

Seven Rules for Sustainable Communities

Design Strategies for the Post-Carbon World

•

Patrick M. Condon

O ISLANDPRESS
Washington | Covelo | London

Contents

Foreword xi

1 Introduction 1

How Did Cities Get This Sick? 2

Separation by Class and Income 5

The Problem Emerges 6

Reasons for Hope 11

Seven Rules for Sustainable, Low-carbon Communities 14

2 Restore the Streetcar City 17

A Day in the Life 18

The Streetcar City as a Unifying Principle 20

Urban Form and the Pattern of Walking and Riding 22

Forty Percent Still Live There 24

Continuous Linear Corridors, Not Stand-alone Nodes 25

Buses, Streetcars, Light Rail Transit, and Subways 31

Streetcar as an Urban Investment 33

Cars, Buses, Streetcar, or Heavy Rail? Case Study of the Broadway Corridor in Vancouver 34

What Is the Optimal Transit System? 35

3 Design an Interconnected Street System 39

Challenges of the Dendritic Street System 41

Four Types of Interconnected Street Systems 45

Block Size 48

Why Is the Interconnected System Better? 49

Parcel Size 50

Ideal Block and Parcel Size 52

Road Width 54

Fire Access 56

Queuing Streets 57

The Corner 59

Lanes and Alleys 60

Greenhouse Gas and Street Pattern 62

4	Locate Commercial Services, Frequent Transit, and Schools within a Five-minute Walk	67
	<i>Sense of Place in Corridors</i>	70
	<i>Transit, Density, and the Five-minute Walk</i>	71
	<i>Designing for the Bus or Streetcar</i>	72
	<i>The Walk to School</i>	75
5	Locate Good Jobs Close to Affordable Homes	79
	<i>The Historic Relationship between Work and Home</i>	81
	<i>Solutions</i>	84
	<i>Metropolitan and Community Scale</i>	86
6	Provide a Diversity of Housing Types	95
	<i>The Influence of Building Type on GHG Production</i>	97
	<i>The Sustainable Single-family Home</i>	101
	<i>Build and Adapt Neighborhoods for all Ages and Incomes</i>	102
	<i>Buildings with a Friendly Face to the Street</i>	107
7	Create a Linked System of Natural Areas and Parks	111
	<i>Fredrick Law Olmsted and Linked Natural Areas and Parks</i>	112
	<i>Ian McHarg and the Greenway Revival</i>	114
	<i>More Recent Progress</i>	117
	<i>Progress on the Ground</i>	118
	<i>Case Study at the Regional Scale: The Damascus Design Workshop</i>	119
	<i>Case Study at the Neighborhood Scale: Sustainable Fairview and the Pringle Creek Community, Salem, Oregon</i>	125
8	Invest in Lighter, Greener, Cheaper, Smarter Infrastructure	129
	<i>Watershed Function</i>	131
	<i>Four Rules for Infiltration</i>	141
	<i>Green Infrastructure for Parcels</i>	145
	<i>Pervious or Impervious</i>	150
	<i>Impervious Paved Infiltration Streets</i>	155
	Conclusion	161
	<i>Acknowledgments</i>	165
	<i>References</i>	167
	<i>Index</i>	181