

Signalization in Context Sensitive Solutions for Design of Major Urban Thoroughfares

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Signalization in CSS for Design of Major Urban Thoroughfares

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What is CSS?

- Balance
 - Safety
 - Mobility
 - Community objectives
 - Environment
- Multimodal
- Involve public, stakeholders
- Interdisciplinary teams
- Flexibility in design
- Incorporate aesthetics



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Provide For All Users

Older drivers



Pedestrians



Bicyclists



Transit



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Context Sensitive Solutions in Designing Major Urban Thoroughfares for Walkable Communities

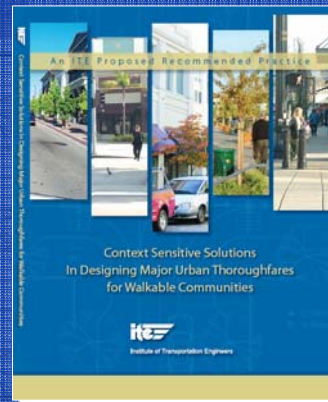
ITE Proposed Recommended Practice

Sponsors:

Federal Highway Administration
Environmental Protection Agency

Prepared by:

Institute of Transportation Engineers
Congress for the New Urbanism



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Focus of the Proposed RP

- “Major”:
 - Arterials and collectors
- “Urban”:
 - Development intensity
 - Mix of land uses
 - Efficient, attractive choices
 - Walking
 - Transit
 - Biking



Photo: Skidmore, Owings, and Merrill LLP



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Contents of the Proposed RP

- Introduction
 - Overview
- Planning
 - Network and corridor planning
 - Design framework
- Design
 - Principles, criteria, guidelines
 - Roadside
 - Traveled way
 - Intersections
 - Design in constrained rights-of-way
 - Flexibility
 - Examples



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The Concept of Context Zones



Source: Greeny Matter-Zyork and Company



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CSS vs. Conventional Thoroughfare Design Approach

Conventional	CSS Approach
Context: Urban Rural	Context: Suburban General urban Urban center Urban core
Design criteria primarily based on: Functional class Design speed Travel demand Level of service	Design criteria primarily based on: Community objectives Functional class Thoroughfare type Adjacent land use



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Features That Create Context

- Land use
- Site design
- Building design



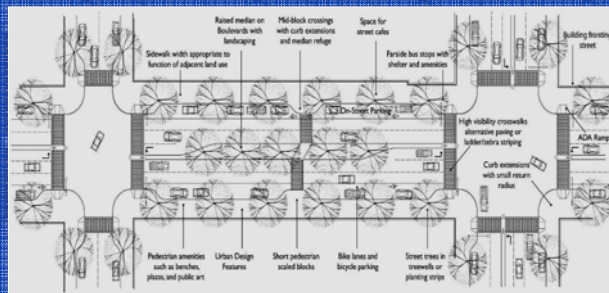
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Thoroughfare Types

- Three roadway classifications:

- Boulevard
- Avenue
- Street



- Basis for:
 - Physical configuration
 - Design criteria



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Signal Considerations

- More but lower volume major thoroughfares
- Signal spacing



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Signal Considerations

- Timing
 - Traffic, transit, pedestrian, bike priority
 - Shorter pedestrian crossings
- Target speeds



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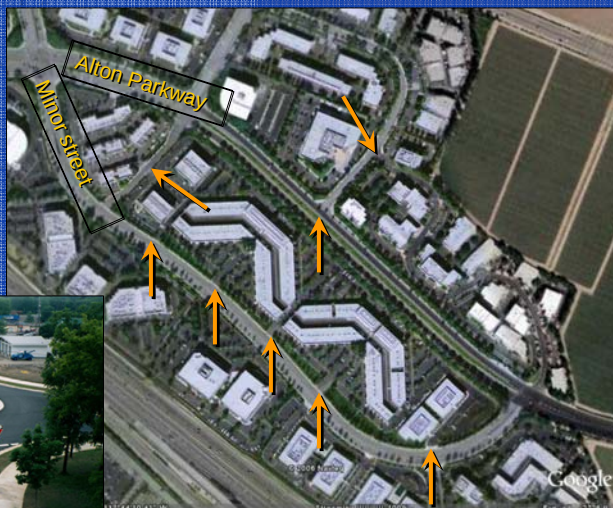
Signal Considerations

- Phases
 - Ped, bike protection
- Cycle length
- Midblock crossings



Signal Considerations

- Access management
- Alternatives to signalization
 - Roundabouts
 - Split streets, pairs



Conclusions

- More complex
- Some signalization advantages
- Some signalization challenges

Please Use and Comment

- Through December 31, 2006
- Comments, suggested changes
 - Send to Lisa Tierney: ltierney@ite.org
 - ...or Brian Bochner: b-bochner@tamu.edu
- Free report download: www.ite.org

