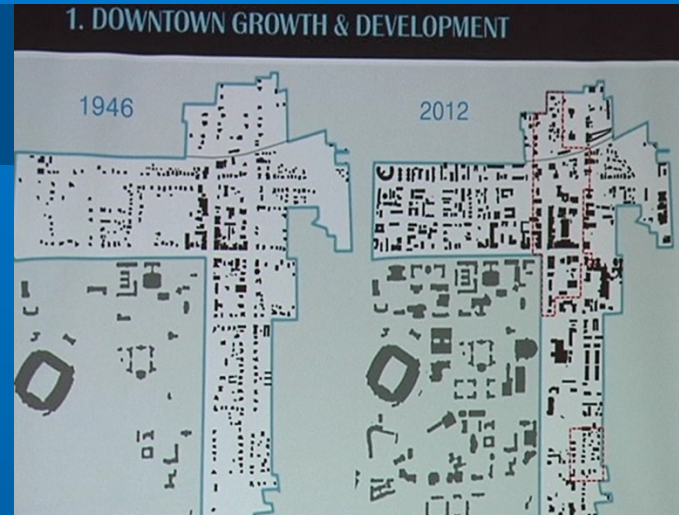
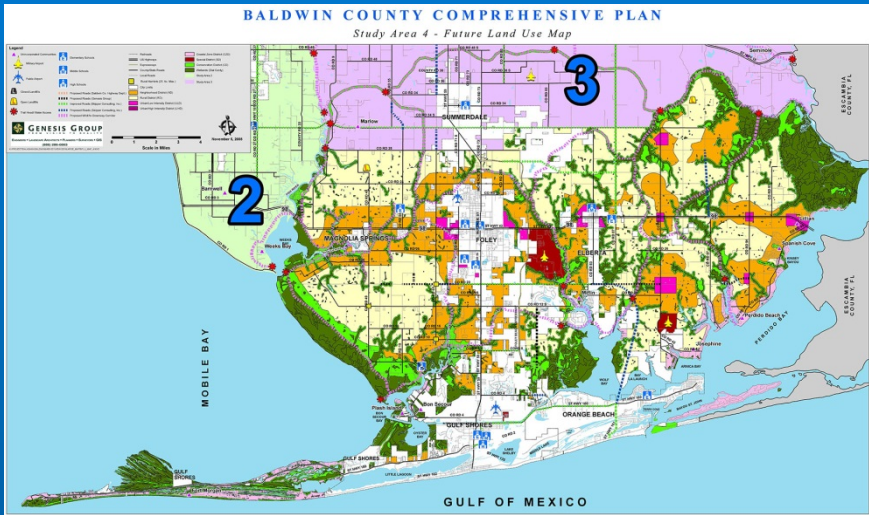


# *Planning is Critical*

Charlene LeBleu, AICP, FASLA,  
Associate Professor of Landscape Architecture  
College of Architecture, Design & Construction  
Auburn University  
Auburn, AL

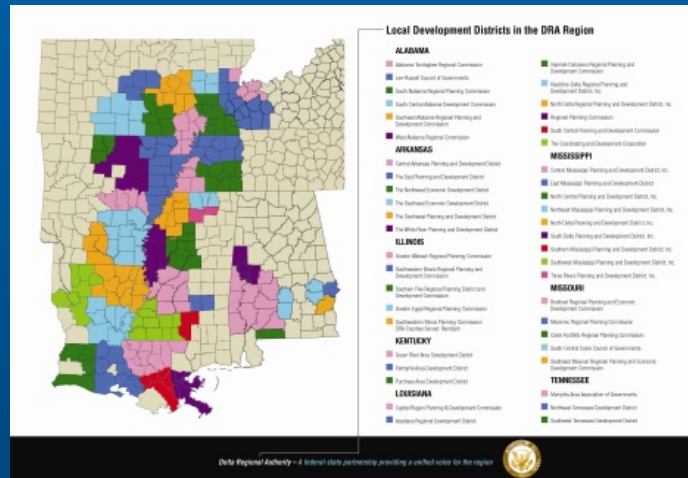


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# Urban Planning

# City Planning

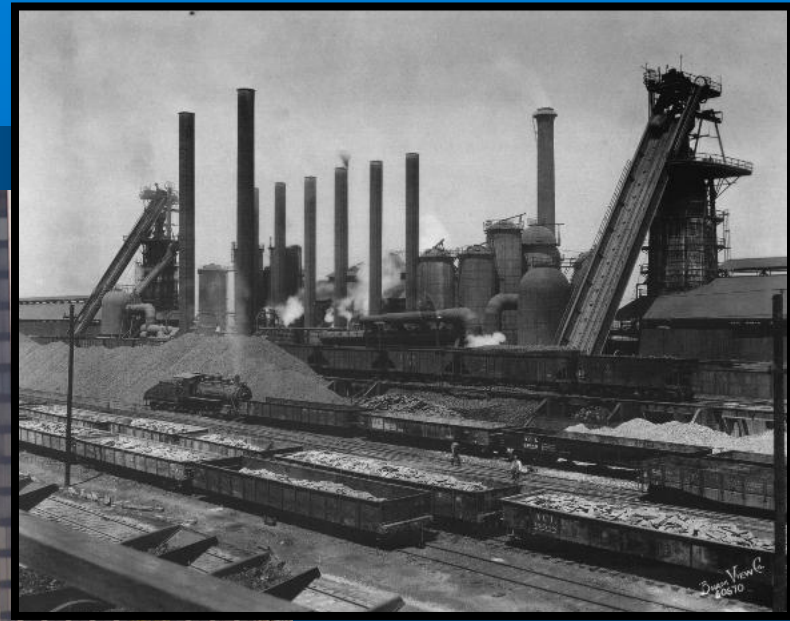


# Regional Planning



City of Auburn, AL Master Plan, WRLB News

*Public participation is essential to planning.  
It builds equity in our environment.*



**Sloss Furnaces  
Birmingham , AL**

*Planning helps communities to envision their future.*



*Genetta Wetlands Park and the daylighting of Genetta Ditch at a site in the Fairview area along the Civil Rights trail, Montgomery, AL*

**So why is planning for  
low impact development  
critical to Alabama?**





41<sup>st</sup> Street Pub & Aircraft Sales, Birmingham, AL

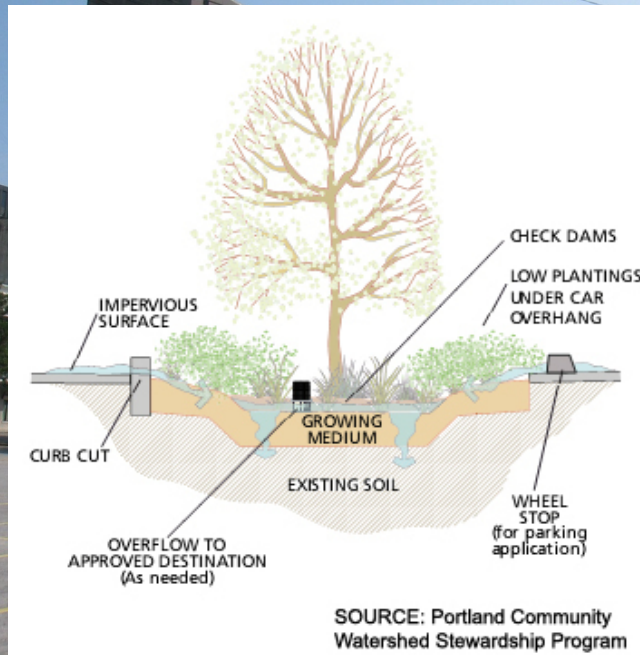
*Poor planning and aging infrastructure have helped turn even unremarkable rainstorms into costly, property-wrecking events.*



*Mobile Press Register*  
Friday, Sept. 18, 2009  
Dauphin Street in midtown Mobile, Ala.



# *Existing Conditions in Mobile, AL*



*There is need for a site design that promotes infiltration!*

# *Existing Conditions in Mobile, AL*



**Existing Royal Street  
Tree Planters**

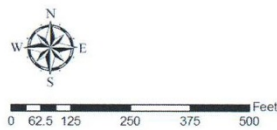
nice tree planter  
possibility for bioretention filter



***If only it had a curb cut!***

existing storm sewer

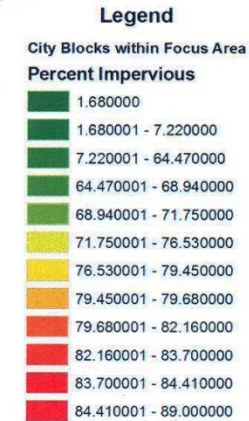
# Delineation and Prioritization of Catch Basins



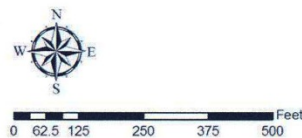
**Notes:** The proposed area of focus for the Mobile Green Streets Initiative Encompasses a 12-block area of downtown mobile, in the historic Dauphin Street district. This area is bound to the north by St. Francis Street, to the South by Government Street, to the east by Claiborne Street, and to the West by St. Joseph and St. Emanuel Streets.

# Calculation of Effective Impervious Surface Coverage

Block ID	% Impervious
Block 1	7%
Block 2	89%
Block 3	79%
Block 4	84%
Block 5	80%
Block 6	84%
Block 7	69%
Block 8	2%
Block 9	64%
Block 10	82%
Block 11	77%
Block 12	72%



**Notes:** Impervious surface coverage has been determined by dividing the total relative impervious area per block by the respective block area. The blocks with the highest impervious surface ratios were Block 2, 4, And 6, while the blocks with the lowest impervious surface ratios are Blocks 1, 8, and 9.

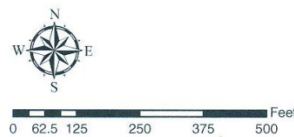


# Relative Block Composition

Block ID	Buildings	Parking
Block 1	1092	7612
Block 2	40740	63247
Block 3	55229	27727
Block 4	29710	43123
Block 5	64864	1348
Block 6	67418	5126
Block 7	47097	0
Block 8	902	0
Block 9	48770	12051
Block 10	54423	37255
Block 11	3323	66746
Block 12	59276	0



**Notes:** Relative Block Composition has been determined as the portion of each block that is either structural (building) or parking.



# *Existing Conditions in Mobile, AL*

- 92% of the surface area was characterized as impermeable hardscape
- 8% permeable surface
- Historical average annual rainfall at 66 inches per year.
- Aging stormwater infrastructure





Philadelphia's Delaware River waterfront, Hargreaves Associates

*LID is a growing area of practice at the intersection of Planning, Ecology, Landscape Architecture, and Engineering.*



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*LID has the power to create place and protect place .  
Lewes Canal Front Park, New York City by Andropogon Associates.*



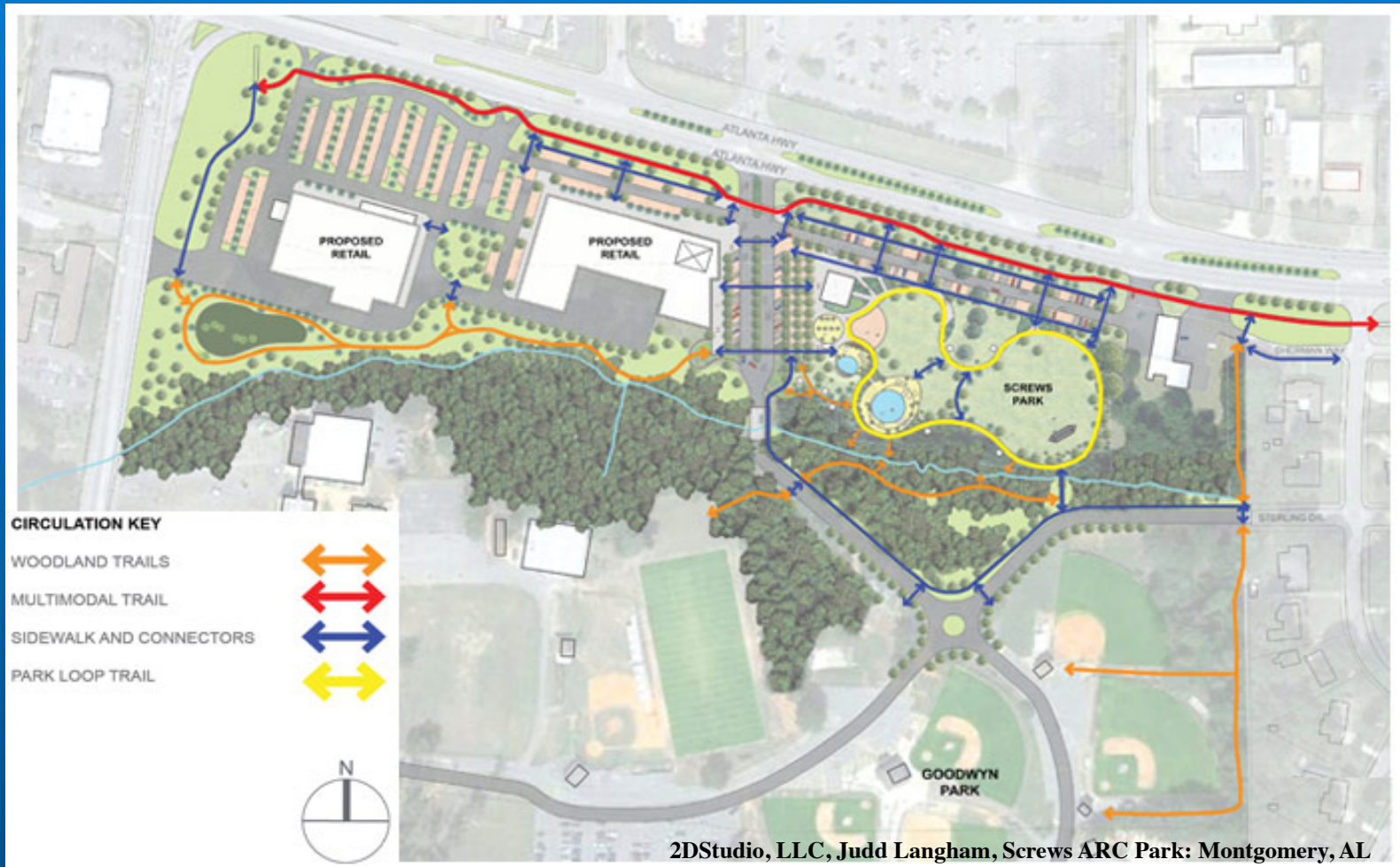
*LID is a holistic, fine-grained planning, engineering and design approach, integrated with land use patterns and neighborhood context.*

LID Downtown Development, Portsmouth, NH





Sugar Creek Preserve, conservation subdivision, Walworth County, WI is 177-acres, with over 69% of the site permanently preserved as open space/farm with Civil War Battle-Related Resources.



Vibrant, walkable places are by their very nature compact with relatively higher density, and this is where significant per capita watershed improvement is achieved.

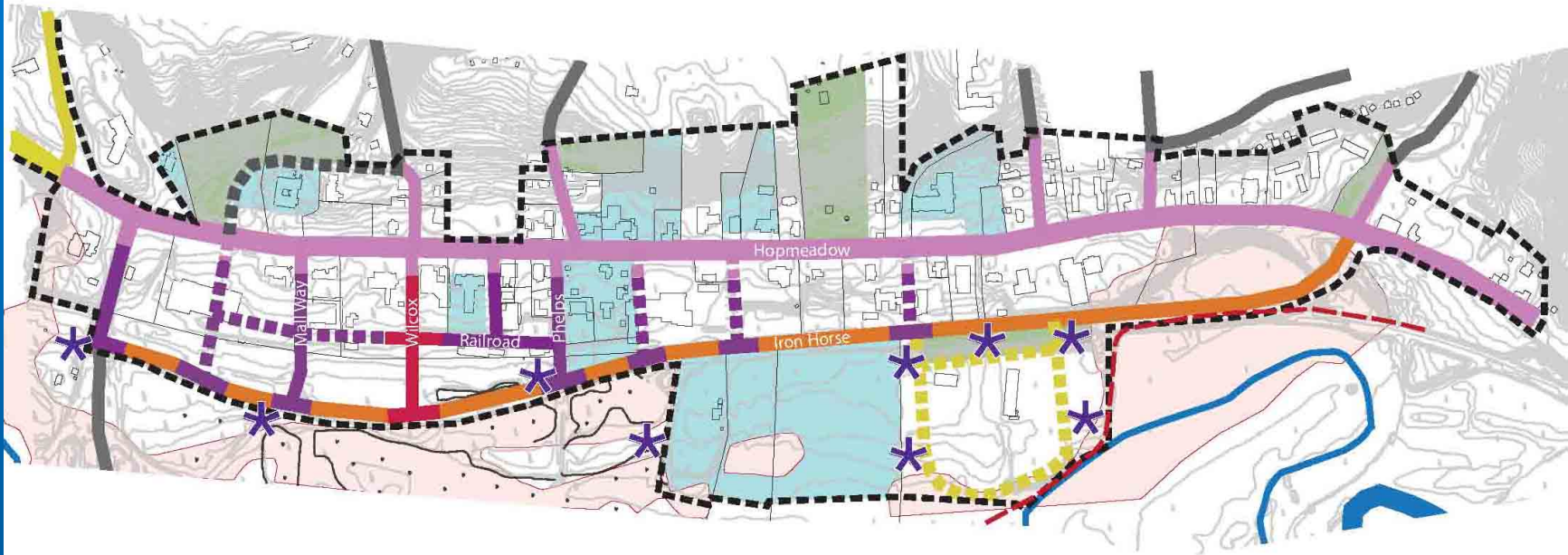


Columbia Pike Special Revitalization District, Form Based Code, Dover, Kohl & Partners

Zoning codes that encourage compact development present a unique opportunity for communities to reduce their watershed impact AND promote creation of livable, lovable places.



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# Simsbury Center Watershed Planning & Design Framework

September 26, 2011

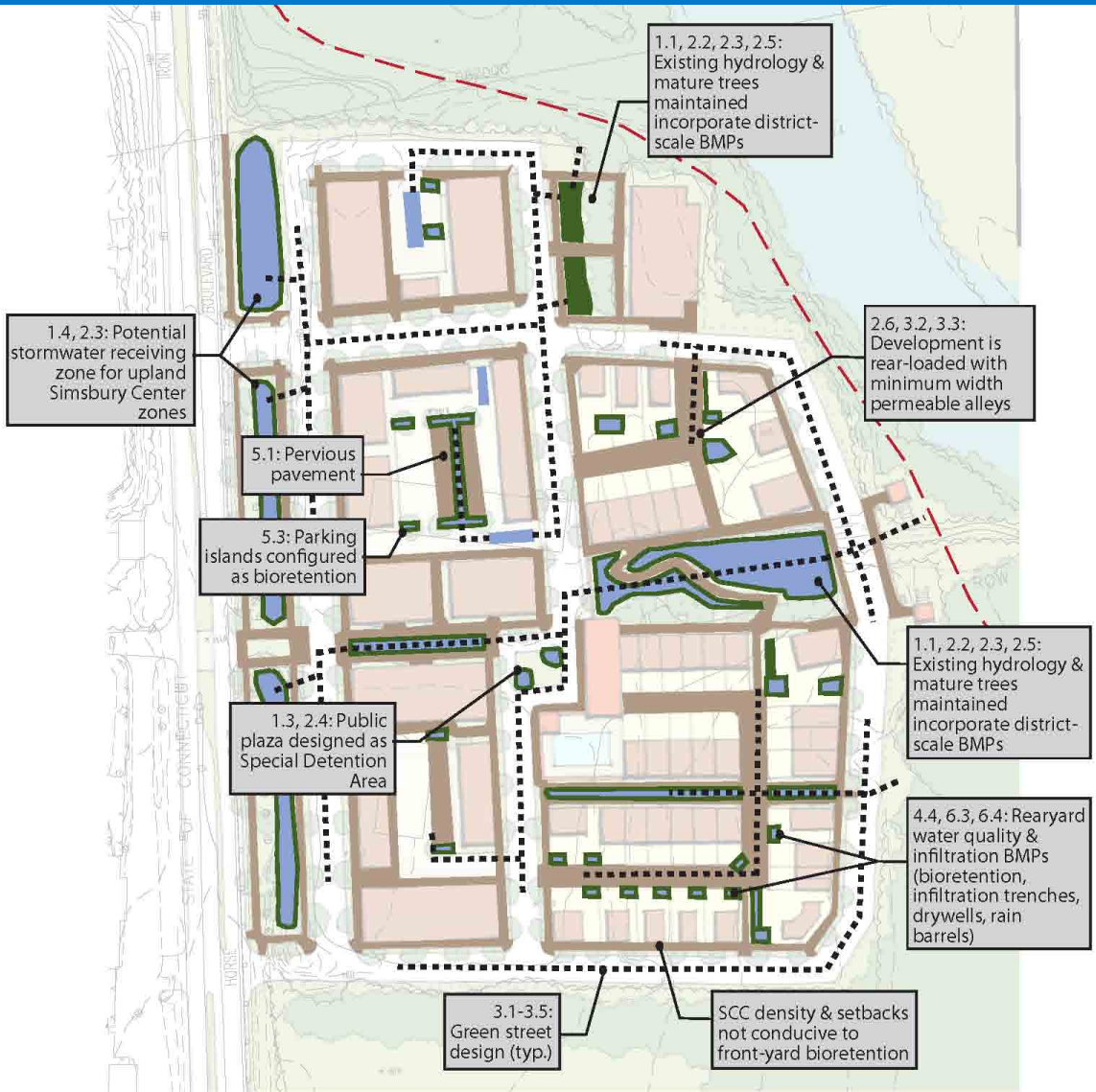
Soils data, land use boundaries and categories, and growth framework legend designations/descriptions are for use as an illustrative guide only. Detailed planning and engineering shall incorporate soils data, topography, land use data, and other relevant base data verified by a qualified professional.

Existing conditions and regulating plan information is approximate, obtained from Town of Simsbury data and Simsbury Center Regulating Plan by Code Studio adopted April 4, 2011.

Soils data obtained from USDA NRCS Web Soil Survey.



Morris Beacon Design in Rhode Island



Layout by Russell Preston

- A BMP implementation matrix was calibrated to Simsbury Center form-based zones
- Planning and Site Design Criteria Checklist integrates context sensitive LID design principles into all projects.

## PAVING



T1	T2	T3	T4	T5	T6
Compacted Earth					
	Crushed Stone/Shell				
	Grassed Cellular Plastic				
		Grassed Cellular Concrete			
	limited	Standard Asphalt/Concrete Pavement			
		Pavers/Brick			
		Permeable Bituminous/Concrete Pavement			
			Pea Gravel		

In a perfect world every municipality has already established a matrix of Best Management Practices calibrated to the specific range of local contexts within their limits.



LID street and site design must take into account retail visibility and access on a block-by-block scale.



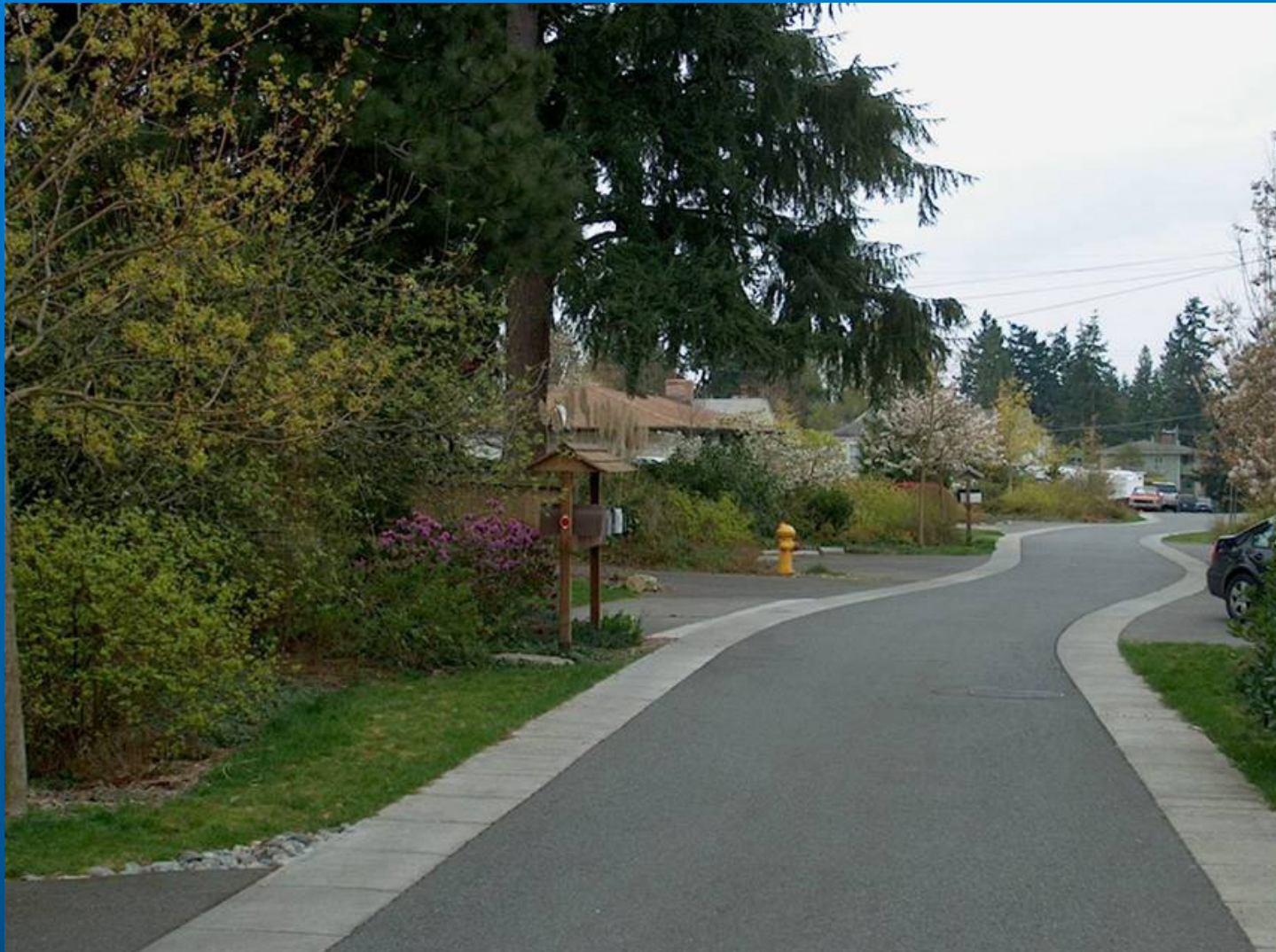
# LID solutions function best on a long-term basis when they are:

- Obvious
  - surface filters, bioretention, tree filters, green roofs, pervious paving surfaces
- Simple
  - bioretention, vegetated swales, natural filtration systems and erosion control measures, disconnection of roof downspout, rainwater harvesting
- Lovable
  - landscaping that provides double-duty for stormwater management



The most dazzling technological stormwater management solutions are worthless if they are abandoned after a year because they were too complicated or costly to maintain.





LID optimizes watershed health while creating vibrant, lovable places and provides protection for the great watersheds in which we live.

# Questions?

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