PLACE
Planning Active Community Living Environments

by James van Hemert & Leanne Jeffers

Funded by:
University of Denver Public Good Scholarship Fund
LiveWell Colorado & our sponsors
History of Land Use Planning and Public Health

“Gardens & Sewers”

- The public health roots of planning 1850 - 1920s
  - Modern sanitary sewer treatment systems--Post WWII
  - Sir Ebenezer Howard's “Garden Cities of Tomorrow” - 1898
History of Land Use Planning and Public Health

*Public Health, Safety and Welfare*

• Model Enabling Acts for Zoning and Planning -- 1920s

• U.S. Supreme Court: *Village of Euclid v. Amber Realty* -- 1926
History of Land Use Planning and Public Health

“Ozzie and Harriet”
1945 – 1970s

Urban decentralization and suburbanization
- Single family home boom
- Federal highway funding
- Growing economy
History of Land Use Planning and Public Health

“Embracing Mother Earth” 1960s to present

Environmental movement
- Rachel Carson’s “Silent Spring”
- Earth Day
- Clean air and water acts
- Greenpeace

State growth management movement

Crew of the Phyllis Cormack, first Greenpeace trip to Amchitka Island to protest nuclear weapons testing, September 1, 1971.

Source: Greenpeace (http://www.greenpeace.org)
History of Land Use Planning and Public Health

“Healthy Cities Movement”
1985--present

- Comprehensive, holistic approach
- Sustainable food systems
- Clean, safe physical environment
- Sustainable eco-system
History of Land Use Planning and Public Health

“Putting People back into Planning”

1990s to present

- “Beyond Highways”--Federal Transportation Policy Changes
- “Smart Growth”
- New Urbanism/ Traditional Neighborhood Development
Public health and planning renew their marriage vows
1996-Present
Modern points of convergence

1. Built environment systems
2. Parks and recreation
3. Public realms
4. Development patterns
5. Industrial land uses
6. Food systems
Integrating sustainable principles for active communities

1. **Built environment systems**
   1. Water quality: stormwater (LID/green infrastructure), sanitary
   2. Mobility / Transportation
      - Transit
      - Bicycle & Pedestrian systems
        - Safe routes to school
        - School siting
        - State transportation plan
Integrating sustainable principles for active communities

2. Parks and recreation
   1. Neighborhood parks
   2. Access to nature
   3. Learning landscapes

3. Principles for inviting public realms
4. Land use development patterns
5. Food systems: production and food security
Water quality

*Low impact development*

Photo courtesy Michelle Delaria, Meza Construction
Water quality

Low impact development
Healthy Environment
Photo courtesy Michelle Delaria, Meza Construction
Porous gravel
Flush curbs with wheel stops
Sumped landscaping
Block pavers

Photo courtesy AWARE Colorado
Water quality

Green infrastructure

From natural resource protection to green roofs
Water quality

Sanitary sewer
I love riding the train.

More room for me on the road.
Transportation & mobility

Transit
Transportation & mobility

Bicycle systems

1. Low energy: 1500 miles/gallon
2. No noise
3. No air pollution
4. Exercise
5. Fraction of space required
6. Economical
7. Most equitable form of transport
Figure 1. Bicycle share of trips in Europe, North America, and Australia (Percent of total trips by bicycle)

Sources: Australian Bureau of Statistics (2007); Netherlands Ministry of Transport (2006); Department for Transport (2005); OECD (2005); European Conference of the Ministers of Transport (2004); European Union (2003); U.S. Department of Transportation (2003); German Federal Ministry of Transport (2003)
Figure 4. Bicycling share of short trips in the Netherlands, Denmark, Germany, UK, and USA (2000-2005)

Sources: Danish Ministry of Transport (2007); Netherlands Ministry of Transport (2006); Department for Transport (2005); U.S. Department of Transportation (2003); German Federal Ministry of Transport (2003)
Women’s share of all bike trips

Figure 8. Women’s share of total bike trips in the Netherlands, Denmark, Germany, UK, Australia, and North America (2000 - 2005)

Sources: Australian Bureau of Statistics (2007); Department for Transport (2007); Danish Ministry of Transport (2005); Statistics Netherlands (2005); German Federal Ministry of Transport (2003); U.S. Department of Transportation (2003) and information provided directly by bike planners in Canadian provinces and cities
Factors Affecting Cycling Activity

- Psychological
- Cultural
- Institutional
- Physical
- Hybrid
Some lessons from the Dutch

- Multi-faceted, mutually reinforcing set of policies
  - Focus on serving people
  - Automobile suppression
Bicycle Planning in the Netherlands

1. Cohesion
2. Directness
3. Safety
4. Comfort
5. Attractiveness
6. Bicycle parking
7. Information
Cohesion

- Network (250m mesh)
- Centers interconnected
- Route completeness
- Match with need
Directness

• Distance
• Minimize intersections no right of way
• Time
• Minimize stopping frequency
• Shortcuts
Safety
- Red, yellow, green signal indications for bicyclists.
- Special signal phases for bicyclist turning movements
Avoid conflicts with crossing traffic
- Separated vehicle types
- Reduce speed at conflict points
- Recognizable road categories
- Main cycle routes recognizable by their design
- Avoid single sided conflicts
- Bollards, parked cars
- Lighting
- Uniform traffic situations
- Cycle amenities and intersection solutions related to functions of tracks and roads for bicycle and motorized traffic
Comfort

• Prevent traffic nuisance
• Minimize bike/car encounters
• Unimpeded flow
• Smoothness
• Ease of finding destination
• Comprehensibility
Attractiveness

Social safety and control
• Well maintained and visible
Parking

- Dynamic requirements
- Security & shelter
- Public and private
- Rentals at transit stations
Automobile Suppression

- Deterrents
  - Tax
  - Fees
- Traffic calming
- Woonerf
Traffic calming
Auto calmed streets—Dutch Woonerf

All mobility modes equal
Cycling lessons for the USA

- Taming the automobile
- Enhancing facilities
- Enhancing safety
- Education
- Social marketing
Selected elements of draft Sustainable Community Development Code

- Remove obstacles
  - Restrict new residential > 2 miles from city core
  - Bar car traffic, allow bicycles in city core
Selected elements of draft Sustainable Community Development Code

- Create incentives
  - Public transport
  - Bicycle
- Design cycling routes faster than cars
Selected elements of draft Sustainable Community Development Code

- Create standards
  - Roundabouts with cyclist row
  - Reduction of wait time at traffic lights
  - Free, supervised bicycle storage
  - Car free zones
Transportation / mobility
Pedestrian systems

- Most interesting
- Most comfortable
- Most convenient

- Most direct
Safest
FREE PARKING
Transportation / mobility

- Safe routes to school
- School siting
- State transportation plan
Parks & recreation

*Neighborhood parks*

Civic Center Park, Highlands Ranch, Colorado
Parc Monceau, Paris, France
People don’t use parks because we plan them
Get over “park standards”
Parks defy generalizations
Diverse surroundings directly impact parks
Four design principles
1. Intricacy
2. Centering
3. Sun
4. Enclosure
Monet’s Garden, Giverny, France
Parks & recreation
Access to nature

“I like to play indoors because that is where all the electrical outlets are”
Bicycle trail, near Delft, NL
Parks & recreation

Learning landscapes
Principles for inviting public realms
Textured surfaces
Places to sit, sleep and play
Flowers and green things
Many doors and windows
Art
Music
Outdoor markets
Land Use Development Patterns

*Density*
Land Use Development Patterns

*Mixed use*
A New Vision for Edge Development in the West

Intermountain West Team
Colorado, Montana, Utah, and Wyoming
• Town of 100,000
• Multiple villages of 10,000 people
• Gross density of 10,000 people per square mile;
• 12.5 homes per acre
• Villages are composed of neighborhoods of 2,500 to 5,000
• Regional access system that adapts to cars or no cars
• Multimodal transit (freeway, transit, walking, biking)
• Neighborhoods are “people scale” with narrow streets—walking and cycling are more convenient
• Each neighborhood surrounded by a permanent edge of natural systems
Food systems
The American system: energy dimension

- To feed family of four: 930 gallons of gasoline
- Food industry: 10 percent of all energy in U.S.
- 8 calories of energy to produce one food calorie
Food system—public health dimension--subsidized ingredients

- 2007 Farm Bill --$1.8 billion in subsidies over next 5 years for vegetable growers--LESS THAN ONE PERCENT of the $286 billion bill
- Subsidized hydrogenated vegetable oil and high fructose corn syrup
- Obesity, poor diets
Food system—environmental dimensions

- 238,000 feeding operations, 500 million tons of manure in 2003 (CAFOs—Concentrated Animal Feeding Operations)
- Agricultural emissions = 8% of US GHG emissions (weighted)
- 30% of all solid waste related to food consumption
Food deserts

- Lack of supermarkets
- Fast food
- Convenience and liquor stores
Lawns: an environmental disaster and lost opportunity

- 58 million, $30 billion annually,
- 23 million acres of lawn
- Lawns: 10X chemicals per acre as industrial farmland
Access to healthy food

- Animal husbandry
Access to healthy foods

- Urban farmers markets
- Benefits:
  - Local economy
  - Healthy
  - Social interaction
  - Enhance public space
  - Rejuvenate downtowns
Access to healthy foods

Local food reading from Steve Solomon
IV. Siting Public Facilities and Capital Spending

- **Capital improvements**
- **Ensure careful consideration of:**
  - Streetscape improvements
  - Traffic Calming
  - Parks
  - Transportation enhancements
  - Public buildings
American Planning Association’s **five points of strategic intervention** *(collaboration)*

<table>
<thead>
<tr>
<th>PLANNING</th>
<th>PUBLIC HEALTH</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Visioning</td>
<td>Invite to attend, initiate, facilitate</td>
</tr>
<tr>
<td>2. Plan making</td>
<td>Chair committee</td>
</tr>
<tr>
<td></td>
<td>Identify federal and state policies &amp; regulations</td>
</tr>
<tr>
<td></td>
<td>Suggest health elements</td>
</tr>
<tr>
<td>1. Implementation regs.</td>
<td>Referrals, best practices, support</td>
</tr>
<tr>
<td>2. Design &amp; Development Ditto</td>
<td>Ditto</td>
</tr>
<tr>
<td>3. Siting Public Facilities &amp; Capital Spending</td>
<td>Ensure consideration of key elements</td>
</tr>
</tbody>
</table>
Lunch
Contact Information

James van Hemert
The Rocky Mountain Land Use Institute
www.law.du.edu/rmlui
303-871-6319

Leanne Jeffers
Regional Institute of Health & Environmental Leadership
www.rli.uchsc.edu/rli
303-871-3550
Healthy travels