CSS, Livability and Complete Streets

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What are complete streets?

- Roadways that serve all users—all ages and abilities, vehicle drivers, pedestrians, bicyclists, transit riders
- Multimodal networks
- Suitable for all ages and abilities
- Vary by environment (e.g., urban/rural)
- Vary by Context
What are complete streets?

- Are based on community vision
- Are the outcome of good planning and design
Past & Present

- FHWA has no formal policy called Complete Streets...
- ...But there are federal policies and guidance that promote similar goals
- SAFETEA-LU built on existing law and policy to better include walking and biking
Federal Regulations

23 U.S.C. 217 (g) Planning and Design.

1. In General.—Bicyclists and pedestrians shall be given due consideration in the comprehensive transportation plans developed by each metropolitan planning organization and State...

2. Safety considerations.—Transportation plans and projects shall provide due consideration for safety and contiguous routes for bicyclists and pedestrians...
Overlapping Strategies

- Livability
- Sustainability
- Community impact assessment
- Scenario planning
- Land use and transportation
- Smart growth
- Walkable communities
- Walkable Thoroughfares
- Healthy neighborhoods
- Transit-oriented development (TOD)
- Complete Streets
- Context-Sensitive Solutions (CSS), and many others.
Clarification

- **Sustainable Transportation** provides exceptional mobility and access to meet development needs without compromising the quality of life of future generations. A sustainable transportation system is safe, healthy, and affordable, while limiting emissions and use of new and nonrenewable resources.

- **Smart growth** focuses growth in existing communities to avoid sprawl; and advocates compact, transit-oriented, walkable, bicycle-friendly land use, including neighborhood schools, complete streets, and mixed-use development with a range of housing choices.

- **Complete Streets** safely accommodate all users - pedestrians, bicyclists, transit riders, and motorists, of all ages and abilities - along and across a roadway; this is a shift in focus from building streets primarily for cars.

- **CSS** is an approach to transportation project design that is collaborative, interdisciplinary, and involves all stakeholders in providing a transportation facility that fits its setting; the approach seeks to preserve and enhance scenic, aesthetic, historic, community, and environmental resources while also improving or maintaining safety, mobility, and infrastructure conditions.
Refresher - Goals of CSS

- In harmony with the community & preserve the environmental, scenic, aesthetic, historic & natural resource values of the area
- A safe facility for all users & the community
- Solve problems that are agreed upon by a full range of stakeholders

Multidisciplinary approach with inclusion of public

Designed & built with minimal disruption to the community

Adding lasting value to the community, environment & transportation system
Core Principles of CSS

- Strive toward a shared stakeholder vision to provide a basis for decisions
- Demonstrate a comprehensive understanding of context—transportation and other elements
- Foster continuing communication and collaboration to achieve consensus
- Exercise flexibility and creativity to shape effective transportation solutions, while preserving and enhancing community and natural environments
Benefits of CSS

- Solves the “right problem”
- Conserves resources
- Facilitates and streamlines NEPA compliance
- Saves time and planning costs
- Builds community support
- Helps prioritize transportation funds
- Decision-making process that builds consensus

Photo: James M. Daisa, PE, Arup.
In practice, livable transportation systems accommodate a range of modes (walking, bicycling, transit, and automobiles) by creating mobility choice within more balanced multimodal transportation networks.
What is Livability?

Livability in transportation is about integrating the quality, location, and type of transportation facilities and services available with other more comprehensive community plans and programs to help achieve broader community goals.
Livability Principles

- Provide more transportation choices
- Promote equitable, affordable housing
- Enhance economic competitiveness
- Support existing communities
- Coordinate policies and leverage investment
- Value communities and neighborhoods
Tie Between CSS and Livability?

- Transportation is the Means
- CSS is the Process
- Livability and Sustainability are Outcomes

- A Complete Street is the infrastructure component among the terminologies and a policy that supports an outcome.
Facilities for pedestrians, bicyclists, & other non-motorized forms of transportation

- Sidewalks & multimodal pathways
- Bicycle infrastructure
- Crosswalk enhancements
- Traffic calming
- Lighting & security infrastructure

Safe routes for non-drivers - children, older adults, individuals with disabilities & lower income
Livability In Rural Communities

- One-size-fits-all approach doesn’t fit into rural America
- Place-based strategies in small towns
- Context sensitive solutions - design solution to reflect that community’s context or setting
- Rightsizing Main Street – context sensitive solutions through traditional downtowns

Spot capacity or safety improvements to rural highways
Safety improvements to scenic byways
Protection of natural resources, environment & scenic resources
Programs that Support Livability

- Bicycle & Pedestrian
- Congestion Mitigation & Air Quality Improvement (CMAQ)
- National Scenic Byways
- Recreational Trails
- Safe Routes to School
- Transportation, Community & System Preservation (TCSP)
- Transportation Enhancement Activities
- Federal Lands Highways
- Indian Reservation Roads
- Context Sensitive Solutions
  - National Highway System
  - Surface Transportation
Transportation Enhancements

- Pedestrian & bicycle facilities & safety education
- Scenic or historic easements & sites
- Scenic or historic highway programs & welcome centers
- Landscaping & scenic beautification
- Preservation rehabilitation & operation of historic transportation buildings & facilities
- Conversion of abandoned railway corridors to trails
- Control of outdoor advertising
- Archaeological planning & research
- Environmental mitigation
  - Highway runoff
  - Habitat connectivity
- Transportation museums
Safe Routes to Schools

- Enable & encourage children, including those with disabilities, to walk & bicycle to school
- Make bicycling & walking to school a safer & more appealing transportation alternative,
- Encouraging a healthy & active lifestyle from an early age
- Facilitate projects & activities that improve safety & reduce traffic, fuel consumption, & air pollution in the vicinity of schools
Walkable Communities

- Mixed land uses in close proximity
- Building line & street enclosure
- Minimize front yard parking lots
- Building entries that front onto street
- Building, landscape & street design that is pedestrian-scale
- Relatively compact developments
- Highly-connected circulation network
- Small block sizes
- Streets & public spaces that contribute to “place-making”
Livability within Community Context

- Street design that complements buildings, public spaces, streetscape & landscape
- Thoroughfare design to serve adjacent context based upon desired character
  - Design speed
  - Lane width
  - Parking
  - Bike lanes
  - Sidewalks
  - Pathways
  - Streetscape
  - Landscape
  - Street lighting

<table>
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<th>Rural</th>
<th>Residential Neighborhood</th>
<th>Small Town</th>
<th>Neighborhood Commercial</th>
<th>Downtown</th>
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Federal Highway Administration
Designing Walkable Thoroughfares

- Context
  - Building Orientation
  - Building Setback
  - Off–Street Parking

- Streetside
  - Edge Zone
  - Furnishings Zone
  - Pedestrian Throughway
  - Frontage Zone
  - Street Lighting

- Traveled Way
  - Target Speed
  - Number of Lanes
  - Lane Width
  - On–Street Parking
  - Bike Lanes
  - Medians

- Intersections
  - Crosswalks
  - Curb Extensions
  - Curb Radii
  - Access Management
Goals

- Redesign underused highways into context sensitive multi-modal streets
- Enhanced street connectivity
  - Increases efficiency of network performance
  - Makes neighborhoods more walkable
- Streetscape improvements to support livable communities
- Support infill & town center development
- Historic preservation & rehabilitation of historic transportation facilities
CSS: Integration of Place and Thoroughfare

Source: Community, Design + Architecture, Photosimulation: Steve Price, Urban Advantage.
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CSS Design Framework

- **Context zones:**
  - Suburbs to urban cores

- **Street classification:**
  - Functional class
    - Arterial
    - Collector
  - Thoroughfare type
    - Boulevard
    - Avenue
    - Street

- Compatibility and mutual support
Example: Urban Boulevard in an Urban Center (C-5) context

Photo: James M. Daisa, P.E., Arup.
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