

This fact sheet introduces planning, engineering, and design practitioners to the Institute of Transportation Engineer's recommended practice (RP) *Designing Walkable Urban Thoroughfares: A Context Sensitive Approach* as a tool for designing urban streets that are compatible with and supportive of the surrounding context and community. Readers of this fact sheet will gain an understanding of the fundamental principles and concepts that are the basis of the RP.

A challenge in planning and designing thoroughfares is balancing the interests of all users and other stakeholders with those of the specific communities affected. While to the daily commuter, travel time and speed may be of primary importance, the community that is affected may view this goal as contrary to maintaining neighborhood integrity, overall livability, and safety. This concern is further exacerbated when other transportation services related to freight deliveries, emergency response, incident management, local business access, and transit operations are considered. In urban areas the design of thoroughfares to accommodate all users is particularly challenging, especially where there is limited opportunity to expand or alter the public right of way. In response to this challenge, the Institute of Transportation Engineers (ITE) has published guidance on designing walkable urban thoroughfares.



Figure 1 An example of an urban avenue. *Source: Arup.*

The RP provides a resource for practitioners involved in urban thoroughfare design. The adopted approach is based on the evolving practice of context sensitive solutions (CSS) that integrates CSS principles into existing processes to facilitate informed decision making that considers the needs, interests, and constraints within a project. CSS provides a foundation for planning and design by emphasizing a collaborative and multidisciplinary approach combined with an emphasis on the flexible application of design guidance that complements the surrounding context. Use of CSS principles should begin in long-range transportation and land use planning processes and continue throughout the entire project development process.

In this RP, the principles of CSS underlie design guidance that draws upon the philosophies and practices of smart growth and new urbanism. These movements emphasize the importance of creating multimodal transportation systems that serve all users and are conducive to community environments, enhancing both livability and sustainability. The focus of this RP is on thoroughfares that function as collectors and arterials in urban environments where development intensity, mix of land uses, and design features combine to make walking, transit, and

Overview

The recommended practice was developed to provide practitioners with tools for applying flexibility in designing walkable urban thoroughfares (arterials and collectors). This report is intended to be consistent with the American Association of State Highway and Transportation Officials' (AASHTO) *A Policy on Geometric Design of Highways and Streets* (Green Book) and *A Guide for Achieving Flexibility in Highway Design* which identify design controls and establish design criteria. The report was a joint effort between the Institute of Transportation Engineers and the Congress for the New Urbanism and was sponsored by the Federal Highway Administration and the Environmental Protection Agency.

The publication describes:

- The importance of integrating the principles of CSS in urban roadway improvement projects;
- How CSS principles can be used in the transportation planning and project development processes; and
- Specific guidance on thoroughfare cross-section and intersection design.

The recommended practice was published in March of 2010 after extensive review by planning and engineering professionals, a multidisciplinary steering committee, and review panel.

biking efficient and attractive transportation choices. The RP also addresses the following:

- The relationships and tradeoffs involved in balancing mobility needs, adjoining land uses, environment, and community interests;
- Approaches to resolving the challenges encountered on an individual thoroughfare by addressing the larger scale of the network or the corridor;
- Guidance to identify and select thoroughfare types and design parameters to best meet the needs of a particular context; and
- Criteria for designing roadway and intersection elements.

Intended Audience

The RP is for practitioners involved in the planning and design of walkable urban thoroughfares, including transportation engineers and planners, land use planners, urban designers, and



Figure 2 The streetside supports many urban activities. *Source: Moore, Icafano & Goltsman.*



Figure 3 An example of an urban boulevard. *Source: Kimley-Horn and Associates, Inc.*

landscape architects. It is also useful to those in community leadership and advisory roles.

What Are Context Sensitive Solutions?

Simply put, streets and roads should be designed in response to their surroundings—their “context.” Applying CSS principles helps address transportation problems while respecting and enhancing land development alongside the streets or roads. This is achieved by addressing issues and challenges through a process that involves a diversity of stakeholders working together to balance competing interests. The term CSS represents flexibility in the application of design controls, guidelines, and standards to design a facility that is safe and meets the needs of all users. Developing context sensitive solutions is based on a common set of tenets:

- Balance safety, mobility, community, and environmental goals;
- Involve the public and stakeholders early and continuously;
- Use an interdisciplinary design team tailored to project needs;
- Address needs of all users;
- Apply flexibility inherent in design standards and guidelines; and
- Incorporate aesthetics as an integral part of good design.

Characteristics of Walkable Communities

Cities and towns are characterized as places where one can walk safely and comfortably between multiple destinations and activities. The RP applies the principles of CSS to thoroughfare design in urban areas to support and promote the following characteristics of these communities:

- Mixed land uses in close proximity of each other;
- Building entries fronting the street in close proximity to the sidewalk;
- Pedestrian-scale building, landscape, and thoroughfare design;
- Compact developments and block patterns;
- Highly connected internal street networks; and
- Public spaces that contribute to “placemaking.”

How CSS Differs from the Conventional Design Process

Conventional thoroughfare design frequently is driven by traffic demand and level-of-service objectives. CSS principles applied to the thoroughfare design process

identify critical factors and issues and use this information to establish the project’s objectives and design criteria. The process considers all community objectives so that the resulting solution is based on a well thought-out and rationalized assessment of tradeoffs.

A New Framework for Urban Thoroughfare Design

The RP introduces a design framework based on the concept of context zones and a set of thoroughfare types consistent with the diverse characteristics found within urban areas. Context zones are used to categorize urban development patterns into discrete ranges of density and intensity of development. The conventional functional classification system is subsidiary to the design criteria established using the thoroughfare types defined in the RP. Context is defined both by the design of the thoroughfare itself and the adjacent buildings, land use types, and surrounding district. Thus, a thoroughfare’s design may change along its length as context changes.

Contents of the Recommended Practice

The RP provides guidance on planning and design based on four components of the thoroughfare: context, streetside (the area between the curb and property line), traveled way, and intersections. The report’s chapters are organized into three parts:

Part 1, Introduction: Foundation, background, and overview of CSS;

Part 2, Planning: CSS in transportation planning and project development processes, CSS in network and corridor planning, design framework, context zones, thoroughfare types, and general design parameters; and

Part 3, Design: Thoroughfare type design parameters; design in constrained rights of way; flexibility in design criteria; example thoroughfare designs; design controls; and guidelines for designing the streetside, traveled way, and intersections.

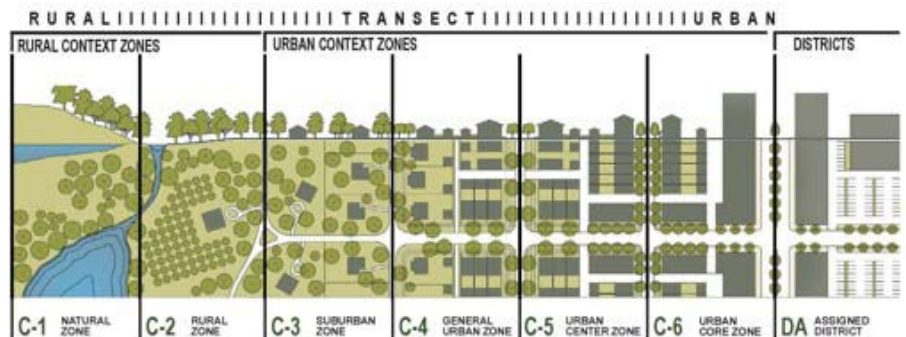


Figure 4 The CSS framework uses the concept of “context zones” to categorize urban contexts. *Source: Duany Plater-Zyberk and Company.*

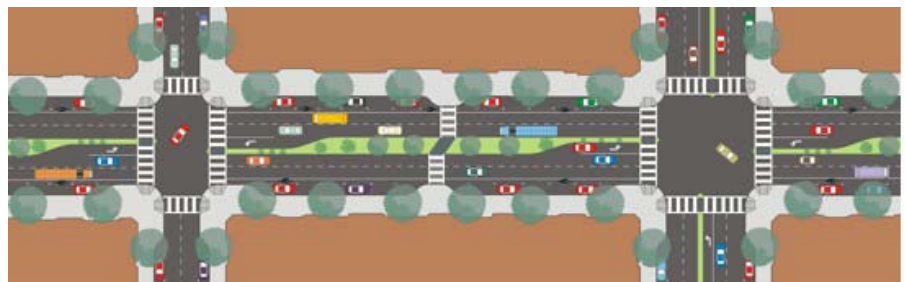


Figure 5 The recommended practice provides design guidance for the streetside, traveled way, and intersections. *Source: Kimley-Horn and Associates, Inc.*