stormwater run-off.
- For more information on Rainwater Management techniques, refer to Appendix.



Pedestrian paths made of pervious materials.



Landscaping without turf grass.



permanent irrigation systems.

- Use mulches to minimize evaporation, reduce weed growth, and retard erosion.
- All driveways, surface parking areas and alleyways are encouraged to be constructed with pervious paving materials (grass paver systems, gravel, or pervious asphalt) to promote surface water absorption and reduce stormwater run-off quantity and flow rates.
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infrastructure. Rainwater harvesting techniques refer to Appendix

# rain-water harvesting & storage



mediterranean



northeast USA, temperate

# renewed interest in all things local



CNU 19, Madison, June 2011: "Growing Local"

# local food production



Mediterranean (t2)



humid subtropical (t4)

# small scale agriculture



community supported agriculture

**DIVISION 4. CIVIC BUILDINGS AND CIVIC SPACES**

**Sec. 32-261. Civic buildings.**

Civic buildings contain public or civic uses of special significance to residents, employees, or visitors.

- (1) Civic buildings are used primarily for the following civic uses: community services, day care, education, government, places of worship, or social services. Civic buildings do not include residential uses or retail space (except as an accessory use). Civic uses may also be located on other lot types as permitted by table 32-244.
- (2) Civic Building Lots may be assigned in any transect zone. Civic Building Lots are usually sited adjoining or surrounded by civic spaces or they provide a visual landmark due to placement at one end of a street (see Civic Building Lot diagrams in section 32-242).
- (3) In order to provide greater flexibility in building types and to allow more distinctive architectural expression, Civic Building Lots do not have mandatory frontage percentages or street setbacks. Civic buildings must be designed to physically reflect their community prominence.
- (4) Compact communities that are 30 acres or larger must contain at least 0.5 acres devoted to Civic Building Lots. One Civic Building Lot must be at least 10,000 square feet and a certificate of occupancy must be obtained for a civic building on the lot within three years after the first building in the compact community obtains a certificate of occupancy.

**Sec. 32-262. Civic spaces.**

(a) *Civic spaces generally.* Civic spaces are commonly owned open spaces that are strategically placed to serve a specialized community function. Active civic spaces may be configured as a green, square, plaza, park, playground, community garden, or farm plot. Passive civic spaces protect natural areas worthy of preservation as described in this code.

(b) *Types of civic spaces.* Each Civic Space Lot must contain one of the following types of civic spaces, allowable in various transect zones as indicated by the letter "X" in table 32-262:

- (1) *Active civic spaces:*
  - a. **GREEN:** Open space consisting of lawn and informally arranged trees and shrubs, typically furnished with paths, benches, and open shelters. Greens are spatially defined by abutting streets.
  - b. **SQUARE:** Formal open space available for recreational and civic uses and spatially defined by abutting streets and building frontages. Landscaping in a square consists of lawn, trees, and shrubs planted in formal patterns and it is typically furnished with paths, benches, and open shelters.
  - c. **PLAZA:** Formal open space available for civic and commercial uses and spatially defined by building frontages. Landscaping in a plaza consists primarily of pavement; trees and shrubs are optional.
  - d. **NEIGHBORHOOD PARK:** Natural landscape consisting of open and wooded areas, typically furnished with paths, benches, and open shelters. Neighborhood parks are often irregularly shaped but may be linear in order to parallel creeks, canals, or other corridors.

- e. **PLAYGROUND:** Fenced open space, typically interspersed within residential areas, that is designed and equipped for the recreation of children. Playgrounds may be freestanding or located within parks, greens, or school sites.
  - f. **COMMUNITY GARDEN:** Grouping of garden plots available to nearby residents for small-scale cultivation.
  - g. **FARM PLOT:** Plot dedicated primarily to food production for local consumption and managed so as to avoid adverse impacts to nearby residential neighborhoods.
- (2) *Passive civic spaces:*
- a. **PRESERVE:** Protected natural area with special physical characteristics.








TABLE 32-262

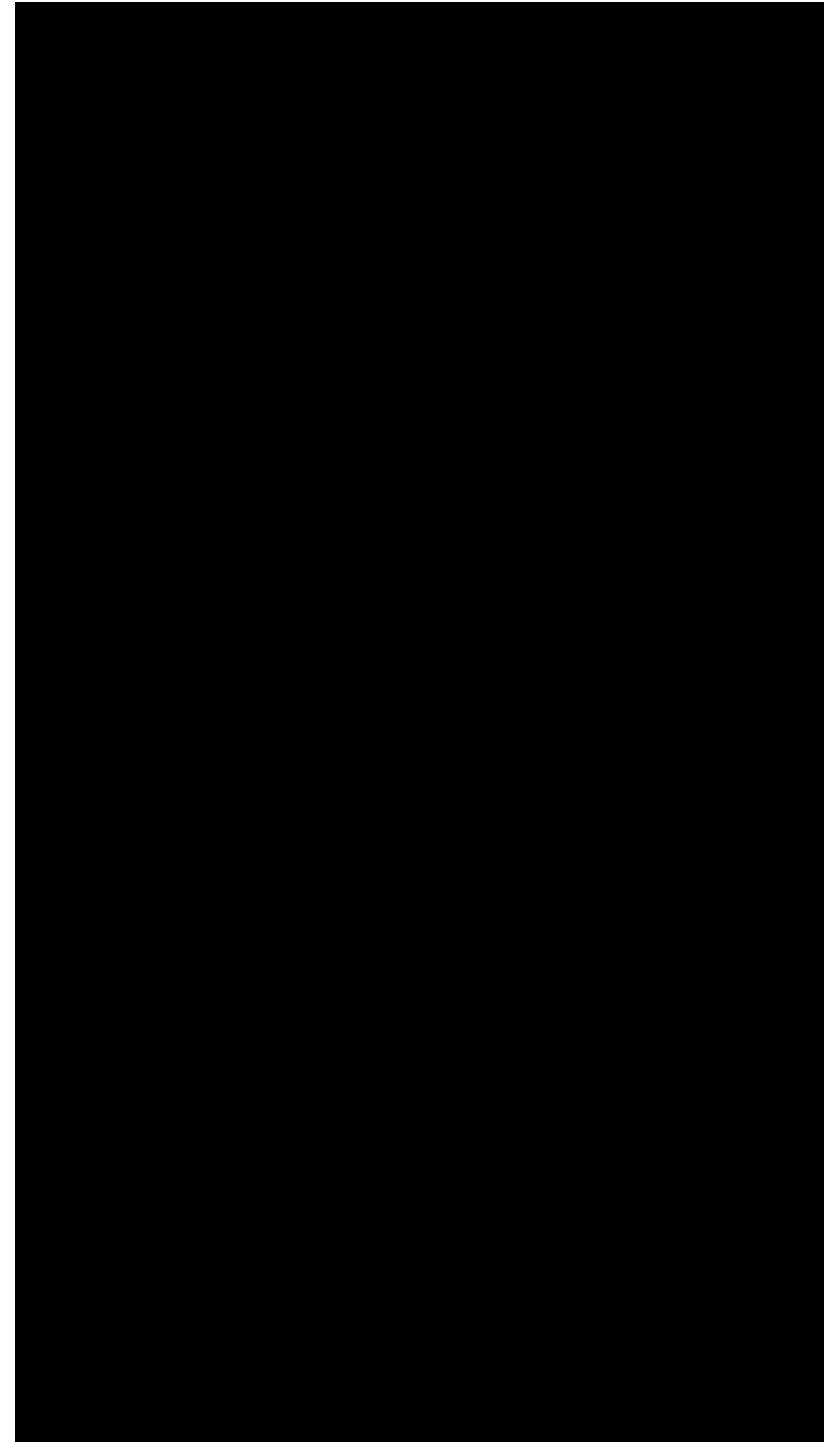
Civic Space Types	Must Front On At Least:	Typical Lot Size	Transect Zones				
			Core	Center	General	Edge	Civic
<i>Active civic spaces:</i>							
Green	2 streets	0.5 to 5 acres		X	X	X	X
Square	3 streets	0.5 to 2 acres	X	X	X		X
Plaza	1 street	0.1 to 2 acres	X	X	X		X
Neighborhood park	1 street	0.5 to no man.			X	X	X
Playground	0 streets	0.1 to 1 acre	X	X	X	X	X
Community garden	0 streets	0.1 to 1 acre			X	X	X
Farm plot	0 streets	1.0 to no man.					X
<i>Passive civic spaces:</i>							
Preserve	0 streets	no min/ no man.					X

- (c) *Civic Space Lots in Civic transect zones.* Civic spaces in Civic transect zones may serve as buffers to provide a separation from adjoining land uses or they may be designed for active uses as greens, squares, plazas, neighborhood parks, playgrounds, community gardens, or farm plots. They may also be preserved natural areas where only passive recreational uses are permitted.
- (1) Natural areas to be protected, including archaeological features, mature trees, creeks, wetlands, and indigenous native vegetation, should be designated as a Civic Space Lot. These areas are important public amenities whose edges should be easily accessible, for instance bordered by trails, neighborhood parks, streets, or commercial uses such as restaurants.
  - (2) Land in Civic transect zones may also be designated as Civic Building Lots or Stormwater Lots.
  - (d) *Civic Space Lots in all other transect zones.* Civic Space Lots may also be assigned in the Core, Center, General, and Edge transect zones as provided in table 32-262.
  - (e) *Civic space standards.* Civic Space Lots must be designed, landscaped, and furnished to be consistent with the character of each civic space type.
    - (1) Street frontage requirements for various civic space types are provided in table 32-262.
    - (2) Squares and plazas must be located so that building walls facing the square or plaza will have at least 25% of their primary facade, including at least 40% of the ground story's primary facade, in transparent windows.
    - (3) Typical arrangements of each type of civic space are illustrated in figure 32-262.



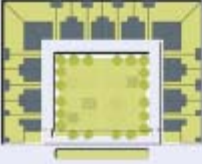
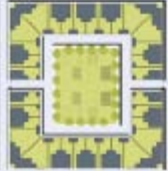
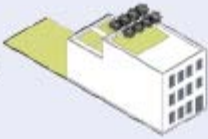



Sustainability - Food Production. This table shows ways of incorporating types of food production along the Transect.

	T1	T2	T3	T4	T5	T6	SD	Specific
<b>Farm</b> 		*					*	<hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/>
<b>Agricultural Plots</b> 		*	*				*	<hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/>
<b>Vegetable Garden</b> 		*	*	*				<hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/>
<b>Urban Farm</b> 			*	*	*			<hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/>
<b>Community Garden</b> 			*	*	*	*		<hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/>
<b>Green Roof</b> - Extensive - Semi Intensive - Intensive 		*	*	*	*	*	*	<hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/>
<b>Vertical Farm</b> 					*	*	*	<hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/> <hr/>



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<b>Farm</b> 		•					•
<b>Vegetable Garden</b> 		•	•	•			
<b>Urban Farm</b> 			•	•	•		
<b>Community Garden</b> 			•	•	•	•	
<b>Green Roof</b> - Extensive - Semi Intensive - Intensive 		•	•	•	•	•	•
<b>Vertical Farm</b> 					•	•	•

