

This fact sheet introduces planning, engineering, and design practitioners to the Institute of Transportation Engineer's (ITE) recommended practice (RP) *Designing Walkable Urban Throughfares: A Context Sensitive Approach* as a tool for designing urban streets that are compatible with and supportive of the surrounding context and community. It provides an overview of the RP's "design framework," an approach for classifying the built environment (context), and selecting a thoroughfare design that both achieves its transportation function and complements the surrounding context. The framework is intended to encourage an interdisciplinary approach to thoroughfare design where context is as important in influencing the design as conventional engineering criteria.

Successful urban thoroughfare design requires an understanding of both context and design. The RP associates the features that create and shape urban context with appropriate thoroughfare characteristics through a framework that:

- Defines four context zones to describe places that vary in intensity from walkable suburbs to the most urban downtowns;
- Introduces a classification system that uses both functional class (e.g., arterial, collector, and local designations) and thoroughfare type (e.g., boulevard, avenue, and street types) to describe both the role of a thoroughfare in the circulation network and its design character; and
- Describes features of thoroughfare types and context zones that result in compatibility.

**The Concepts of Context Zones**

The RP uses urban context to describe adjacent surroundings and to select compatible thoroughfare types and design criteria. Context zones are used to categorize urban development density and intensity and the form of development adjacent to the thoroughfare (see Figures 1-2). The four context zones referenced in the report are a subset of the seven zones describing a full "transect" or continuum of environments from natural to highly urbanized, as shown in Figure 3.

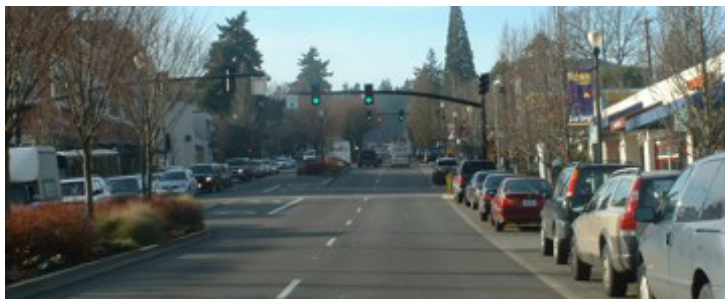


Figure 1 A street in an urban center context. Source: Arup.

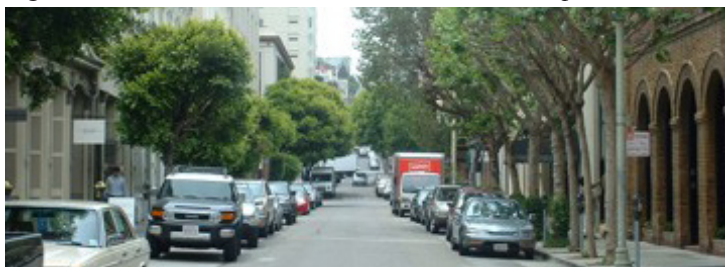


Figure 2 A boulevard in an urban center context. Source: Kimley-Horn and Associates, Inc.

Context zones offer a language for describing different parts of cities and towns, emphasizing the characteristics that create walkable communities. Context is defined by multiple parameters, including the relationship between sites, buildings, and landscape that

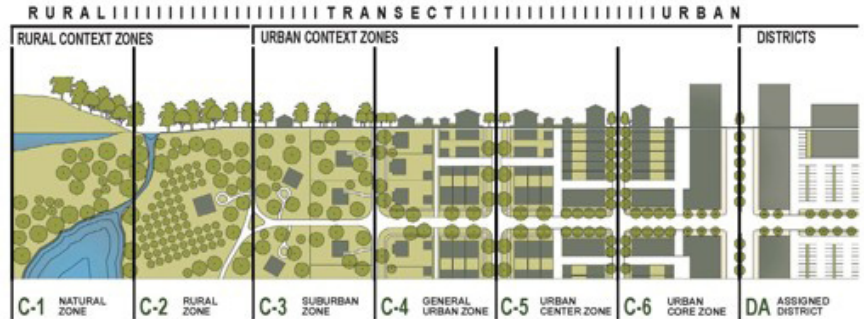


Figure 3 A continuum of contexts from natural to most urban as illustrated in the transect by Duany Plater-Zyberk and Company.

contribute to each context zone. Successful thoroughfare design in urban places is not merely sensitive to these different contexts; the thoroughfare is part of the context, and its design helps define the place. The RP describes important features that define context in urban areas and assists the practitioner in identifying different context zones and working successfully in them. These features include:

- **Land use**—characterizes the type or mix of urban activity and is a major factor in selection of design criteria, assembly of the cross section components, and allocation of right-of-way width;
- **Site design**—defines the way buildings, circulation, parking, and landscape are arranged on a site and particularly in how it influences the modal orientation of the adjacent thoroughfare, creating a vehicle- or a pedestrian-oriented location. The defining elements of site design include building placement and orientation, landscape and topography, and parking layout and placement; and
- **Building design**—building height and massing can help shape the "feel" of the urban context through creating a sense of enclosure of the street by buildings. Other aspects of building design that can help to create an attractive walkable urban setting include placement of entries and windows and pedestrian-scale detailing.

**Thoroughfare Types**

The RP's framework focuses on the design of thoroughfares in pedestrian-oriented areas that serve compact, walkable, mixed-use environments. The framework calls for design of thoroughfares in pedestrian-oriented areas to be governed by both functional class and thoroughfare type.

**Functional classification** defines the function of a thoroughfare and its operational role in the network and governs the selection of certain design controls. Specifically, it reflects:

- Continuity of the thoroughfare through a district, city, or region;
- Purpose and length of trips;
- Level of access to adjacent land uses and level of access management;
- Designation of primary or secondary emergency response route;
- Type of freight service; and
- Suitability of different types of public transit service.

Thoroughfare type governs the selection of the design criteria used for thoroughfares and, along with the surrounding context, is used to develop designs for:

- The streetside (the area of the thoroughfare between the curb and property line dedicated to the pedestrian and composed of sidewalks, planting strips, and street furniture) including the length of pedestrian crossings;
- The traveled way (moving lanes, the desirable operating speed, medians, and on-street parking); and
- Intersections.

Three types of thoroughfares are defined in the RP:

- **Boulevards** are moderate-speed (35 mph or less) divided arterial thoroughfares that serve multimodal movement. They serve a mix of regional and local traffic and important transit routes, including bus rapid transit (BRT). They may be long corridors, typically four lanes but sometimes wider, serve longer trips, and provide limited access to adjacent development through the use of access management. Curb parking can be an important element of boulevard design, as it offers convenience as well as creates a buffer for activity on the sidewalk and adjoining properties. The boulevard thoroughfare type includes a variation that combines higher-capacity and higher-speed vehicular thoroughways with pedestrian-oriented edges, blending together two seemingly incompatible characteristics into a highly mobile, yet walkable thoroughfare. This thoroughfare type, the **multiway boulevard**, is typically composed of walkable one-way access lanes on either side of the central multilane arterial. The access lanes permit on-street parking, bicycle travel, and wide landscaped pedestrian areas that complement mixed-use development. (See **Figure 4**)



**Figure 4** An example of an urban boulevard. Source: Arup.

- **Avenues** are moderate-speed (30 to 35 mph) urban arterial or collector thoroughfares, generally shorter in length than boulevards. They are primary pedestrian and bicycle routes and may serve local transit. Avenues do not exceed four lanes. Some avenues feature a raised landscaped median. Avenues may serve commercial or mixed-use areas and usually provide curb parking. (See **Figure 5**)
- **Streets** are low-speed (25 mph) thoroughfares, generally two lanes, and serve predominantly local traffic and access to abutting property. Streets may serve as the main surface access for commercial or mixed-use areas and emphasize curb parking.



**Figure 5** An example of an urban avenue. Source: Arup.

### Changes in Thoroughfare Design as Context Changes

Supporting the activities and form of the adjacent land uses in addition to providing multimodal safety and mobility means that thoroughfare design will often change as the thoroughfare passes through areas of different character.

The change in context and the expression of community values will determine the need for transitions and change in the thoroughfare's design parameters over its length. The result might be a sequence of changes in the cross-section reflecting and supporting changes in context. For instance, as a highway transitions to a main street in a downtown, accompanying design changes will need to accommodate reduced speed, controlled intersections, and urban characteristics such as on-street parking, sidewalks, pedestrian-scaled lighting, street trees, and landscaping.

The process of accommodating change in context may require the practitioner to transition between pedestrian- and automobile-focused thoroughfare segments. The RP's framework guides the practitioner in identifying contextual changes and creating proper physical, operational, and visual transitions.