Sustainable Streets Project

- Highlight the connections between urban street design and sustainability
- Introduce a definition of Sustainable Streets
- Document projects built and under construction
- Assess the State of the Practice
Sustainable Streets

Concepts and Definitions
Sustainable Streets

...are rights of way designed and operated to create benefits relating to mobility, ecology and community that support a broad sustainability agenda...
Sustainable Street Design

- Network design: alignment, sizing, connectivity
- Allocation of right of way space
- Component design: paving, landscape, lighting, furnishings
- Sub-grade engineering and design

Marcy McInelly, SERA/Urbsworks
Beyond Street Design

- Planning, Policy and Institutional Activities
- Construction
- Operations & Management
- Maintenance, Restoration & Repair

Marcy McInelly, SERA/Urbsworks
Pillars of Sustainable Streets

Movement

Ecology

Community

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Movement

The movement of people and goods by all on-street modes and for all trip purposes and types.
Ecology

Protection and enhancement of natural resources and processes – within the right-of-way and beyond.
Community
Contribute to social, economic, public health, cultural and aesthetic needs as well as environmental justice.
Community
Support for urban development patterns that reinforce movement and ecological goals.
Sustainable Streets Album

Photo: Marcy McInelly, SERA/Urbsworks

Top photo: Ellen Greenberg
Bottom photo: City of Portland
Sustainable Street Types

**Neighborhood Plus:** Redesigned and new neighborhoods that seek to foster community values, reduce transportation impacts, and preserve natural resources.

**Downtown Revitalization Plus:** Projects in mature communities that are using street design as a tool to spur economic activity and support compact and infill development downtown.

**Stormwater Plus:** Projects with implementation of stormwater management features as a primary design objective.

**Movement Plus:** Higher volume streets (15,000+ ADT) redesigned to meet sustainability goals ranging from improving bicycle facilities to supporting high-density residential infill.
New Columbia Street Plan

Portland, OR

Contributors: SERA – Urbsworks
Highly connected street grid (shown in dark brown) replaced street pattern connecting to larger community in four locations. Notice the small blocks (300’ by 600’) and public alleys. Mid-block pedestrian access-ways are placed every 330’.

New Columbia, Portland, OR

Image Marcy McInelly, SERA-Urbsworks
New Columbia, Portland, OR

Stormwater flows into planters in the public way, where it filters naturally into the soil.

101 pocket swales, 30 flow-through planter boxes and 41 public infiltration dry wells are included in the project.

98% of stormwater retained on-site; water directed to underground stormwater piping reduced 80%.

Image Marcy McInelly, SERA-Urbsworks
Riverfront Parkway and Downtown Streets

Chattanooga, Tennessee

Contributors: City of Chattanooga and River City Company

Image: City of Chattanooga and River City Company
Riverfront Parkway and Downtown Streets, Chattanooga, TN

Roadway Modifications

Image: City of Chattanooga and River City Company
Riverfront Parkway, Chattanooga, TN

“Before” Conditions

Image: City of Chattanooga and River City Company
Reconstructed Riverfront Parkway

Image: City of Chattanooga
Josey Heights Street Plan
Milwaukee, Wisconsin

Contributors:
Conservation Design Forum

Josey Heights, Milwaukee, WI

Stormwater Management Features

Pacific Boulevard
Vancouver, British Columbia

Contributors: Elizabeth Macdonald and the City of Vancouver, BC

Images: City of Vancouver Planning Department
Pacific Boulevard, Vancouver, BC

Multiway Boulevard Segment

Image: City of Vancouver Planning Department
Sustainable Streets: Moving Ahead

- Expanded knowledge base
- Improved design techniques
- New planning tools
Knowledge Base

What is the role of the street and the design of the street in compact communities?

How does the street contribute to positive travel performance characteristics?

Marcy McInelly, SERA/Urbsworks
Improved Design Techniques
New Planning Tools

What about a sustainability dimension in the functional classification?
Sustainable Streets

An opportunity to transform the public rights of way in our cities and towns in order to create Harmony among

• the Goals of Community,
• the Demands of Mobility, and
• the Mandate for Environmental Stewardship

Photo: Marcy McInelly, SERA/Urbsworks

Top photo: Ellen Greenberg
Bottom photo: City of Portland
Sustainable Streets
Emerging Priorities, Emerging Practice

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