

# the sprawl retrofit initiative

an overview

congress for the new urbanism

what is sprawl retrofit?

All the uses, but separated use, excess parking, hostile frontages - not walkable



Source: Sandy Sorlien

Form:  
Automobile-oriented frontage  
VS.  
Pedestrian-oriented frontage



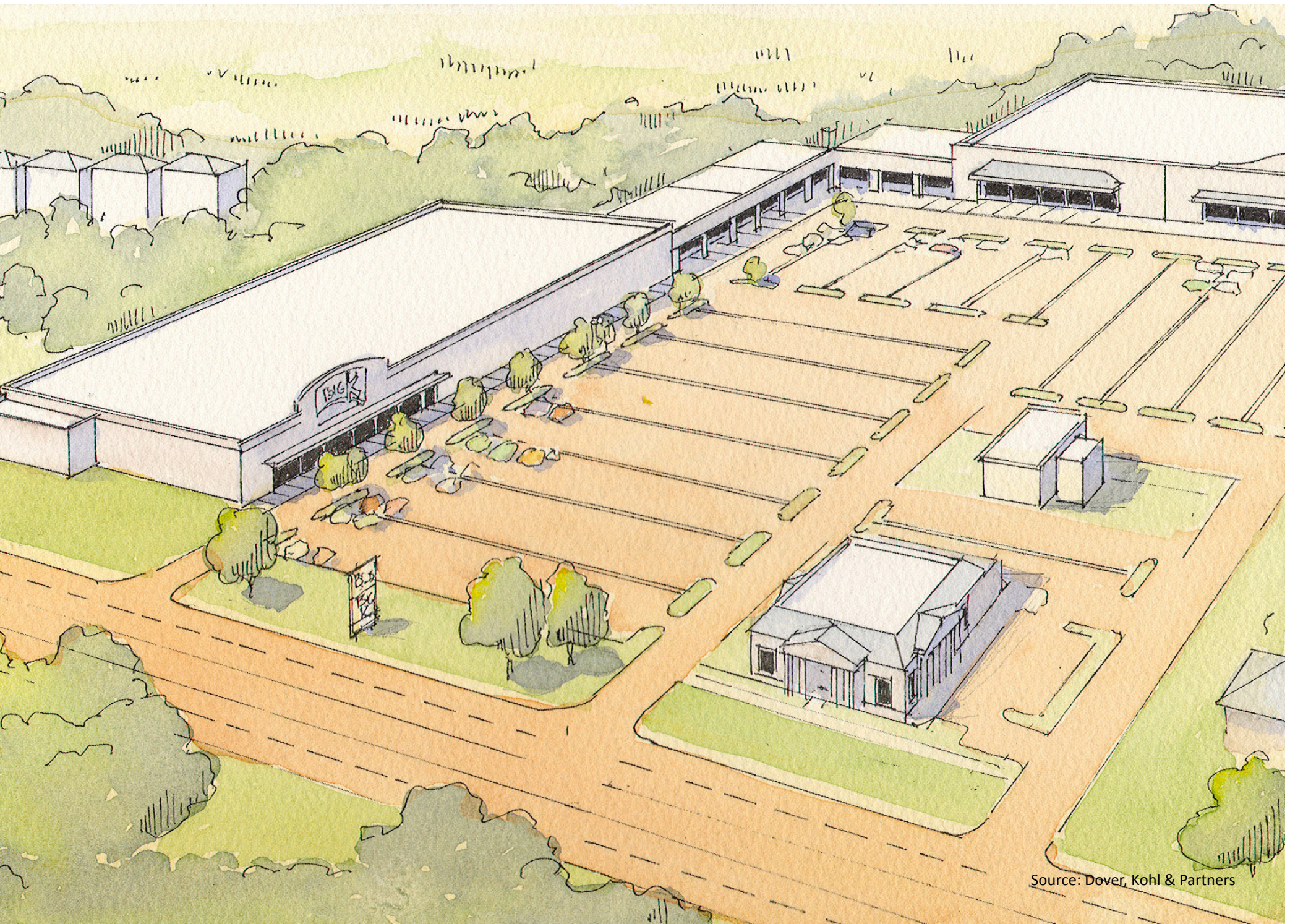
Source: Sandy Sorlien





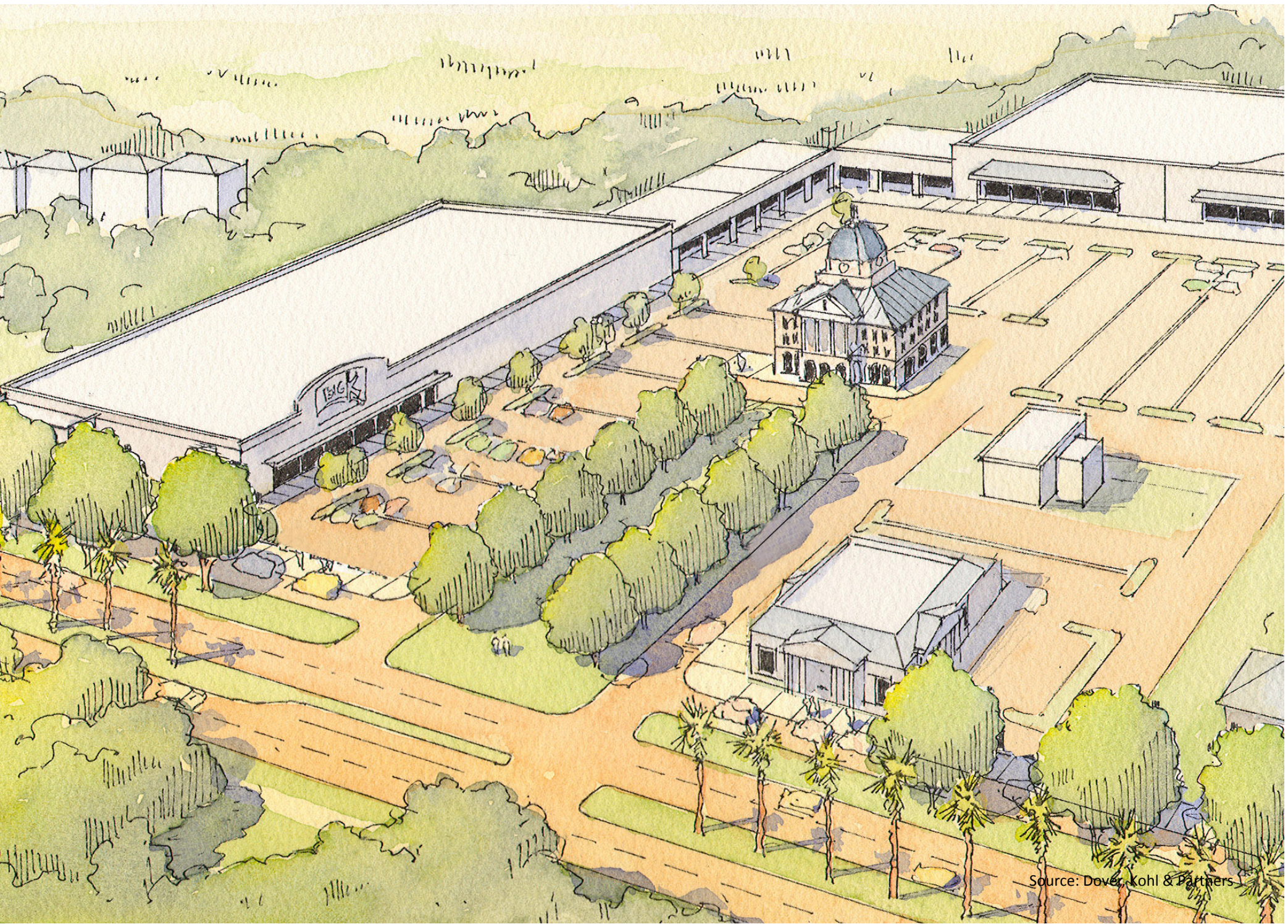
Source: Dover, Kohl & Partners





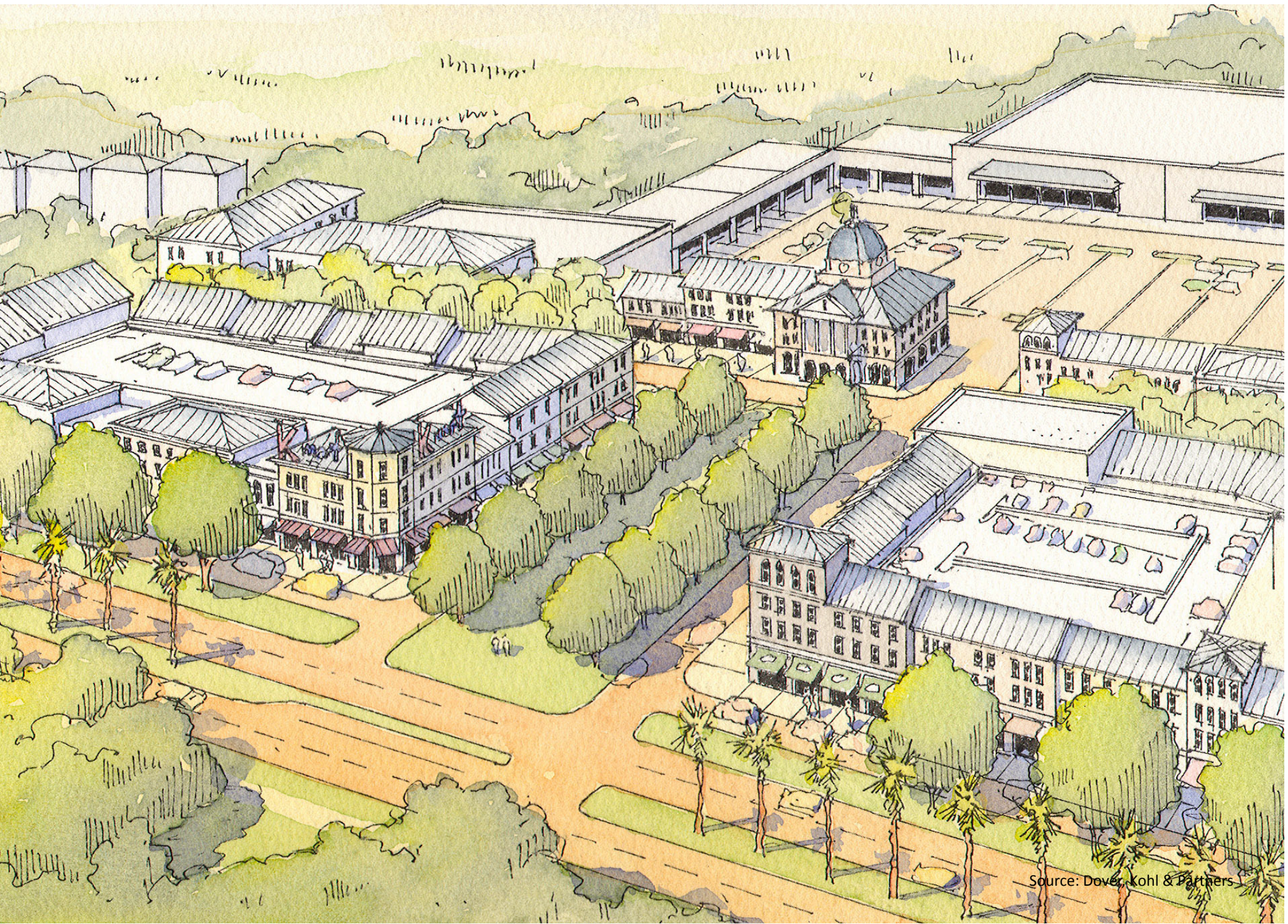
Source: Dover, Kohl & Partners





Source: Dover, Kohl & Partners





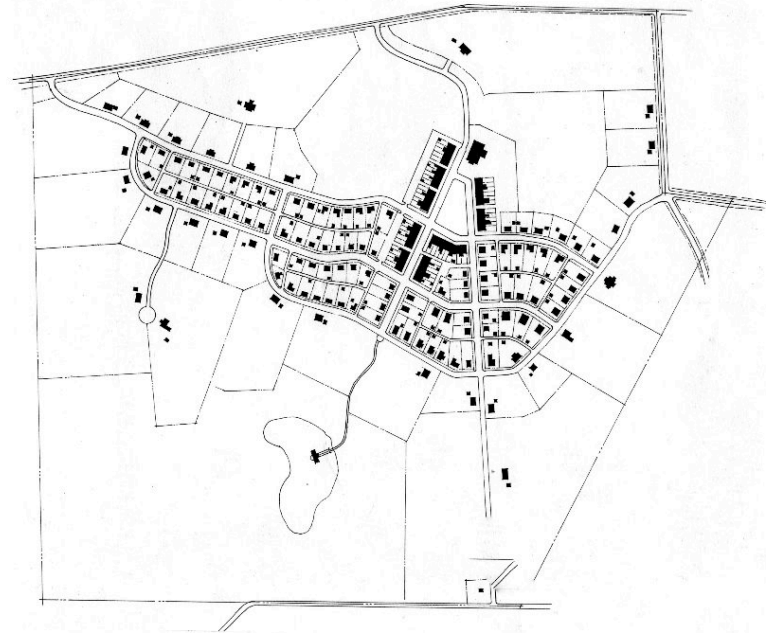
Source: Dover, Kohl & Partners





Source: Dover, Kohl & Partners





"Kosmos Estates" in Adams County, Pennsylvania, as laid out according to current zoning, and the Village of "Alba," as designed by Richard Bono and Richard Calderon to yield the same number of dwellings (with greater variety) plus a small commercial core and significant greenbelt open space. [Poster adapted from the book *Rural by Design* by Randall Arendt.]

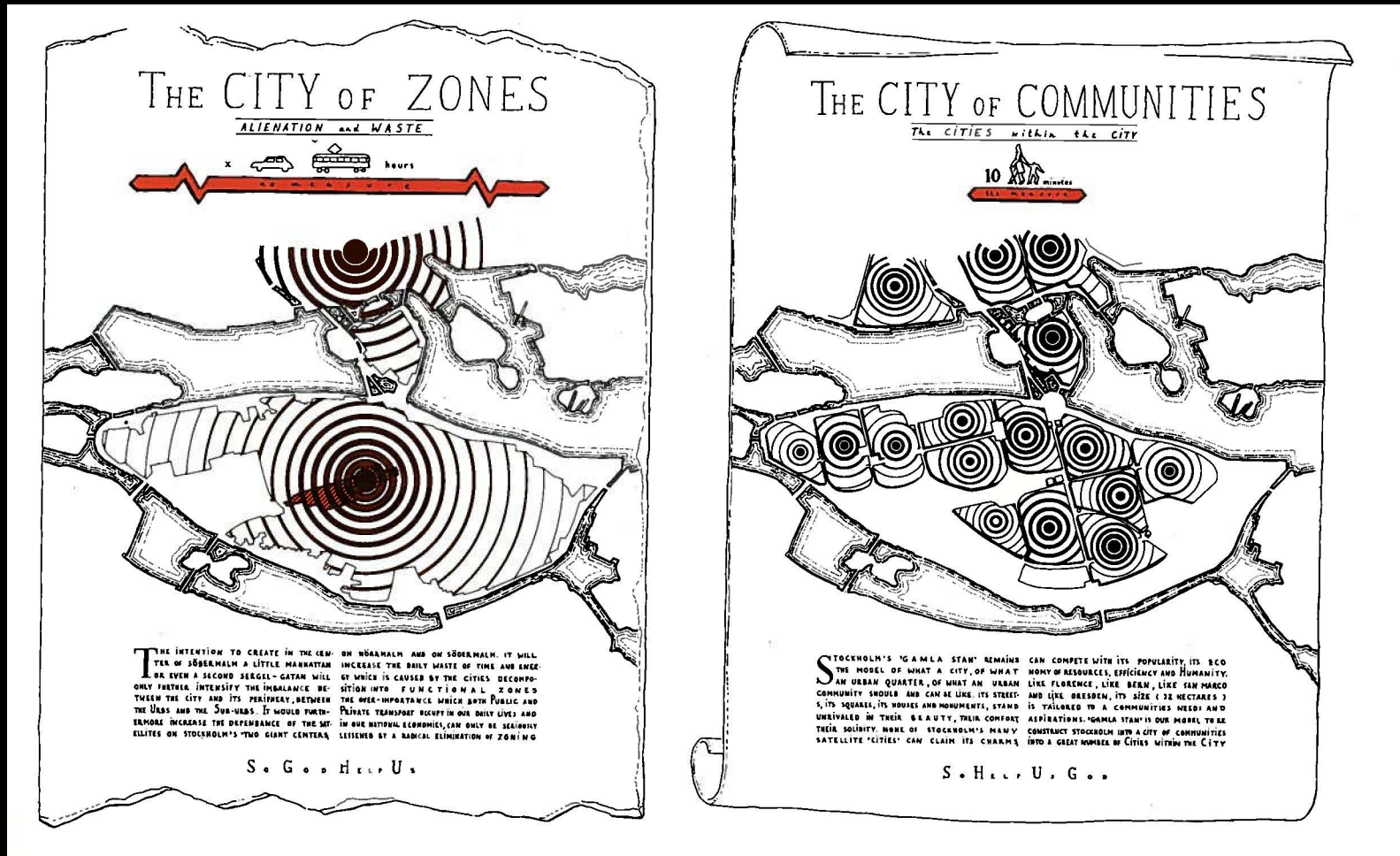
why retrofit?

aging, out-of-date properties, often in  
first-ring suburbs



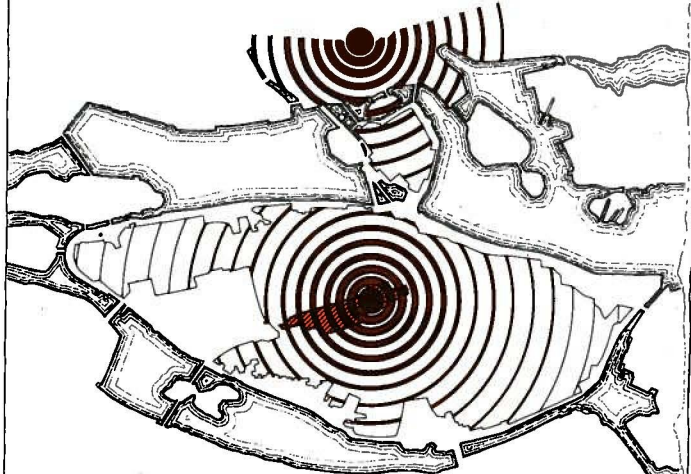


# Booming new agglomerations in edge cities or “edgeless cities”



## THE CITY OF ZONES ALIENATION and WASTE

x hours

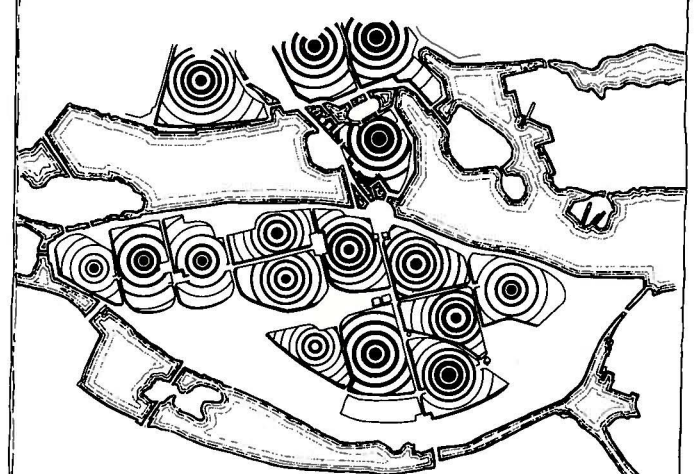


THE INTENTION TO CREATE IN THE CENTER OF SJÖRSBÄLM A LITTLE MANHATTAN OR EVEN A SECOND SENGEL-GATAN WILL ONLY FURTHER INTENSIFY THE IMBALANCE BETWEEN THE CITY AND ITS PERIPHERY, BETWEEN THE URBAN AND THE SUB-URBAN. IT WOULD FURTHERMORE INCREASE THE DEPENDENCE OF THE SETTLEMENTS ON STOCKHOLM'S TWO GIANT CENTERS ON SÖDERMALM AND ON SJÖRSBÄLM. IT WILL INCREASE THE DAILY WASTE OF TIME AND ENERGY WHICH IS CAUSED BY THE CITIES' DECOMPOSITION INTO FUNCTIONAL ZONES OF THE OVER-IMPORTANCE WHICH BOTH PUBLIC AND PRIVATE TRANSPORT RECEIPT IN OUR DAILY LIVES AND IN OUR NATIONAL ECONOMY, CAN ONLY BE SERIOUSLY LESSENED BY A RADICAL ELIMINATION OF ZONING

S. G. O. H. U. S.

## THE CITY OF COMMUNITIES THE CITIES WITHIN THE CITY

10 minutes



STOCKHOLM'S 'GAMLA STAN' REMAINS THE MODEL OF WHAT A CITY, OF WHAT AN URBAN QUARTER, OF WHAT AN URBAN COMMUNITY SHOULD AND CAN BE LIKE ITS STREET-5,170 SQUARES, ITS HOUSES AND MONUMENTS, STAND UNRIVALED IN THEIR BEAUTY, THEIR COMFORT AND THEIR SOLIDITY. NONE OF STOCKHOLM'S MANY SATELLITE 'CITIES' CAN CLAIM ITS CHARM. CAN COMPETE WITH ITS POPULARITY, ITS RICH MANY OF RESOURCES, EFFICIENCY AND HUMANITY. LIKE FLORENCE, LIKE BERNE, LIKE SAN MARCO AND LIKE DRESDEN, ITS SIZE (32 HECTARES) IS TAILORED TO A COMMUNITIES NEEDS AND ASPIRATIONS. 'GAMLA STAN' IS OUR MODEL TO BE CONSTRUCT STOCKHOLM INTO A CITY OF COMMUNITIES INTO A GREAT NUMBER OF CITIES WITHIN THE CITY

S. H. U. S. G. O.

# changing locational and economic identity of the suburbs



Source: Duany, Plater-Zyberk, and Co.



# changing demographics and markets



**Baby boomers**

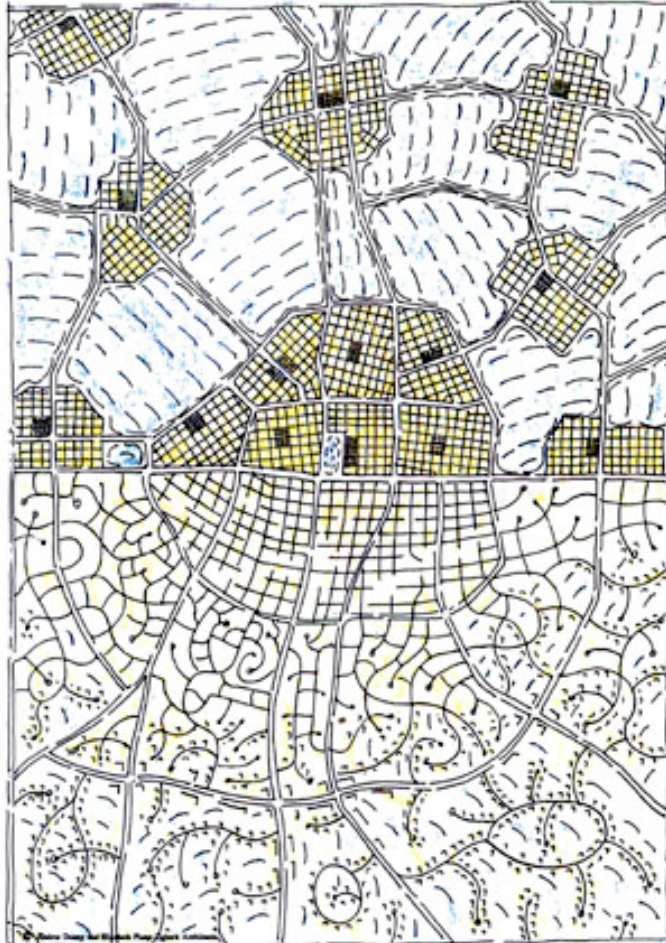


**Echo boomers**

Source: Reconnecting America

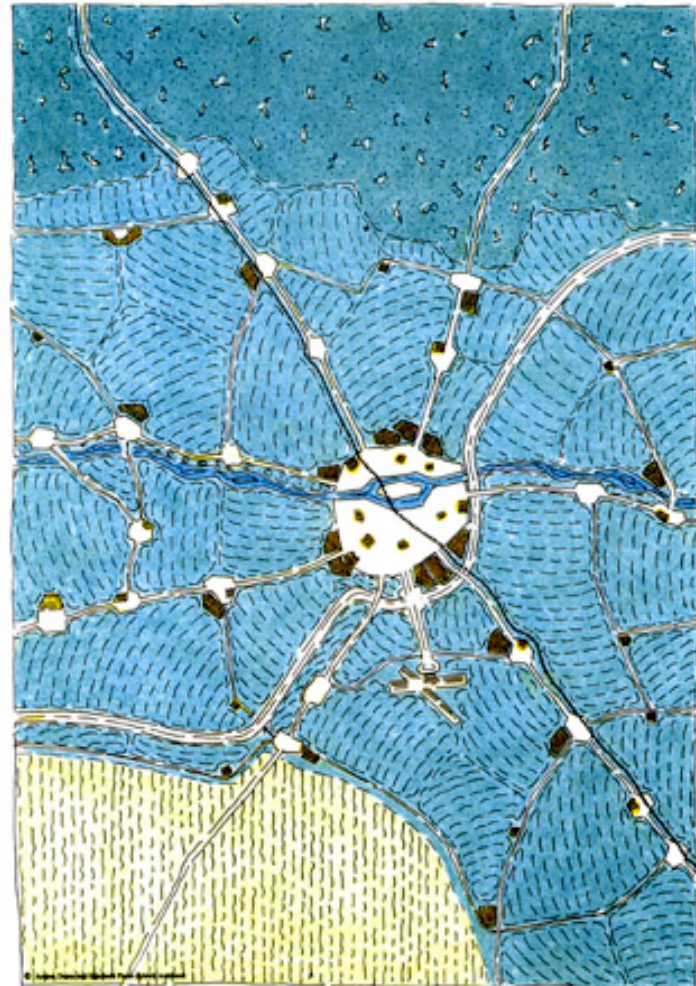
# smart growth practices and policies

CITIES & TOWNS MADE OF NEIGHBORHOODS  
BALANCE RESOURCE NEEDS



THE CITY & SUBURBAN SPRAWL  
COMPETE FOR RESOURCES

1. INFILL EXISTING URBAN AREAS AND TOWN CENTERS.
2. ATTACH NEW TNDs TO EXISTING URBAN AREAS AND TOWN CENTERS.
3. EXPAND RURAL VILLAGES ACCORDING TO TND PRINCIPLES.
4. ESTABLISH AUTONOMOUS TNDs AND VILLAGES.





goals of sprawl retrofit

reduce land  
consumption  
and per capita  
costs of public  
investment



Source: SC Coastal Conservation League.



# increase feasibility and efficiency of transit



Source: Josh Martin



Source: Josh Martin

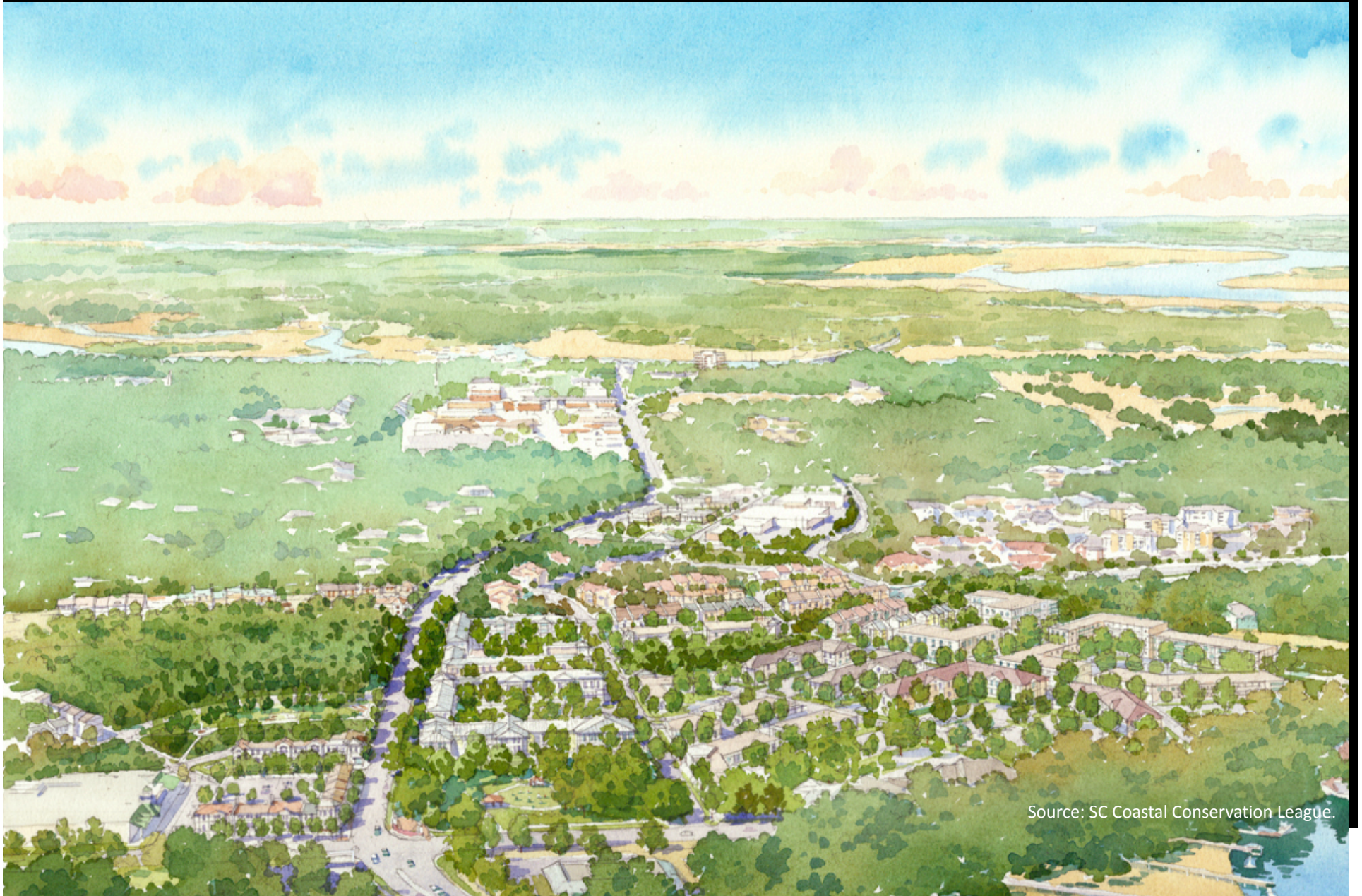
# increase local connectivity



Source: SC Coastal Conservation League.



increase local connectivity



Source: SC Coastal Conservation League.



reduce vehicle miles traveled and  
improve public health





increase permeable surfaces and  
green space





increase permeable surfaces and  
green space





# increase choice in housing type and affordability



Source: Josh Martin



Source: Josh Martin



# increase diversification of the tax base



Expected Annual Property Tax Revenue with Proposed Redevelopment Plan											
Parcel ID	Parcel Size (acres)	Land Value (\$)	Existing Commercial Building (sq.ft)	Existing Appraised Value (\$)	Existing Assessed Value (\$)	Existing Tax Revenue (\$)	Proposed Commercial Building (sq.ft) (includes existing to remain)	Proposed Residential Building (sq.ft)	Proposed Impervious Structures (sq.ft)	Proposed Assessed Value (\$)	Future Tax Revenue Total (\$)
① 3490100041, 3490100070, 3490100072-3490100081, 3490100106-3490100108, 3490100022, 3490100039, 3490100035, 3490100042, 3490100032	4	\$2,079,500	70,199	\$5,475,500	\$328,530	\$83,315	42,000	189,000	153,372	\$1,164,270	\$295,258
② 3490100044, 3490100082-3490100098	1.98	\$453,400.00	27,000	\$2,492,400	\$149,544	\$37,924	0.00	26,400	75,919	\$146,004	\$37,026
③ 3490100014	5.6	\$834,000.00	35,000	\$2,391,000	\$143,460	\$36,381	0.00	42,000	214,720	\$239,040.	\$60,620
④ 3490100021, 3490100027	13.05	\$2,892,000.00	138,200	\$3,059,500	\$183,570	\$46,553	74,500	428,400	500,376	\$2,436,570	\$617,914
⑤ 3490100024	0.62	\$493,000	6,000	\$1,760,001	\$105,600.	\$26,780	6,000	0	23,772	\$56,580	\$14,348
⑥ 3490100025	5.97	\$1,757,000	65,000	\$1,760,002	\$105,600	\$26,780	65,000	0	228,907	\$397,920	\$100,912
⑦ 3490100034, 3490100036, 3490100037	1.75	\$548,000	13,200	\$1,071,500	\$64,290	\$16,303	0.00	42,000	67,100.	\$221,880	\$56,268
<b>TOTAL</b>	<b>32.97</b>	<b>\$9,056,900</b>	<b>354,599</b>	<b>\$18,009,903</b>	<b>\$1,080,594</b>	<b>\$274,038</b>	<b>187,500</b>	<b>727,800</b>	<b>1,264,168</b>	<b>\$4,662,264</b>	<b>\$1,182,350</b>



# establish urban node with polycentric region



THE REGION OF  
CITY, TOWNS, VILLAGES, AND HAMLETS

Source: Duany, Plater-Zyberk, and Co.



# Hurdles to Sprawl Retrofit



# Hurdles to Sprawl Retrofit

- Weak Market Demand
- Existing Zoning Ordinances
- Parking Standards
- Site Constraints: Existing Commercial Leases, Remote Locations, Fragmented Ownership
- Need for active Civic Leadership
- Infrastructure Costs
- Financing
- Public-Private Partnership



how to retrofit



# SPRAWL REPAIR SMARTCODE MODULE

PREPARED BY DUANY PLATER-ZYBERK & CO.

*"The polycentric reorganization of towns, i.e., the transformation of underdeveloped suburbs into autonomous urban quarters and villages, will be the impetus for a process of territorial transformation, internal growth, and the flowering of the suburbs."*

*Leas Kries,  
The Architecture of Community*

## SMARTCODE MODULE

Municipality

## SPRAWL REPAIR

Author: Duany Plater-Zyberk & Co. Draft: June 8, 2009

TABLE SMC.1: Sprawl Types Repaired. This table provides descriptions of the necessary tools to repair the Sprawl Types into Community Units.

SPRAWL TYPES	TECHNIQUES					INCENTIVES/ BENEFITS	COMMUNITY UNITS
	T1	T2	T3	T4	T5		
6.5 BROAD SUBDIVISIONS		00%	10-20%	20-40%		Cluster at intersections through CDK, smaller PDUs, purchase of Cornerstone Treatment Community Infrastructure Create a walk street Introduce Live-Edges, terraces and/or	CLD
6.6 NARROW SUBDIVISIONS		No Minimum	10-20%	30-40%	50-70%	Introduce new building types and uses Connect Thoroughfares Repair Thoroughfares, add pedestrian sidewalks Define and make usable Open and Civic Space	TND
6.7 STREET FRONT SUBDIVISIONS		No Minimum	10-20%	30-40%	50-70%	Introduce new building types and uses Connect Thoroughfares Repair Thoroughfares, add pedestrian sidewalks Define and make usable Open and Civic Space	TND
6.8 SPACING CENTERBAYS AND SPACES			10-20%	30-40%	40-60%	Introduce new building types and uses Connect Thoroughfares Repair Thoroughfares, add pedestrian sidewalks Define and make usable Open and Civic Space	TND
6.9 UNIFORM PARKING STRIPS			10-20%	30-40%	40-60%	Introduce new building types and uses Connect Thoroughfares Repair Thoroughfares, add pedestrian sidewalks Define and make usable Open and Civic Space	TND
6.10 SPACES			10-20%	30-40%	40-60%	Introduce new building types and uses Connect Thoroughfares Repair Thoroughfares, add pedestrian sidewalks Define and make usable Open and Civic Space	TND
6.11 EDGE CASES			10-20%	30-40%	40-60%	Introduce new building types and uses Connect Thoroughfares Repair Thoroughfares, add pedestrian sidewalks Define and make usable Open and Civic Space	TND

SmartCode Version 1.2

SC7

DRAFT

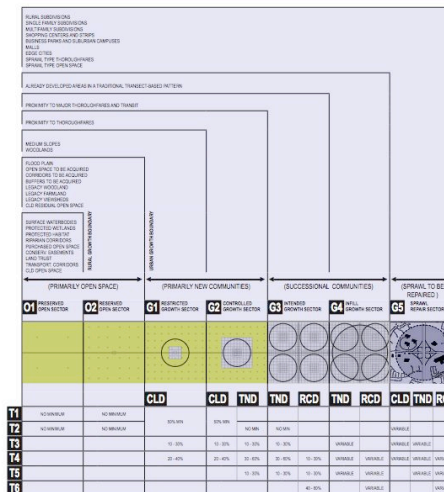
## SMARTCODE MODULE

Municipality

## SPRAWL REPAIR

Author: Duany Plater-Zyberk & Co. Draft: June 8, 2009

TABLE SMC.2: Sector/Community Allocation. Table SMC.2 defines the geography, including both nature and infrastructure elements, determining areas that are or are not suitable for development. Specific Community Unit/Infrastructure Type Types (WPTs) of various intensities are allowable in specific Sectors. This table also allocates the proportions of Trained Zones within each Community Unit/WPT.



SmartCode Version 1.2

SC3

DRAFT

## SMARTCODE MODULE

Municipality

## SPRAWL REPAIR

Author: Duany Plater-Zyberk & Co. Draft: June 8, 2009

TABLE SMC.3: Sprawl Intersection Types. This table provides descriptions of the necessary tools to repair the Sprawl Intersection Types into Complete Intersections.

SPRAWL TYPES	TECHNIQUES	COMPLETE INTERSECTIONS			
		T4 T5	T5 T6	T5 T6	T5 T6
FRINGE	• Replicate Clearcut with a Parked Boulevard or Urban Intersection • Reduce curb radii • Reduce lane widths • Introduce Access Lanes • Introduce parallel parking • Assemble Public/Intervening according to Types	BOULEVARD	BOULEVARD ROUNDABOUT	BOULEVARD	BOULEVARD
ARTISANAL	• Replicate Clearcut with a Parked Boulevard or Urban Intersection • Reduce curb radii • Reduce lane widths • Introduce Access Lanes • Introduce parallel parking • Assemble Public/Intervening according to Types	BOULEVARD/AVENUE	BOULEVARD WITH TRAFFIC	BOULEVARD	BOULEVARD
COLLECTOR	• Reduce number of lanes • Reduce Curb Radii • Reduce lane widths • Introduce parallel parking • Assemble Public/Intervening according to Types	AVENUE/COMMERCIAL STREET	AVENUE/COMMERCIAL STREET	AVENUE/COMMERCIAL STREET	AVENUE/COMMERCIAL STREET
LOCAL	• Reduce Curb Radii • Reduce lane widths • Introduce parallel parking • Assemble Public/Intervening according to Types	ROAD STREET	ROAD STREET	ROAD STREET	ROAD STREET

SmartCode Version 1.2

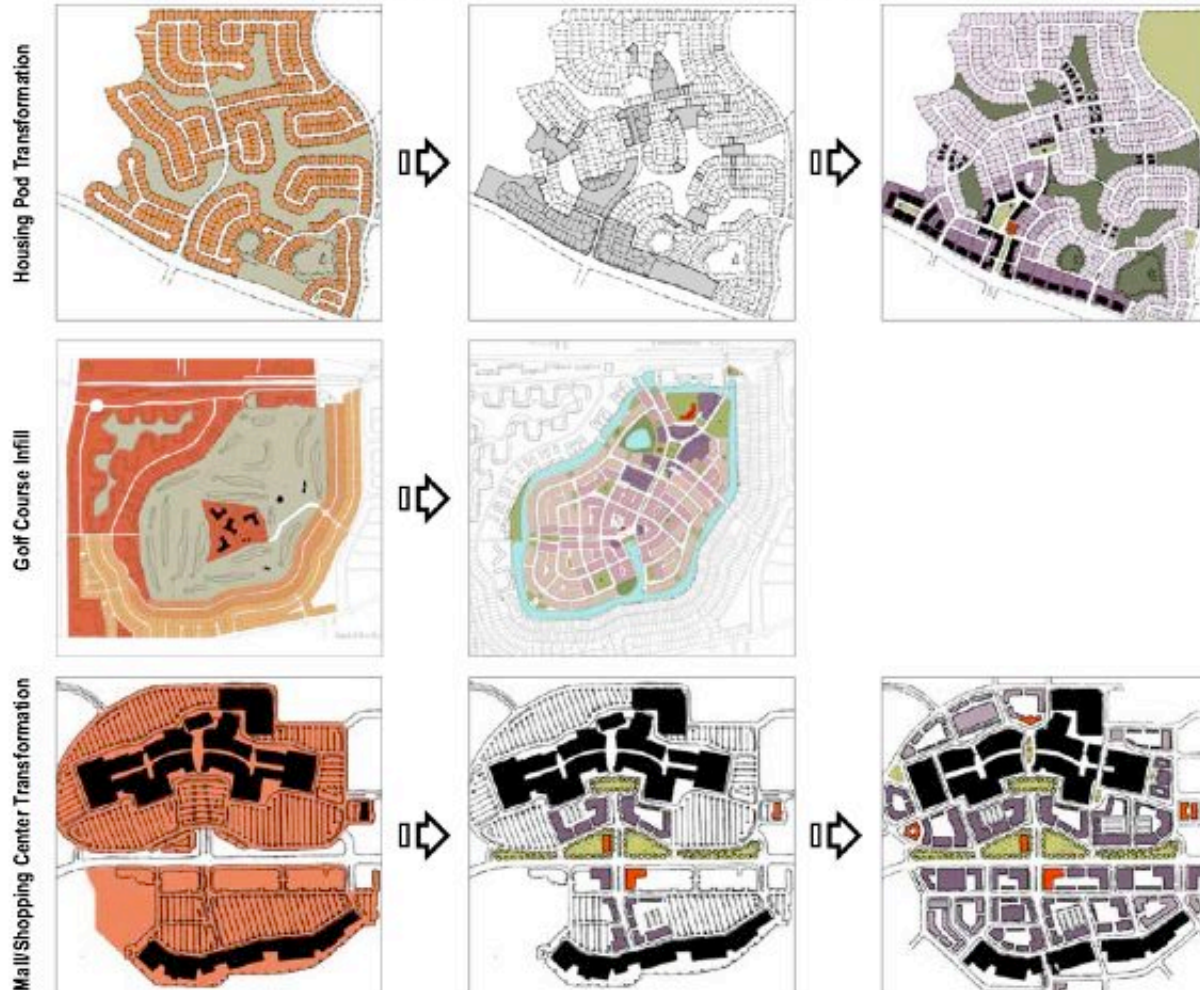
SC11

DRAFT



# R E T R O F I T - I N F I L L

SUBURBAN RETROFIT AND INFILL - A LEXICON OF ADVANCED TECHNIQUES



Source: Duany, Plater-Zyberk, and Co.



# R E T R O F I T - I N F I L L

SUBURBAN RETROFIT AND INFILL - A LEXICON OF ADVANCED TECHNIQUES

Big Box Liner & Conversion



Campus Transformation



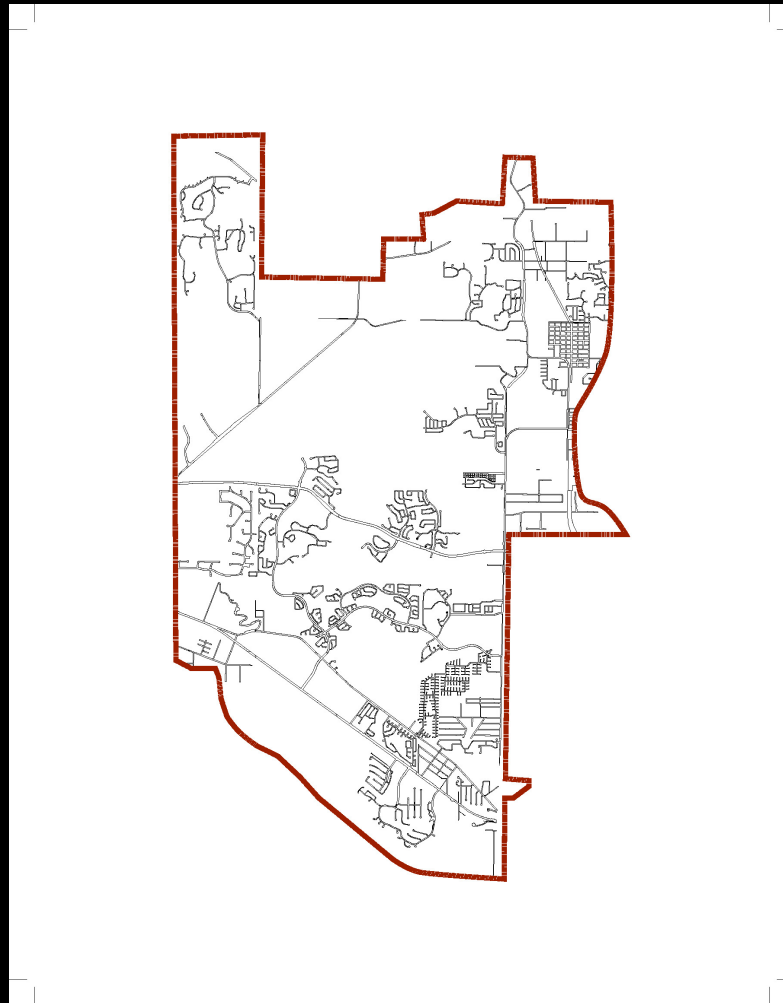
Suburban Inner City Retrofit



**DPZ**

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April 02, 2008

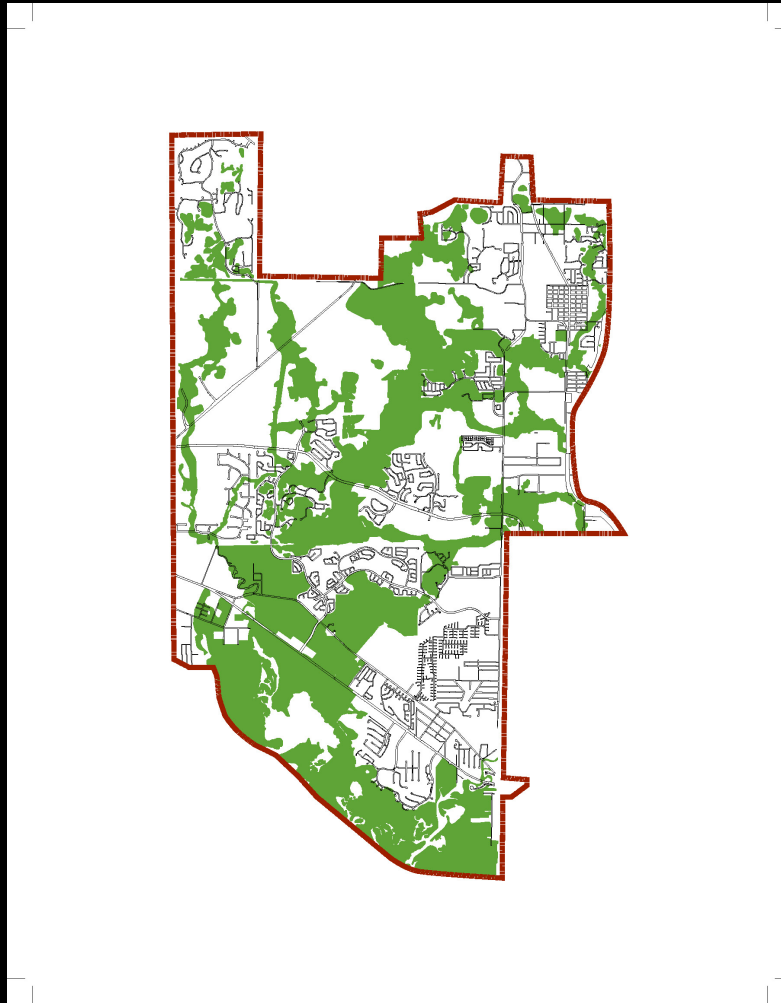
# Step 1. Identify Regional Domain Where We Operate



Source: Duany, Plater-Zyberk, and Co.

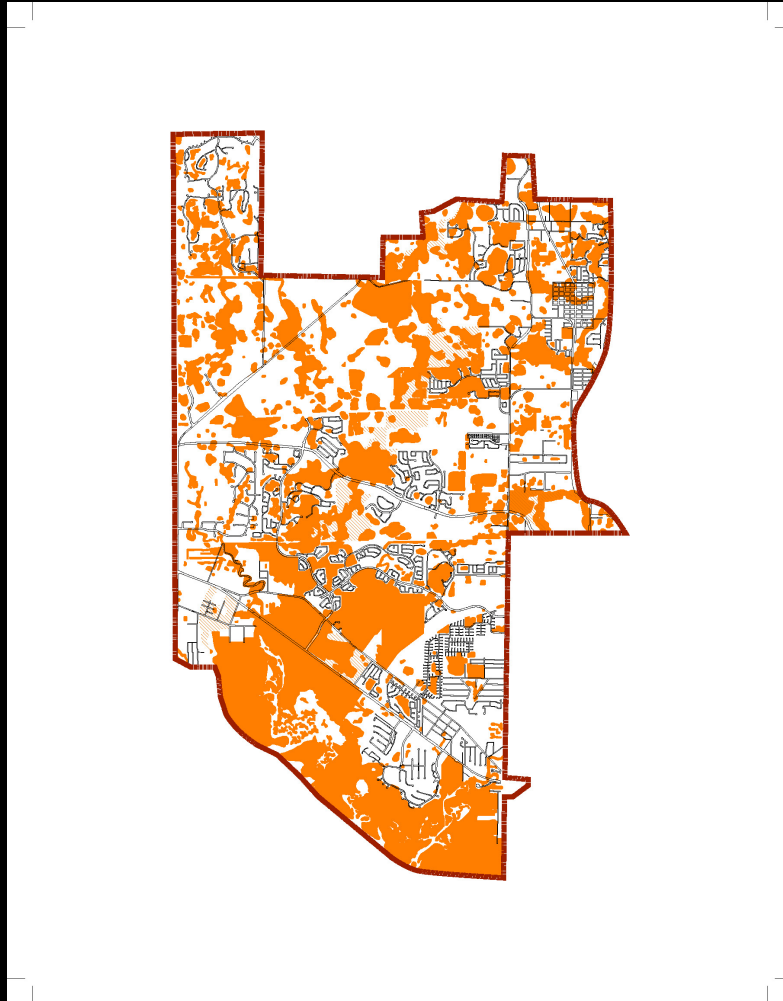


## Step 2. Delineate and Repair Preservation Areas



Source: Duany, Plater-Zyberk, and Co.

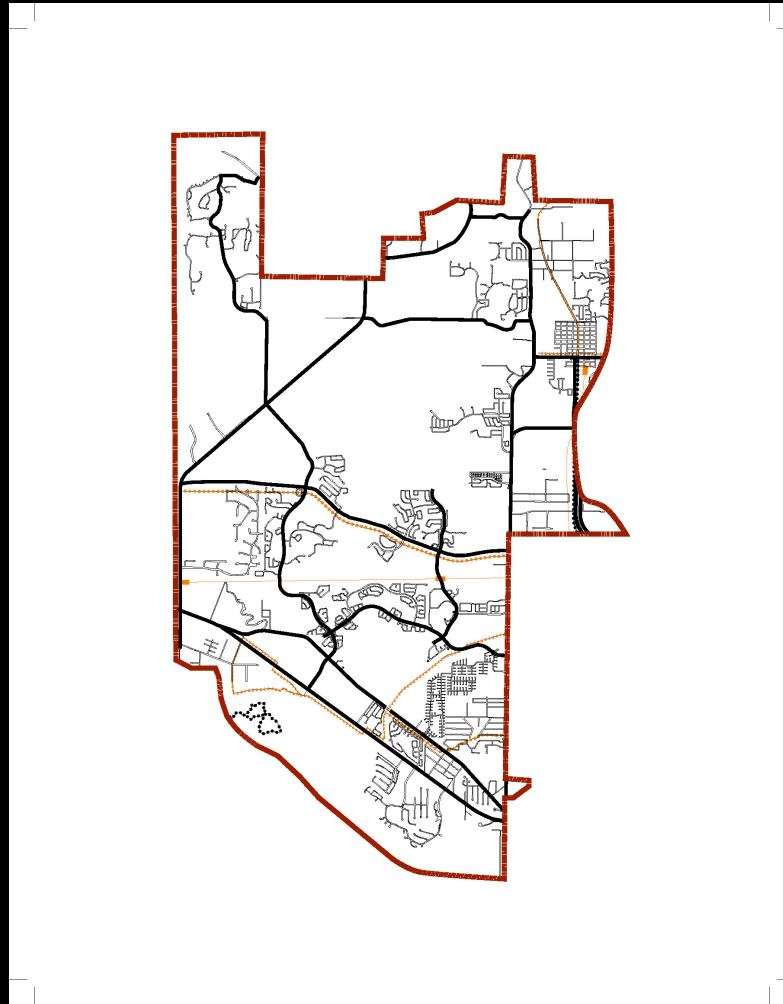
# Step 3. Identify Preserve and Reserve Areas



Source: Duany, Plater-Zyberk, and Co.

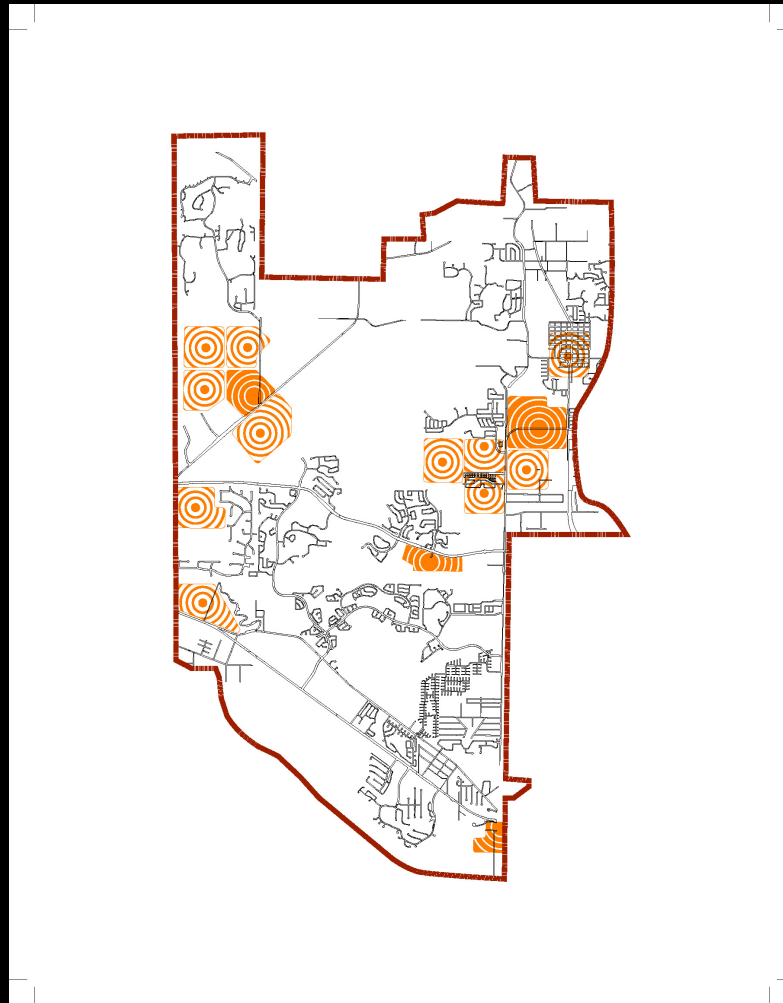


# Step 4. Identify Potential Transit Network



Source: Duany, Plater-Zyberk, and Co.

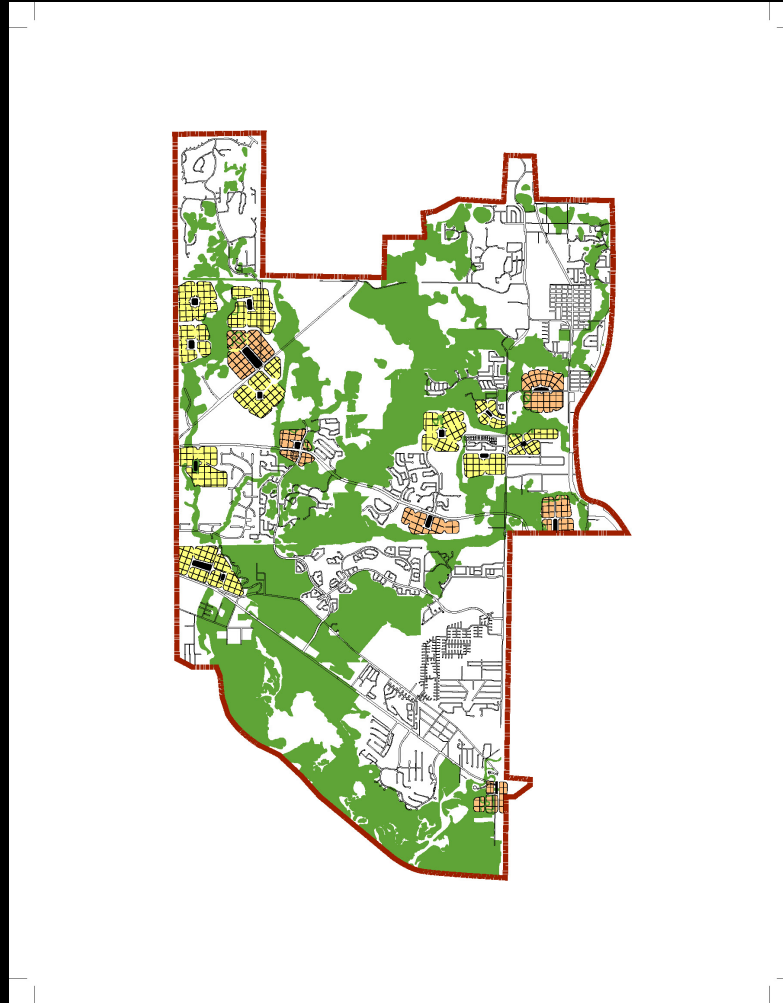
# Step 5. Identify Repair Targets



Source: Duany, Plater-Zyberk, and Co.

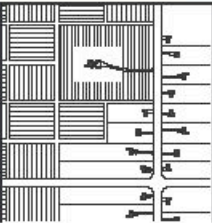
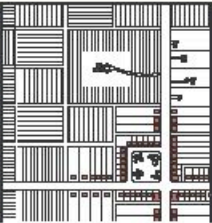
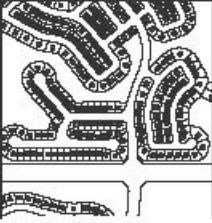







# Step 6. Assemble Sector Map



Source: Duany, Plater-Zyberk, and Co.

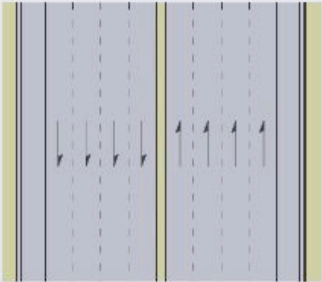
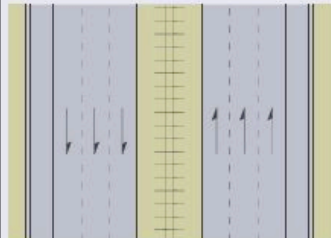
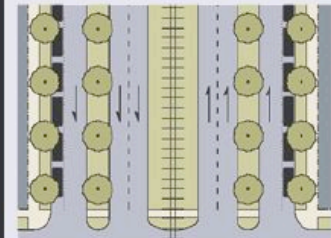
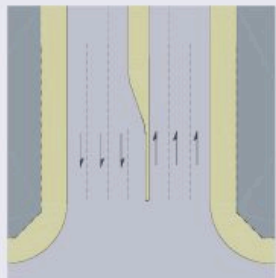
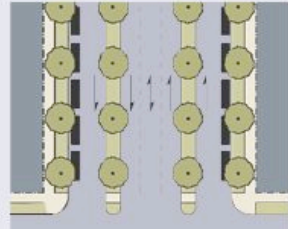
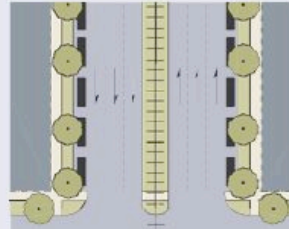
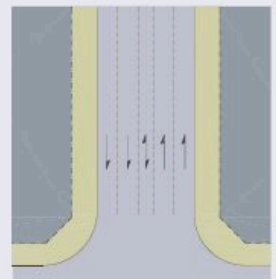
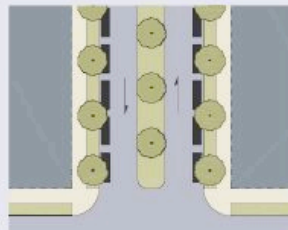
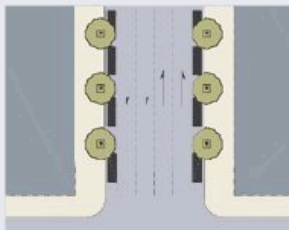
# Design Techniques at Community Scale

SPRAWL TYPES	T1   T2   T3   T4   T5   T6						TECHNIQUES	INCENTIVES/ BENEFITS	COMMUNITY UNITS
	T1	T2	T3	T4	T5	T6			
S-3 RURAL SUBDIVISIONS 		50% min.	10 - 30 %	20 - 40%			<ul style="list-style-type: none"> <li>Cluster at intersections through TDR, modified PDRs, purchase of Conservation Easement</li> <li>Concentrate infrastructure</li> <li>Create a rural Green</li> <li>Introduce Live-Works, farmers market</li> </ul>	<ul style="list-style-type: none"> <li>Deferred taxation; higher Density; permitting By Right</li> <li>Packaged Sewer Service within 1/4 square mile</li> <li>Hamlet growing into a village</li> </ul>	 CLD
S-4 SINGLE FAMILY SUBDIVISIONS 		No Minimum	10 - 30 %	30 - 60 %	10 - 30 %		<ul style="list-style-type: none"> <li>Introduce new building types and Retail/Office/Lodging/Civic uses</li> <li>Connect Thoroughfares</li> <li>Repair Thoroughfares; add pedestrian and bike Paths</li> <li>Define and make usable Open and Civic Space</li> </ul>	<ul style="list-style-type: none"> <li>Higher Density; additions; Out-buildings; permitting By Right</li> <li>Infrastructure incentives</li> <li>Transit potential</li> <li>Neighborhood/Town Square</li> </ul>	 TND
S-5 MULTI FAMILY SUBDIVISIONS 		No Minimum	10 - 30 %	30 - 60 %	10 - 30 %		<ul style="list-style-type: none"> <li>Introduce new building types and Retail/Office/Lodging/Civic uses</li> <li>Connect Thoroughfares</li> <li>Rationalize parking; add garages</li> <li>Repair Thoroughfares; add pedestrian and bike Paths</li> <li>Define and make usable Open and Civic Space</li> </ul>	<ul style="list-style-type: none"> <li>Additional development potential; permitting By Right</li> <li>Incentives for infrastructure</li> <li>Incentives for garages</li> <li>Transit potential</li> <li>Community gathering places</li> </ul>	 TND
S-6 SHOPPING CENTERS & STRIPS 				10 - 30 %	10 - 30 %	40 - 80 %	<ul style="list-style-type: none"> <li>Introduce new building types and Residential/Office/Lodging/Civic uses</li> <li>Connect Thoroughfares; add Streets in front of stores</li> <li>Rationalize parking; Add garages</li> <li>Define and make usable Open and Civic Space</li> </ul>	<ul style="list-style-type: none"> <li>Additional development potential; permitting By Right; TIFs, CDBG</li> <li>Incentives for infrastructure</li> <li>Incentives for garages</li> <li>Transit potential</li> <li>Community gathering places</li> </ul>	 RCD / TND

Source: Duany, Plater-Zyberk, and Co.



# Thoroughfare Retrofit

<p style="writing-mode: vertical-rl; transform: rotate(180deg);">FREEWAY</p>		<ul style="list-style-type: none"> <li>• Reduce number of lanes</li> <li>• Reduce Curb Radii</li> <li>• Reduce lane width</li> <li>• Introduce Access Lanes</li> <li>• Introduce parallel parking</li> <li>• Introduce transit - light rail or Bus Rapid Transit</li> <li>• Introduce separated bikeways</li> <li>• Assemble Public Frontages according to T-zones</li> </ul>	<p style="writing-mode: vertical-rl; transform: rotate(180deg);">PARKWAY</p>	<p>T2   T3</p> 	<p style="writing-mode: vertical-rl; transform: rotate(180deg);">BOULEVARD</p>	<p>T4   T5</p> 
<p style="writing-mode: vertical-rl; transform: rotate(180deg);">ARTERIAL</p>		<ul style="list-style-type: none"> <li>• Reduce Curb Radii</li> <li>• Reduce lane widths</li> <li>• Introduce Access Lanes</li> <li>• Introduce parallel parking</li> <li>• Introduce medians</li> <li>• Introduce transit</li> <li>• Introduce separated bikeways</li> <li>• Assemble Public Frontages according to T-zones</li> </ul>	<p style="writing-mode: vertical-rl; transform: rotate(180deg);">BOULEVARD</p>	<p>T4   T5   T6</p> 	<p style="writing-mode: vertical-rl; transform: rotate(180deg);">AVENUE</p>	<p>T5   T6</p> 
<p style="writing-mode: vertical-rl; transform: rotate(180deg);">COLLECTOR</p>		<ul style="list-style-type: none"> <li>• Reduce number of lanes</li> <li>• Reduce Curb Radii</li> <li>• Reduce lane width</li> <li>• Introduce parallel or diagonal parking</li> <li>• Introduce medians</li> <li>• Assemble Public Frontages according to T-zones</li> </ul>	<p style="writing-mode: vertical-rl; transform: rotate(180deg);">AVENUE</p>	<p>T4   T5</p> 	<p style="writing-mode: vertical-rl; transform: rotate(180deg);">COMMERCIAL STREET</p>	<p>T5   T6</p> 

# Case Studies

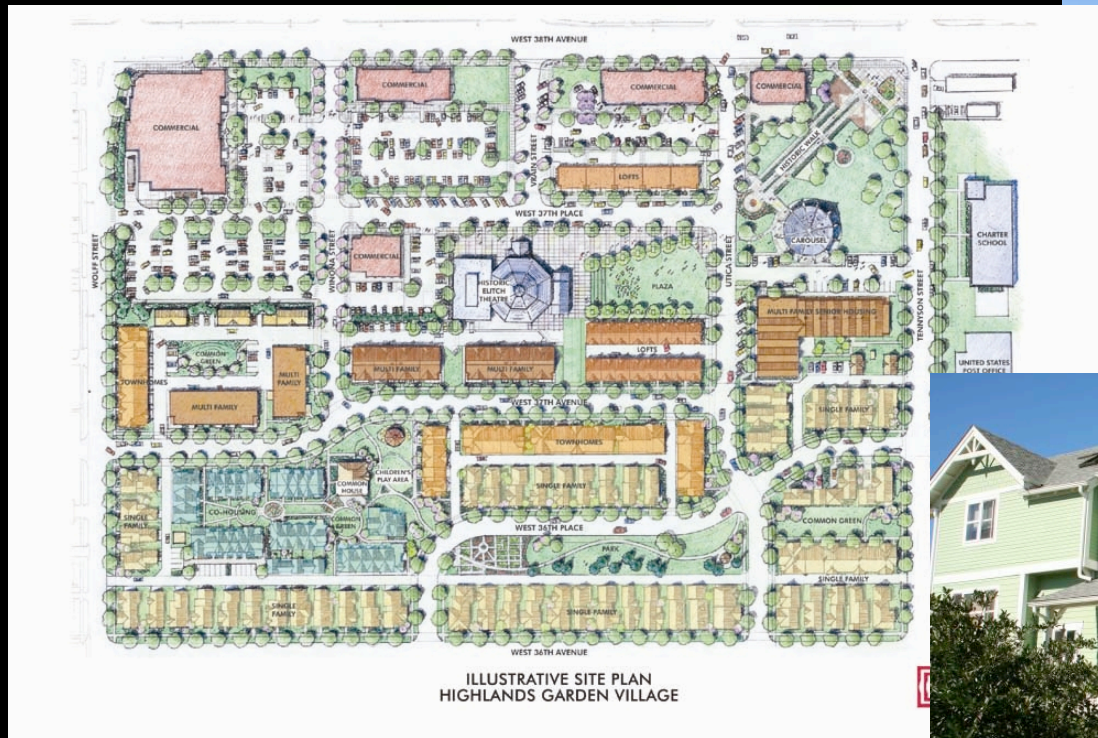


# Belmar Lakewood, CO





# Highlands Garden Village Denver, CO





# Mashpee Commons Mashpee, MA



Source: Duany, Plater-Zyberk, and Co.