PLANNING COMPLETE NETWORKS

2a

Getting Started

Much like watersheds, street typologies and context zones exist as products of the natural and/or built environments, crossing boundaries of agencies and jurisdictions. Complete Streets design works best with an "outside-in" approach, looking first at the whole network's context instead of starting at a roadway's center line and allotting space outward from there. This section introduces planning concepts that inform the application of context zones and street typologies to roadway systems—tools that lead to better planning of Complete Streets networks.

Moving from the outside in, this section discusses planning concepts in three areas: places, modes, and links.

PLACES addresses the importance of context in roadway design and provides planning tools that can be used to select a context zone.

MODES provides information that will make sure the design of a complete network is user-based, reflecting the needs of the people who will use it regularly.

LINKS presents information about the classification systems used to define the transportation system and outlines principles for selecting a street typology to be used for Complete Street design.

FIGURE 2.1A URBAN AREAS
New York, NY

FIGURE 2.1B URBAN AREAS
Chicago, IL

FIGURE 2.1C SUBURBAN AREAS
Tinley Park, IL

TABLE 2A CONTEXT ZONE CHARACTERISTICS

	Development Pattern		
	Urban	Suburban	Rural
Housing Density	High	Medium	Low
Building Setbacks	Low	Medium	High
Roadway Grid Density	High	Medium	Low
Transit Service Provision	High	Medium	Low

Places: Context Zone Connections

Places provide the reference to select a context zone and help to determine appropriate amenities. A context zone is identified by three levels of consideration: Development pattern, land uses, and special district considerations. To select a context zone, look to an area's existing planning documents and land-use characteristics.

DEVELOPMENT PATTERN 2.1

The development pattern of an area is readily observable and is the first identifier of the appropriate context zone for a roadway system design. Some factors to observe in determining the development pattern include population density, housing density, parcel density, building setbacks, building types, roadway grid characteristics, land-use diversity, and transit service. Although there many kinds and scales of densities, for the purpose of Complete Streets design it is sufficient to define the development pattern as urban, suburban, or rural.

FIGURE 2.1D
SUBURBAN AREAS
Oak Park, IL

FIGURE 2.1E
RURAL AREA
Elgin, IL

URBAN areas are more intense, uses are compact and transportation demand by all modes is high. Mass transit and mixed-use development are commonplace. The transportation network is highly connected.

SUBURBAN areas are less intense but still highly active. Suburban areas typically are designed to support separated land uses and promote residential character. Suburban regions provide some transit service and include areas of mixed use, often coinciding with historic development along thoroughfares. The transportation network is less connected; traffic is frequently routed to large arterials and freeways.

RURAL areas are characterized by open space and large tracts of land that are not subdivided or penetrated by the roadway network. Transit is rare, population is sparse, and land uses are homogenous.

Communities frequently self-select into these categories; for example, suburban communities may describe themselves as rural or urban, depending on the preferences of residents and officials. A community self-definition that does not fit the observed development pattern can be a consideration in determining the roadway context.

FIGURE 2.2A
RESIDENTIAL
Chicago, IL

FIGURE 2.2B
COMMERCIAL
Oak Park, IL

LAND USE AND ENVIRONMENT 2.2

Land use and environmental considerations can refer both to existing conditions and to historical uses of the roadway context. For the purpose of Complete Streets Design, land-use context should be categorized as simply as possible. The most common land-use contexts are Residential, Commercial and Mixed-Use (or Traditional Urban). The ITE recommended practice, Designing Walkable Urban Thoroughfares: A Context-Sensitive Approach, suggests grouping many other categories under the heading "Single-Use."

RESIDENTIAL

Residential uses are homogenous, with varying densities. Single- family lot sizes can range from one-tenth of an acre to more than an acre. Multifamily units may be mixed into single-family areas or placed in homogenous zoning areas. Residential character can vary dramatically between urban, suburban, and rural environments.

COMMERCIAL

Separated commercial uses typically exist in suburban environments but can be found in urban and rural environments as well. Many urban commercial corridors consist of single-story storefronts that resemble mixed-use areas but lack intermixed housing units. New commercial development in urban areas often mimics suburban-style commercial development, reflecting the increasing prevalence of national retailers and zoning requirements that favor motor vehicle access. Commercial character also varies dramatically between urban, suburban, and rural environments.

FIGURE 2.2C
MIXED-USE
Oak Park, IL

FIGURE 2.2D
SINGLE-USE
Elgin, IL

MIXED-USE

Mixed-use, often referred to as traditional urbanism or main street-style development, is typically thought of as a street-level storefront with housing units on the upper stories. However, there are many types of mixed-use applications, including work/live uses in primarily residential areas and intermixed retail and office space. Diversity and intensity of uses, along with flexibility in zoning regulations, are required to support mixed-use environments.

SINGLE-USE

Single-use areas can vary widely, but are grouped together for the purposes of defining roadway context. This category describes areas that have limited access and are largely separated from the corridor. Single-use areas can include agricultural and open-space uses in rural areas, industrial and office parks and large residential developments in suburban areas, and industrial uses, such as shipping yards, in urban areas. Single use can also describe edge uses, such as rivers or expressways. Although these land uses are dramatically different, they may be treated similarly from a transportation design perspective.

PLANNING & ZONING 2.3

Transportation infrastructure has a long life cycle and should be designed to meet both current and future needs of residents, in a way that aligns with the goals set out by community planning agencies. In defining a roadway's context, planning documents and zoning regulations can be used as primary references to understand and anticipate future land uses and transportation needs. Common sources for information on context zone planning include:

FIGURE 2.3
PLAN EXAMPLE

COMPREHENSIVE PLAN The overarching planning document for municipalities, articulating the community's future vision and detailing issues related to land use, transportation, community facilities, telecommunications infrastructure, housing, economic development, natural resources, and public participation.

SUB-AREA PLANS Plans created for specific districts, which can be adopted into comprehensive plans.

BICYCLE, PEDESTRIAN, SAFE ROUTES TO SCHOOL, ADA TRANSITION, AND TRANSIT PLANS Plans that specifically address one or all of these modes may be completed at various scales by a number of planning agencies. Transit authorities manage transit-specific planning and design processes that incorporate pedestrian and bicycle issues. Counties, sub-regional agencies, regional agencies and state agencies engage in modal planning as well. These plans often are adopted into comprehensive plans.

ZONING CODE A set of land-use controls and regulations that dictate the future development of the roadside context. Traditional zoning, colloquially referred to as "Euclidean," uses prescriptive and restrictive control mechanisms. Prescriptive zoning details specific uses that are allowed within a zone; restrictive zoning describes uses that are banned within a zone. Zoning codes are often complex and can include multiple overlays and planned developments. Overlay district zonings can replace or add to the underlying code. Planned developments are typically created through a public process and approved legislatively, so the site plan replaces the zoning classification for the parcel. Many zoning codes lack provisions for mixed-use developments and often overuse planned developments as a result.

FORM-BASED CODE AND TRANSECT-BASED PLANS
Some communities supplement or replace traditional planning processes with transect-based plans and form-based codes. A transect-based plan is often completed as a sub-area plan and adopted into a comprehensive plan; a form-based code is then adopted into the zoning code to regulate the area. Many communities are using Form-Based Code to simplify at least part of their zoning regulations and support walkable urbanism. Areas with form-based codes will integrate easily into the design process recommended in this manual; this is recommended but not essential.

SUSTAINABILITY PLANS This is an emerging area of planning and a pathway to integrate sustainable street design with energy conservation goals and environmentally responsible construction practices.

Modes: Network Connections

A roadway network planned for Complete Streets optimizes travel by multiple modes. Modes can be assigned priority levels in the system. Traditionally, vehicles are given priority on high-speed and low-access corridors, while pedestrians often are prioritized in residential neighborhoods and downtown districts.

FIGURE 2.4-2.7A
MODE CONNECTIONS
Transit Center
Elgin, IL

PEDESTRIAN 2.4

Pedestrians should be considered in all transportation planning. Walking trips under a half-mile (10 minutes) are considered reasonable, and trips as long as 2 miles are feasible if amenities are well designed and destination density supports walking. A single pedestrian requires 2½ to 3 feet of walking space, with at least 8 feet of head clearance. Sidewalks should always be designed to accommodate at least two people side-by-side. Pedestrian mode priority can be assigned by context and typology considerations; however, local and regional pedestrian planning documents should also be consulted.

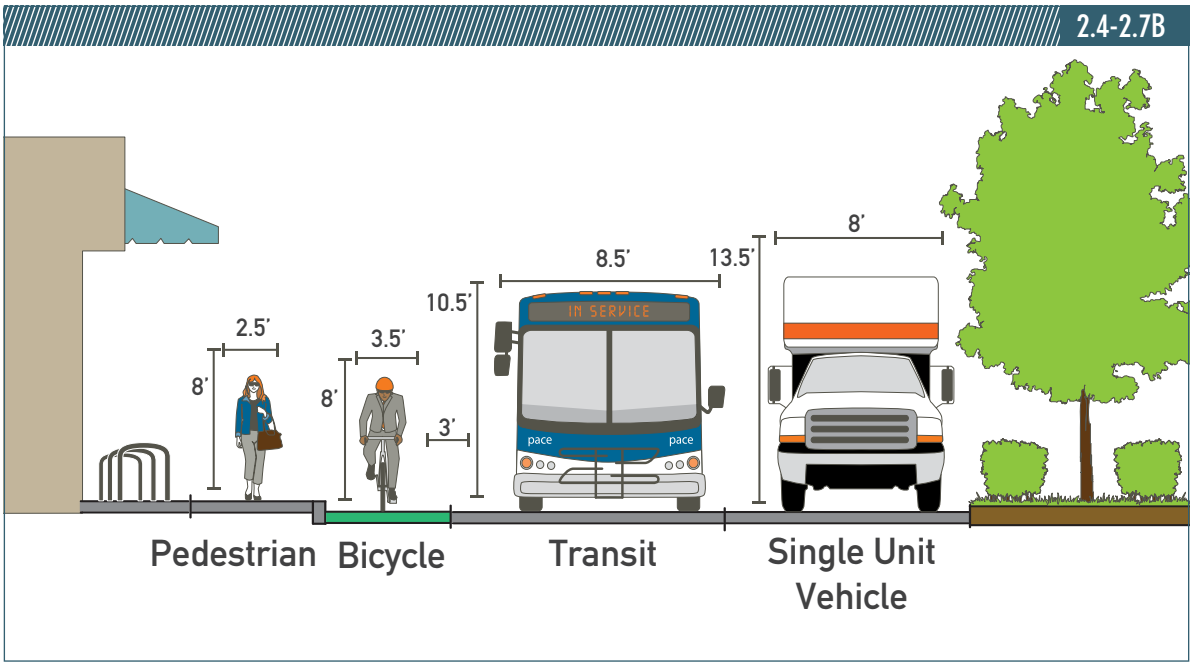
BICYCLE 2.5

The bicycle is a versatile, affordable, compact, energy-efficient and egalitarian method of transport. Safe bicycling education and practices allow advanced bicyclists to ride on virtually any roadway. Development of a bicycle infrastructure network will help to encourage more types of users to choose bicycles as a primary mode of transport. Bicycle trips of 2 to 4 miles (10 to 20 minutes) are considered reasonable lengths. However, commuting bicyclists can travel up to an hour to get to work, and recreational bike trips can range in the hundreds of miles. A single bicycle requires 4 feet of riding space with 8 feet of head clearance. Bikeways are typically designed to be 5 or 6 feet wide to assure a comfortable riding way. Bicycle mode priority can be assigned by context and typology considerations; however, local and regional bicycle planning documents should also be consulted.

TRANSIT 2.6

Transit provides longer arterial connections for all users. A robust network of transit services helps connect pedestrians and bicyclists to destinations that are beyond the range of a typical trip. Headway – a passenger's maximum waiting time at a transit stop or station – is a good measure of transit trip feasibility. Generally, service lines that operate with 15-minute headways are acceptable; however, discretionary users are likely to be deterred by headways longer than 10 minutes, especially when commuting. Transit requires design consideration for stops and stations. Transit service providers typically issue guidelines that can be referenced in the design process. Transit mode priority can be assigned by context and typology considerations; however, existing transit ridership and transit planning documents should also be consulted.

FIGURE 2.4 - 2.7B
MODE DIMENSIONS



VEHICULAR: AUTO/ TRUCKS/EMERGENCY 2.7

The private motor vehicle is the dominant mode throughout the U.S. roadway network, reflecting almost a century of design prioritization that has left many people with no other feasible transportation choice for daily trips. Motor vehicles are an essential part of the Complete Streets network, but they should not be the only mode considered in network optimization. Roadway design should encourage modeshift, creating additional options for users to replace private vehicle trips with travel by foot, pedal or transit. Supporting modeshift will increase trip capacity in the roadway network and ensure the long-term sustainability of the system. Vehicle mode priority can be assigned by context and typology considerations; however, existing traffic volumes, functional classifications, and transportation improvement plans also should be addressed. Truck routes and emergency routes must be considered where applicable.

MODE HIERARCHY: PRIORITY ASSIGNMENTS 2.8

Each mode can be assigned a different priority on each corridor, based on the context zone, street typology and desired outcomes. Mode prioritization provides an alternative to traditional methods of roadway design optimization measures, such as vehicular capacity and Level of Service (LOS). Mode priority guidelines can assist the application of engineering judgment to design decisions. The priority assignment represents a continuum of design considerations, not an absolute determinant.

All modes should be considered in a Complete Street. However, many Complete Streets will require retrofit into the existing roadway network with multiple objectives to be served, forcing designers to make trade-offs between competing priorities. Section 2.2 will include a general mode priority guideline for each context zone. The mode priority guideline will assist in feasibility evaluation and project review. Section 2.3 includes mode priority guidelines for the application of street typologies through context zones.

Links: Roadway Connections

Corridors link people to places. Assessing existing corridor conditions and the role of the corridor within the network provides the reference to select street typology, classified as boulevards, avenues, streets, and alleys. The street typology will help to determine appropriate modal facilities and allocation of the right-of-way. To select a street typology, review the existing conditions of the roadway, often characterized by the roadway's functional classification, along with modal accommodations and context zones.

TABLE 2B FUNCTIONAL CLASS	Street Typology		
	Boulevard	Avenue	Street
Principal Arterial	■	■	■
Minor Arterial	■	■	■
Collector		■	■
Local			■

TABLE 2B
This table shows the relationship between Functional Class and Street Typology

FUNCTIONAL CLASSIFICATION 2.9

The Federal Highway Function and Classification system is commonly used to define streets' function and operational requirements and provide the primary basis for geometric design criteria. Traffic volume, trip characteristics, speed, level of service, and other measures are used in the functional classification system, which groups roadways as principal/primary arterial, secondary arterial, collector, or local streets. Because functional classification measures focus primarily on motor vehicle uses and do not reference a roadway's context zone, this tool is most appropriate to high-speed rural and suburban roadways. Although functional classification is a useful tool for Complete Streets roadway design, it provides little guidance to determine design function for bicyclists or pedestrians, especially in urban settings. A street typology system can work in concert with the functional classification system, but the classifications will not translate directly.

PRINCIPAL/PRIMARY ARTERIAL The largest designation, typically multi-lane roadways with high traffic volumes (over 20,000 ADT) and high speeds (35 mph to 50 mph), ideally spaced at 2- to 4-mile intervals.

SECONDARY ARTERIAL Typically multi-lane roadways with moderately high traffic volumes (over 10,000 ADT) and moderately high speeds (30 mph to 45 mph), ideally spaced at 1- to 2-mile intervals.

COLLECTOR Typically two-lane or multi-lane, two-way streets with moderate traffic volumes (over 5,000 ADT) and moderate speeds (25 mph to 35 mph), ideally spaced at quarter-mile to 1-mile intervals.

LOCAL STREETS Typically two-lane, two-way roads with low traffic volumes (under 5,000 ADT) and moderate speeds (20 mph to 25 mph), ideally spaced at 200- to 600-foot intervals. Local streets often are not marked with center dividing lines.

ROADWAY DESIGN, MODES & CONTEXT 2.10

When designing roads, an inflexible focus on roadway characteristics, such as traffic volume, speed and functional classification, is less productive than a contextual approach based on a street typology of boulevards, avenues, streets and alleys. Design decisions should be informed by roadway context and by a hierarchy of mode prioritization, switching the "burden of proof" for design from traffic measurements and functional classification to placemaking and community preferences. This process does not abandon previous classification methods but augments them with new, user-oriented considerations.

ROADWAY JURISDICTIONS: STATE, COUNTY, LOCAL 2.11

Many roadways travel through multiple jurisdictions. Beyond municipal boundaries, roadway jurisdictions are attributed to the state, county and local agencies that own and maintain the right-of-way. Although roadway jurisdiction should not be the main determinant in selecting a street typology, it must be considered heavily in the design process, because funding sources, processes, and design criteria can vary widely across different jurisdictions. It is essential to build flexibility into local design standards and coordinate processes and design objectives between multiple agencies, so the corridor is designed to meet user needs instead of blindly adhering to the standards of various jurisdictions.

CONTEXT ZONES

Getting Started

Context zone selection is largely determined by two factors: Development patterns (categorized as urban, suburban and rural) and land use (categorized as commercial, mixed-use, residential, and single-use). These categories will be used to assign starting points for mode prioritization and design elements for each street typology (boulevards, avenues, streets and alleys), as described in Section 2.3.

2b

Context Zones

Context variation tables, provided below, set out specific considerations for each street typology and can be used to develop alternate roadway designs and sample cross sections. Applications for roadway design elements, geometrics and amenity selection specific to each street typology and context variation also are included.

URBAN CONTEXT VARIATIONS 2.12

- Commercial/Mixed-Use
- Residential
- Single-Use

SUBURBAN CONTEXT VARIATIONS 2.13

- Commercial
- Residential
- Village/Mixed-Use
- Single-Use

RURAL CONTEXT VARIATIONS 2.14

- Residential/Agricultural
- Mixed-Use/Village

TABLE 2C CONTEXT ZONE MODE PRIORITIZATION

	Overall			
	1	2	3	4
Urban Commercial/Mixed Use	Walk	Transit	Bike	Auto
Urban Residential	Walk	Bike	Auto	Transit
Urban Single Use	Bike	Auto	Walk	Transit
Suburban Commercial	Auto	Transit	Walk	Bike
Suburban Residential	Walk	Auto	Bike	Transit
Suburban Mixed-Use	Walk	Bike	Transit	Auto
Suburban Single Use	Bike	Auto	Walk	Transit
Rural Residential/Agricultural	Auto	Bike	Walk	Transit
Rural Village	Walk	Auto	Bike	Transit

Places: Overlays for Specific Areas

Place overlays are intended to accommodate and create special design considerations for specific areas, promoting use of cutting-edge facility accommodations, high design aesthetics, and custom materials. Because place overlays are intentionally designed, they may not reflect context zones. Multiple place overlays can apply to a single area; for example, a park zone or green street can be included within an entertainment district, requiring designers to consider both overlays in the design process. Overlays should be used with discretion.

Areas with specific design overlays can be a useful starting pointing for the types of multimodal treatments that this manual classifies as "Going the Distance." As mentioned in Section 2.1, place overlays can be determined from a review of local planning resources. Considerations for place overlays also are included in context variation tables for each street typology listed below.

EXAMPLES OF PLACE OVERLAYS INCLUDE:

- Pedestrian Priority Areas
- Entertainment and Cultural Districts
- Green Streets
- Schools Zones
- Park Zones
- Home Zones/Social Streets

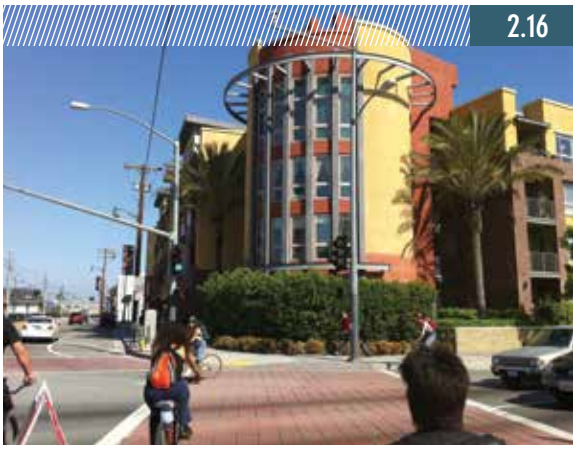
TABLE 2D PLACE OVERLAY MODE PRIORITIZATION	Overall			
	1	2	3	4
Pedestrian Priority Areas	Walk	Transit	Auto	Bike
Entertainment/Cultural Districts	Walk	Transit	Auto	Bike
Transit Oriented Development	Transit	Walk	Bike	Auto
Green Streets	Transit	Bike	Walk	Auto
Park Zones	Walk	Bike	Transit	Auto
School Zones	Walk	Bike	Transit	Auto
Home Zones	Walk	Bike	Auto	Transit
Social Zones	Walk	Bike	Auto	Transit

FIGURE 2.15
PEDESTRIAN
PRIORITY AREA
Minneapolis, MN

FIGURE 2.16
TRANSIT ORIENTED
DEVELOPMENT
Los Angeles, CA

PEDESTRIAN PRIORITY AREAS 2.15

Pedestrians are sensitive to character and convenience. Pedestrian-focused amenities, such as lighting, sit walls, benches, trash receptacles, trees, plantings, public bathrooms, water fountains, and public art, can encourage people to walk more and walk further. These types of features are most effective in areas with naturally higher pedestrian traffic, such as shopping districts. Regionally, areas with high pedestrian use can be prioritized for pedestrian-friendly infrastructure and traffic calming. These areas can be defined around universities, traditional downtowns, mixed-use developments, transit, and regional parks.



TRANSIT-ORIENTED DEVELOPMENT 2.16

Transit-oriented development refers to mixed-use areas specifically designed to maximize access to public transit and promote ridership. Typically, these are infill developments that resemble or extend traditional downtown areas, offering higher-density housing and commercial spaces, multiple services and amenities, and enhanced facilities for pedestrians, bicyclists and transit users.

ENTERTAINMENT AND CULTURAL DISTRICTS 2.17

Entertainment and cultural districts can serve as the heart of a community, driving the local economy, attracting tourists, anchoring businesses, and defining the local identity for residents and visitors alike. Many people rank these districts as the third most personally important places in their communities, after home and work. The designs of these districts, which can include college campuses and civic zones, should prioritize the quality of the pedestrian environment, maximizing material investment, amenities and design, and showcasing public art. Special assessments for maintenance, development authorities, or business improvement districts can be used to help finance additional streetscape elements.

GREEN STREETS 2.18

Green streets consider the urban ecosystem as the primary design determinant. These streets include onsite storm water infiltration systems (bioswales and raingardens), permeable pavements, energy-efficient materials, and maximum space dedicated to trees and plant life. Green Streets can be priority zones for urban agriculture and community gardening. Because modeshifting is a key strategy for energy use reduction and increased sustainability, green infrastructure elements should supplement, but not replace, consideration of modal accommodations.

FIGURE 2.17
ENTERTAINMENT DISTRICTS
Navy Pier.
Chicago, IL

FIGURE 2.18
GREEN STREETS
Image Credit:
Laura Sandt

FIGURE 2.19
SCHOOL ZONES
Oak Park, IL

FIGURE 2.20
PARK ZONES
Chicago, IL

FIGURE 2.21
WOONERF STREETS
New York, NY.

SCHOOLS ZONES 2.19

School zones are a common, well-understood concept in the urbanized environment. School zones are clearly defined areas near schools that promote the safety of student pedestrians and bicyclists through special signage, lower posted speed limits, and other traffic calming measures. School zone implementation can be assisted by referencing Safe Routes to School plans.

PARK ZONES 2.20

Similar to school zones, park zones promote safe access for people walking and biking to parks. Too often, people choose to drive to local and regional parks because of limited access and/or unwelcoming adjacent corridors. Park zones, typically established by ordinance, use speed limit reductions, increased signage, street crossing improvements at entryways and other traffic-calming measures to improve safe pedestrian and bicycle access for people of all ages.

HOME ZONES/SOCIAL STREETS 2.21

Home zones and social zones build on the Dutch Woonerf street concept that legally establishes the priority of bicyclists and pedestrians on a roadway. Home zone and social zone overlays use extreme traffic calming techniques, such as tabled roadways, pavers, chicanes and bollards, to cue drivers that they are visitors in a space dominated by pedestrians and cyclists. In these zones, speeds limits are so low that walkers and cyclists can rely on eye contact to communicate with drivers. Home zones typically are designated only on residential streets; social zones can be designated in mixed-use areas to allow commercial and cultural uses to extend into the roadway.

STREET TYPOLOGIES

2C

Getting Started

The street typologies described here provide mobility for all modes of transportation, with a greater focus on pedestrians, and are meant to broaden the design process and ensure the creation of Complete Streets and complete networks. Designers should recognize the need for greater flexibility in applying design criteria, based on context and the need to create a safe environment for pedestrians and bicyclists. Using street typology and context zone methodology provides justification for variances from standards and produces flexible alternatives for determining geometric design criteria.

TABLE 2E CONTEXT ZONE MODE PRIORITIZATION

	Boulevard				Avenue & One Way Avenue				Street, One Way Street			
	1	2	3	4	1	2	3	4	1	2	3	4
Urban Commercial/Mixed Use	Transit	Auto	Walk	Bike	Walk	Bike	Transit	Auto	Walk	Bike	Auto	Transit
Urban Residential	Auto	Transit	Walk	Bike	Walk	Bike	Auto	Transit	Walk	Bike	Auto	Transit
Urban Single Use	Auto	Transit	Bike	Walk	Bike	Walk	Auto	Transit	Bike	Walk	Auto	Transit
Suburban Commercial	Auto	Transit	Walk	Bike	Transit	Auto	Walk	Bike	Walk	Auto	Bike	Transit
Suburban Residential	Auto	Walk	Transit	Bike	Walk	Bike	Auto	Transit	Walk	Bike	Auto	Transit
Suburban Mixed-Use	Transit	Walk	Auto	Bike	Walk	Bike	Transit	Auto	Walk	Bike	Auto	Transit
Suburban Single Use	Auto	Transit	Bike	Walk	Bike	Auto	Walk	Transit	Bike	Auto	Walk	Transit
Rural Residential/Agricultural	Auto	Transit	Bike	Walk	Auto	Bike	Walk	Transit	Walk	Auto	Bike	Transit
Rural Village	Auto	Walk	Transit	Bike	Walk	Auto	Bike	Transit	Walk	Bike	Auto	Transit

TABLE 2F PLACE OVERLAY MODE PRIORITIZATION

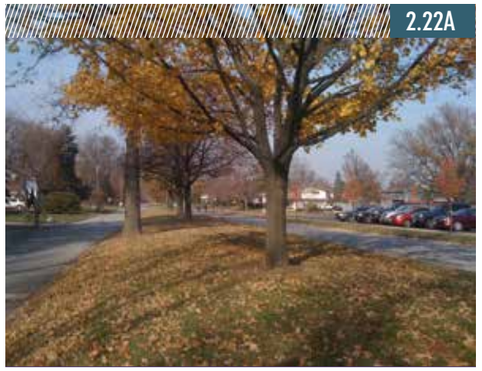
	Boulevard				Avenue & One Way Avenue				Street, One Way Street			
	1	2	3	4	1	2	3	4	1	2	3	4
Pedestrian Priority Areas	Transit	Walk	Auto	Bike	Walk	Transit	Bike	Auto	Walk	Bike	Auto	Transit
Entertainment/Cultural Districts	Transit	Auto	Walk	Bike	Walk	Transit	Bike	Auto	Walk	Bike	Auto	Transit
Transit Oriented Development	Transit	Walk	Bike	Auto	Transit	Walk	Bike	Auto	Walk	Transit	Bike	Auto
Green Streets	Transit	Bike	Walk	Auto	Transit	Bike	Walk	Auto	Transit	Bike	Walk	Auto
Park Zones	Walk	Bike	Transit	Auto	Walk	Bike	Transit	Auto	Walk	Bike	Transit	Auto
School Zones	Walk	Bike	Transit	Auto	Walk	Bike	Transit	Auto	Walk	Bike	Transit	Auto
Home Zones	Walk	Bike	Auto	Transit	Walk	Bike	Auto	Transit	Walk	Bike	Auto	Transit
Social Zones	Walk	Bike	Auto	Transit	Walk	Bike	Auto	Transit	Walk	Bike	Auto	Transit

The terms for street typologies are based on historical roadway nomenclature – boulevard, avenue, street, and alley. This section includes street typology characteristics, context variation tables, and sample cross sections intended to demonstrate how to use the context variation tables to generate design alternatives.

(Note that, in some areas, it is historical practice to use the terms "avenue" and "street" to differentiate roadways running north-south from those running east-west, e.g., 22nd, Street vs. 22nd Avenue; this practice has no relation to the definitions used in this manual.)

BOULEVARDS 2.22

A boulevard is a street designed for higher vehicle capacity and moderate speed, traversing an urbanized area. High vehicle capacity makes boulevards good choices for use as primary transit routes. Boulevards commonly are designed with landscaped medians, making them suitable for green infrastructure treatments. The presence of landscaping, as well as ample separation from vehicle ways, make boulevards desirable pedestrian corridors. Boulevards should include bikeways and are good candidates for bike lanes and shared-use paths, depending on context and the number of driveways and intersections. Boulevards may be equipped with bus lanes or side-access lanes to buffer sidewalks and buildings. Side-access lanes are good candidates for shared lane markings.



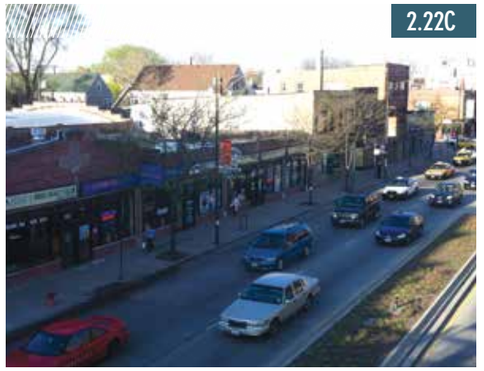


FIGURE 2.22A
BOULEVARD
Palos Heights, IL

FIGURE 2.22B
BOULEVARD
Chicago, IL

FIGURE 2.22C
BOULEVARD
Chicago, IL

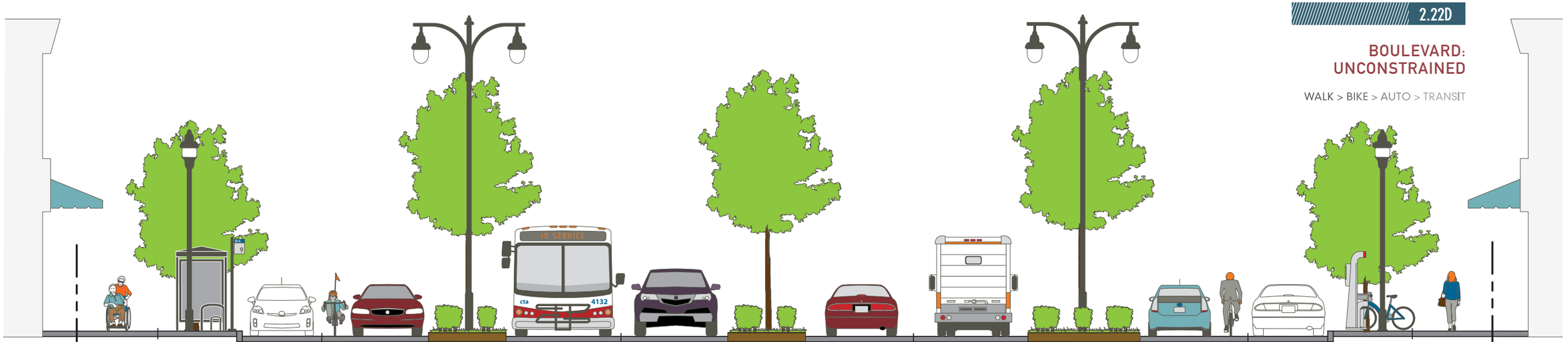
TABLE 2G BOULEVARD VARIATIONS

Context Zones		Mode Prioritization				Pedestrian Realm				Travel Way									
		Priority				Frontage	Pedestrian Zone	Furniture Zone	Curb Zone	Parking Lanes (Width)	Parking Lanes	Bikeway (Width)	Bikeway	Vehicle Lane (Width)	Vehicle Lanes	Median / Turn Lane	Median	Target Speed (MPH)	ROW (Total)
Urban	2.22D Unconstrained	Walk	Transit	Auto	Bike	2 ft.	6 ft.	10 ft.	2 ft.	8 ft.	2	12 ft.	Shared use paths	10 to 11 ft.	4 to 6	Varies	1 to 3	25	Varies
	2.22E Urban Commercial/Mixed Use	Transit	Auto	Walk	Bike	5 ft.	5 ft.	Parking	Parking	7 ft.	2	5 ft.	Bike lanes	10/11 ft.	4	12 ft.	1	35	100 ft.
	2.22F Urban Residential	Auto	Transit	Walk	Bike	1 ft.	6 ft.	7 ft.	1 ft.	7 ft.	2	0 ft.	Marked shared lanes	10/13 ft.	4	10 ft.	1	25	100 ft.
	2.22G Urban Single Use	Auto	Transit	Bike	Walk	2 ft.	6 ft.	Parking	Parking	8 ft.	2	7 ft.	Buffered bike lanes	11 ft.	4	10 ft.	1	35	100 ft.
Suburban	2.22H Suburban Commercial	Auto	Transit	Walk	Bike	0 ft.	Shared use paths	7 ft.	2 ft.	0 ft.	0	10 ft.	Shared use paths	12 ft.	4	14 ft.	1	35	100 ft.
	2.22I Suburban Residential	Auto	Walk	Transit	Bike	0 ft.	6 ft.	7 ft.	2 ft.	8 ft.	2	0 ft.	Shared lanes	12 ft.	4	8/14/8 ft.	3	20	120 ft.
	2.22J Suburban Mixed-Use	Transit	Walk	Auto	Bike	6 ft.	5 ft.	5 ft.	1 ft.	7 ft.	2	0 ft.	Marked shared lanes	11 ft.	4	10 ft.	1	15	100 ft.
	2.22K Suburban Single Use	Auto	Transit	Bike	Walk	0 ft.	5 ft.	4/7 ft.	1 ft.	0 ft.	0	8/10 ft.	Buffered bike lanes/ Shared use paths	12 ft.	4	16 ft.	1	35	100 ft.
Rural	2.22L Rural Residential/Agricultural	Auto	Transit	Bike	Walk	0 ft.	0 ft.	18 ft.	0 ft.	0 ft.	0	4 ft.	Paved shoulder	11/12 ft.	4	10 ft.	1	35	100 ft.
	2.22M Rural Village	Auto	Walk	Transit	Bike	5 ft.	5 ft.	4 ft.	1 ft.	8 ft.	2	0 ft.	Shared lanes	10/12 ft.	4	10 ft.	1	15	100 ft.
Context Overlays		Priority				Frontage	Pedestrian Zone	Furniture Zone	Curb Zone	Parking Lanes (Width)	Parking Lanes	Bikeway (Width)	Bikeway	Vehicle Lane (Width)	Vehicle Lanes	Median / Turn Lane	Median	Target Speed (MPH)	ROW (Total)
All	2.22N Pedestrian Priority Areas	Transit	Walk	Auto	Bike	5 ft.	5 ft.	Parking	Parking	7 ft.	2	0 ft.	Shared lanes	10/11 ft.	4	12 ft.	2	25	100 ft.
	2.22O Entertainment/Cultural Districts	Transit	Auto	Walk	Bike	8 ft.	5 ft.	5 ft.	1 ft.	7 ft.	2	0 ft.	Marked shared lanes	10/11 ft.	4	6 ft.	1	25	100 ft.
	2.22P Transit Oriented Development	Transit	Walk	Bike	Auto	2 ft.	5 ft.	5 ft.	1 ft.	0 ft.	0	8 ft.	Cycle track one direction	10/14 ft.	2/2BRT	10 ft.	1	25	100 ft.
	2.22Q Green Street	Transit	Bike	Walk	Auto	2 ft.	5 ft.	6 ft.	1 ft.	0 ft.	0	10 ft.	Urban greenway	10/11 ft.	4	10 ft.	1	15	100 ft.
	2.22R Park Zones	Walk	Bike	Transit	Auto	1 ft.	6 ft.	10/5 ft.	2 ft.	7 ft.	1	10 ft.	Cycle track two direction	10 ft.	4	10 ft.	1	15	100 ft.
	2.22S School Zones	Walk	Bike	Transit	Auto	0 ft.	Shared use paths	5 ft.	2 ft.	7 ft.	1	10 ft.	Shared use paths	10/11 ft.	4	10 ft.	1	15	100 ft.
	2.22T Home Zones	Walk	Bike	Auto	Transit	1 ft.	5 ft.	0 ft.	2 ft.	18 ft.	2	0 ft.	Shared lanes	10 ft.	4	4 ft.	2	10	100 ft.
	2.22U Social Streets	Walk	Bike	Auto	Transit	5 ft.	Frontage/ Vehicle Lane	4 ft.	1 ft.	18 ft.	2	0 ft.	Shared lanes	10 ft.	4	4 ft.	1	10	100 ft.

2.22D

BOULEVARD: UNCONSTRAINED

WALK > BIKE > AUTO > TRANSIT

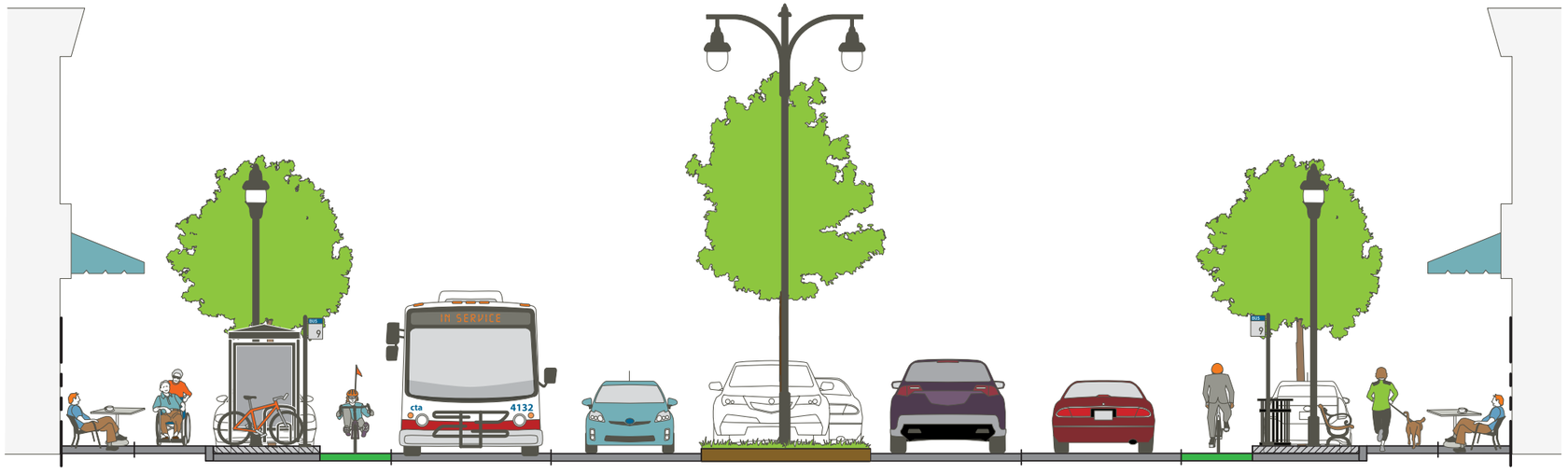


6 to 8	6 to 12	7 to 8	9 to 10	6 to 20	11	10	6 to 10	10	11	12 to 20	9 to 10	7 to 8	6 to 12	5 to 8
Pedestrian Zone/ Frontage Zone	Furniture Zone/ Curb Zone	Parking Lane	Vehicle Lane/ Shared Lane	Median	Vehicle Lane	Vehicle Lane	Median/ Turn Lane	Vehicle Lane	Vehicle Lane	Median Shared Use Path	Vehicle Lane	Parking Lane	Furniture Zone/ Curb Zone	Pedestrian Zone/ Frontage Zone

2.22E

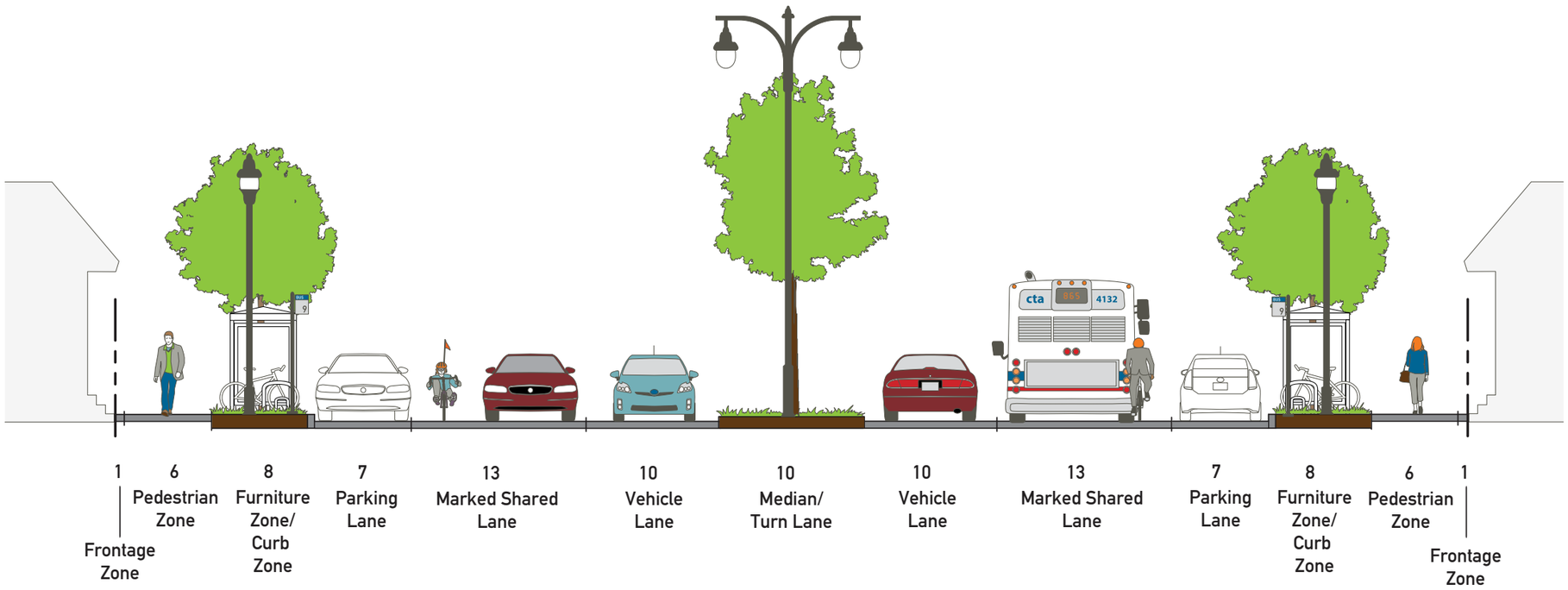
BOULEVARD: URBAN COMMERCIAL MIXED USE

TRANSIT > AUTO > WALK > BIKE



5	5	7	5	11	10	12	10	11	5	7	5	5
Frontage Zone	Pedestrian Zone	Parking Lane/ Furniture Zone/ Curb Zone	Bike Lane	Vehicle Lane	Vehicle Lane	Median/ Turn Lane	Vehicle Lane	Vehicle Lane	Bike Lane	Parking Lane/ Furniture Zone/ Curb Zone	Pedestrian Zone	Frontage Zone

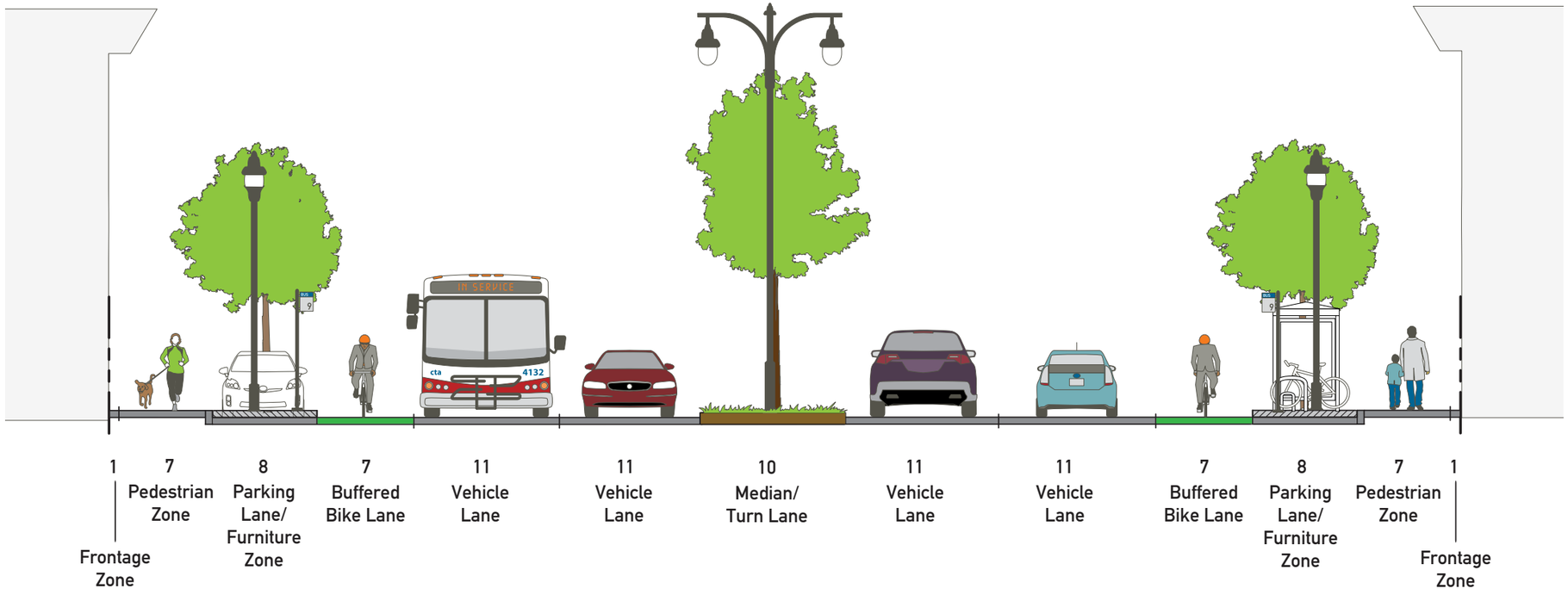
Scale: 1 inch = 10 feet



2.22F

BOULEVARD: URBAN RESIDENTIAL

AUTO > TRANSIT > WALK > BIKE



2.22G

BOULEVARD: URBAN SINGLE USE

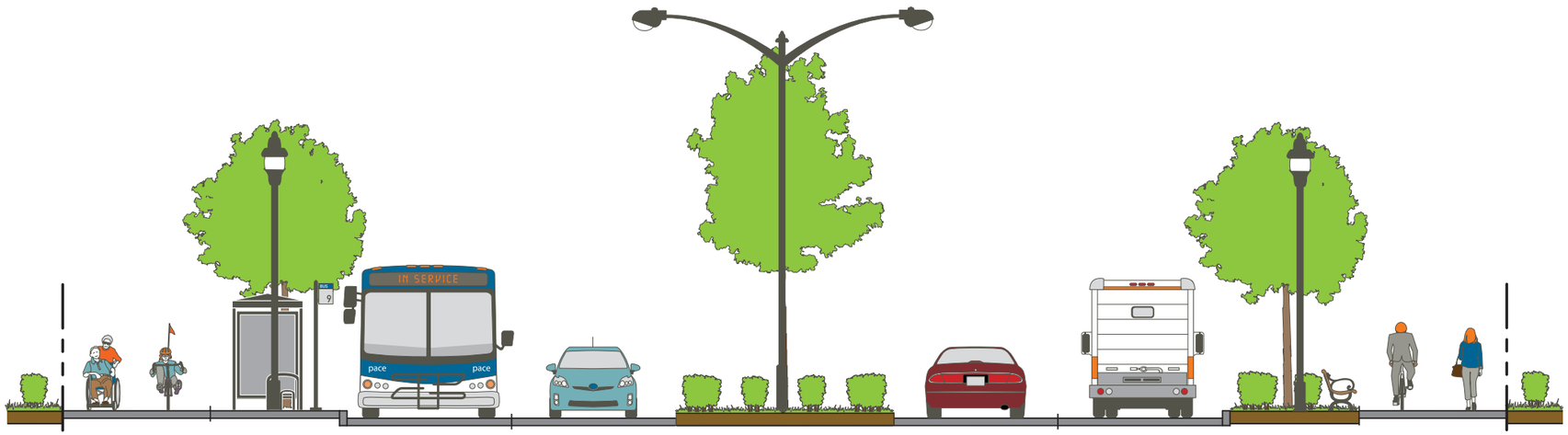
AUTO > TRANSIT > BIKE > WALK

Scale: 1 inch = 10 feet

2.22H

BOULEVARD: SUBURBAN COMMERCIAL

AUTO > TRANSIT > WALK > BIKE

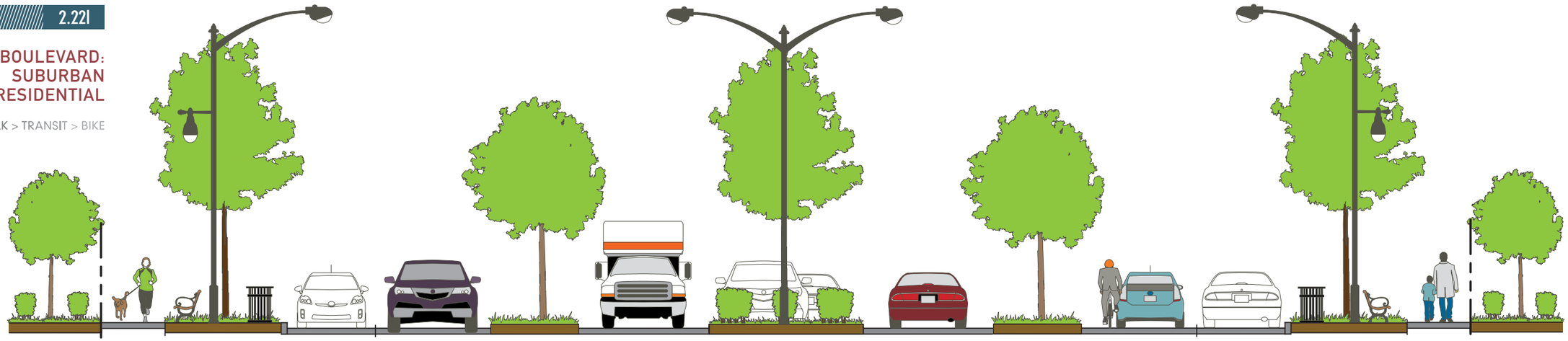


10	9	12	12	14	12	12	9	10
Shared Use Path	Furniture Zone/ Curb Zone	Vehicle Lane	Vehicle Lane	Median/ Turn Lane	Vehicle Lane	Vehicle Lane	Furniture Zone/ Curb Zone	Shared Use Path

2.22I

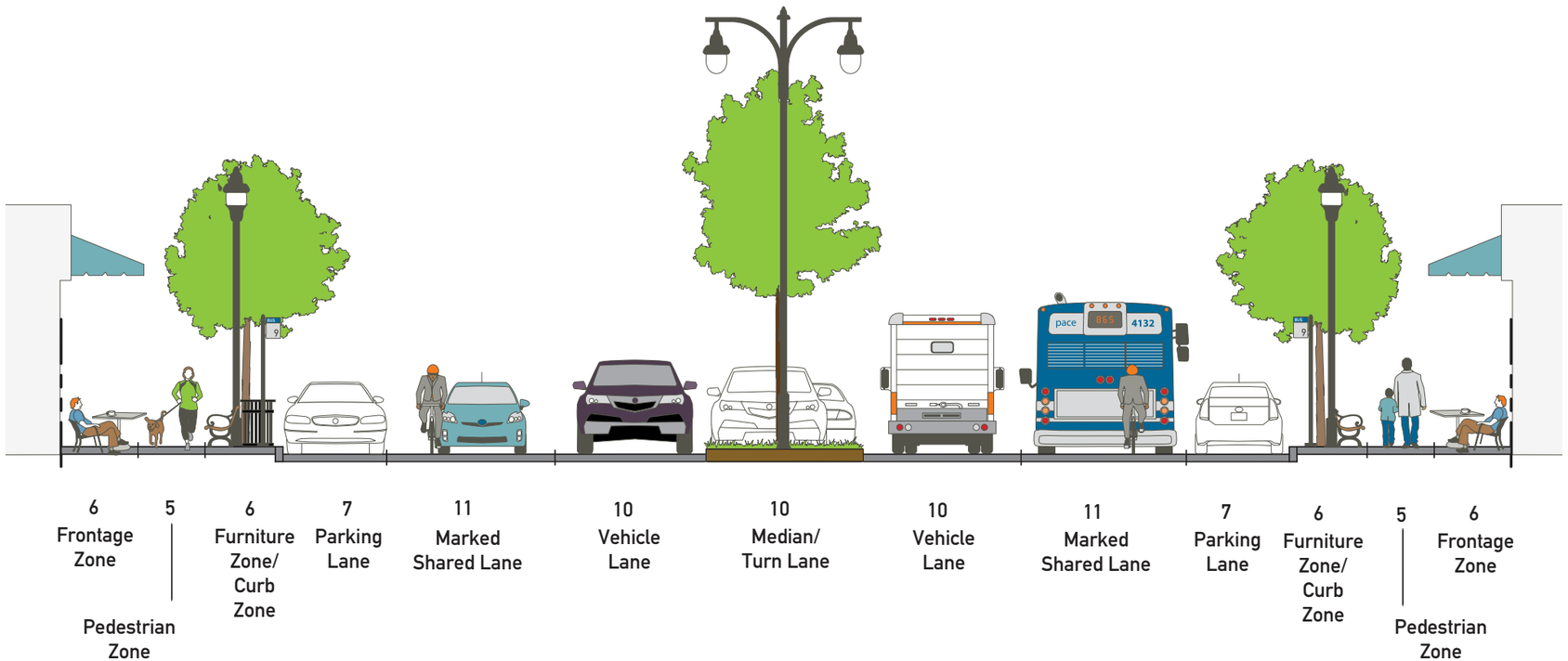
BOULEVARD: SUBURBAN RESIDENTIAL

AUTO > WALK > TRANSIT > BIKE



6	9	8	10	8	12	14	12	8	10	8	9	6
Pedestrian Zone	Furniture Zone/ Curb Zone	Parking Zone	Vehicle Lane	Median	Vehicle Lane	Median/Turn Lane	Vehicle Lane	Median	Vehicle Lane	Parking Zone	Furniture Zone/ Curb Zone	Pedestrian Zone

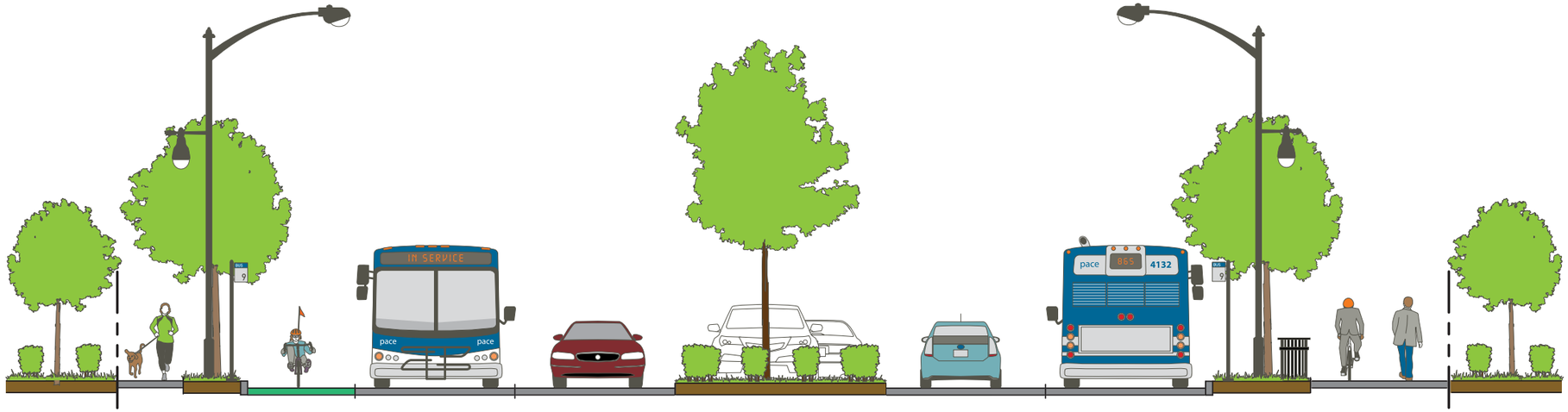
Scale: 1 inch = 10 feet



2.22J

BOULEVARD: SUBURBAN MIXED-USE

TRANSIT > WALK > AUTO > BIKE



2.22K

BOULEVARD: SUBURBAN SINGLE USE

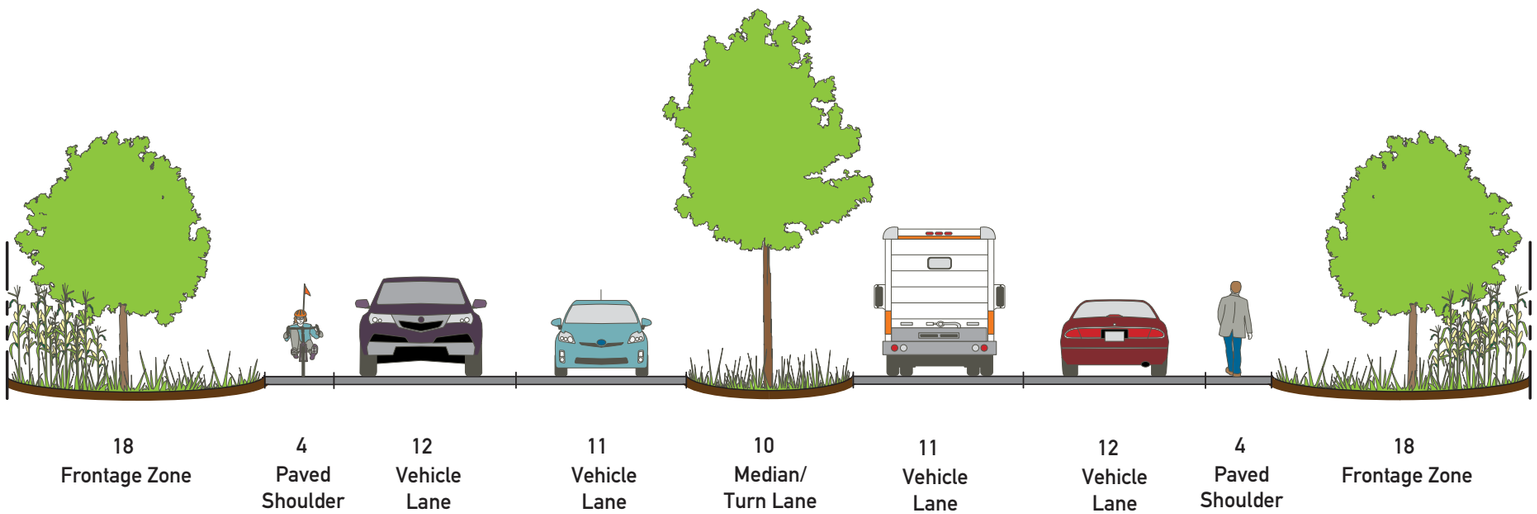
AUTO > TRANSIT > BIKE > WALK

Scale: 1 inch = 10 feet

2.22L

BOULEVARD: RURAL RESIDENTIAL / AGRICULTURAL

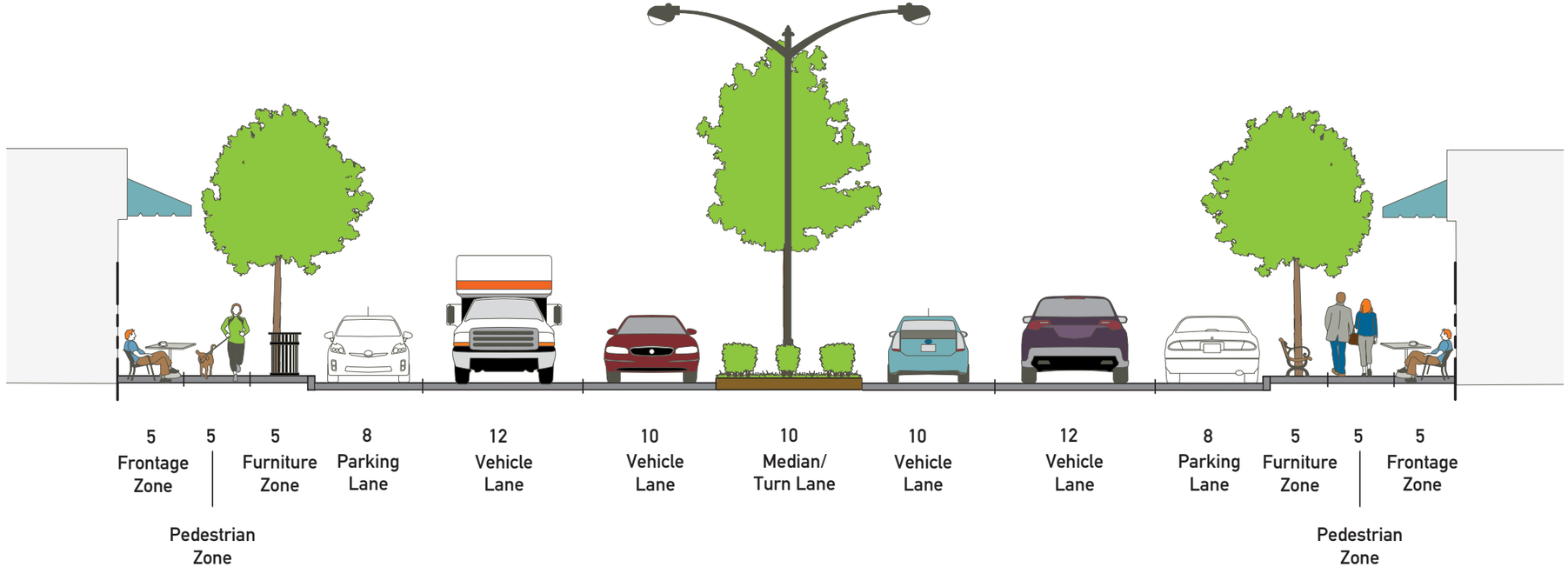
AUTO > TRANSIT > BIKE > WALK



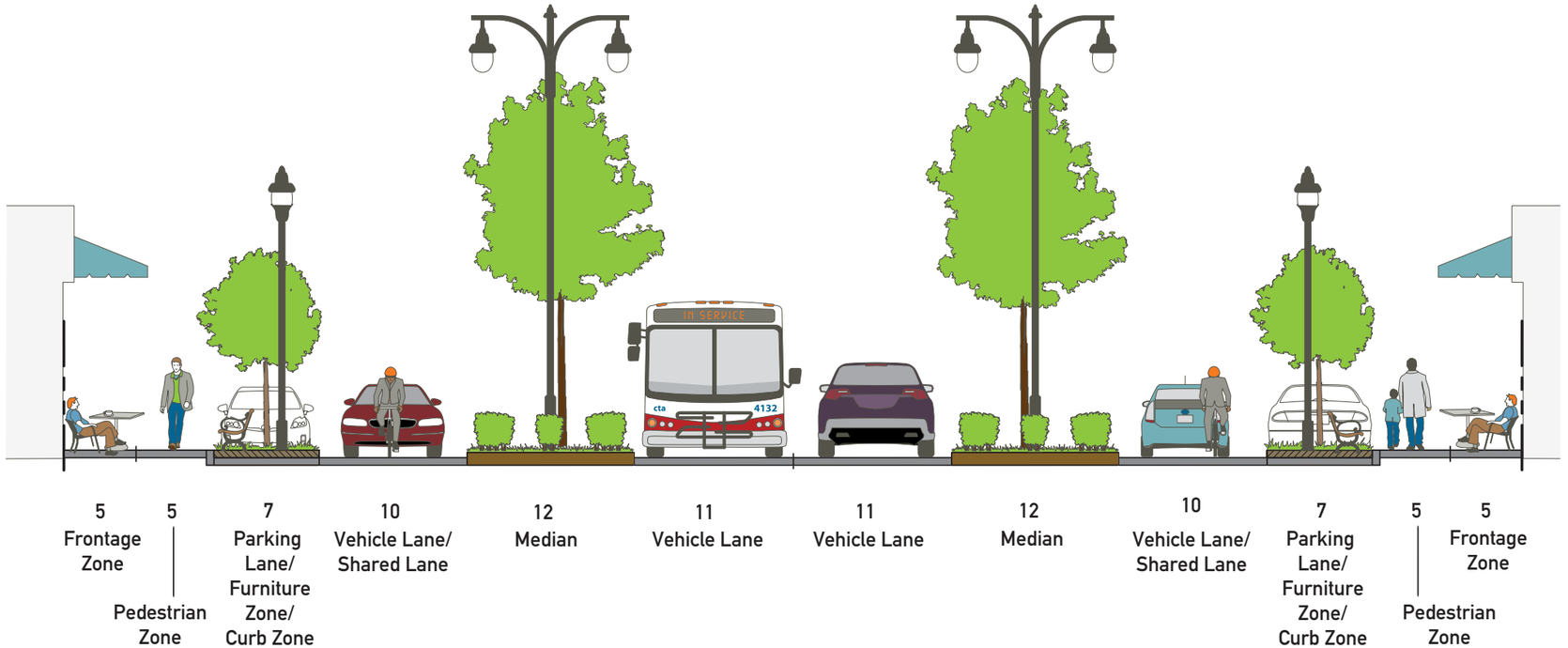
2.22M

BOULEVARD: RURAL VILLAGE

AUTO > TRANSIT > BIKE > WALK



Scale: 1 inch = 10 feet

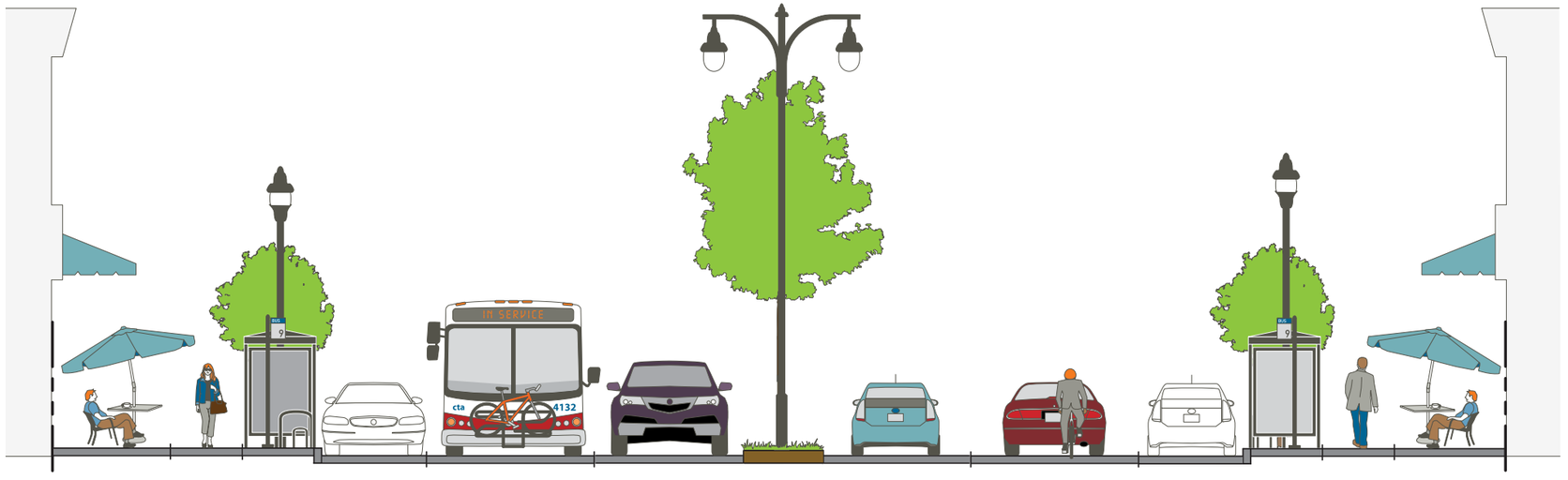


5 Frontage Zone
5 Pedestrian Zone
7 Parking Lane/ Furniture Zone/ Curb Zone
10 Vehicle Lane/ Shared Lane
12 Median
11 Vehicle Lane
11 Vehicle Lane
12 Median
10 Vehicle Lane/ Shared Lane
7 Parking Lane/ Furniture Zone/ Curb Zone
5 Pedestrian Zone
5 Frontage Zone

2.22N

BOULEVARD: PEDESTRIAN PRIORITY AREA

TRANSIT > WALK > AUTO > BIKE



8 Frontage Zone
5 Pedestrian Zone
6 Furniture Zone/ Curb Zone
7 Parking Lane
11 Vehicle Lane
10 Vehicle Lane
6 Median/ Turn Lane
10 Vehicle Lane
11 Vehicle Lane
7 Parking Lane
6 Furniture Zone/ Curb Zone
5 Pedestrian Zone
8 Frontage Zone

2.220

BOULEVARD: ENTERTAINMENT / CULTURAL DISTRICT

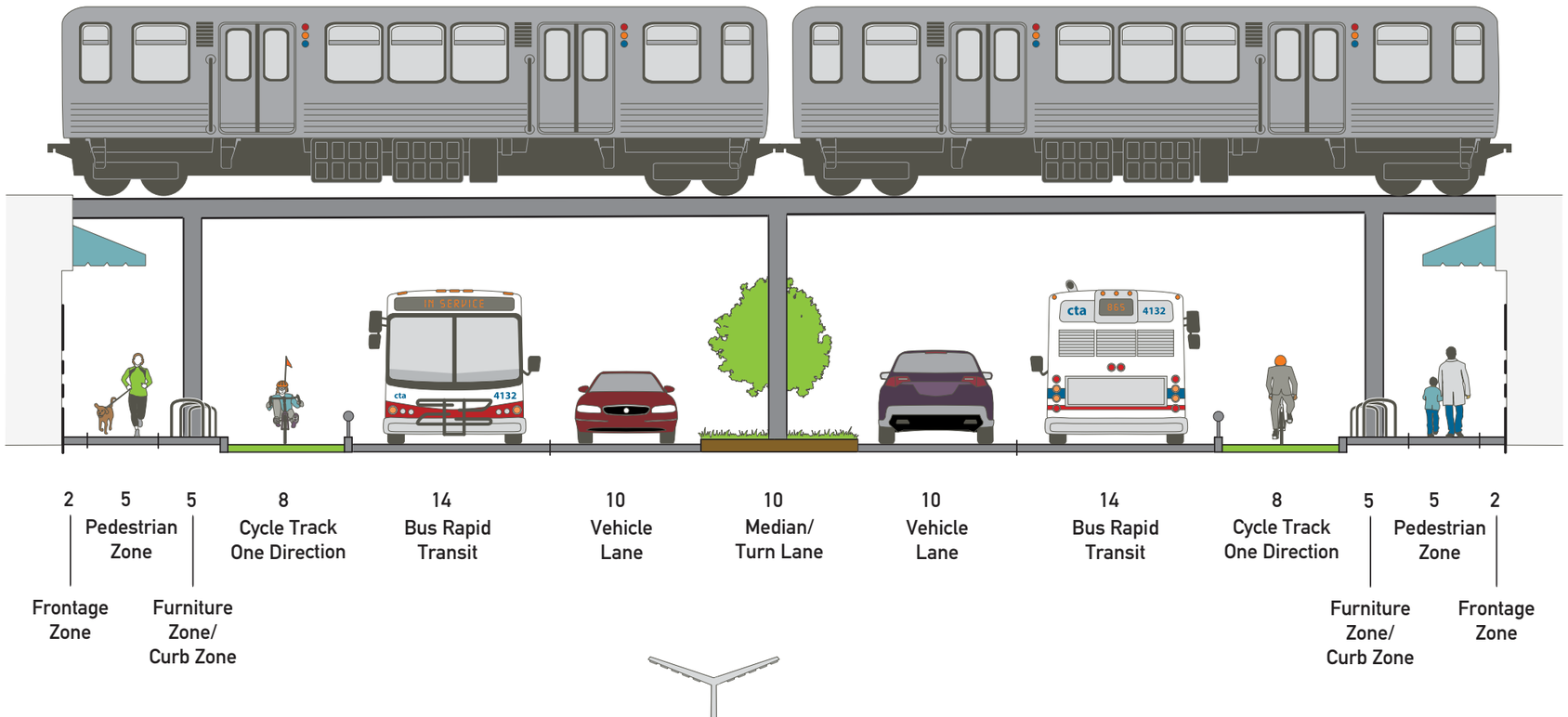
TRANSIT > AUTO > WALK > BIKE

Scale: 1 inch = 10 feet

2.22P

BOULEVARD: TRANSIT-ORIENTED DEVELOPMENT

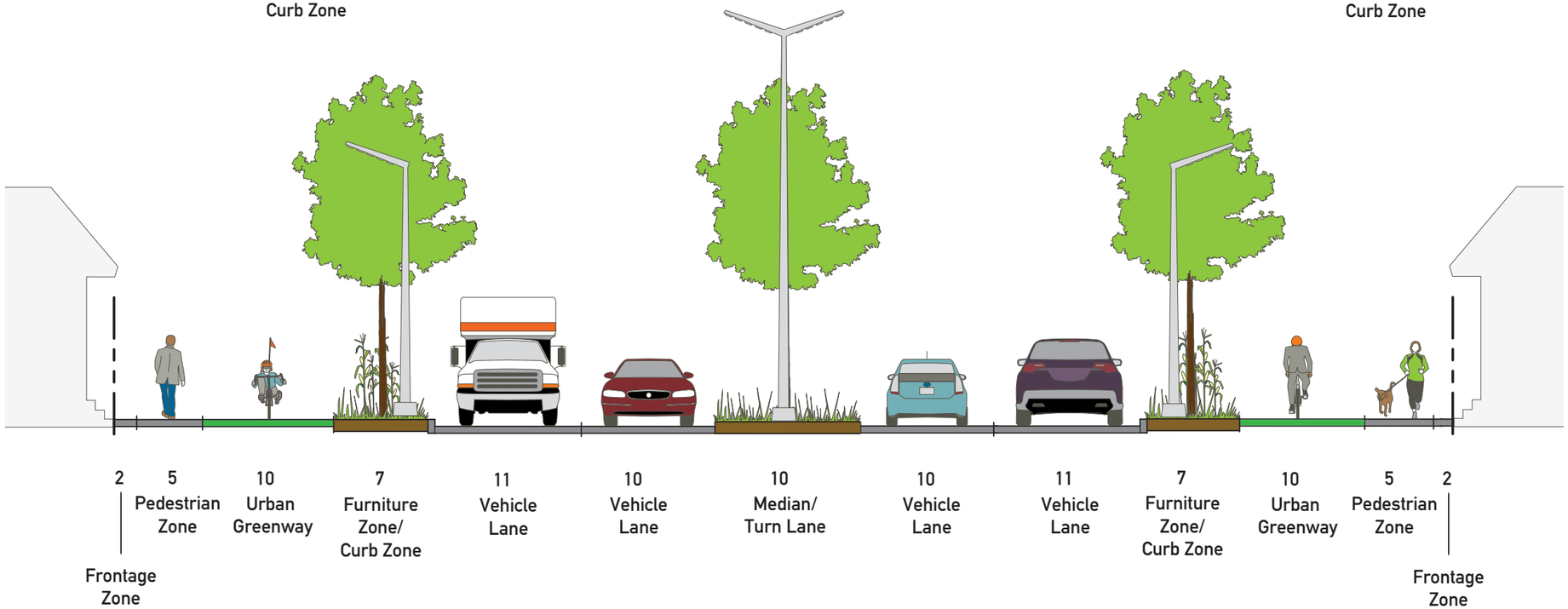
TRANSIT > WALK > BIKE > AUTO



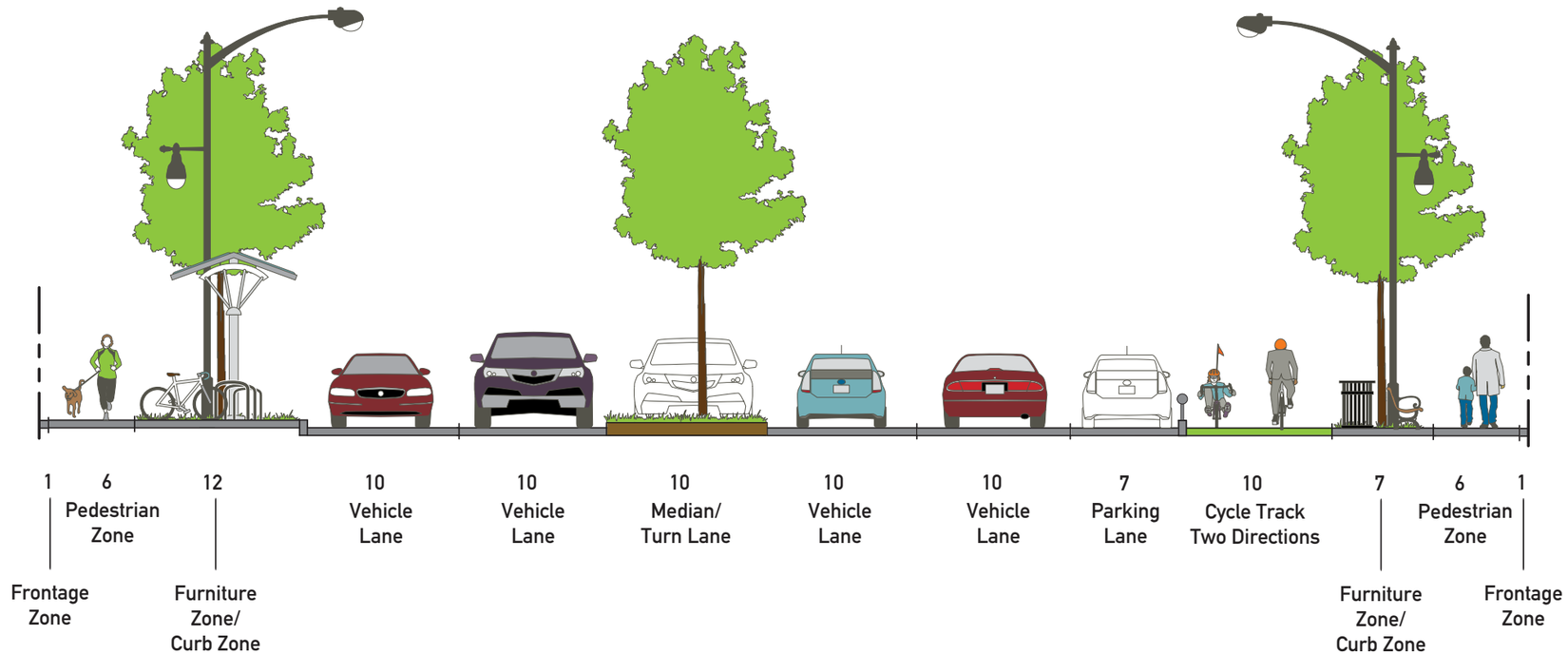
2.22Q

BOULEVARD: GREEN STREET

TRANSIT > BIKE > WALK > AUTO



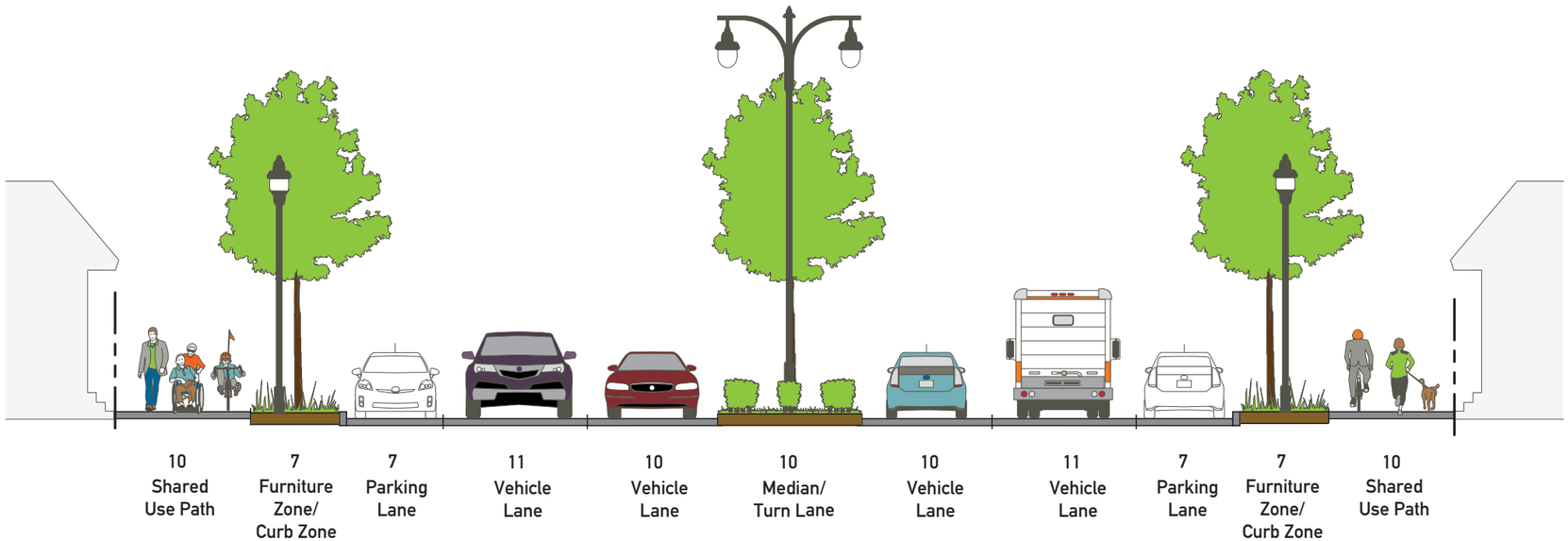
Scale: 1 inch = 10 feet



2.22R

BOULEVARD: PARK ZONES

WALK > BIKE > TRANSIT > AUTO



2.22S

BOULEVARD: SCHOOL ZONES

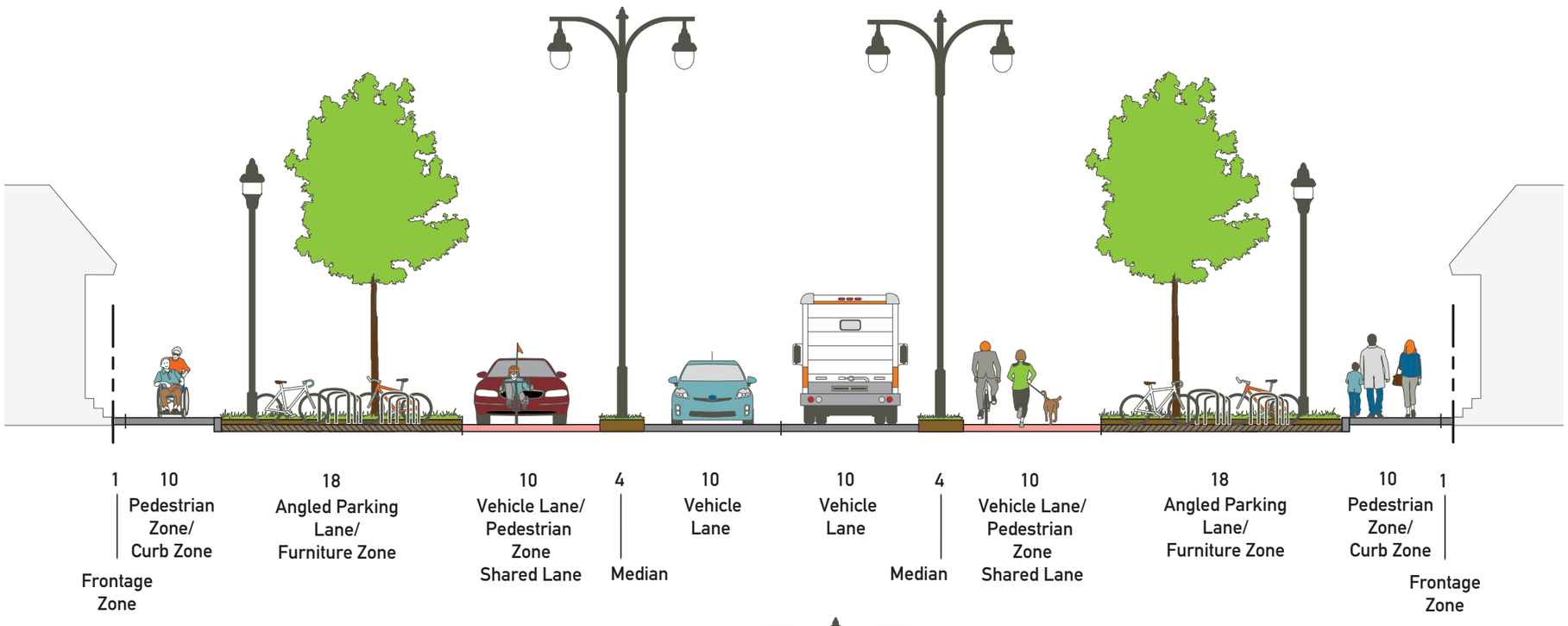
WALK > BIKE > TRANSIT > AUTO

Scale: 1 inch = 10 feet

2.22T

BOULEVARD: HOME ZONES

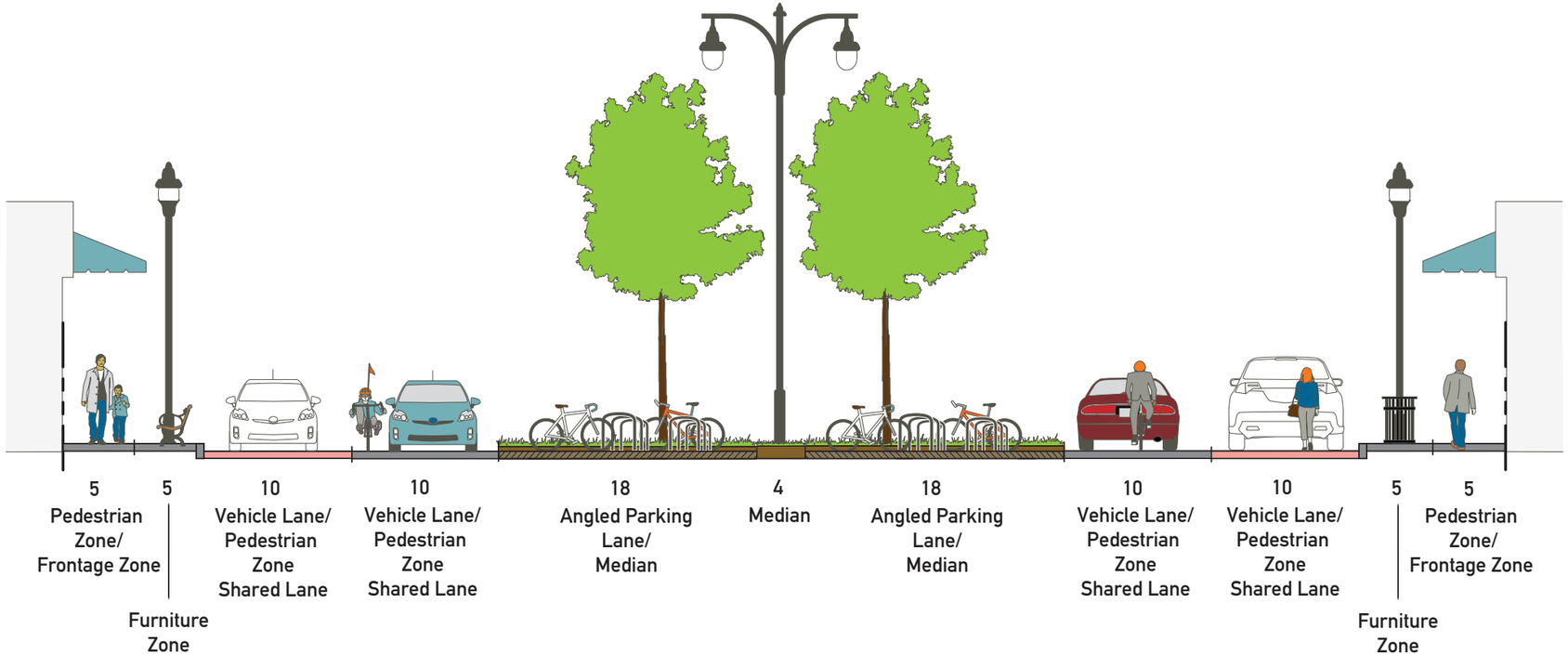
TRANSIT > BIKE > AUTO > TRANSIT



2.22U

BOULEVARD: SOCIAL STREETS

TRANSIT > BIKE > AUTO > TRANSIT



Scale: 1 inch = 10 feet

AVENUES 2.23

An avenue is a street of moderate to high vehicular capacity and low to moderate speed, acting as a connector between urban centers. Avenues often are commercial corridors with wide pedestrian facilities and on-street parking. Avenues may be equipped with landscaped medians and should include bike lanes or marked shared lanes, especially if they are planned links in a bikeway network. Avenues are frequently links in transit systems.

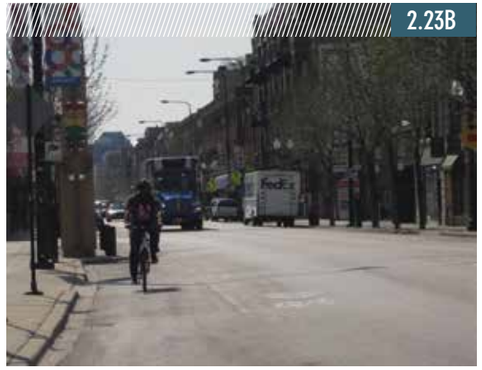


FIGURE 2.23A
AVENUE
Oak Park, IL

FIGURE 2.23B
AVENUE
Chicago, IL

FIGURE 2.23C
AVENUE
Oak Park, IL

TABLE 2H AVENUE VARIATIONS

		Mode Prioritization				Pedestrian Realm				Travel Way								
Context Zones		Priority				Frontage	Pedestrian Zone	Furniture Zone	Curb Zone	Parking Lanes (Width)	Parking Lanes	Bikeway (Width)	Bikeway	Vehicle Lane (Width)	Vehicle Lanes	Median / Turn Lane	Median	Target Speed (MPH)	ROW (Total)
Urban	2.23D Unconstrained	Walk	Bike	Transit	Auto	5 ft.	5 ft.	5 ft.	2 ft.	7 ft.	2	5 ft.	Bike lanes	10-11 ft.	2 to 4	Varies	0 to 1	25	Varies
	2.23E Urban Commercial/Mixed Use	Walk	Bike	Transit	Auto	5 ft.	5 ft.	4 ft.	1 ft.	7 ft.	2	7 ft.	Cycle track inside parking	11 ft.	2	0 ft.	0	15	80 ft.
	2.23F Urban Residential	Walk	Bike	Auto	Transit	2 ft.	8 ft.	8 ft.	2 ft.	7 ft.	2	0 ft.	Marked shared lanes	13 ft.	2	0 ft.	0	15	80 ft.
	2.23G Urban Single Use	Bike	Walk	Auto	Transit	1 ft.	5 ft.	4 ft.	1 ft.	7 ft.	2	7 ft.	Buffered bike lanes	10 ft.	2	10 ft.	1	25	80 ft.
Suburban	2.23H Suburban Commercial	Transit	Auto	Walk	Bike	0 ft.	Shared use paths	6 ft.	2 ft.	0 ft.	0	10 ft.	Shared use paths	11 ft.	4	0 ft.	0	15	80 ft.
	2.23I Suburban Residential	Walk	Bike	Auto	Transit	0 ft.	5 ft.	4 ft.	1 ft.	7 ft.	2	5 ft.	Bike lanes	12 ft.	2	12 ft.	1	15	80 ft.
	2.23J Suburban Mixed-Use	Walk	Bike	Transit	Auto	5 ft.	5 ft.	6 ft.	1 ft.	7 ft.	2	5 ft.	Bike lanes	11 ft.	2	0 ft.	0	15	80 ft.
	2.23K Suburban Single Use	Bike	Auto	Walk	Transit	0 ft.	Shared use paths	4 ft.	1 ft.	0 ft.	0	8 ft.	Shared use paths	11 ft.	4	10 ft.	1	30	80 ft.
Rural	2.23L Rural Residential/Agricultural	Auto	Bike	Walk	Transit	10 ft.	Paved shoulder	0 ft.	0 ft.	0 ft.	0	4 ft.	Paved shoulder	11 ft.	4	8 ft.	1	30	80 ft.
	2.23M Rural Village	Walk	Auto	Bike	Transit	8 ft.	6 ft.	6 ft.	2 ft.	7 ft.	2	0 ft.	Shared lanes	11 ft.	2	0 ft.	0	15	80 ft.
Context Overlays		Priority				Frontage	Pedestrian Zone	Furniture Zone	Curb Zone	Parking Lanes (Width)	Parking Lanes	Bikeway (Width)	Bikeway	Vehicle Lane (Width)	Vehicle Lanes	Median / Turn Lane	Median	Target Speed (MPH)	ROW (Total)
All	2.23N Pedestrian Priority Areas	Walk	Transit	Bike	Auto	6 ft.	6 ft.	6 ft.	1 ft.	7 ft.	2	0 ft.	Shared lanes	10 ft.	2	6 ft.	1	15	80 ft.
	2.23O Entertainment/Cultural Districts	Walk	Transit	Bike	Auto	8 ft.	6 ft.	5 ft.	1 ft.	7 ft.	2	0 ft.	Marked shared lanes	13 ft.	2	0 ft.	0	15	80 ft.
	2.23P Transit Oriented Development	Transit	Walk	Bike	Auto	5 ft.	6 ft.	Cycle track	1 ft.	0 ft.	0	7 ft.	Cycle track one direction	10-11 ft.	2/2 Bus Lanes	0 ft.	0	20	80 ft.
	2.23Q Green Street	Transit	Bike	Walk	Auto	2 ft.	5 ft.	6 ft.	1 ft.	0 ft.	0	8 ft.	Urban greenway	11 ft.	2	0 ft.	0	15	80 ft.
	2.23R Park Zones	Walk	Bike	Transit	Auto	3/0 ft.	6 ft.	7 ft.	1 ft.	7 ft.	1	10 ft.	Cycle track two direction	11 ft.	2	10 ft.	1	15	80 ft.
	2.23S School Zones	Walk	Bike	Transit	Auto	2 ft.	Shared use paths	6 ft.	1 ft.	7 ft.	2	8 ft.	Shared use paths	11 ft.	2	10 ft.	1	15	80 ft.
	2.23T Home Zones	Walk	Bike	Auto	Transit	0 ft.	5 ft.	6 ft.	1 ft.	18 ft.	2	0 ft.	Shared lanes	10 ft.	2	0 ft.	0	10	80 ft.
	2.23U Social Streets	Walk	Bike	Auto	Transit	Pedestrian zone	5 ft.	0 ft.	2 ft.	18 ft.	2	0 ft.	Shared lanes	10 ft.	2	0 ft.	0	10	80 ft.

Scale: 1 inch = 10 feet

2.23D

AVENUE: UNCONSTRAINED

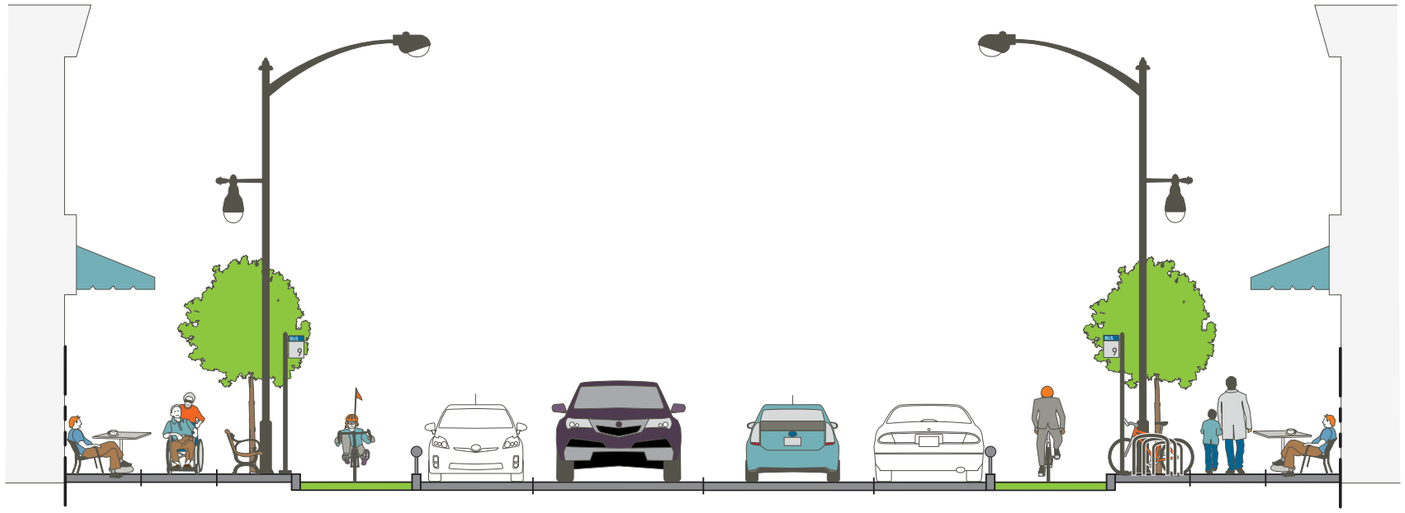
WALK > BIKE > TRANSIT > AUTO

5	5	7	7	5	11	10	10	10	11	5	7	7	5	5
Frontage Zone	Pedestrian Zone	Furniture Zone/ Curb Zone	Parking Lane	Bike Lane	Vehicle Lane	Vehicle Lane	Median/ Turn Lane	Vehicle Lane	Vehicle Lane	Bike Lane	Parking Lane	Furniture Zone/ Curb Zone	Pedestrian Zone	Frontage Zone

2.23E

AVENUE: URBAN COMMERCIAL / MIXED USE

WALK > BIKE > TRANSIT > AUTO



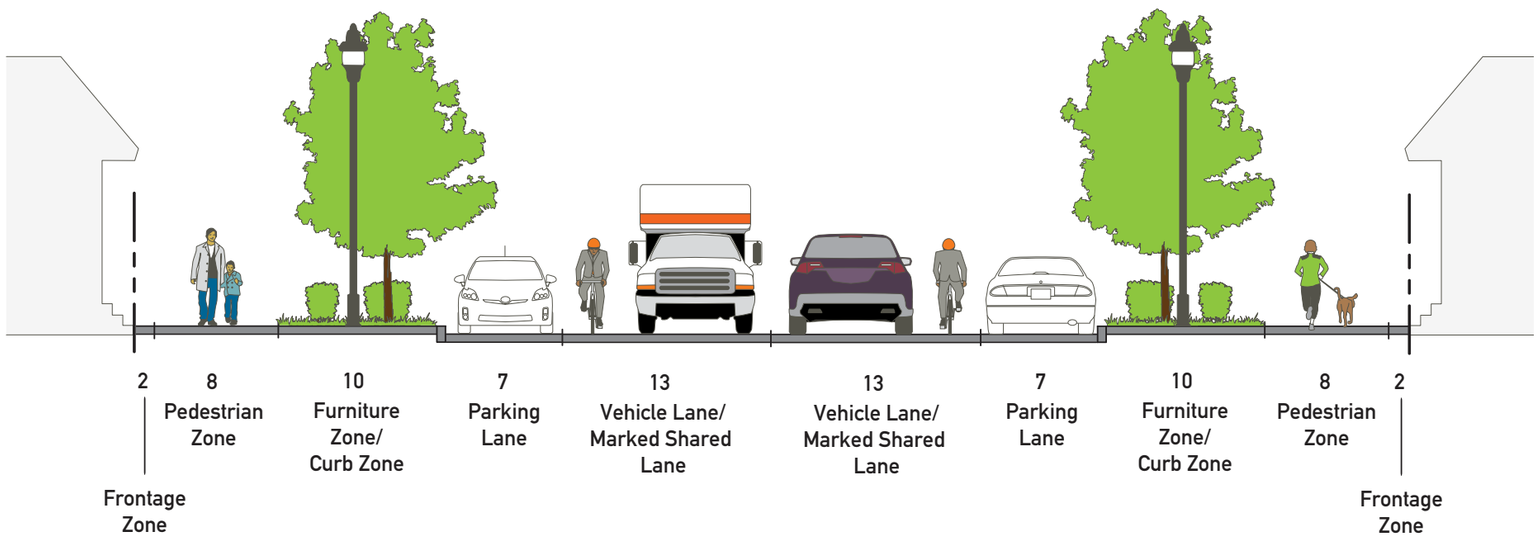
5	5	5	7	7	11	11	7	7	5	5	5
Frontage Zone	Pedestrian Zone	Furniture Zone/ Curb Zone	Cycle Track Inside Parking	Parking Lane	Vehicle Lane	Vehicle Lane	Parking Lane	Cycle Track Inside Parking	Furniture Zone/ Curb Zone	Pedestrian Zone	Frontage Zone

Scale: 1 inch = 10 feet

2.23F

AVENUE:
URBAN RESIDENTIAL

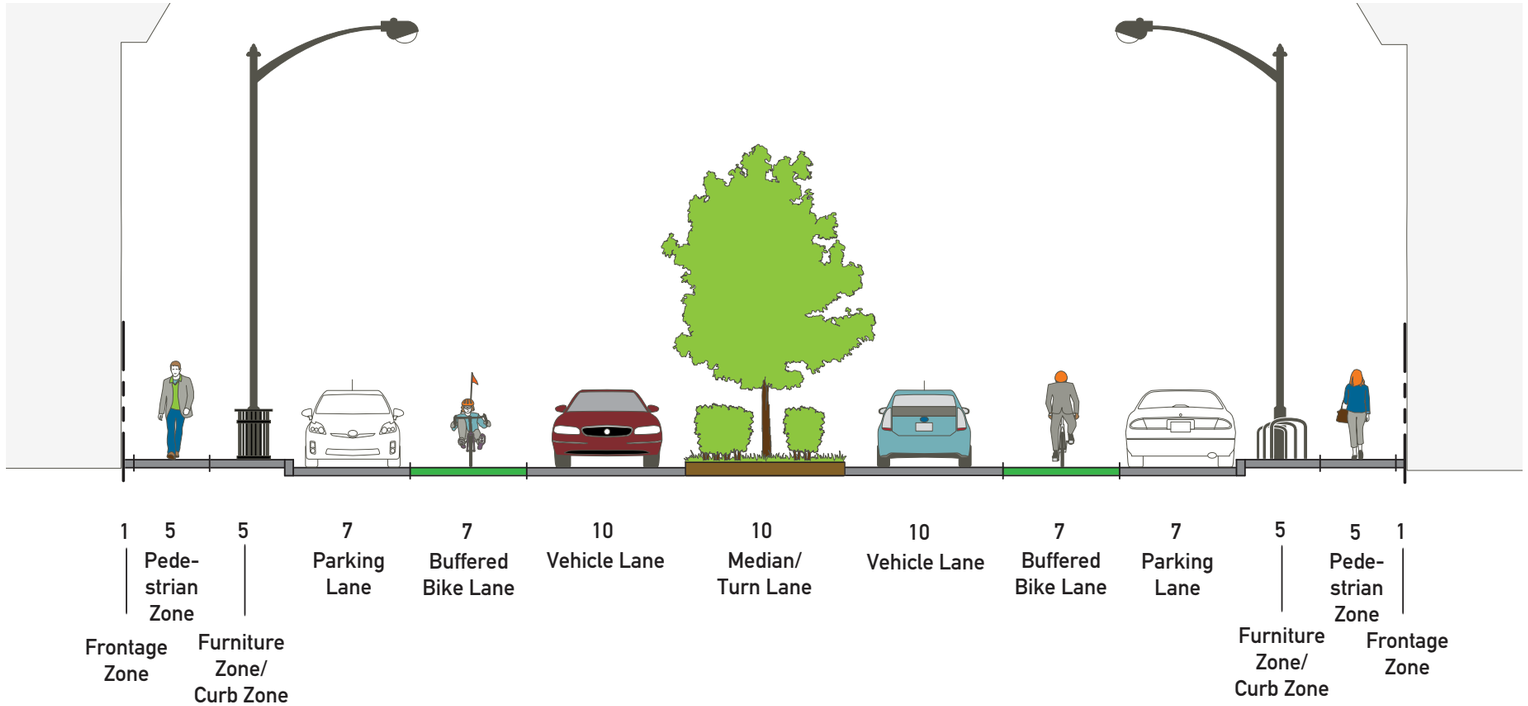
WALK > BIKE > AUTO > TRANSIT



2.23G

AVENUE:
URBAN SINGLE USE

BIKE > WALK > AUTO > TRANSIT

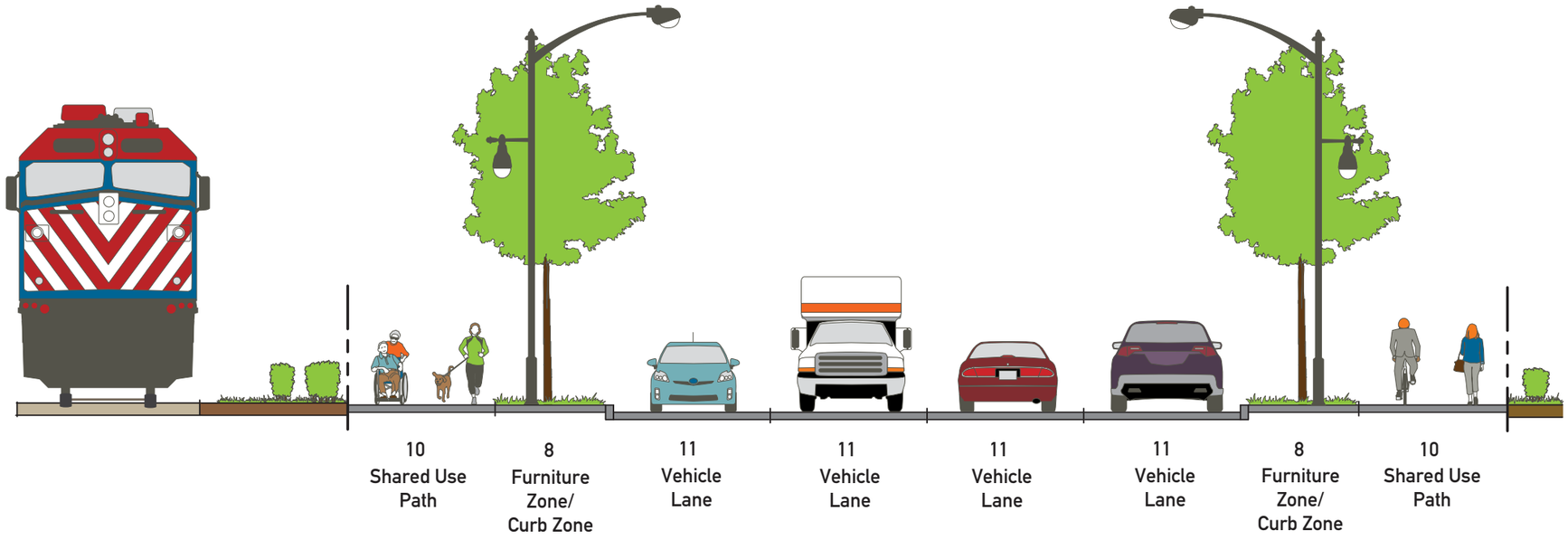


Scale: 1 inch = 10 feet

2.23H

AVENUE: SUBURBAN COMMERCIAL

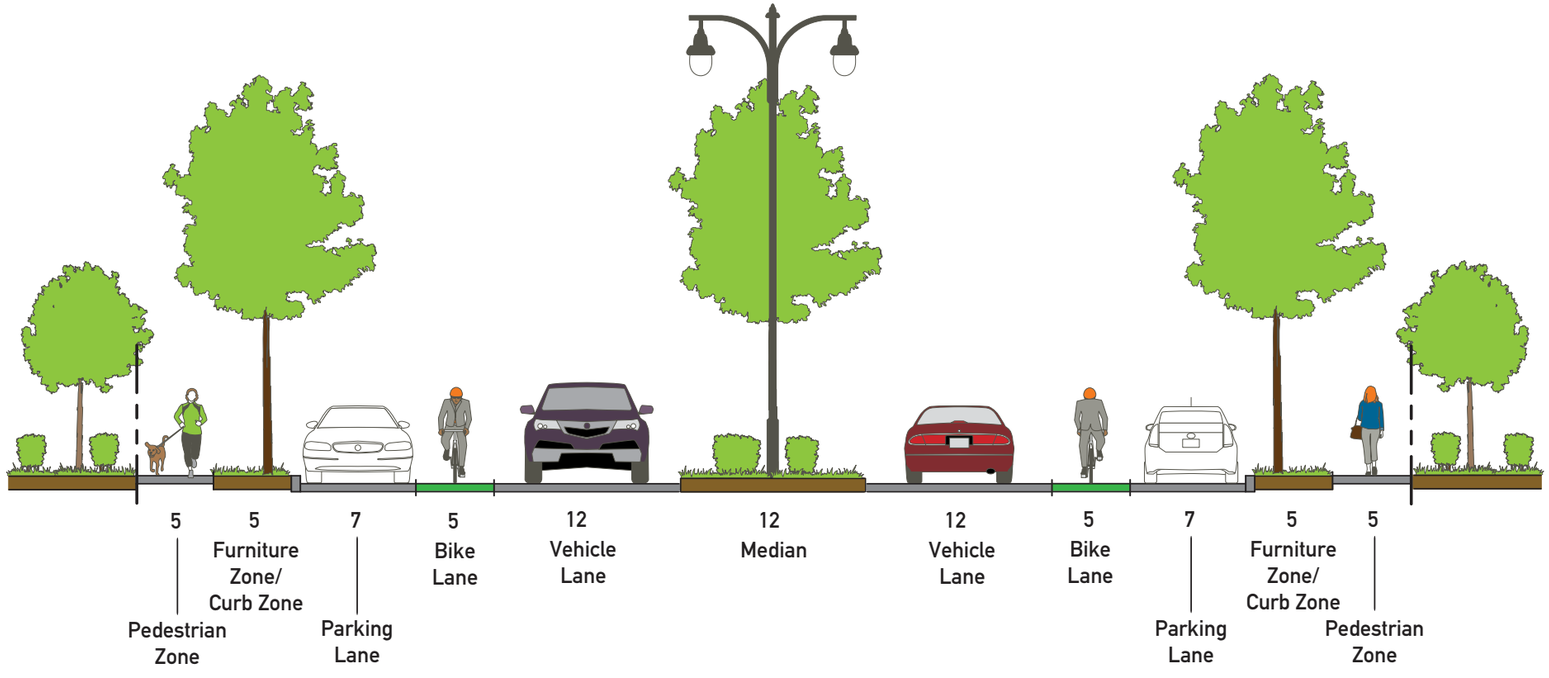
TRANSIT > AUTO > WALK > BIKE



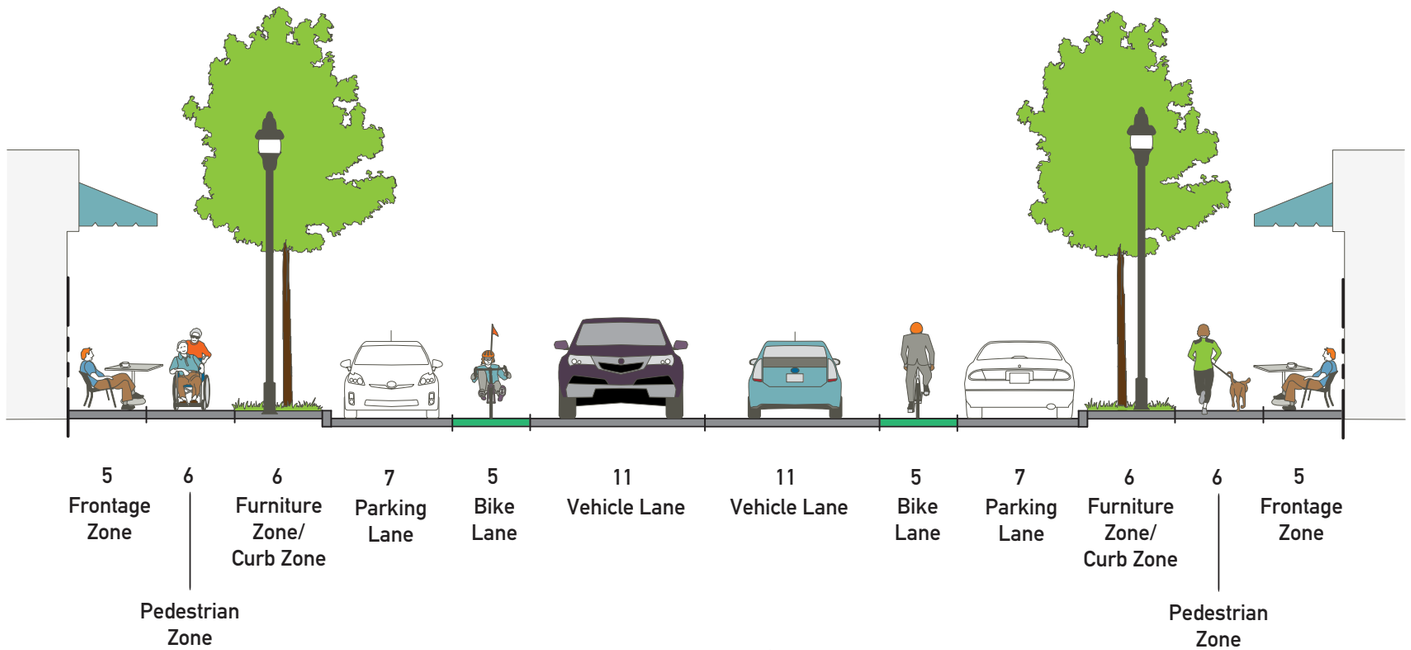
2.23I

AVENUE: SUBURBAN RESIDENTIAL

WALK > BIKE > AUTO > TRANSIT



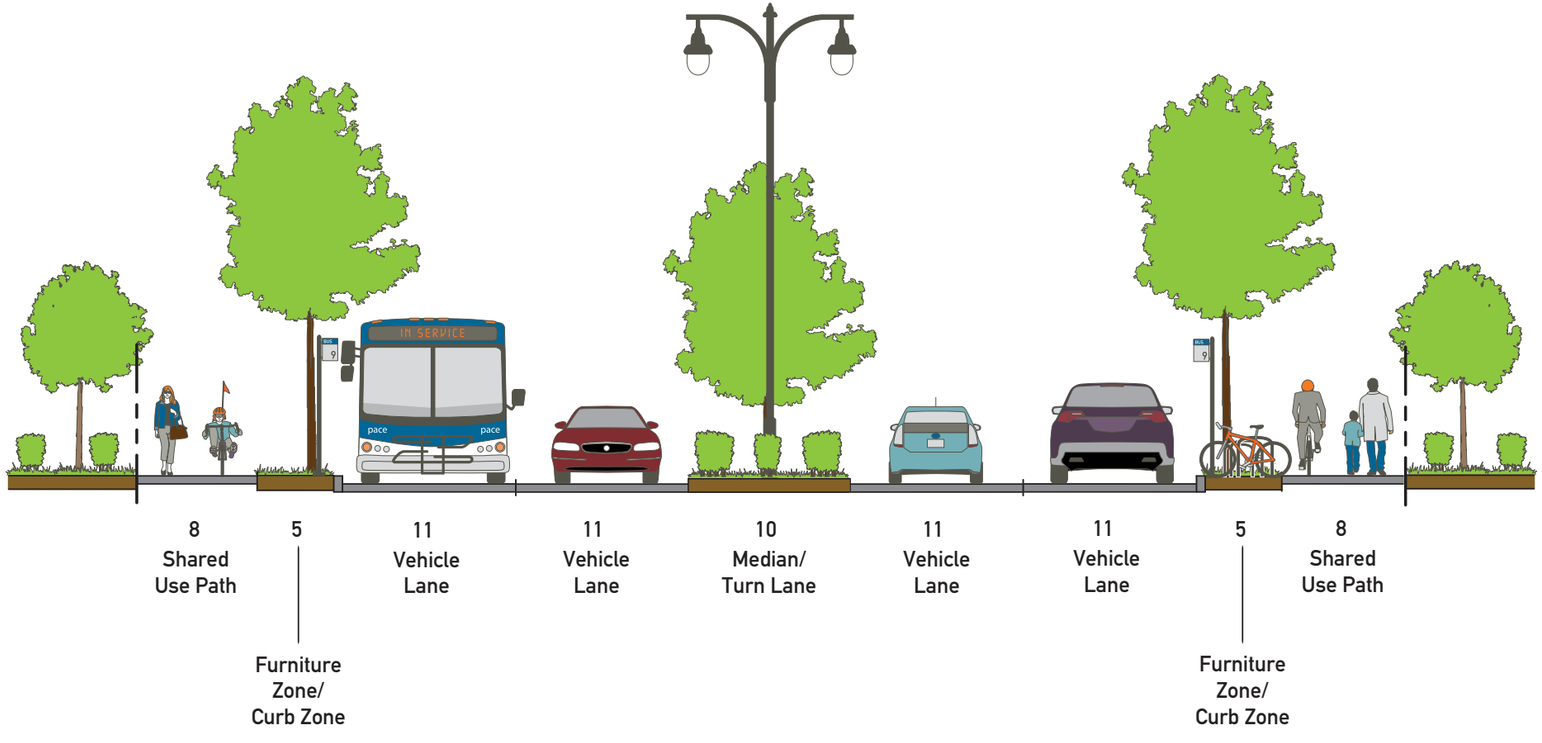
Scale: 1 inch = 10 feet



2.23J

AVENUE: SUBURBAN MIXED USE

WALK > BIKE > TRANSIT > AUTO



2.23K

AVENUE: SUBURBAN SINGLE USE

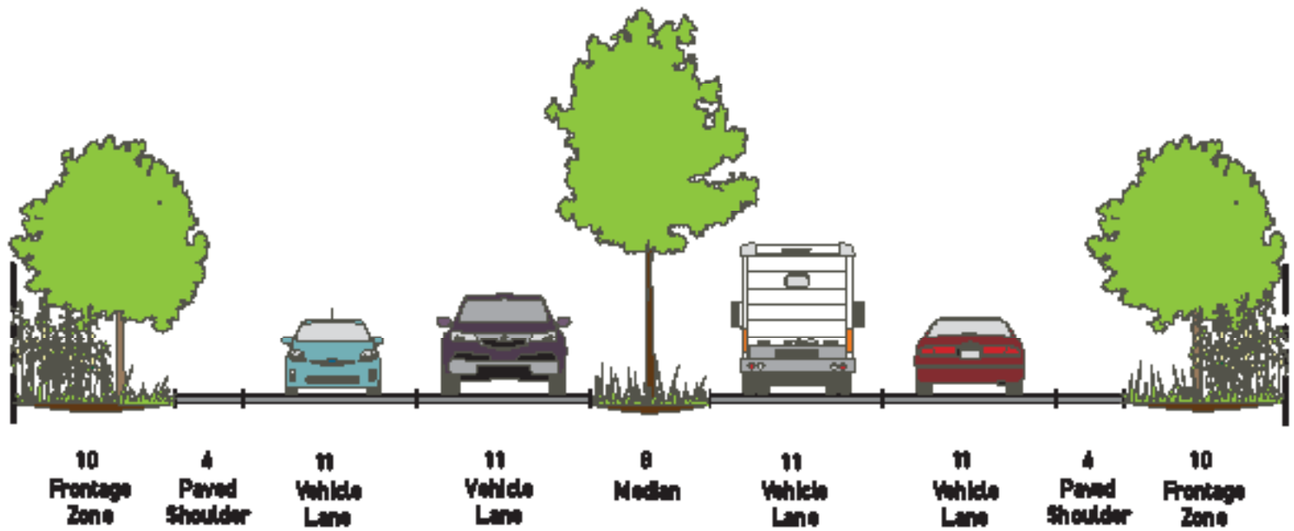
BIKE > AUTO > WALK > TRANSIT

Scale: 1 inch = 10 feet

2.23L

AVENUE: RURAL RESIDENTIAL / AGRICULTURAL

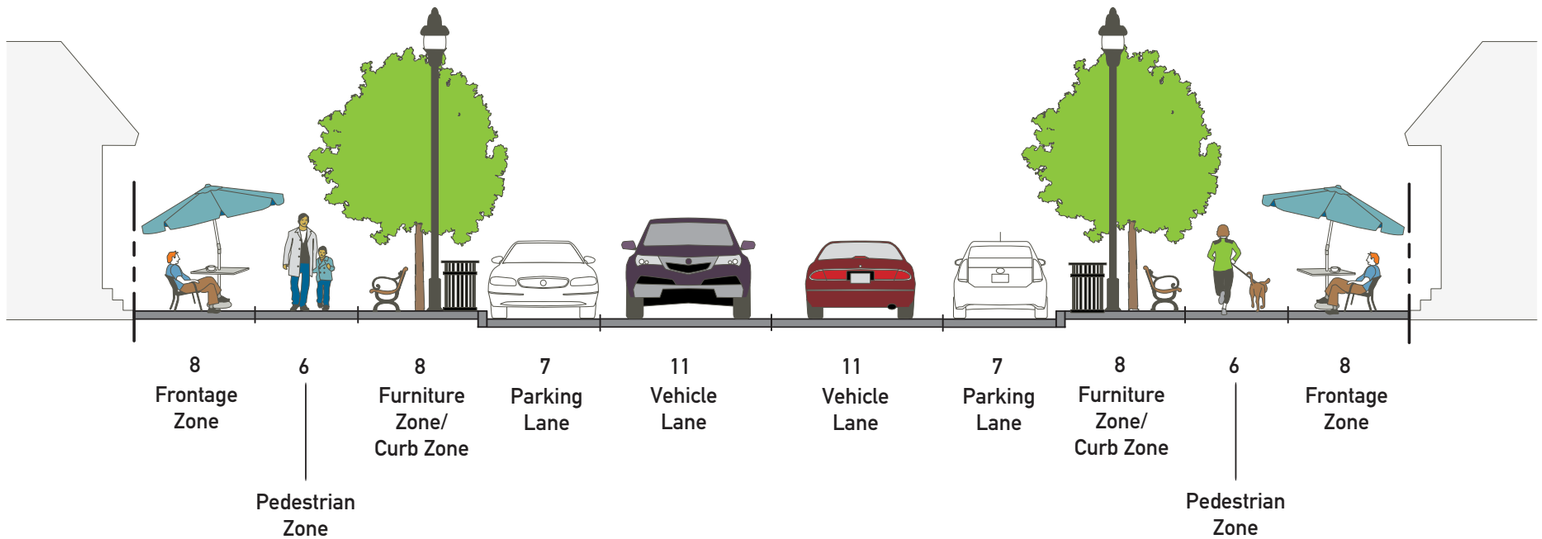
AUTO > BIKE > WALK > TRANSIT



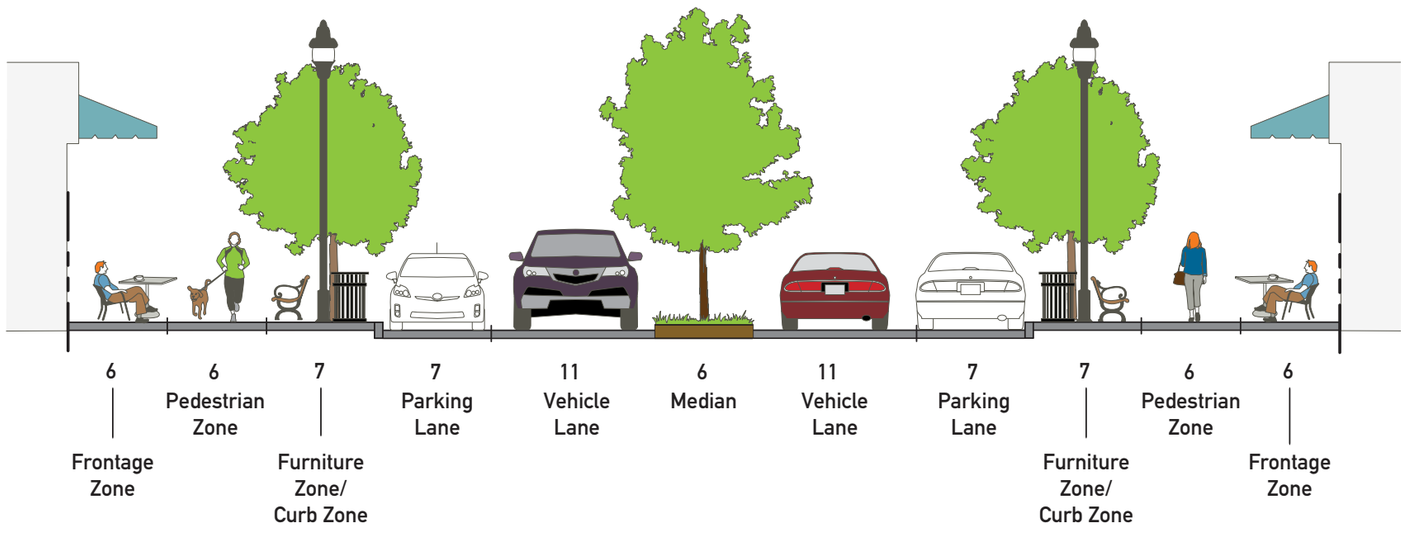
2.23M

AVENUE: RURAL VILLAGE

WALK > AUTO > BIKE > TRANSIT



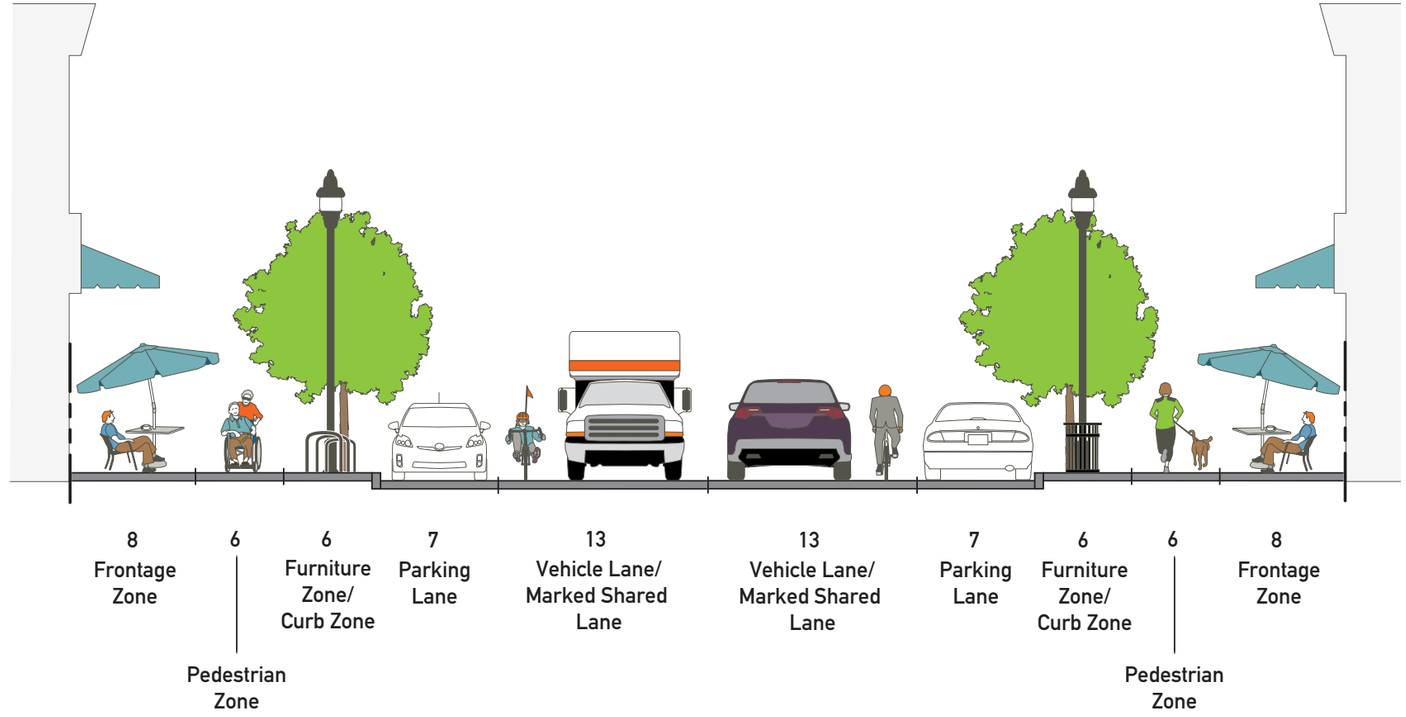
Scale: 1 inch = 10 feet



2.23N

AVENUE: PEDESTRIAN PRIORITY AREA

WALK > TRANSIT > BIKE > AUTO



2.230

AVENUE: ENTERTAINMENT / CULTURAL DISTRICT

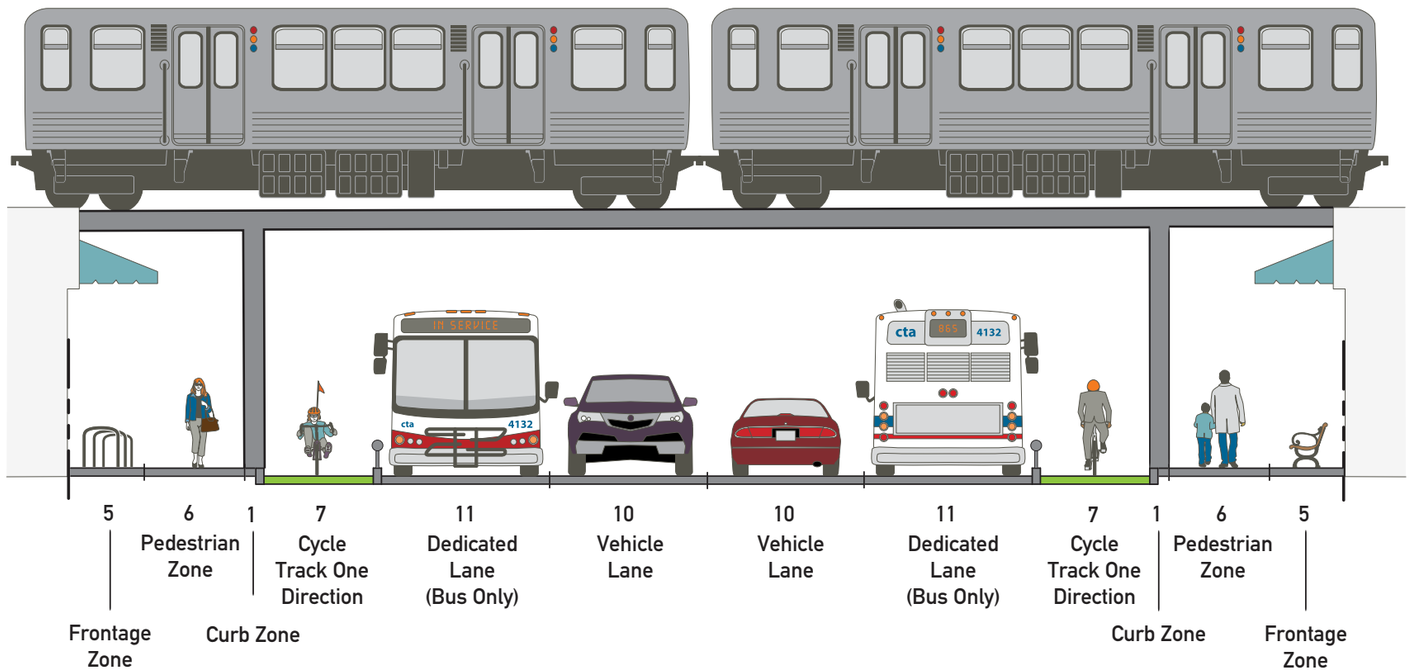
WALK > TRANSIT > BIKE > AUTO

Scale: 1 inch = 10 feet

2.23P

AVENUE: TRANSIT-ORIENTED DEVELOPMENT

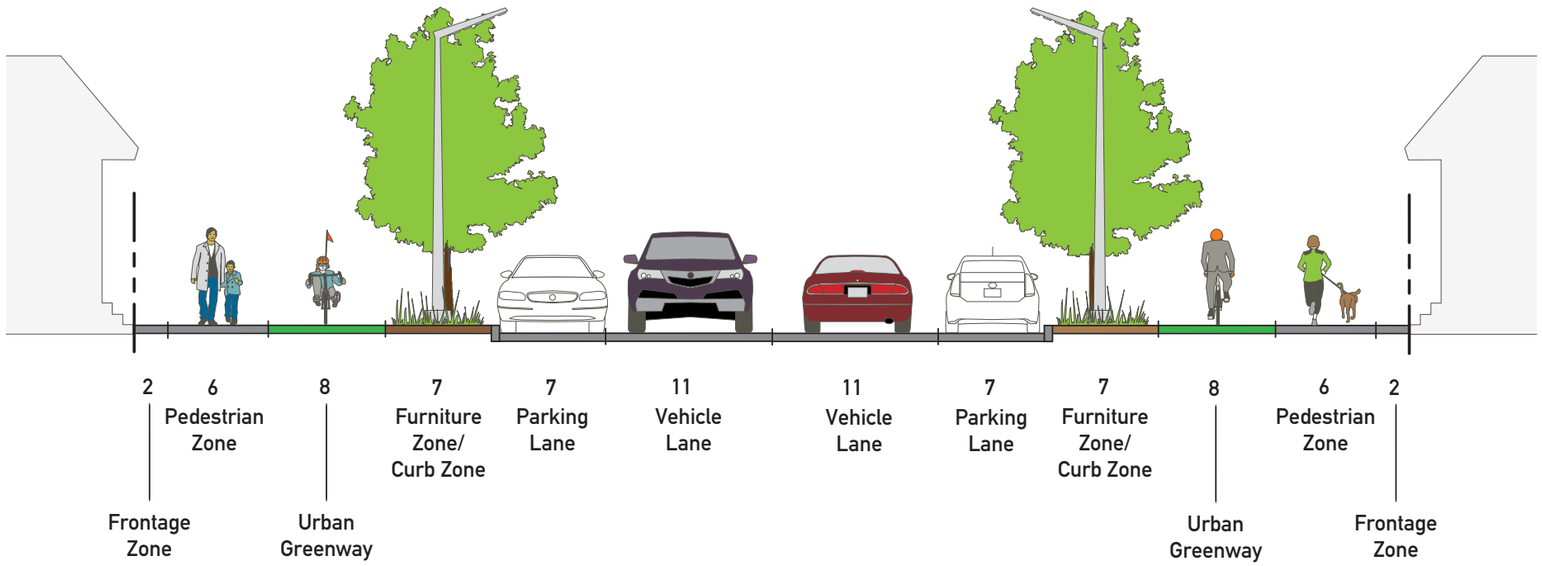
TRANSIT > WALK> BIKE > AUTO



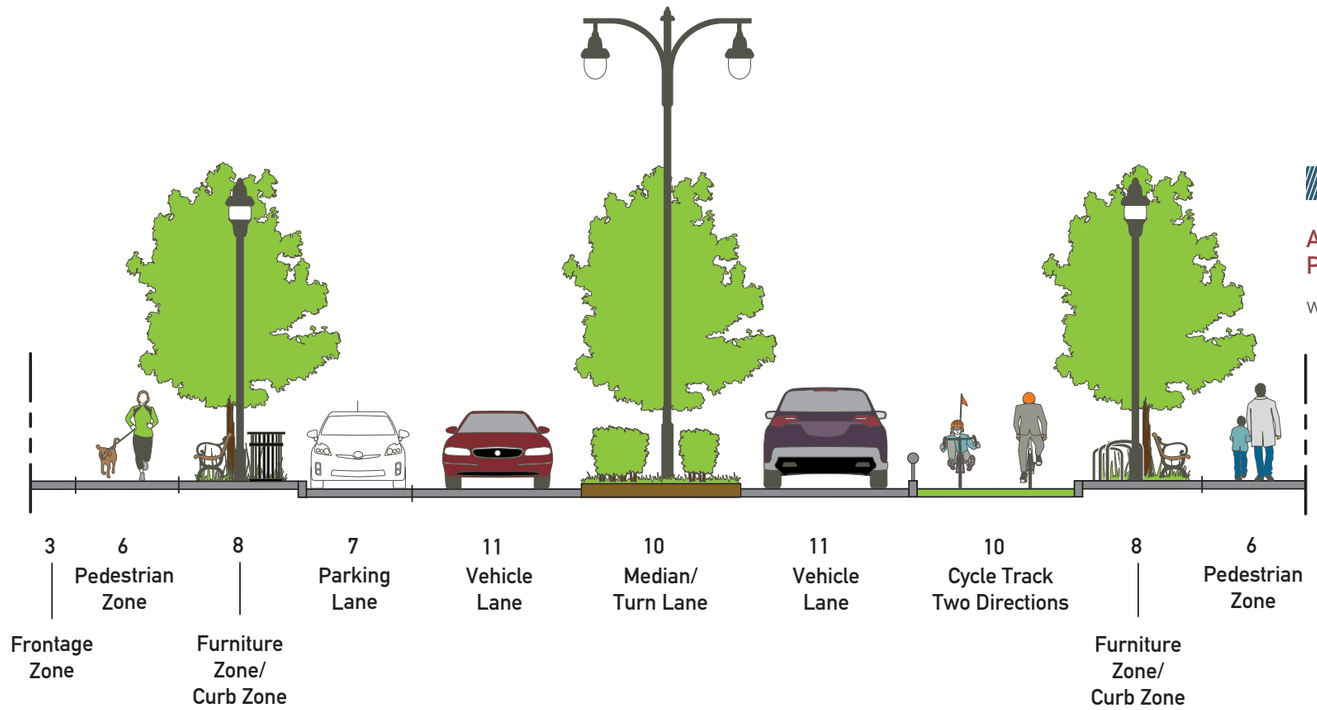
2.23Q

AVENUE: GREEN STREET

TRANSIT > BIKE > WALK > AUTO



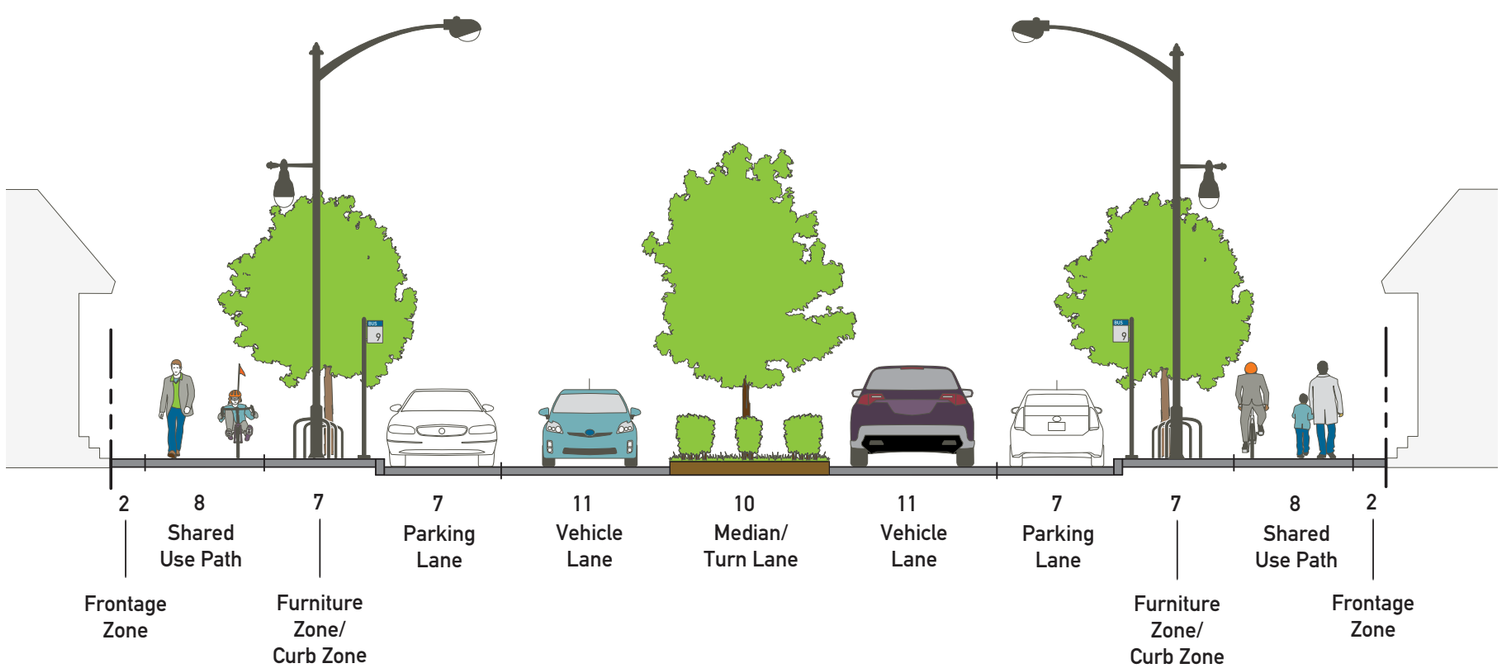
Scale: 1 inch = 10 feet



2.23R

AVENUE: PARK ZONE

WALK > BIKE > TRANSIT > AUTO



2.23S

AVENUE: SCHOOL ZONE

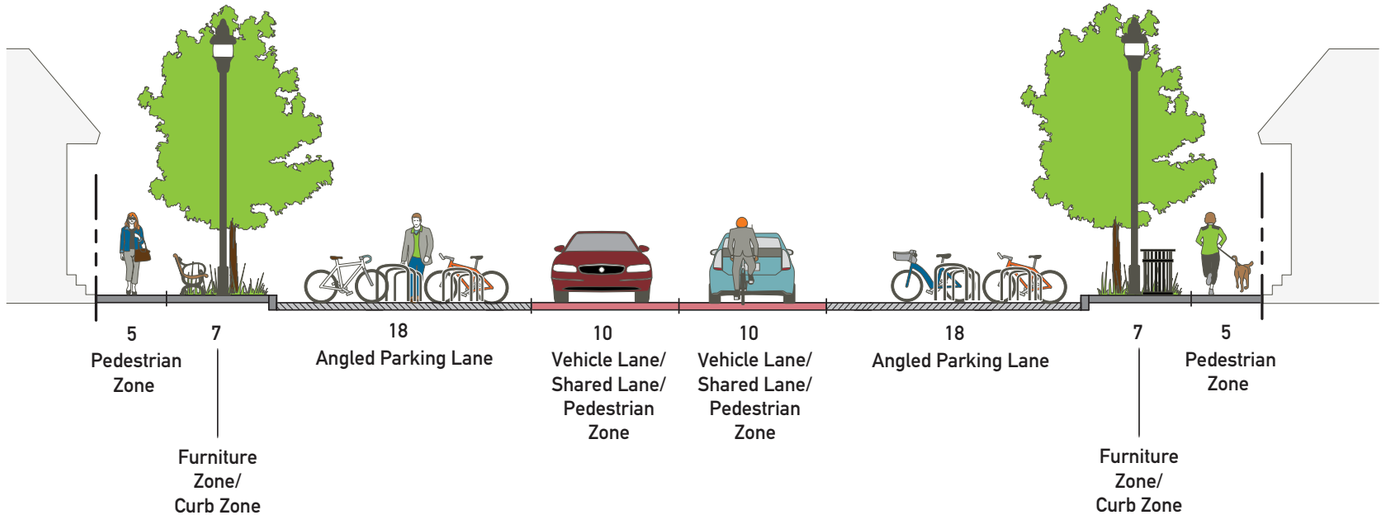
WALK > BIKE > TRANSIT > AUTO

Scale: 1 inch = 10 feet

2.23T

AVENUE: HOME ZONE

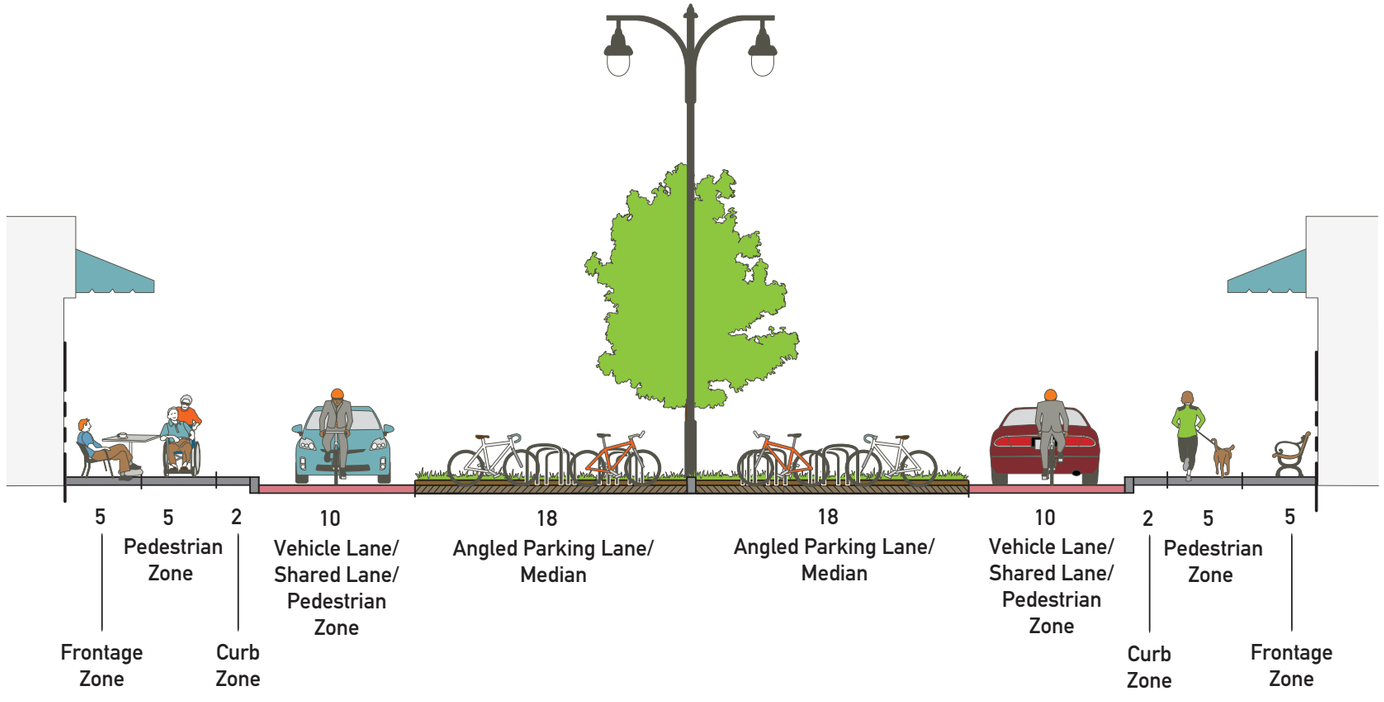
WALK > BIKE > AUTO > TRANSIT



2.23U

AVENUE: SOCIAL STREET

WALK > BIKE > AUTO > TRANSIT



Scale: 1 inch = 10 feet

ONE-WAY AVENUES 2.24

One-way avenues have similar characteristics to two-way avenues but are limited to single-direction traffic. One-way avenues have moderate to high vehicular capacity. One-way avenues work best in dense grids with short blocks or in "closed" systems. One-way avenues should be paired in blocks to maintain traffic flow in both directions. One-way avenues have a number of limitations: They encourage high speeds; they require drivers and bicyclists to travel out-of-direction to access destinations; they require additional pedestrian signs to facilitate safe crossings, and they limit access to commercial areas. One-way avenues are candidates for left-side bike lanes.

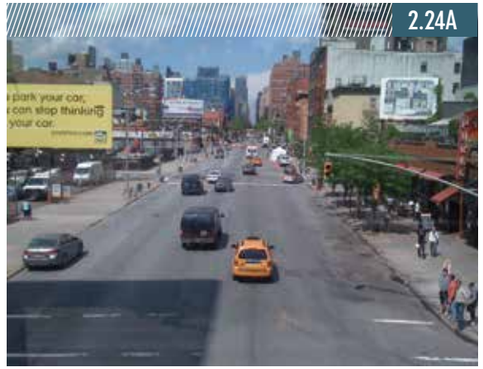


FIGURE 2.24A
ONE-WAY AVENUE
New York, NY

FIGURE 2.24B
ONE-WAY AVENUE
Chicago, IL

FIGURE 2.24C
ONE-WAY AVENUE
Chicago, IL

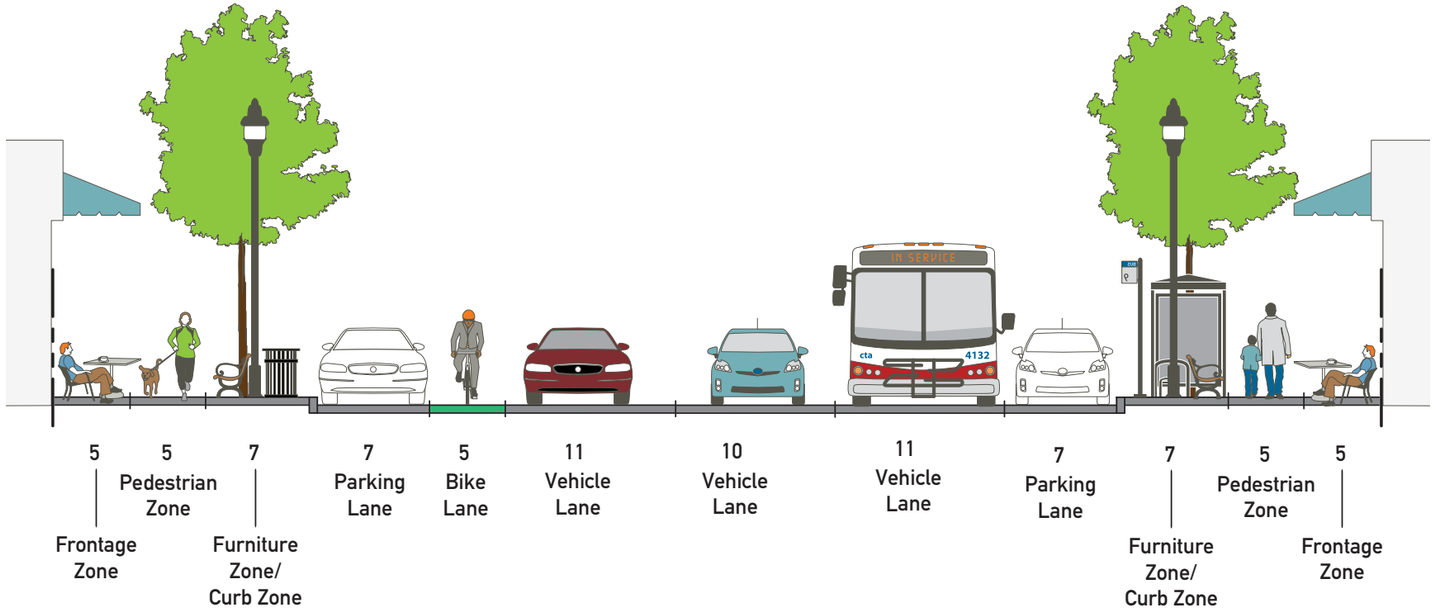
TABLE 2I ONE-WAY AVENUE VARIATIONS

		Mode Hierarchy				Pedestrian Realm				Travel Way							
Context Zones		Priority				Frontage	Pedestrian Zone	Furniture Zone	Curb Zone	Parking Lanes (Width)	Parking Lanes	Bikeway (Width)	Bikeway	Vehicle Lane (Width)	Vehicle Lanes	Target Speed (MPH)	ROW (Total)
Urban	2.24D Unconstrained	Walk	Bike	Transit	Auto	5 ft.	5 ft.	5 ft.	2 ft.	7 ft.	2	5 ft.	Bike lanes	10 to 11 ft.	2 to 3	25	Varies
	2.24E Urban Commercial/ Mixed Use	Walk	Bike	Transit	Auto	5 ft.	5 ft.	Parking lane/Cycle track inside parking	1 ft.	7 ft.	2	8 ft.	Cycle track inside parking	11 ft.	2	15	66 ft.
	2.24F Urban Residential	Walk	Bike	Auto	Transit	1 ft.	6 ft.	6 ft.	1 ft.	7 ft.	2	0 ft.	Marked shared lanes	13/11 ft.	2	15	66 ft.
	2.24G Urban Single Use	Bike	Walk	Auto	Transit	1 ft.	5 ft.	5 ft.	1 ft.	7 ft.	2	8 ft.	Buffered bike lanes	10 ft.	2	25	66 ft.
Suburban	2.24H Suburban Commercial	Transit	Auto	Walk	Bike	0 ft.	Shared use paths	6 ft.	2 ft.	0 ft.	0	9 ft.	Shared use paths	11/10/11 ft.	3	30	66 ft.
	2.24I Suburban Residential	Walk	Bike	Auto	Transit	0 ft.	5 ft.	5 ft.	1 ft.	8 ft.	2	6 ft.	Bike lanes	11 ft.	2	15	66 ft.
	2.24J Suburban Mixed-Use	Walk	Bike	Transit	Auto	5 ft.	5 ft.	Parking lane	1 ft.	8 ft.	2	6 ft.	Bike lanes	11 ft.	2	15	66 ft.
	2.24K Suburban Single Use	Bike	Auto	Walk	Transit	0 ft.	5 ft./Shared use paths	8 ft.	1 ft.	0 ft.	0	10 ft.	Shared use paths	11 ft.	3	30	66 ft.
Rural	2.24L Rural Village	Walk	Auto	Bike	Transit	7 ft.	6 ft.	Parking lane	2 ft.	7 ft.	2	0 ft.	Shared lanes	11 ft.	2	15	66 ft.
Context Overlays		Priority				Frontage	Pedestrian Zone	Furniture Zone	Curb Zone	Parking Lanes (Width)	Parking Lanes	Bikeway (Width)	Bikeway	Vehicle Lane (Width)	Vehicle Lanes	Target Speed (MPH)	ROW (Total)
All	2.24M Pedestrian Priority Areas	Walk	Transit	Bike	Auto	5 ft.	6 ft.	4 ft.	1 ft.	7 ft.	2	0 ft.	Shared lanes	10 ft.	2	15	66 ft.
	2.24N Entertainment/ Cultural Districts	Walk	Transit	Bike	Auto	7 ft.	6 ft.	Parking lane	1 ft.	7 ft.	2	0 ft.	Marked shared lanes	13/11 ft.	2	15	66 ft.
	2.24O Transit Oriented Development	Transit	Walk	Bike	Auto	5 ft.	6 ft.	Cycle Track	1 ft.	0 ft.	0	10 ft.	Cycle track one direction	10/12 ft.	2/1DL	20	66 ft.
	2.24P Green Street	Transit	Bike	Walk	Auto	2 ft.	6 ft.	8 ft.	1 ft.	0 ft.	0	10 ft.	Urban greenway	11 ft.	2	15	66 ft.
	2.24Q Park Zones	Walk	Bike	Transit	Auto	1 ft.	6 ft.	6 ft.	1 ft.	7 ft.	1	10 ft.	Cycle track two direction	10/11 ft.	2	15	66 ft.
	2.24R School Zones	Walk	Bike	Transit	Auto	1 ft.	5 ft./Shared use paths	6 ft.	1 ft.	7 ft.	2	9 ft.	Shared use paths	11 ft.	2	15	66 ft.
	2.24S Home Zones	Walk	Bike	Auto	Transit	0 ft.	5 ft.	5 ft.	1 ft.	17/7 ft.	2	0 ft.	Shared lanes	10 ft.	2	10	66 ft.
	2.24T Social Streets	Walk	Bike	Auto	Transit	5 ft.	5 ft.	Parking lane	1 ft.	17/7 ft.	2	0 ft.	Shared lanes	10 ft.	2	10	66 ft.

2.24D

ONE-WAY AVENUE: UNCONSTRAINED

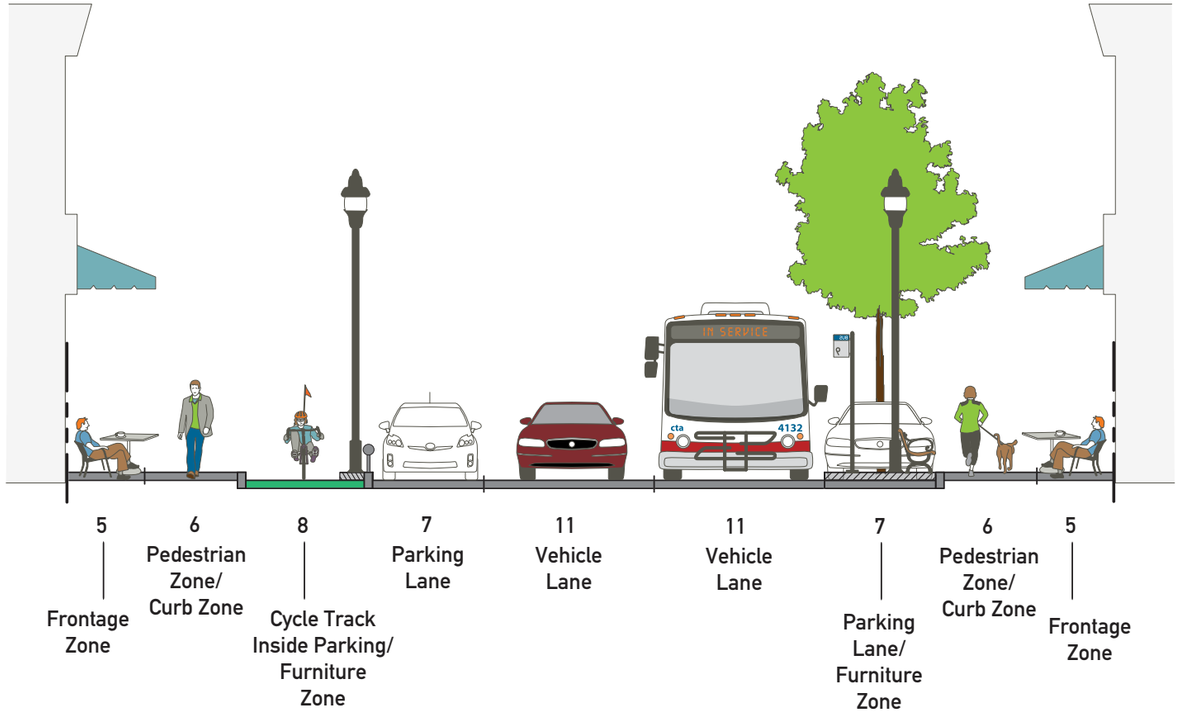
WALK > BIKE > TRANSIT > AUTO



2.24E

ONE-WAY AVENUE: URBAN COMMERCIAL / MIXED-USE

WALK > BIKE > TRANSIT > AUTO

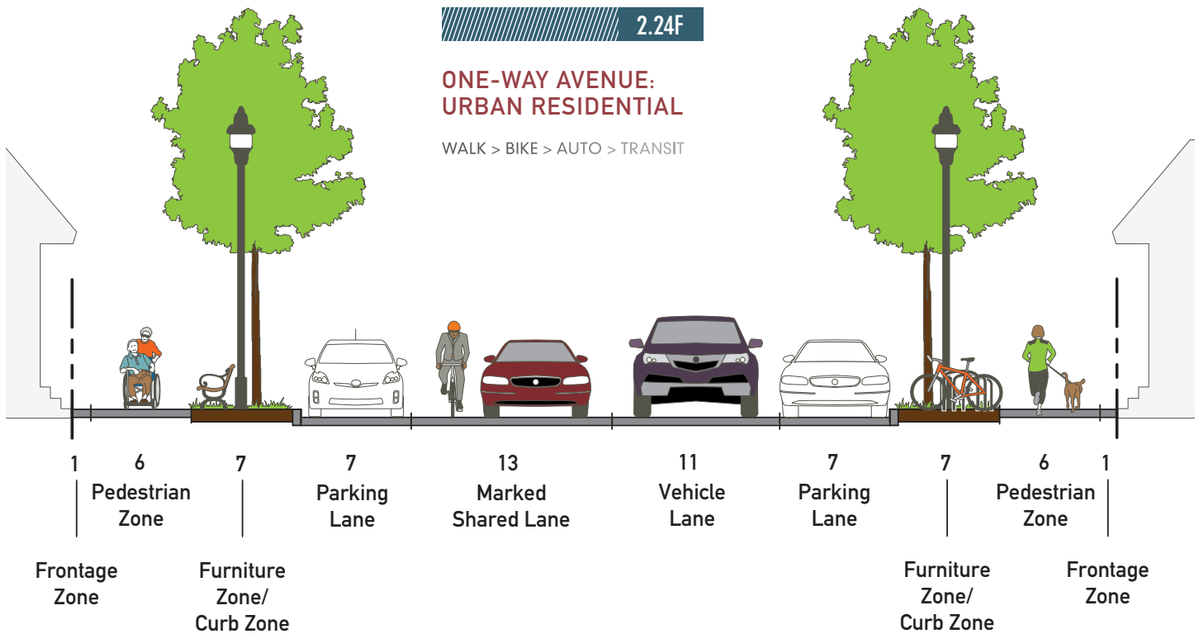


Scale: 1 inch = 10 feet

2.24F

ONE-WAY AVENUE: URBAN RESIDENTIAL

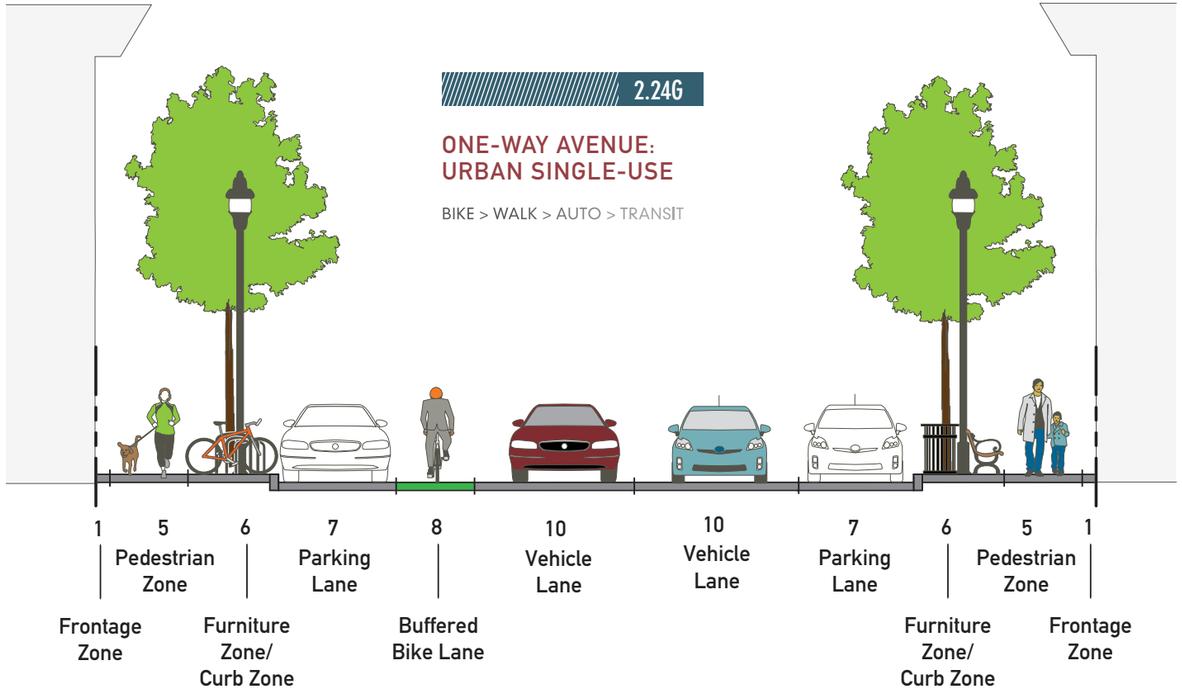
WALK > BIKE > AUTO > TRANSIT



2.24G

ONE-WAY AVENUE: URBAN SINGLE-USE

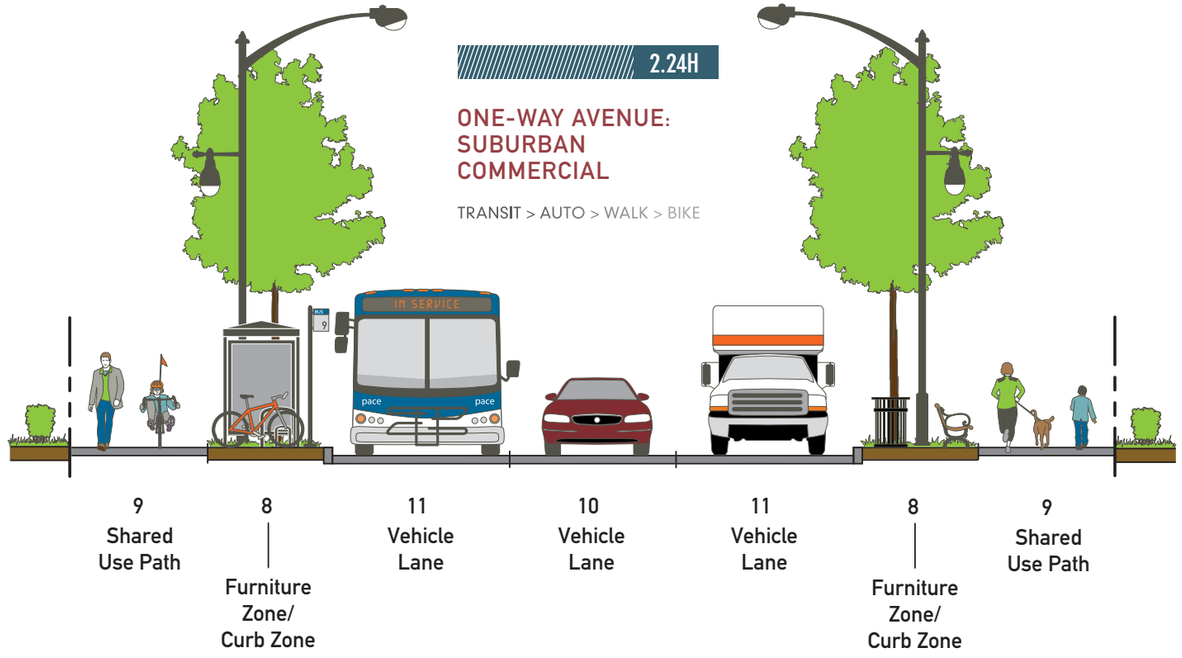
BIKE > WALK > AUTO > TRANSIT



2.24H

ONE-WAY AVENUE: SUBURBAN COMMERCIAL

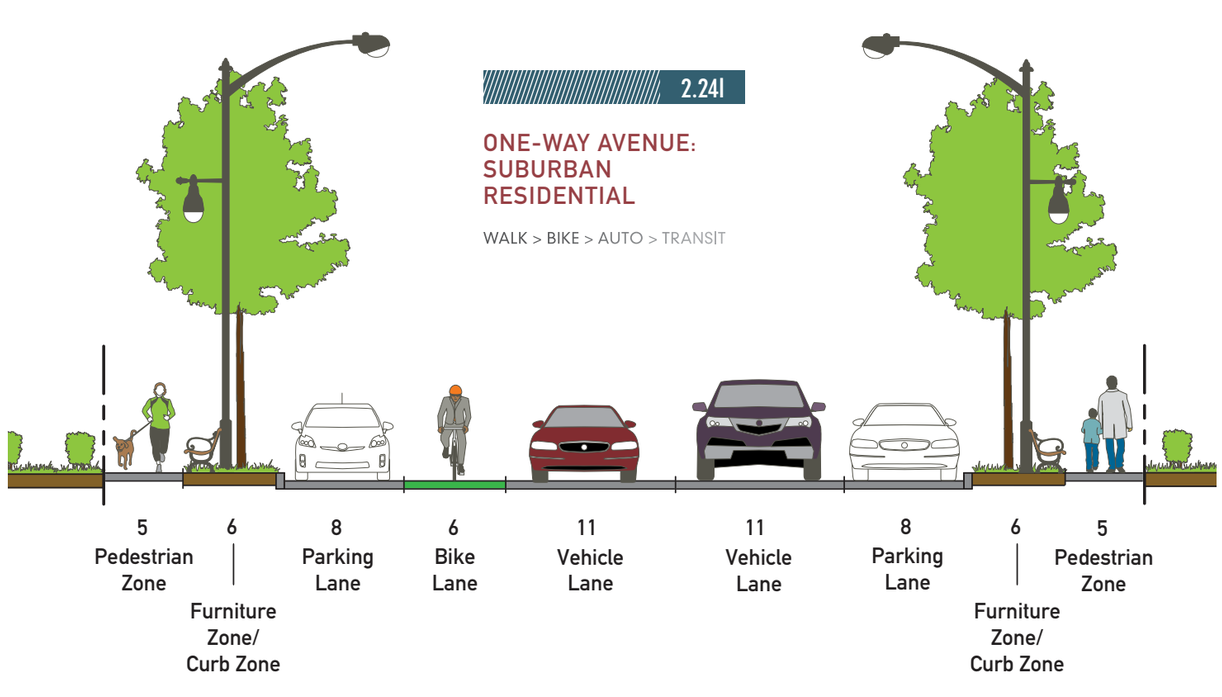
TRANSIT > AUTO > WALK > BIKE



2.24I

ONE-WAY AVENUE: SUBURBAN RESIDENTIAL

WALK > BIKE > AUTO > TRANSIT

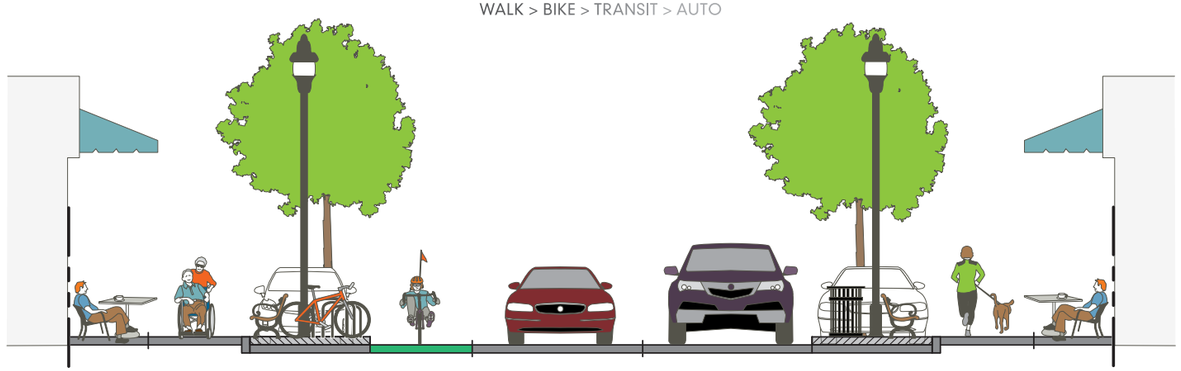


Scale: 1 inch = 10 feet

2.24J

ONE-WAY AVENUE: SUBURBAN MIXED-USE

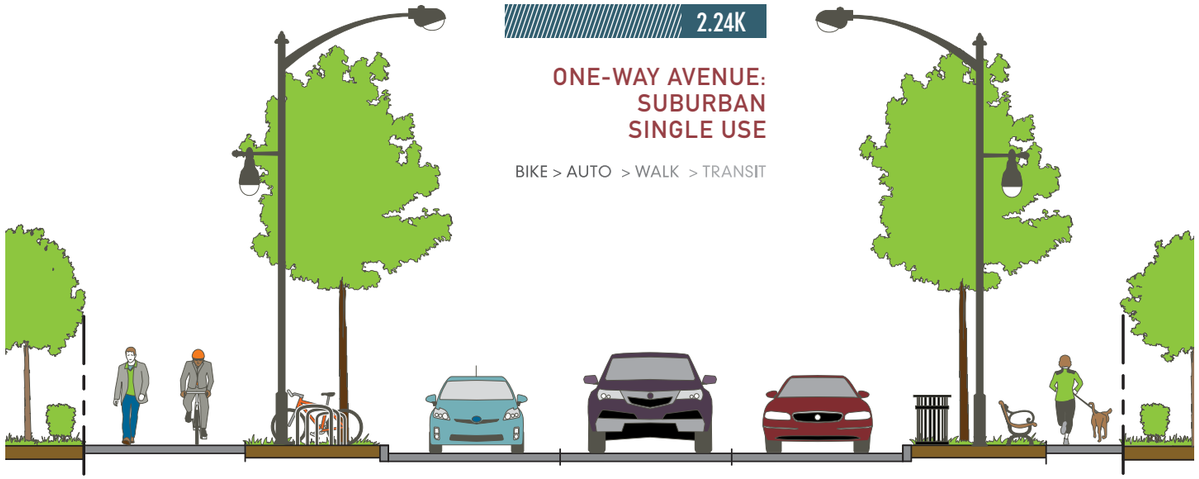
WALK > BIKE > TRANSIT > AUTO



2.24K

ONE-WAY AVENUE: SUBURBAN SINGLE USE

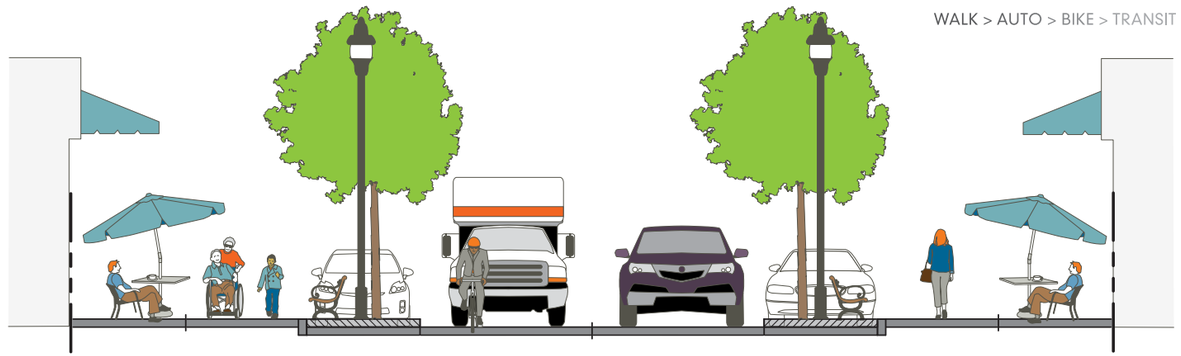
BIKE > AUTO > WALK > TRANSIT



2.24L

ONE-WAY AVENUE: RURAL VILLAGE

WALK > AUTO > BIKE > TRANSIT

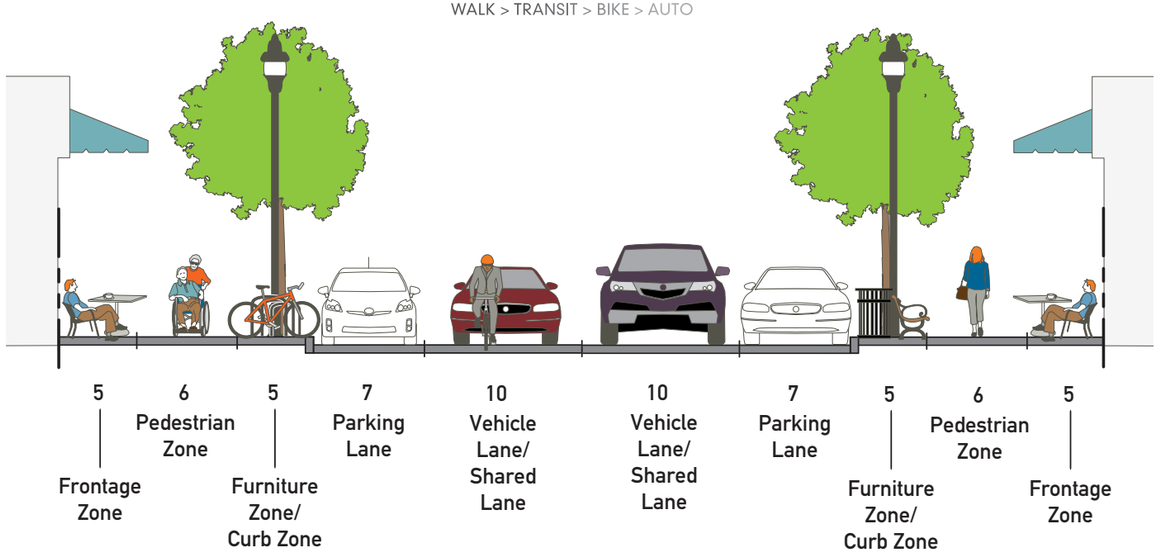


Scale: 1 inch = 10 feet

2.24M

ONE-WAY AVENUE: PEDESTRIAN PRIORITY AREA

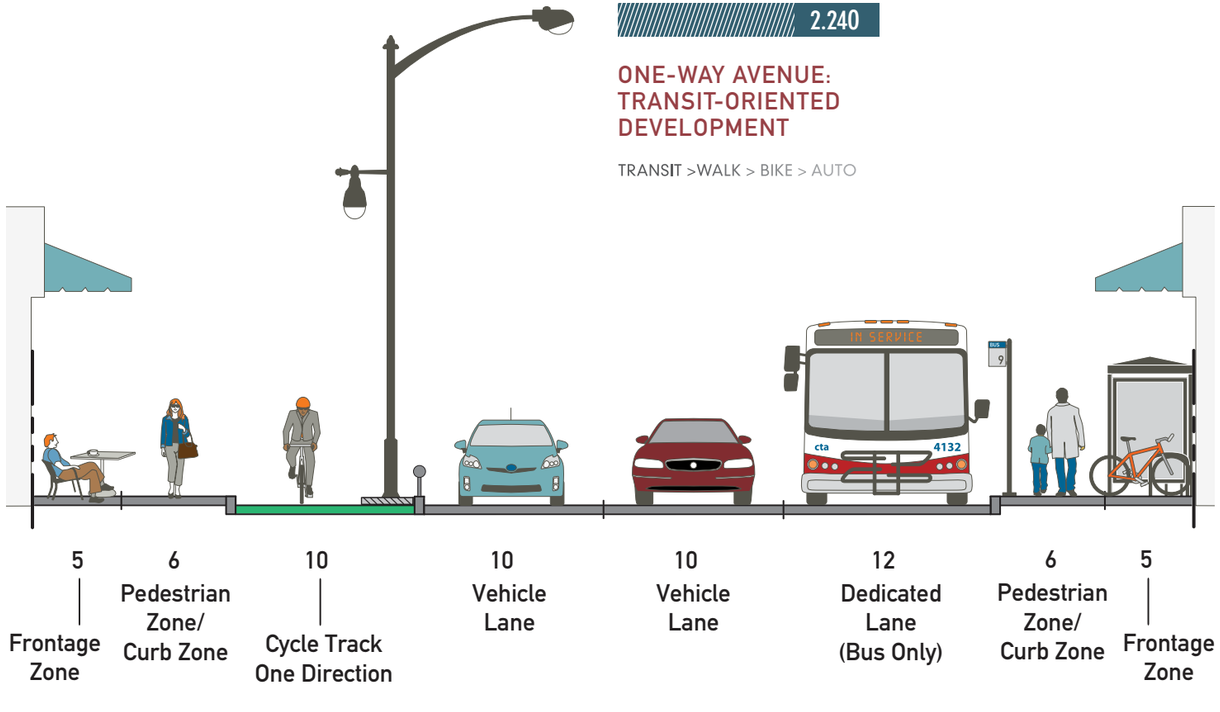
WALK > TRANSIT > BIKE > AUTO



2.24O

ONE-WAY AVENUE: TRANSIT-ORIENTED DEVELOPMENT

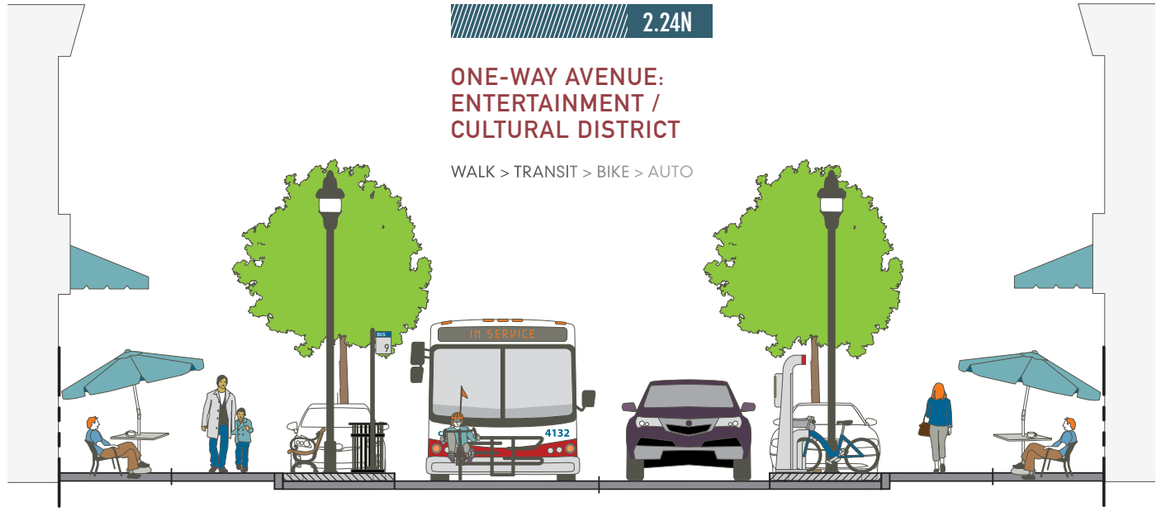
TRANSIT >WALK > BIKE > AUTO



2.24N

ONE-WAY AVENUE: ENTERTAINMENT / CULTURAL DISTRICT

WALK > TRANSIT > BIKE > AUTO



2.24P

ONE-WAY AVENUE: GREEN STREET

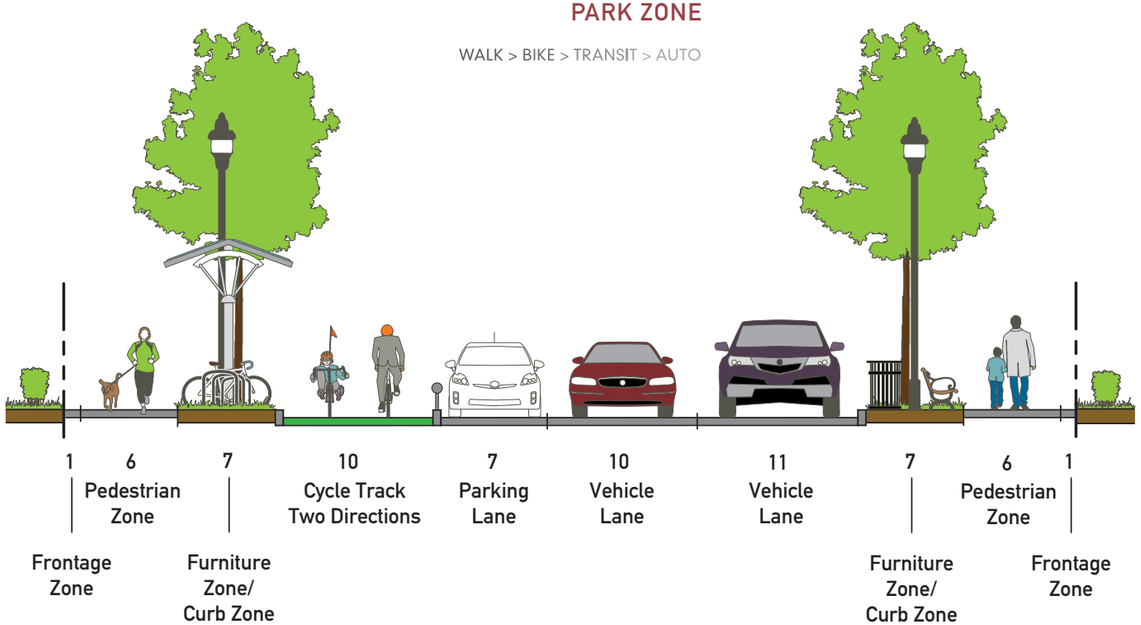
TRANSIT > BIKE > WALK > AUTO

Scale: 1 inch = 10 feet

2.24Q

ONE-WAY AVENUE: PARK ZONE

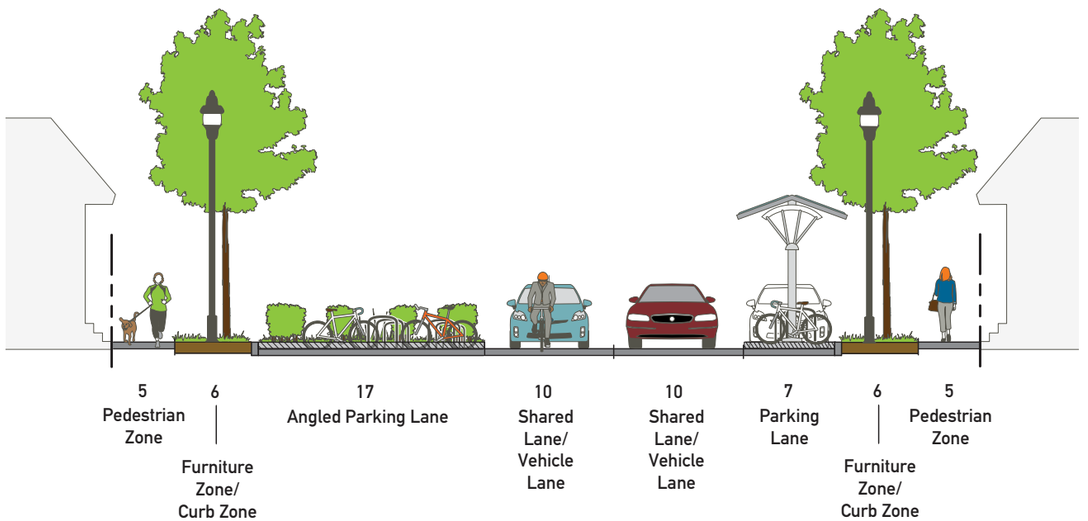
WALK > BIKE > TRANSIT > AUTO



2.24R

ONE-WAY AVENUE: HOME ZONE

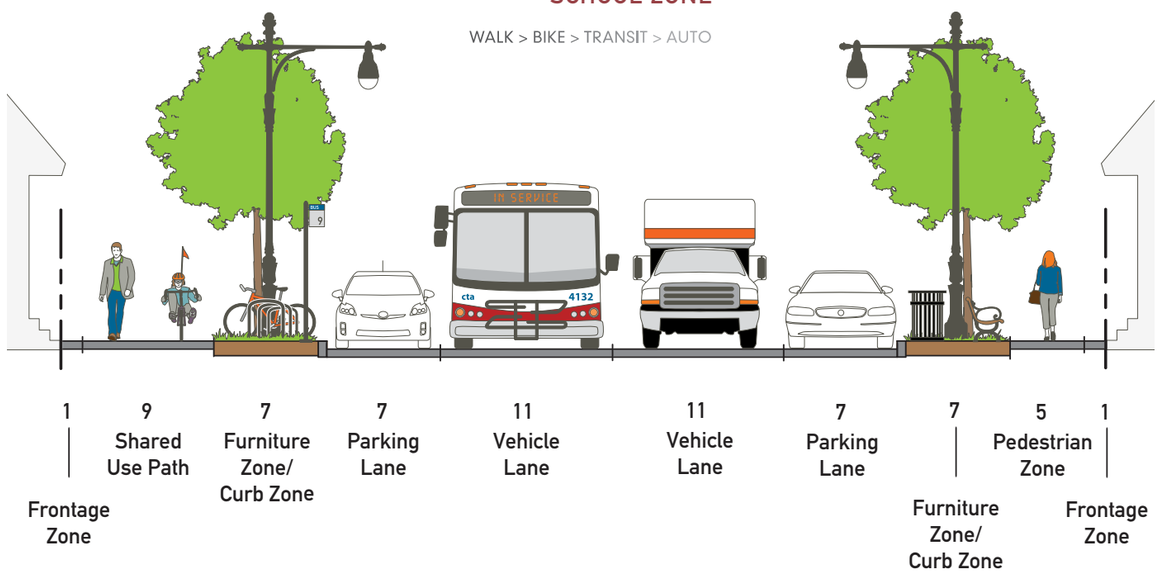
WALK > BIKE > AUTO > TRANSIT



2.24S

ONE-WAY AVENUE: SCHOOL ZONE

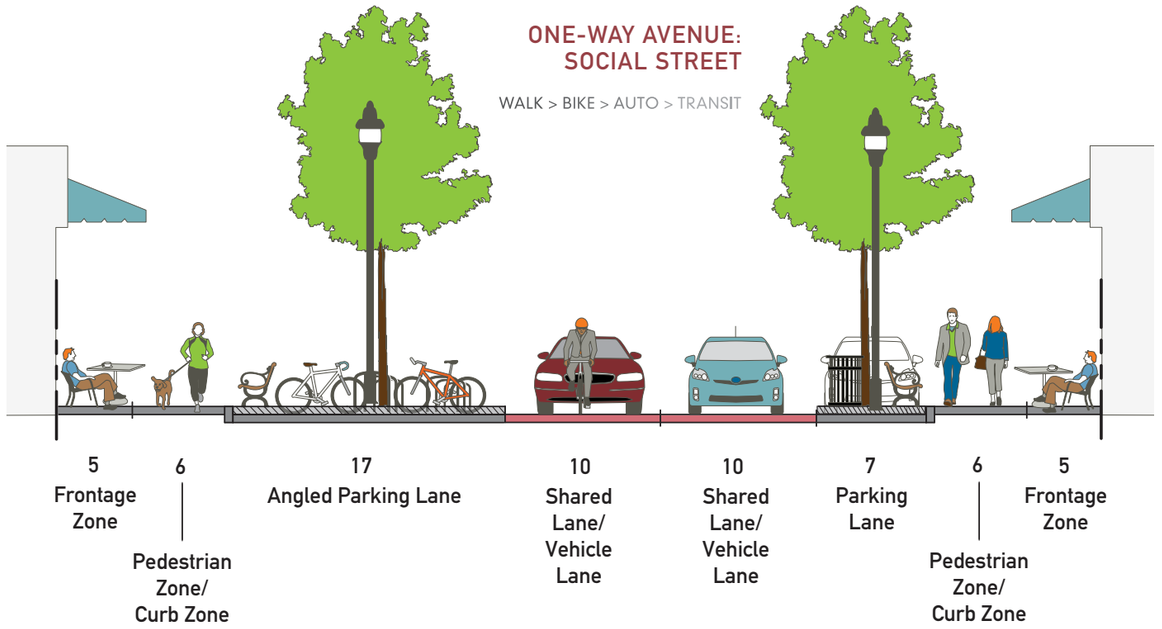
WALK > BIKE > TRANSIT > AUTO



2.24T

ONE-WAY AVENUE: SOCIAL STREET

WALK > BIKE > AUTO > TRANSIT



Scale: 1 inch = 10 feet

STREETS 2.25

A street is a local, multi-movement facility. Streets can make connections along commercial corridors but often serve residential areas. Street character may vary in response to the adjacent commercial or residential area. In urbanized areas, a street usually has raised curbs, drainage inlets, wide sidewalks, space for parallel parking, and trees in individual or continuous planters. Residential streets with open drainage and no sidewalks are common and appropriate in rural and some suburban settings. Signed bike routes using shared lanes and bike boulevards are often appropriate treatments for streets; bike lanes and shared lane markings should be considered on streets with heavier traffic. Transit routes are less common on streets; however, connection to transit via bicycle and pedestrian modes is still necessary.

FIGURE 2.25A
STREET
Palos Heights, IL

FIGURE 2.25B
STREET
Chicago, IL

FIGURE 2.25C
STREET
Chicago, IL

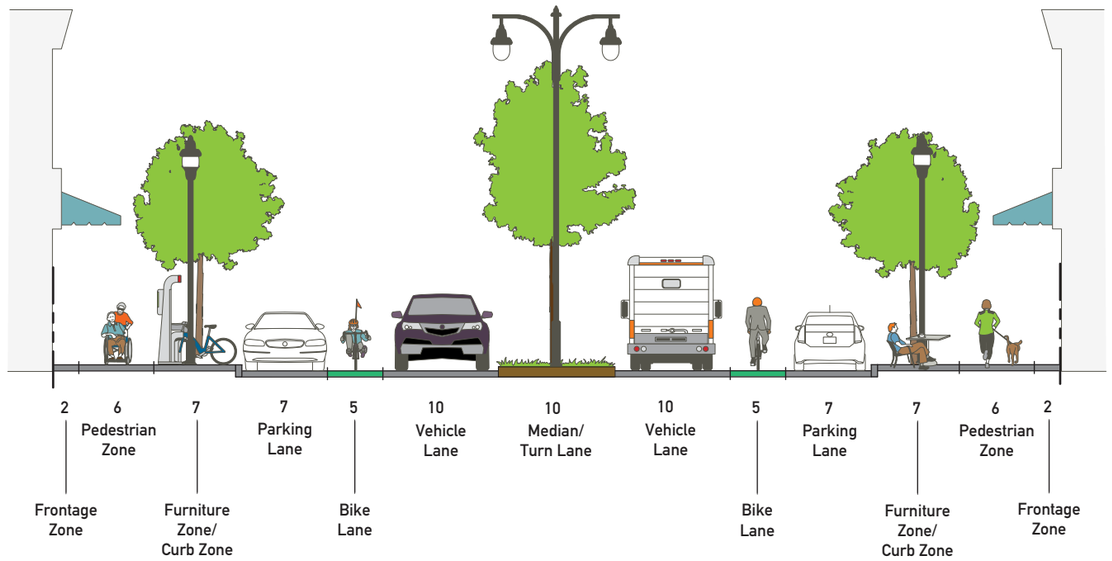
TABLE 2J STREET VARIATIONS

		Mode Prioritization				Pedestrian Realm				Travel Way								
Context Zones		Priority				Frontage	Pedestrian Zone	Furniture Zone	Curb Zone	Parking Lanes (Width)	Parking Lanes	Bikeway (Width)	Bikeway	Vehicle Lane (Width)	Vehicle Lane	Median / Turn Lane	Median	Target Speed (MPH)	ROW (Total)
Urban	2.25D Unconstrained	Walk	Bike	Auto	Transit	2 ft.	6 ft.	5 ft.	2 ft.	7 ft.	2	5 ft.	Bike lanes	10 ft.	2	10 ft.	1	20	Varies
	2.25E Urban Commercial/Mixed Use	Walk	Bike	Transit	Auto	6 ft.	6 ft.	Parking lane	1 ft.	7 ft.	2	0 ft.	Marked shared lanes	13 ft.	2	0 ft.	0	10	66 ft.
	2.25F Urban Residential	Walk	Bike	Auto	Transit	1 ft.	6 ft.	8	1 ft.	7 ft.	2	0 ft.	Shared lanes/Bike boulevards	10 ft.	2	0 ft.	0	15	66 ft.
	2.25G Urban Single Use	Bike	Walk	Auto	Transit	1 ft.	5 ft.	4	1 ft.	7 ft.	2	5 ft.	Bike lanes	10 ft.	2	0 ft.	0	25	66 ft.
Suburban	2.25H Suburban Commercial	Transit	Auto	Walk	Bike	0 ft.	Shared use paths	5 ft.	2 ft.	0 ft.	0	8 ft.	Shared use paths	12 ft.	2	12 ft.	1	20	66 ft.
	2.25I Suburban Residential	Walk	Bike	Auto	Transit	0 ft.	6 ft.	9	2 ft.	7 ft.	2	0 ft.	Shared lanes/Bike boulevards	9 ft.	2	0 ft.	0	15	66 ft.
	2.25J Suburban Mixed-Use	Walk	Bike	Transit	Auto	7 ft.	6 ft.	Parking lane	2 ft.	7 ft.	2	0 ft.	Marked shared lanes	11 ft.	2	0 ft.	0	10	66 ft.
	2.25K Suburban Single Use	Bike	Auto	Walk	Transit	7 ft.	Shared use paths	4 ft.	2 ft.	0 ft.	0	10 ft.	Shared use paths	11 ft.	2	10 ft.	1	25	66 ft.
Rural	2.25L Rural Residential/Agricultural	Auto	Bike	Walk	Transit	7 ft.	Paved shoulder	0 ft.	0 ft.	0 ft.	0	4 ft.	Paved shoulder	12 ft.	2	0 ft.	0	25	66 ft.
	2.25M Rural Village	Walk	Auto	Bike	Transit	7 ft.	5 ft.	4 ft.	1 ft.	7 ft.	2	0 ft.	Shared lanes	11 ft.	2	0 ft.	0	10	66 ft.
Context Overlays		Priority				Frontage	Pedestrian Zone	Furniture Zone	Curb Zone	Parking Lanes (Width)	Parking Lanes	Bikeway (Width)	Bikeway	Vehicle Lane (Width)	Vehicle Lane	Median / Turn Lane	Median	Target Speed (MPH)	ROW (Total)
All	2.25N Pedestrian Priority Areas	Walk	Transit	Bike	Auto	5 ft.	6 ft.	Parking lane	1 ft.	7 ft.	2	0 ft.	Shared lanes	11 ft.	2	6 ft.	1	10	66 ft.
	2.25O Entertainment/ Cultural Districts	Walk	Transit	Bike	Auto	7 ft.	7 ft.	Parking lane	1 ft.	7 ft.	2	0 ft.	Marked shared lanes	11 ft.	2	0 ft.	0	10	66 ft.
	2.25P Transit Oriented Development	Transit	Walk	Bike	Auto	5 ft.	5 ft.	4 ft.	1 ft.	0 ft.	0	10 ft.	Cycle Track Center	11 ft.	2	0 ft.	0	20	66 ft.
	2.25Q Green Street	Transit	Bike	Walk	Auto	1 ft.	5 ft.	7 ft.	1 ft.	Furniture zone	0 to 2	8 ft.	Urban greenway	11 ft.	2	0 ft.	0	10	66 ft.
	2.25R Park Zones	Walk	Bike	Transit	Auto	1 ft.	6 ft.	4 ft.	1 ft.	7 ft.	2	0 ft.	Bike boulevards	11 ft.	2	6 ft.	1	10	66 ft.
	2.25S School Zones	Walk	Bike	Transit	Auto	1 ft.	Shared use paths	5 ft.	1 ft.	7 ft.	2	8 ft.	Shared use paths	12 ft.	2	0 ft.	0	10	66 ft.
	2.25T Home Zones	Walk	Bike	Auto	Transit	1 ft.	5 ft.	7 ft.	1 ft.	18	Advisory bike lane	0 ft.	Bike boulevards	10 ft.	2	0 ft.	0	10	66 ft.
	2.25U Social Streets	Walk	Bike	Auto	Transit	6 ft.	6 ft.	5 ft.	1 ft.	7 ft.	2	0 ft.	Shared lanes	8 ft.	2	0 ft.	0	10	66 ft.

2.25D

STREET: UNCONSTRAINED

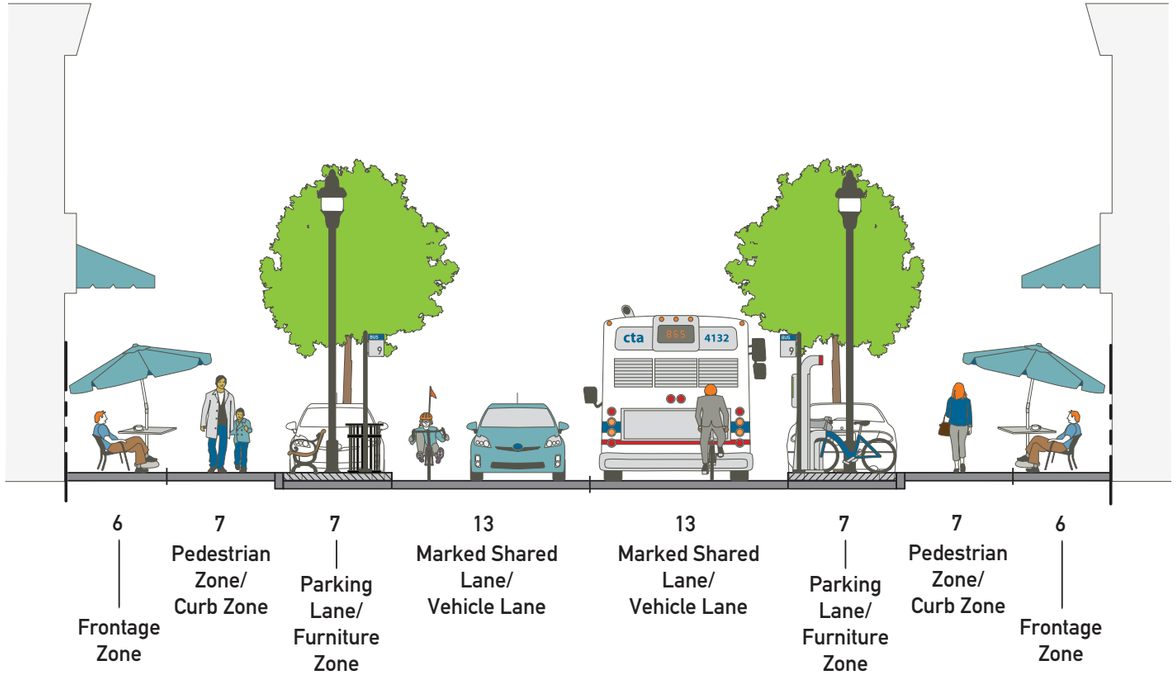
WALK > BIKE > AUTO > TRANSIT



2.25E

STREET: URBAN COMMERCIAL MIXED-USE

WALK > BIKE > AUTO > TRANSIT

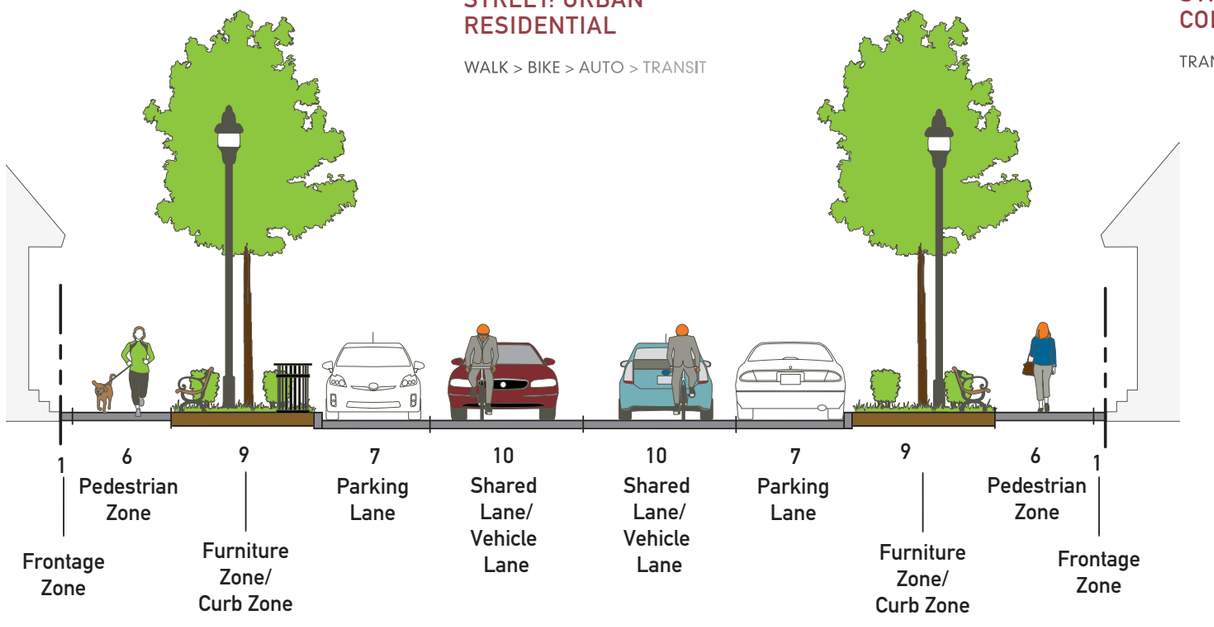


Scale: 1 inch = 10 feet

2.25F

STREET: URBAN RESIDENTIAL

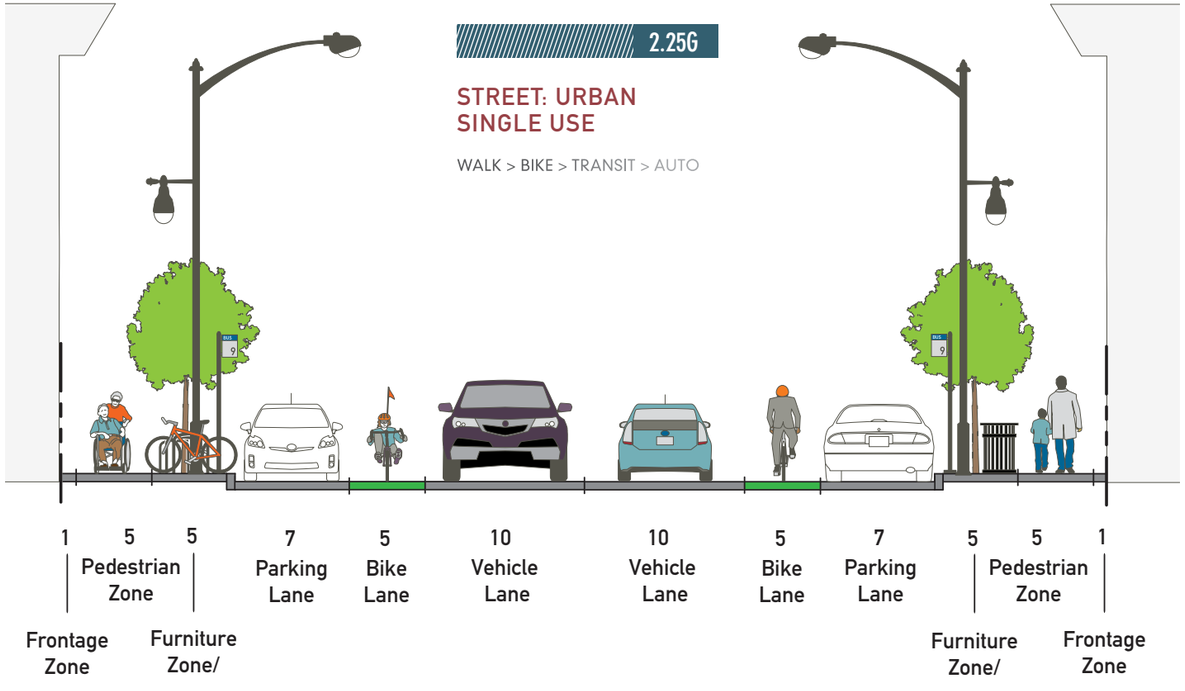
WALK > BIKE > AUTO > TRANSIT



2.25G

STREET: URBAN SINGLE USE

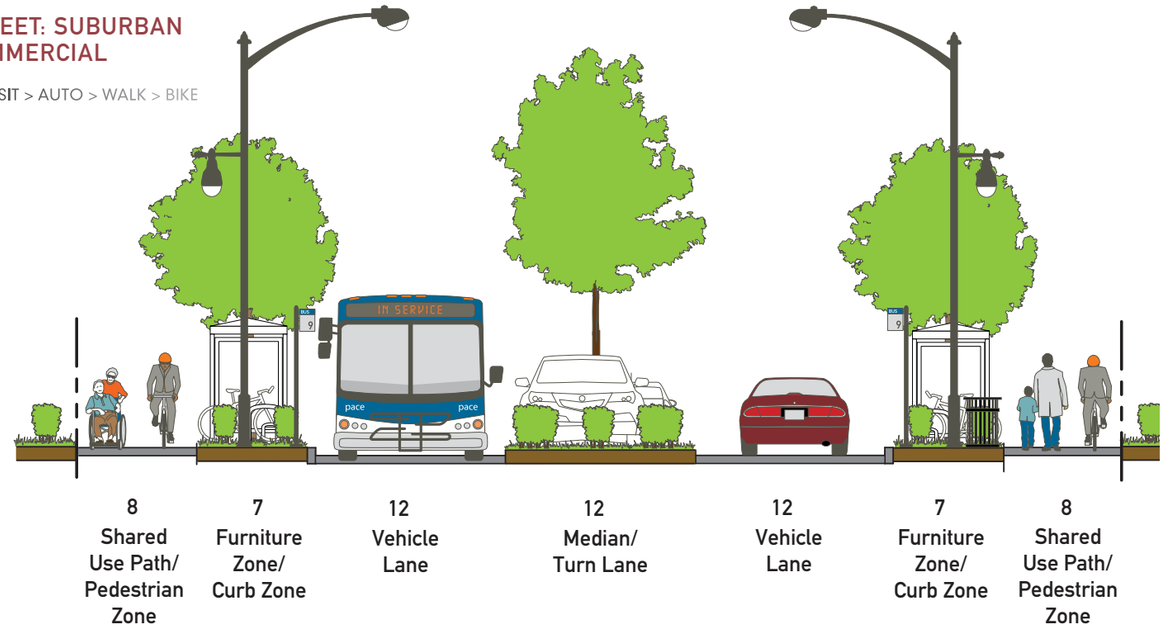
WALK > BIKE > TRANSIT > AUTO



2.25H

STREET: SUBURBAN COMMERCIAL

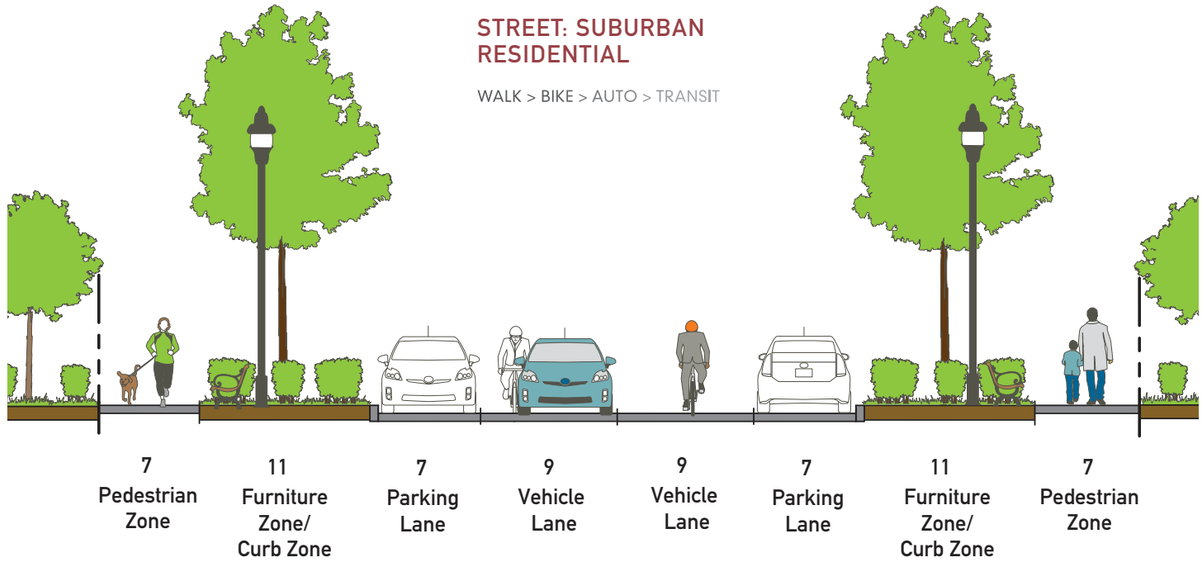
TRANSIT > AUTO > WALK > BIKE



2.25I

STREET: SUBURBAN RESIDENTIAL

WALK > BIKE > AUTO > TRANSIT

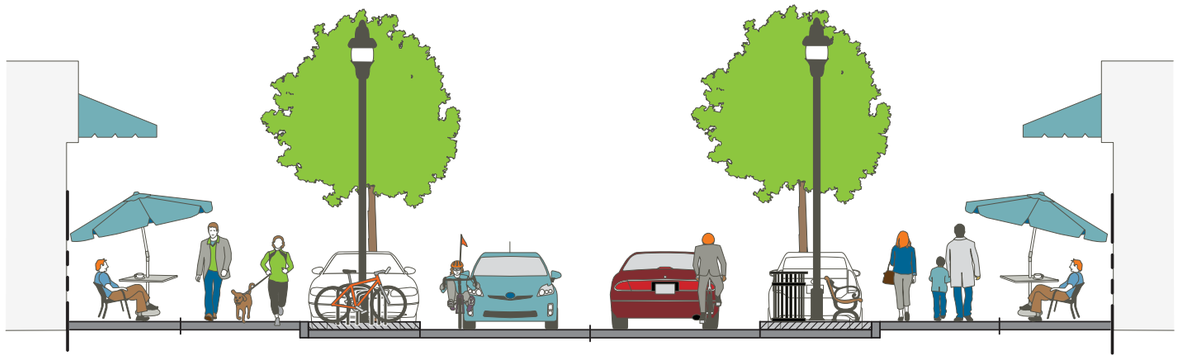


Scale: 1 inch = 10 feet

2.25J

STREET: SUBURBAN MIXED USE

WALK > BIKE > TRANSIT >AUTO

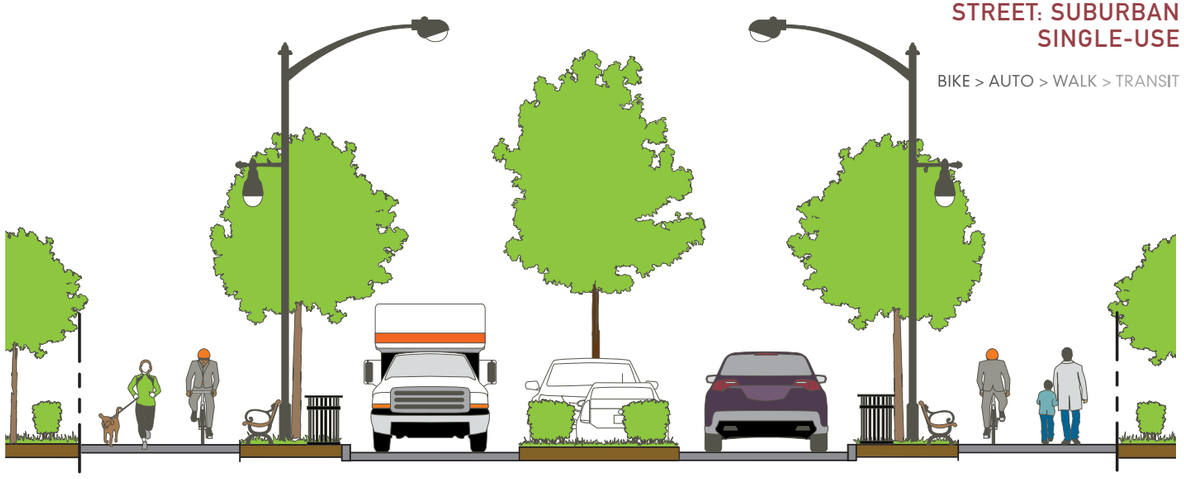


7 Frontage Zone | 8 Pedestrian Zone/ Curb Zone | 7 Parking Lane/ Furniture Zone | 11 Marked Share Lane/ Vehicle Lane | 11 Marked Share Lane/ Vehicle Lane | 7 Parking Lane/ Furniture Zone | 8 Pedestrian Zone/ Curb Zone | 7 Frontage Zone

2.25K

STREET: SUBURBAN SINGLE-USE

BIKE > AUTO > WALK > TRANSIT

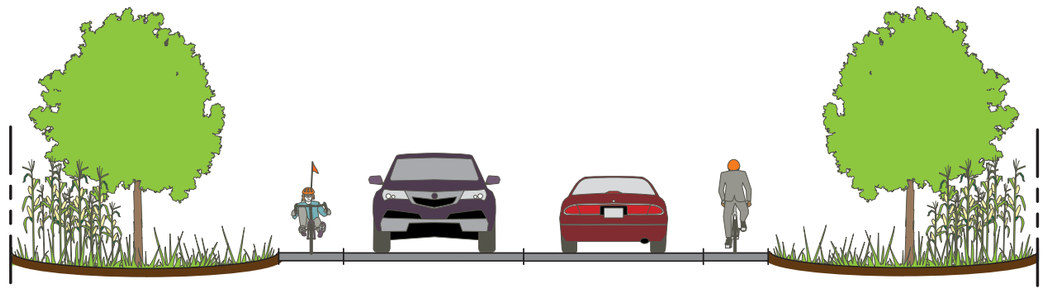


10 Shared Use Path | 6 Furniture Zone/ Curb Zone | 11 Vehicle Lane | 10 Median/ Turn Lane | 11 Vehicle Lane | 6 Furniture Zone/ Curb Zone | 10 Shared Use Path

2.25L

STREET: RURAL RESIDENTIAL / AGRICULTURAL

AUTO > BIKE > WALK >TRANSIT

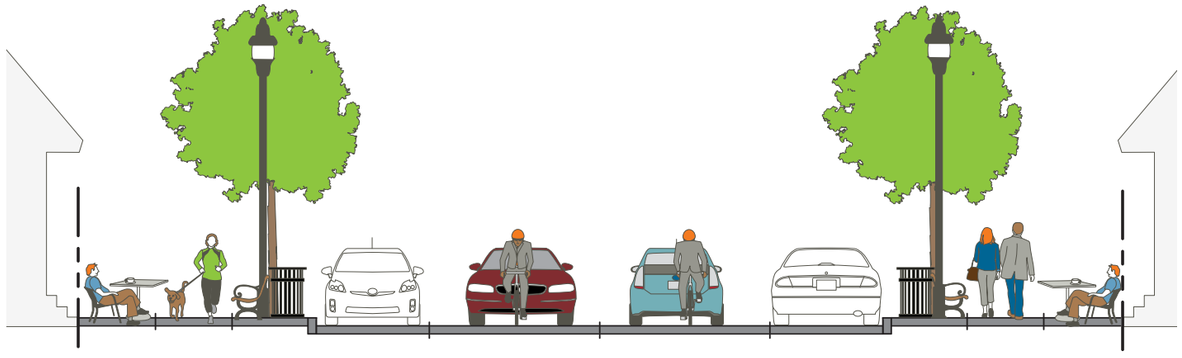


17 Frontage Zone | 4 Paved Shoulder | 12 Vehicle Lane | 12 Vehicle Lane | 4 Paved Shoulder | 17 Frontage Zone

2.25M

STREET: RURAL VILLAGE

WALK > AUTO > BIKE > TRANSIT

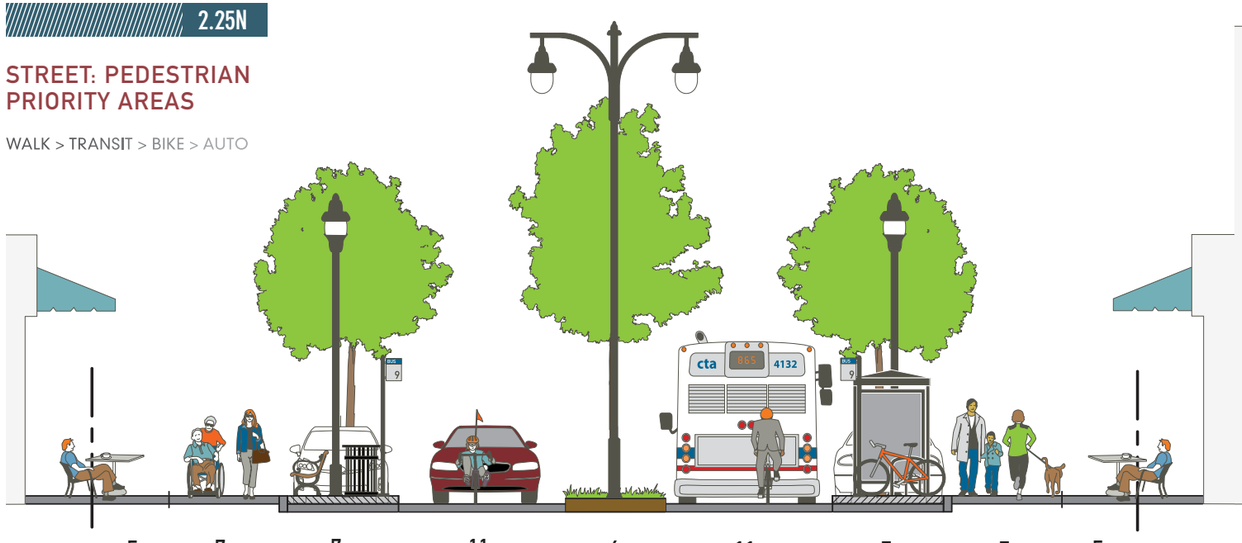


5 Frontage Zone | 5 Pedestrian Zone | 5 Furniture Zone/ Curb Zone | 7 Parking Lane | 11 Shared Lane/ Vehicle Lane | 11 Shared Lane/ Vehicle Lane | 7 Parking Lane | 5 Furniture Zone/ Curb Zone | 5 Pedestrian Zone | 5 Frontage Zone

2.25N

STREET: PEDESTRIAN PRIORITY AREAS

WALK > TRANSIT > BIKE > AUTO

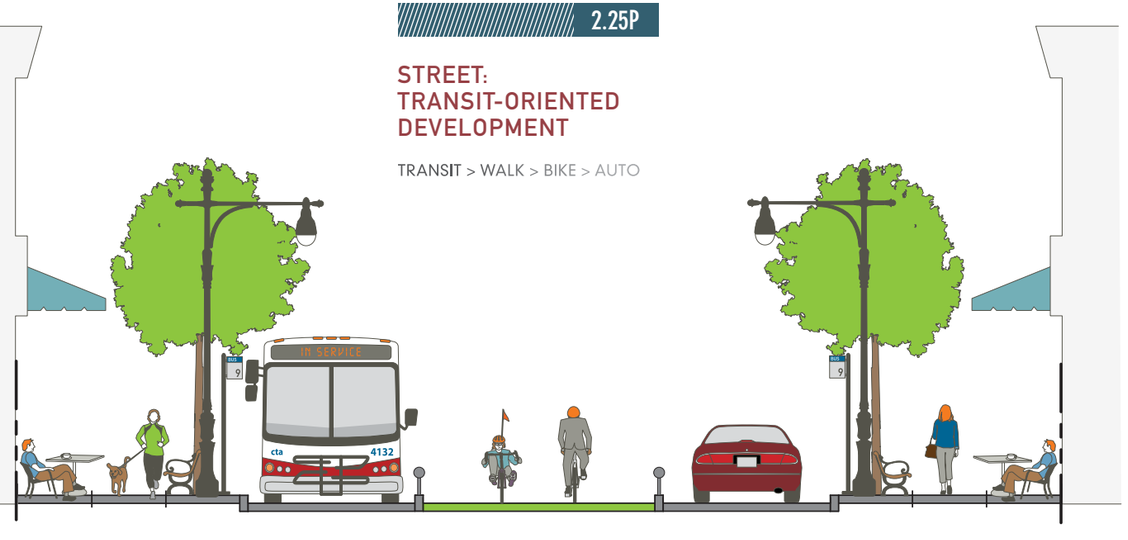


5 Frontage Zone
7 Pedestrian Zone/ Curb Zone
7 Parking Lane/ Furniture Zone
11 Vehicle Lane/ Shared Lane
6 Median
11 Vehicle Lane/ Shared Lane
7 Parking Lane/ Furniture Zone
7 Pedestrian Zone/ Curb Zone
5 Frontage Zone

2.25P

STREET: TRANSIT-ORIENTED DEVELOPMENT

TRANSIT > WALK > BIKE > AUTO

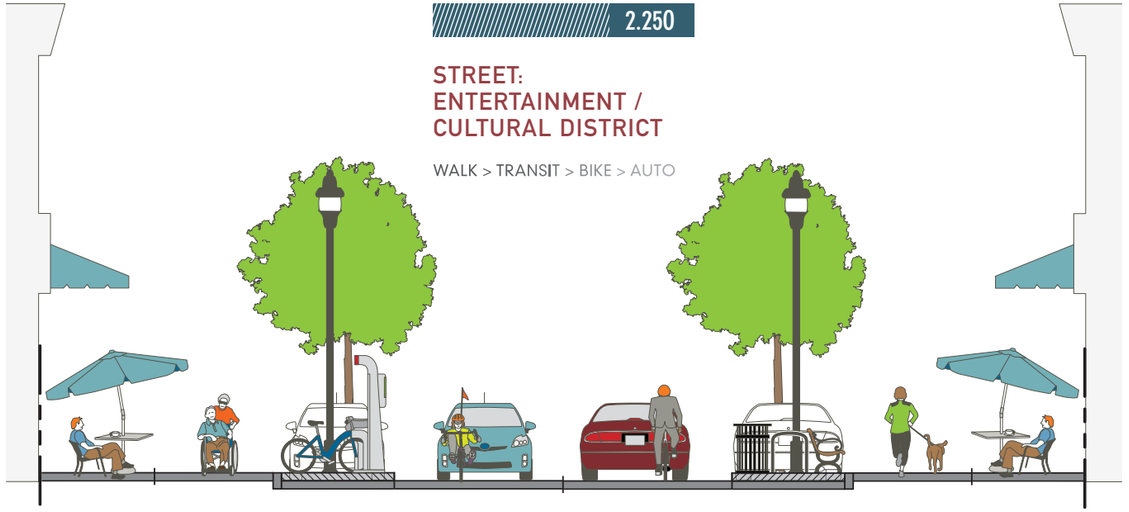


5 Frontage Zone
5 Pedestrian Zone
5 Furniture Zone/ Curb Zone
11 Vehicle Lane
14 Cycle Track Center
11 Vehicle Lane
5 Furniture Zone/ Curb Zone
5 Pedestrian Zone
5 Frontage Zone

2.25O

STREET: ENTERTAINMENT / CULTURAL DISTRICT

WALK > TRANSIT > BIKE > AUTO

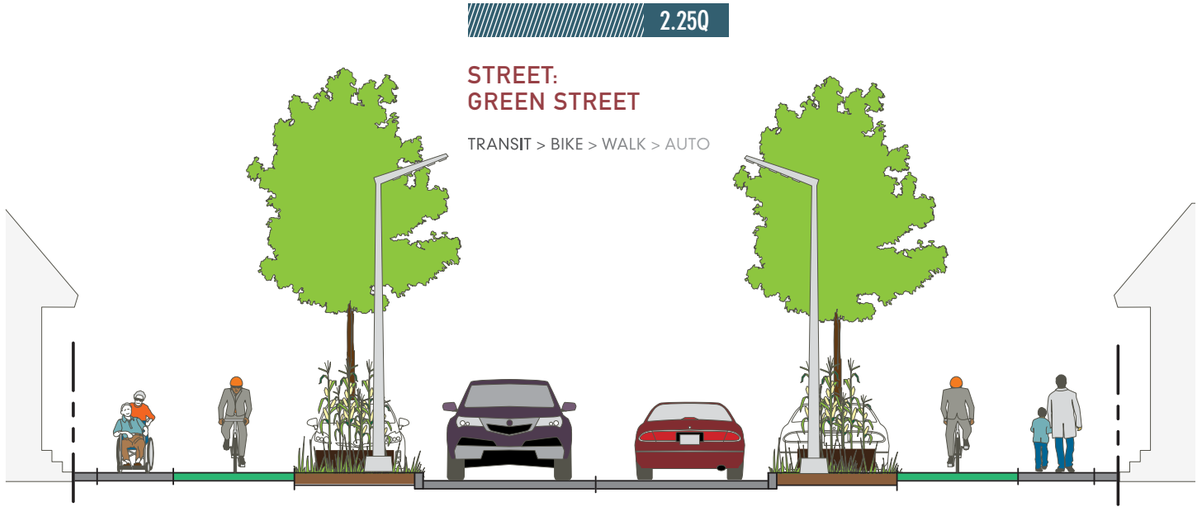


7 Frontage Zone
8 Pedestrian Zone/ Curb Zone
7 Parking Lane/ Furniture Zone
11 Marked Shared Lane/ Vehicle Lane
11 Marked Shared Lane/ Vehicle Lane
7 Parking Lane/ Furniture Zone
8 Pedestrian Zone/ Curb Zone
7 Frontage Zone

2.25Q

STREET: GREEN STREET

TRANSIT > BIKE > WALK > AUTO



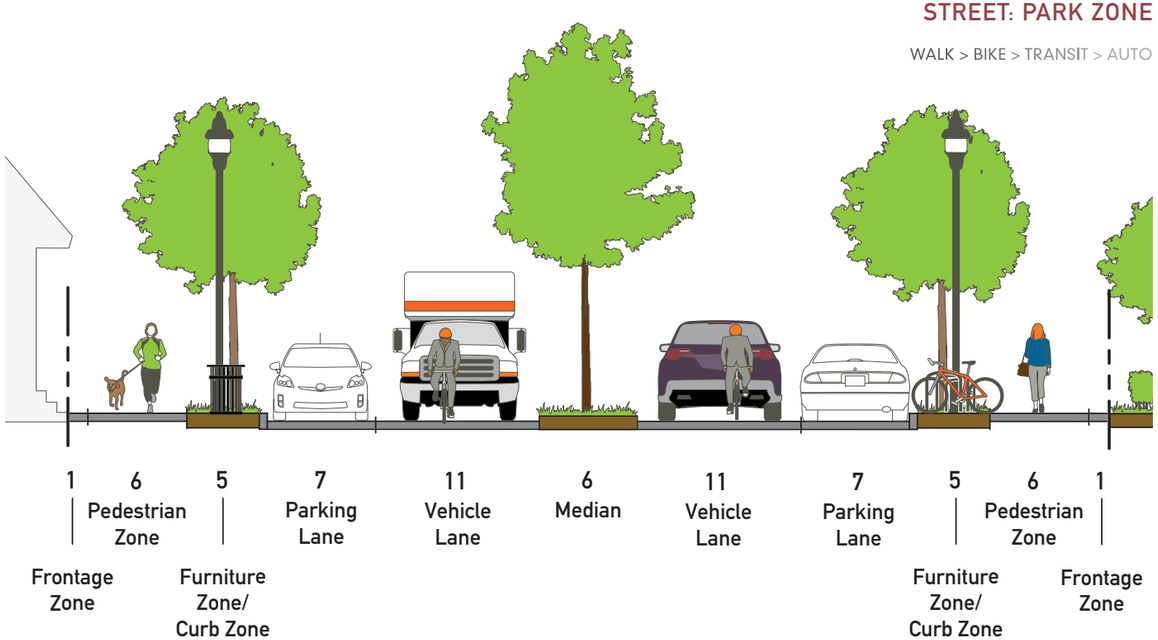
1 Frontage Zone
5 Pedestrian Zone
8 Urban Greenway
8 Furniture Zone/ Curb Zone (Parking Lane)
11 Vehicle Lane
11 Vehicle Lane
8 Furniture Zone/ Curb Zone (Parking Lane)
8 Urban Greenway
5 Pedestrian Zone
1 Frontage Zone

Scale: 1 inch = 10 feet

2.25R

STREET: PARK ZONE

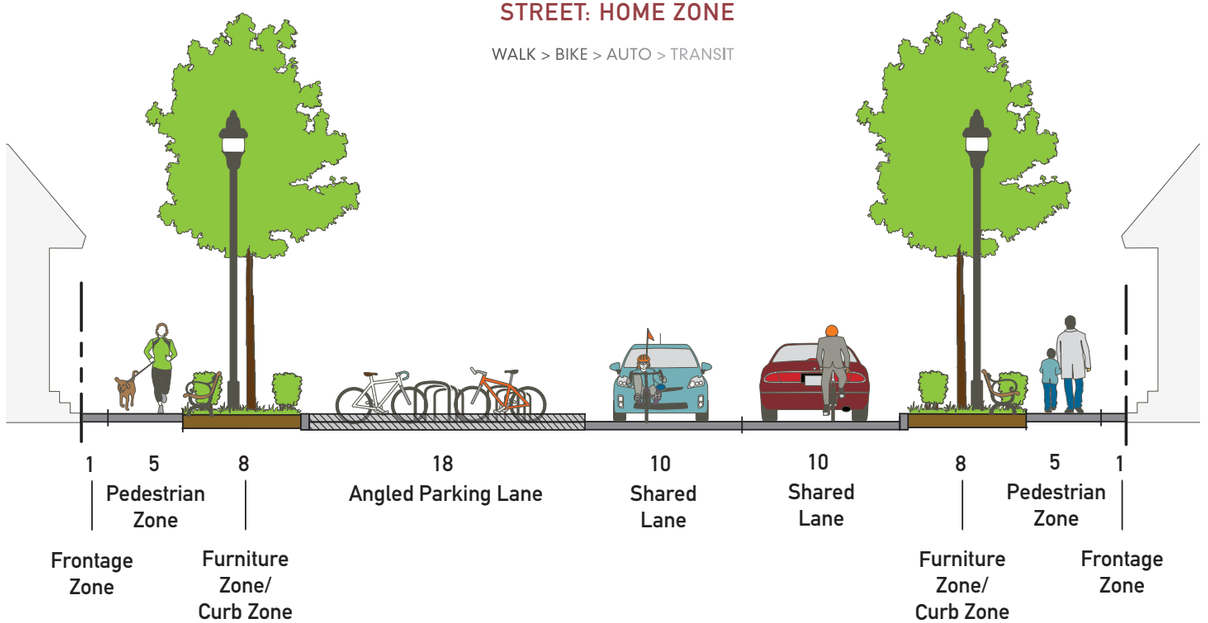
WALK > BIKE > TRANSIT > AUTO



2.25T

STREET: HOME ZONE

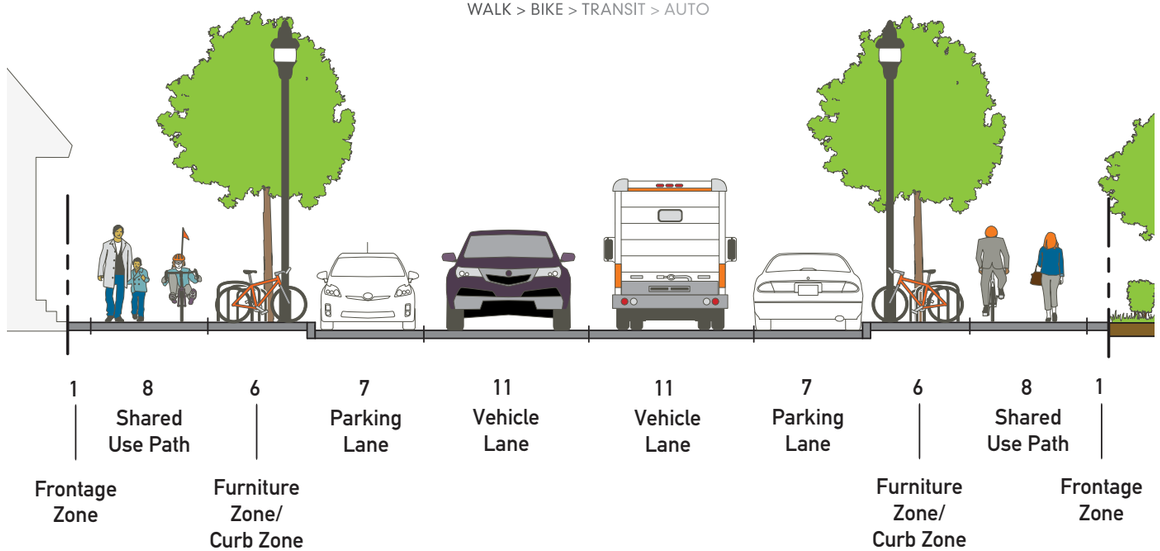
WALK > BIKE > AUTO > TRANSIT



2.25S

STREET: SCHOOL ZONE

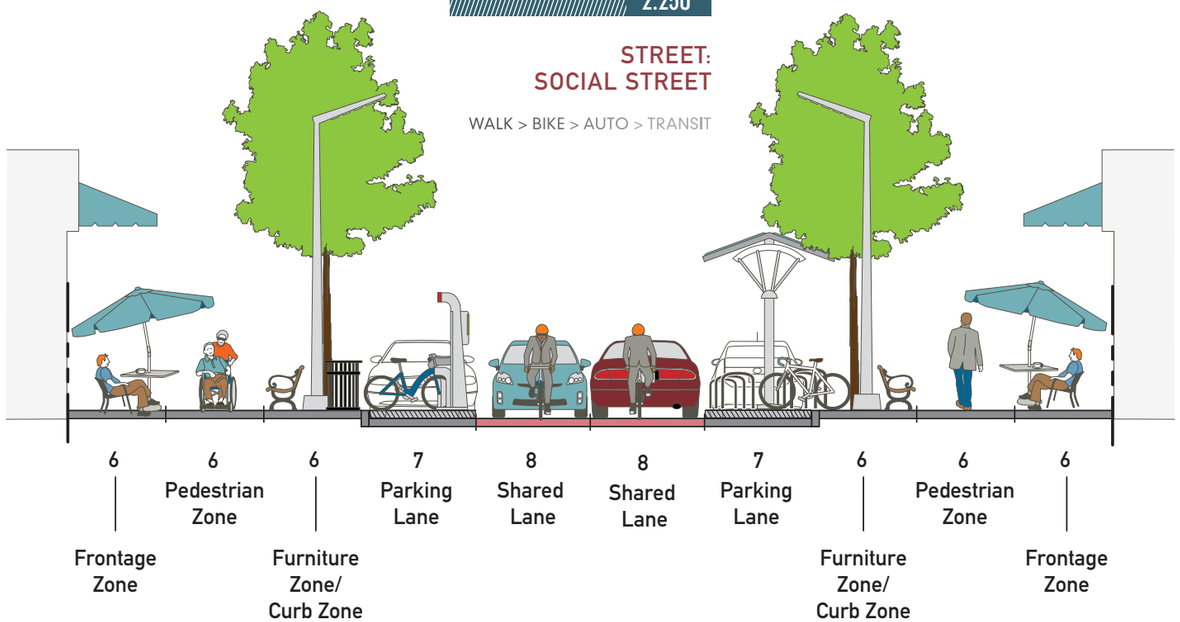
WALK > BIKE > TRANSIT > AUTO



2.25U

STREET: SOCIAL STREET

WALK > BIKE > AUTO > TRANSIT



Scale: 1 inch = 10 feet

ONE-WAY STREETS 2.26

One-way streets are similar to two-way streets but are limited to single-direction traffic, usually in one or two lanes. One-way streets should be planned in pairs to maintain traffic movement throughout the area. While they have limitations similar to one-way avenues, one-way streets can benefit residential areas by limiting cut-through traffic flow and creating room for residential parking. One-way streets can be good candidates for contra-flow bike lanes.

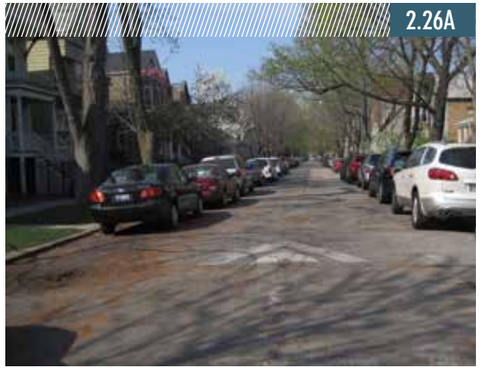


FIGURE 2.26A
ONE-WAY STREET
Chicago, IL

FIGURE 2.26B
ONE-WAY STREET
Chicago, IL

FIGURE 2.26C
ONE-WAY STREET
Chicago, IL

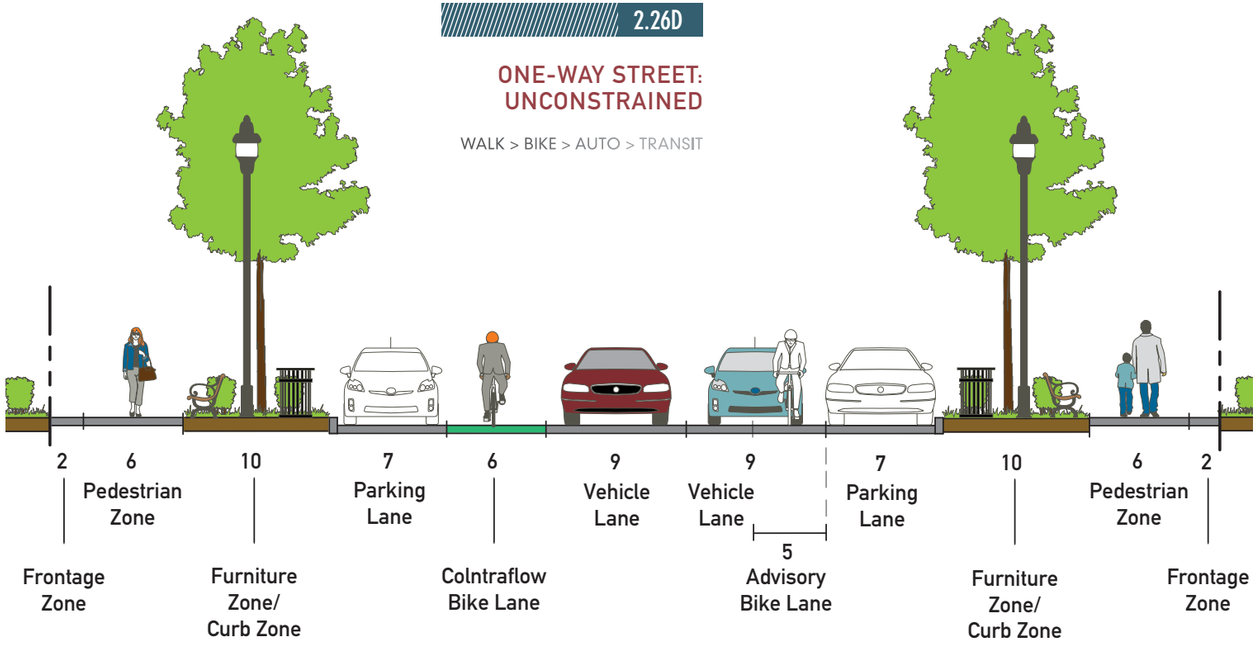
TABLE 2K ONE-WAY STREET VARIATIONS

		Mode Prioritization				Pedestrian Realm				Travel Way							
Context Zones		**Priority**				**Frontage**	**Pedestrian Zone**	**Furniture Zone**	**Curb Zone**	**Parking Lanes (Width)**	**Parking Lanes**	**Bikeway (Width)**	**Bikeway**	**Vehicle Lane (Width)**	**Vehicle Lanes**	**Target Speed (MPH)**	**ROW (Total)**
Urban	2.26D Unconstrained	Walk	Bike	Auto	Transit	2 ft.	6 ft.	8 ft.	2 ft.	7 ft.	2	6 ft.	Contraflow bike lanes/ Advisory bike lanes	9 ft.	1 to 2	15	Varies
	2.26E Urban Commercial/Mixed Use	Walk	Bike	Transit	Auto	5 ft.	6 ft.	Parking lane	1 ft.	7 ft.	2	0 ft.	Advisory bike lanes	14 ft.	1	10	52 ft.
	2.26F Urban Residential	Walk	Bike	Auto	Transit	1 ft.	6 ft.	4 ft.	1 ft.	7 ft.	2	0 ft.	Shared lanes/Bike boulevards	14 ft.	1	15	52 ft.
	2.26G Urban Single Use	Bike	Walk	Auto	Transit	1 ft.	5 ft.	4 ft.	1 ft.	7 ft.	2	5 ft.	Contraflow bike lanes/ Shared lanes	11 ft.	1	25	52 ft.
Suburban	2.26H Suburban Commercial	Transit	Auto	Walk	Bike	0 ft.	6 ft./Shared use paths	10 ft.	2 ft.	0 ft.	0	8 ft.	Shared use paths	14 ft.	1	20	52 ft.
	2.26I Suburban Residential	Walk	Bike	Auto	Transit	0 ft.	6 ft.	5 ft.	2 ft.	7 ft.	2	0 ft.	Shared lanes/Bike boulevards	12 ft.	1	15	52 ft.
	2.26J Suburban Mixed-Use	Walk	Bike	Transit	Auto	5 ft.	5 ft.	Parking lane	2 ft.	7 ft.	2	0 ft.	Marked shared lanes	14 ft.	1	10	52 ft.
	2.26K Suburban Single Use	Bike	Auto	Walk	Transit	0 ft.	6 ft./Shared use paths	5 ft.	2 ft.	0 ft.	0	8 ft.	Shared use paths	9 ft.	2	25	52 ft.
Rural	2.26L Rural Village	Walk	Auto	Bike	Transit	3 ft.	5 ft.	4 ft.	1 ft.	7 ft.	2	0 ft.	Shared lanes	12 ft.	1	10	52 ft.
Context Overlays		**Priority**				**Frontage**	**Pedestrian Zone**	**Furniture Zone**	**Curb Zone**	**Parking Lanes (Width)**	**Parking Lanes**	**Bikeway (Width)**	**Bikeway**	**Vehicle Lane (Width)**	**Vehicle Lanes**	**Target Speed (MPH)**	**ROW (Total)**
All	2.26M Pedestrian Priority Areas	Walk	Transit	Bike	Auto	5 ft.	6 ft.	Parking lane	1 ft.	7 ft.	2	0 ft.	Shared lanes	14 ft.	1	10	52 ft.
	2.26N Entertainment/Cultural Districts	Walk	Transit	Bike	Auto	6 ft.	6 ft.	Parking lane	1 ft.	7 ft.	2	0 ft.	Marked shared lanes	12 ft.	1	10	52 ft.
	2.26O Transit Oriented Development	Transit	Walk	Bike	Auto	2 ft.	5 ft.	6 ft.	1 ft.	0 ft.	0	10 ft.	Cycle track two direction	14 ft.	1	20	52 ft.
	2.26P Green Street	Transit	Bike	Walk	Auto	1 ft.	5 ft.	4 ft.	1 ft.	7 ft.	1	10 ft.	Urban greenway	13 ft.	1	10	52 ft.
	2.26Q Park Zones	Walk	Bike	Transit	Auto	1 ft.	5 ft.	4 ft.	1 ft.	7 ft.	2	0 ft.	Advisory bike lanes	8 ft.	2	10	52 ft.
	2.26R School Zones	Walk	Bike	Transit	Auto	1 ft.	6 ft./Shared use paths	5 ft.	1 ft.	8 ft.	1	10 ft.	Shared use paths	14 ft.	1	10	52 ft.
	2.26S Home Zones	Walk	Bike	Auto	Transit	1 ft.	5 ft.	4 ft.	1 ft.	18 ft.	1	0 ft.	Bike boulevards	12 ft.	1	10	52 ft.
	2.26T Social Streets	Walk	Bike	Auto	Transit	3 ft.	5 ft.	4 ft.	1 ft.	7 ft.	2	0 ft.	Shared lanes	12 ft.	1	10	52 ft.

2.26D

ONE-WAY STREET: UNCONSTRAINED

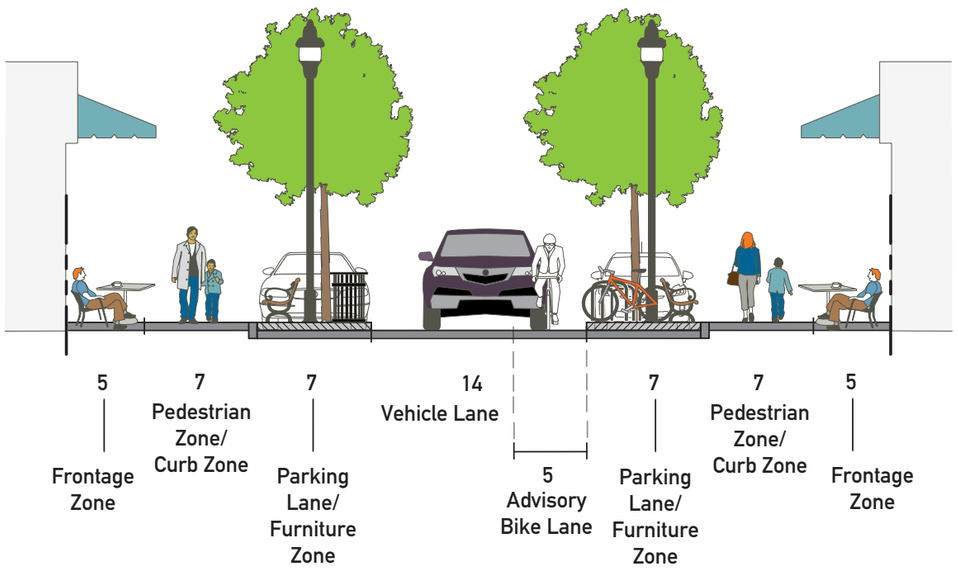
WALK > BIKE > AUTO > TRANSIT



2.26E

ONE-WAY STREET: URBAN COMMERCIAL / MIXED-USE

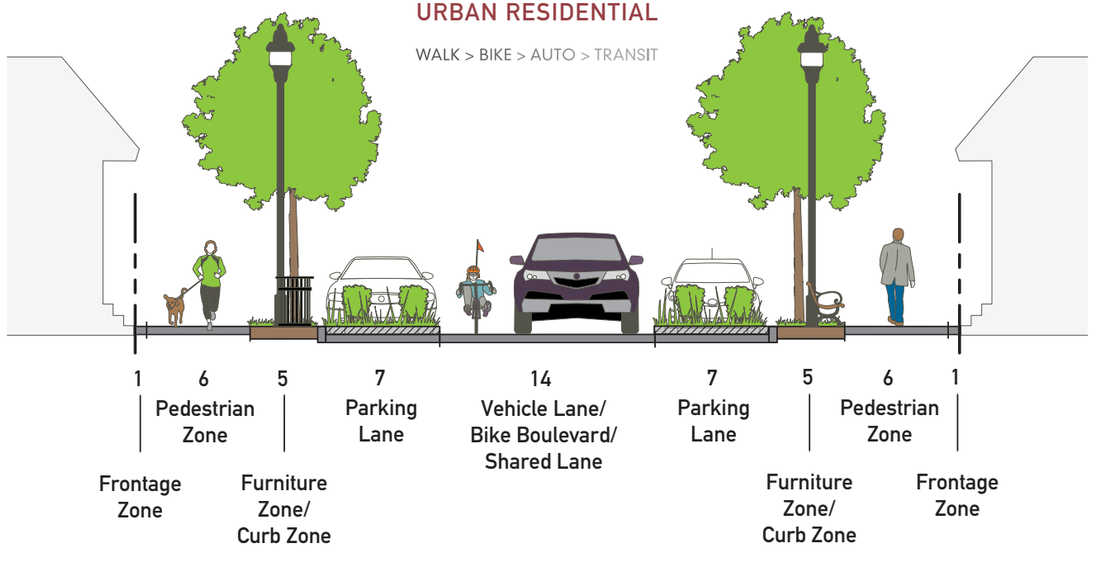
WALK > BIKE > TRANSIT > AUTO



2.26F

ONE-WAY STREET: URBAN RESIDENTIAL

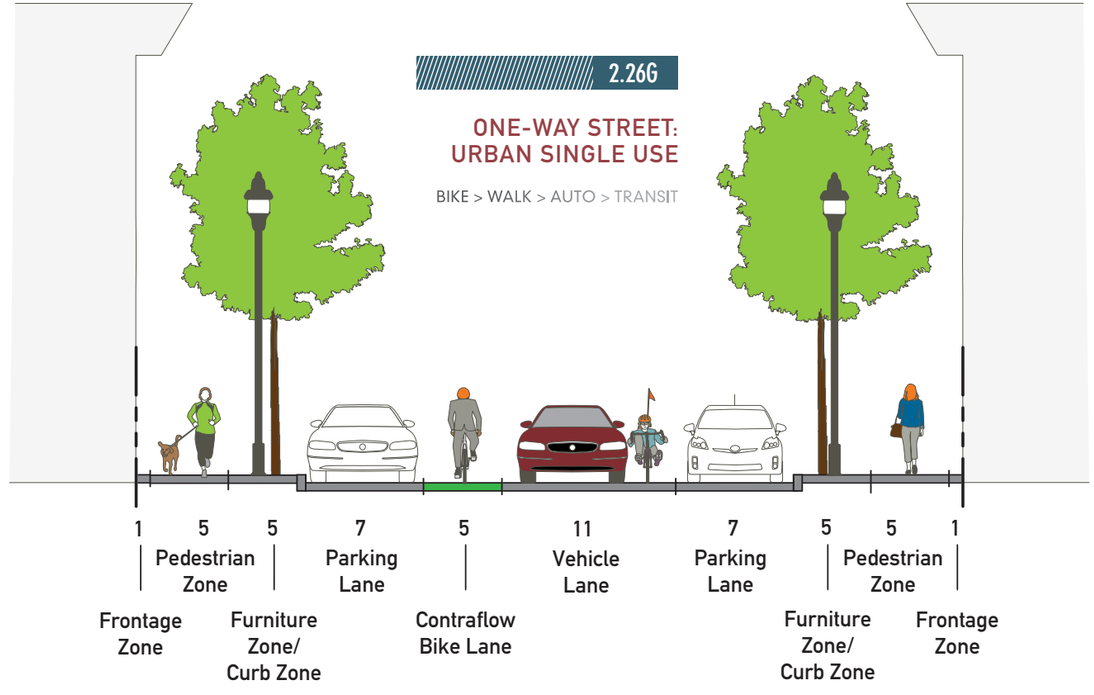
WALK > BIKE > AUTO > TRANSIT



2.26G

ONE-WAY STREET: URBAN SINGLE USE

BIKE > WALK > AUTO > TRANSIT

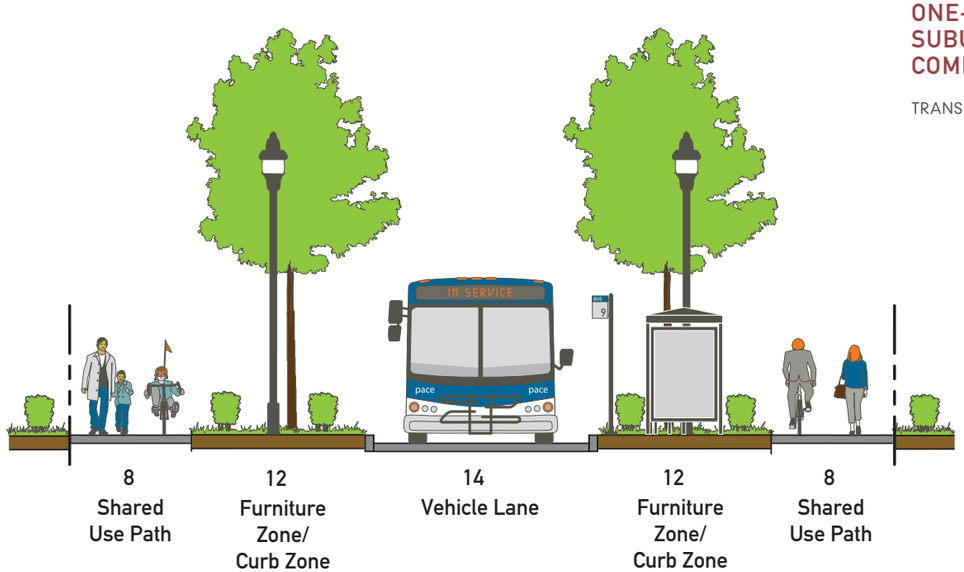


Scale: 1 inch = 10 feet

2.26H

ONE-WAY STREET: SUBURBAN COMMERCIAL

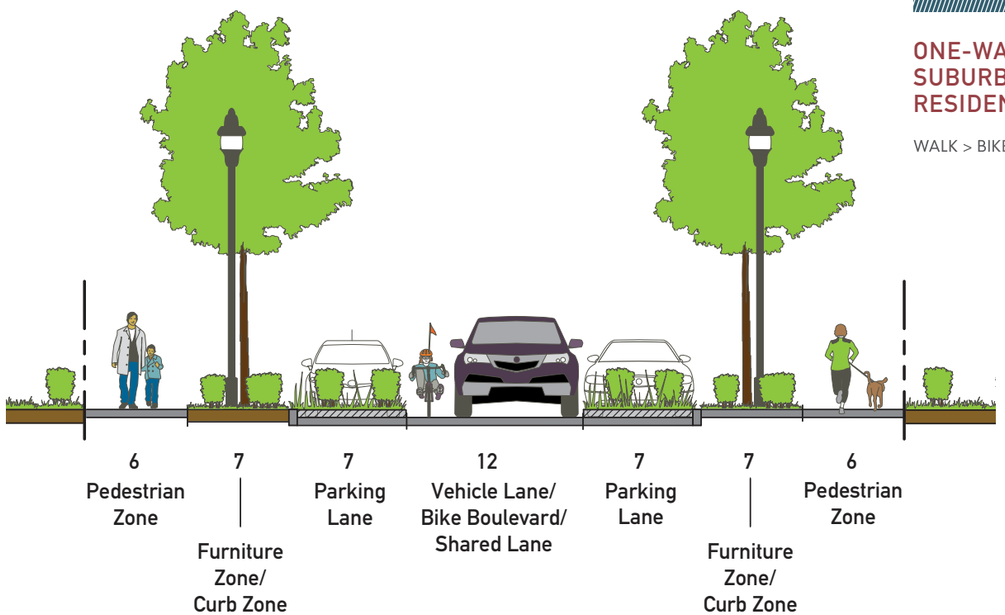
TRANSIT > AUTO > WALK > BIKE



2.26I

ONE-WAY STREET: SUBURBAN RESIDENTIAL

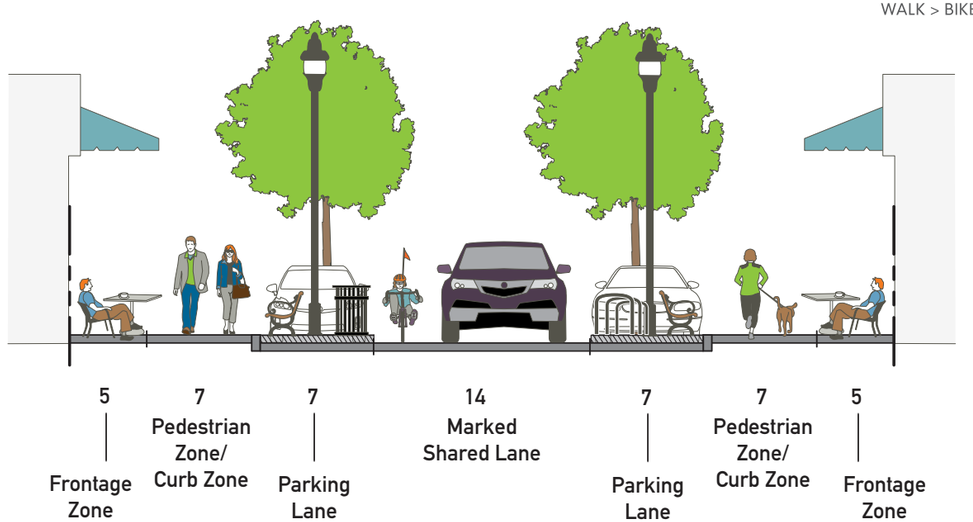
WALK > BIKE > AUTO > TRANSIT



2.26J

ONE-WAY STREET: SUBURBAN MIXED-USE

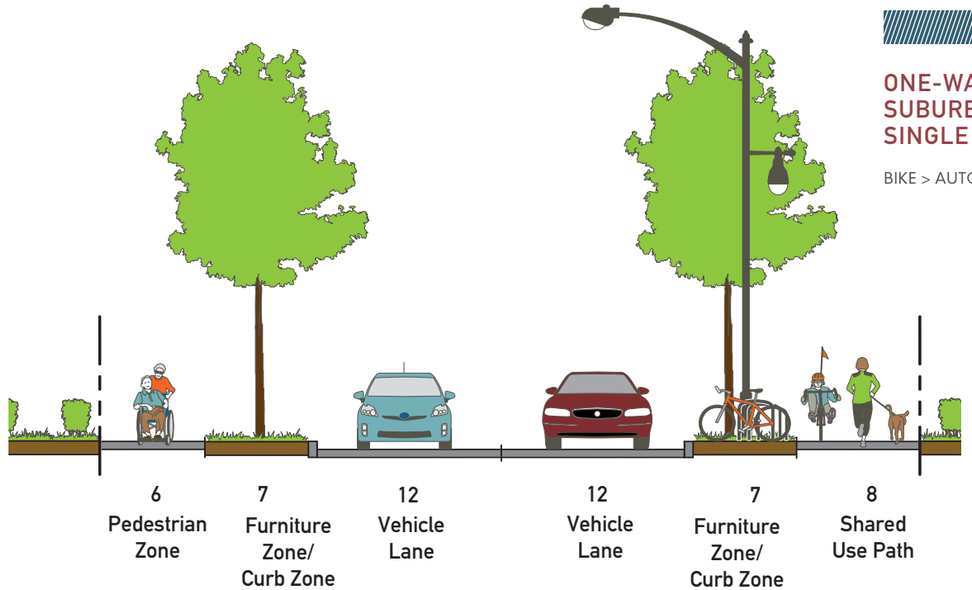
WALK > BIKE > TRANSIT > AUTO



2.26K

ONE-WAY STREET: SUBURBAN SINGLE USE

BIKE > AUTO > WALK > TRANSIT

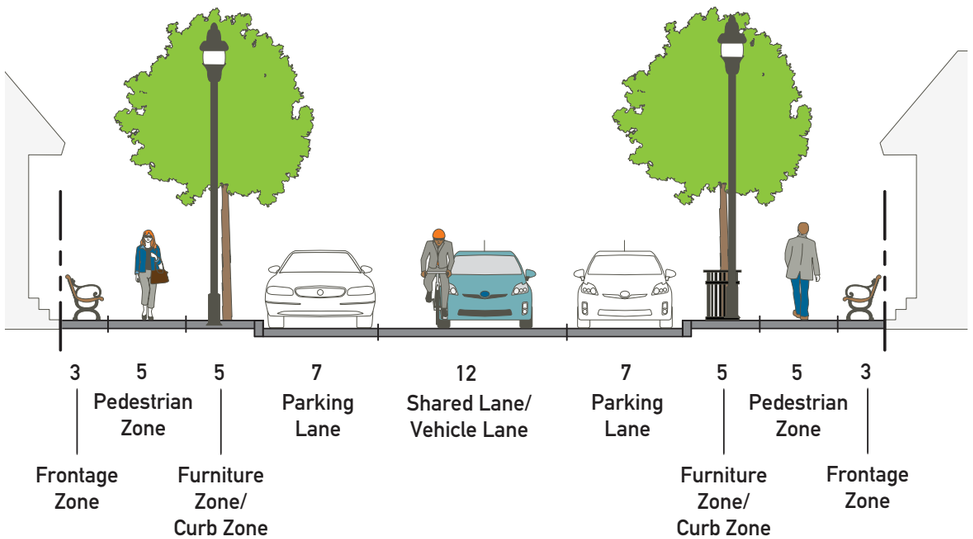


Scale: 1 inch = 10 feet

2.26L

ONE-WAY STREET: RURAL VILLAGE

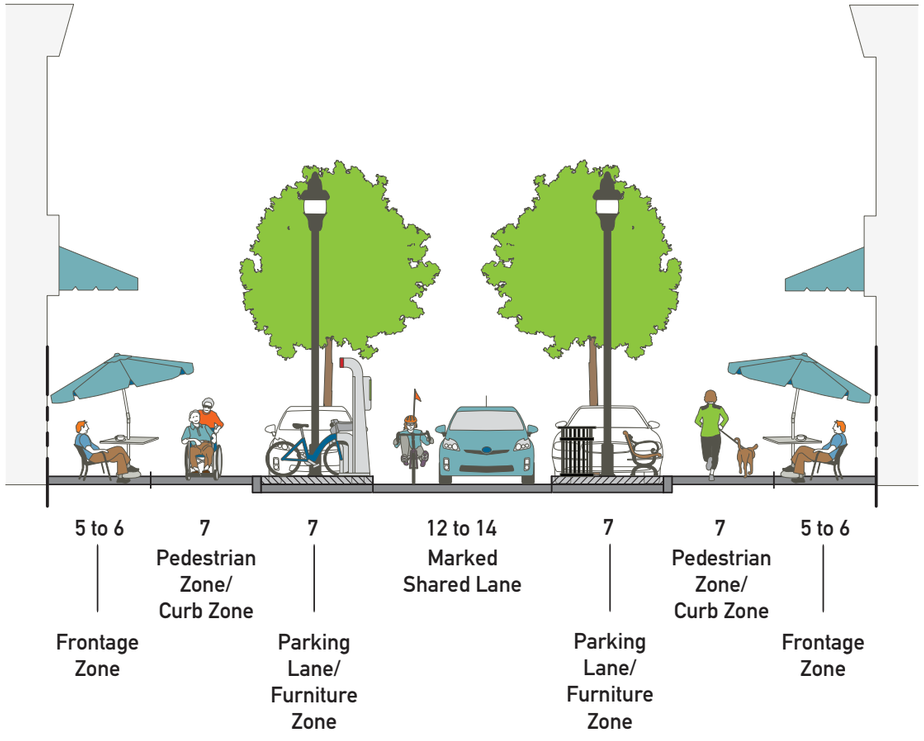
WALK > AUTO > BIKE > TRANSIT



2.26M

ONE-WAY STREET: PEDESTRIAN PRIORITY & ENTERTAINMENT / CULTURAL DISTRICT

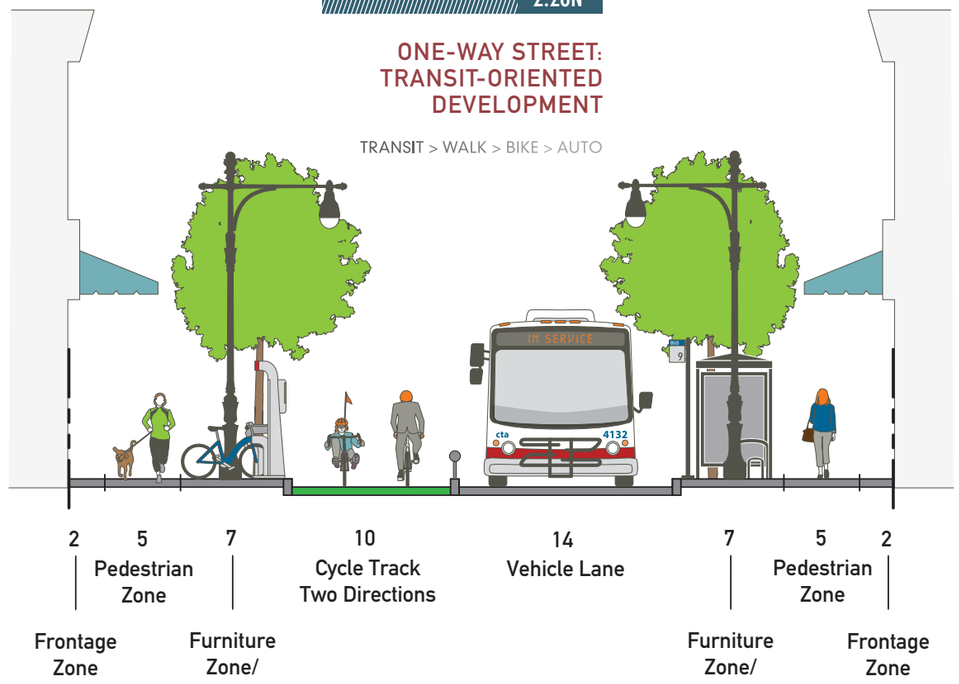
WALK > TRANSIT > BIKE > AUTO



2.26N

ONE-WAY STREET: TRANSIT-ORIENTED DEVELOPMENT

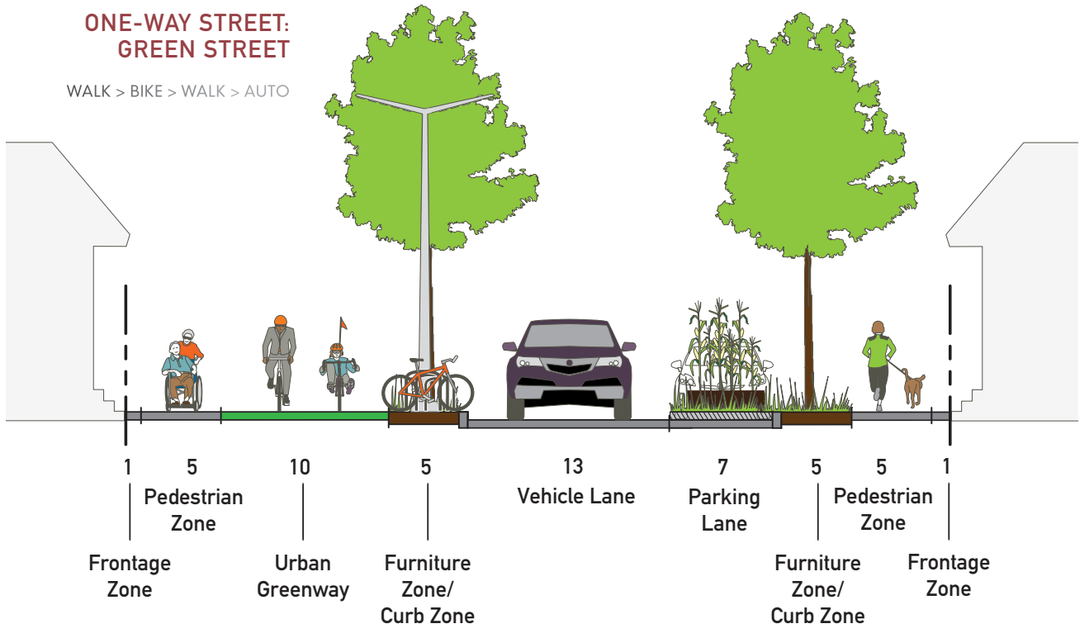
TRANSIT > WALK > BIKE > AUTO



2.26O

ONE-WAY STREET: GREEN STREET

WALK > BIKE > WALK > AUTO

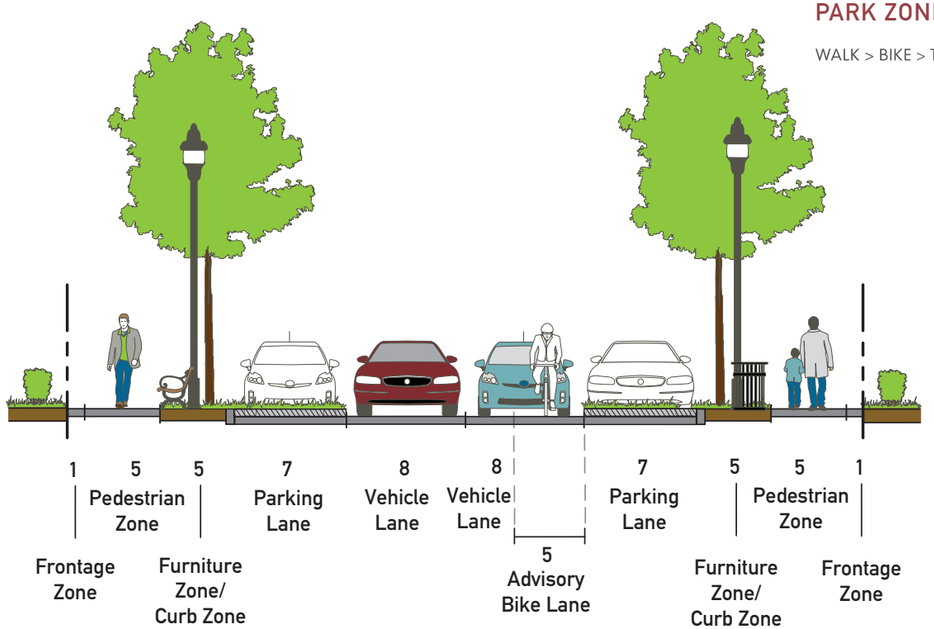


Scale: 1 inch = 10 feet

2.26P

ONE-WAY STREET: PARK ZONE

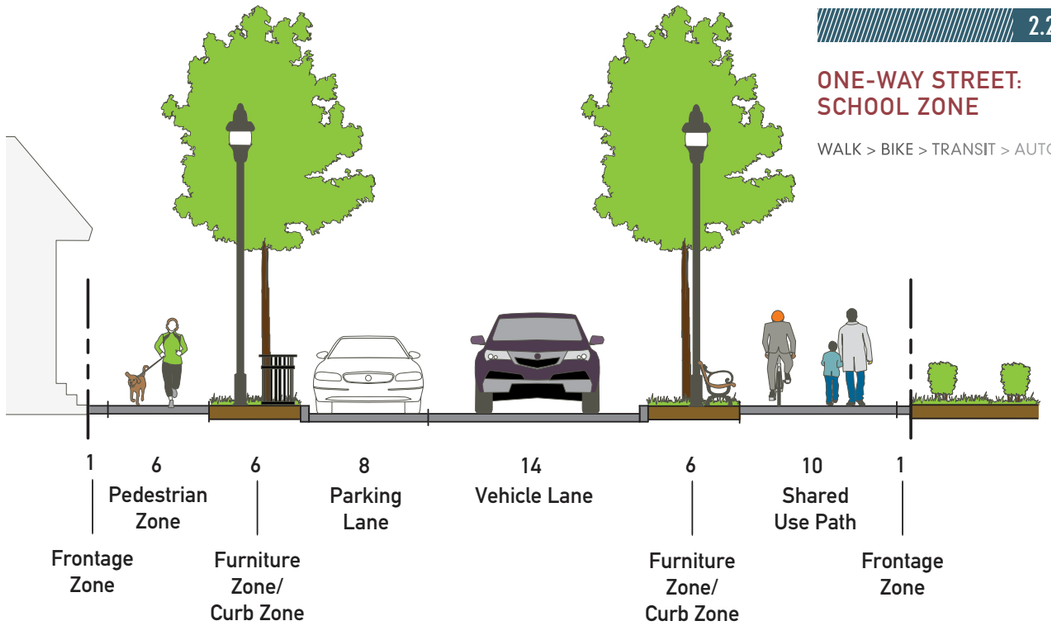
WALK > BIKE > TRANSIT > AUTO



2.26Q

ONE-WAY STREET: SCHOOL ZONE

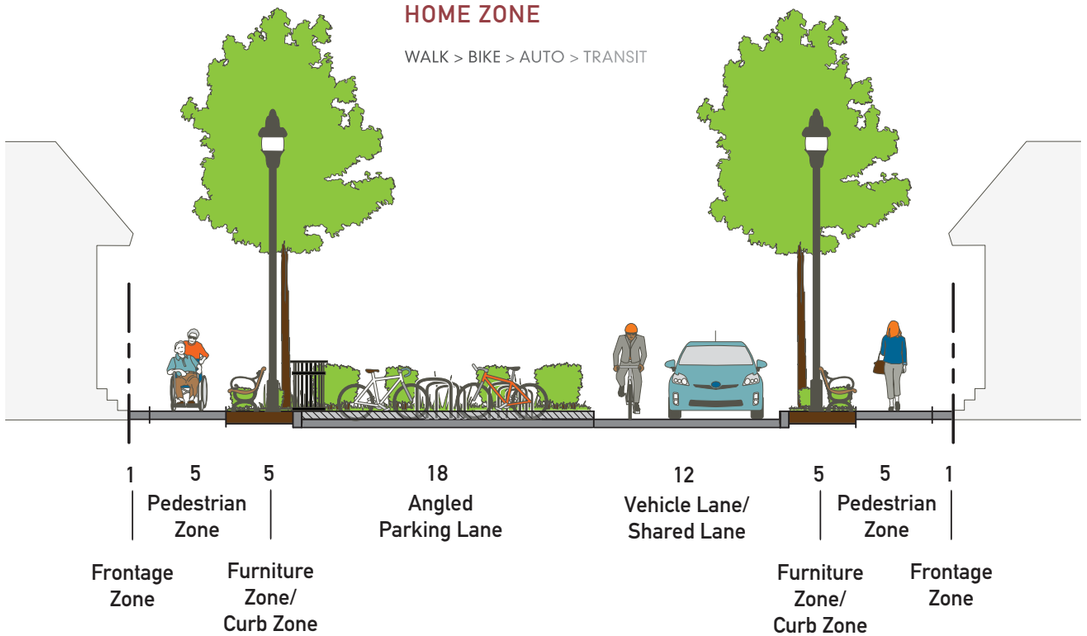
WALK > BIKE > TRANSIT > AUTO



2.26R

ONE-WAY STREET: HOME ZONE

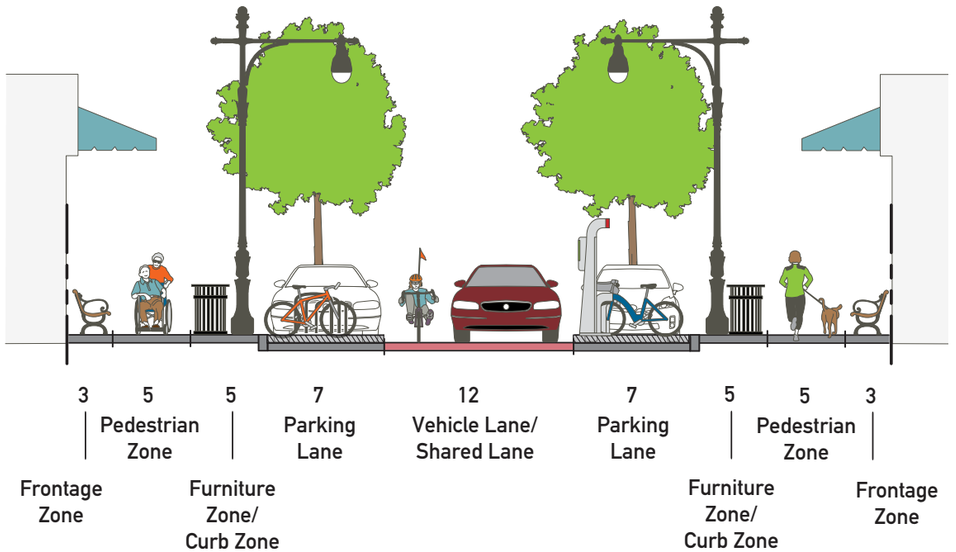
WALK > BIKE > AUTO > TRANSIT



2.26S

ONE-WAY STREET: SOCIAL STREETS

WALK > BIKE > AUTO > TRANSIT



Scale: 1 inch = 10 feet

FIGURE 2.26A
ALLEY
Oak Park, IL

FIGURE 2.26B
ALLEY
Oak Park, IL

FIGURE 2.26C
ALLEY
Chicago, IL

FIGURE 2.26D
PEDESTRIAN CONNECTION
Chicago, IL

FIGURE 2.26E
ALLEY
Chicago, IL

ALLEYS 2.26

An alley is a narrow roadway, without sidewalks, that provides a short service link between two streets and/or rear access to commercial buildings, loading areas, refuse areas, and residential garages. Alleys can be used by emergency vehicles. Alleys are less common in suburban and rural settings and vary less significantly by context than other street typologies. Alleys have low vehicle counts and speeds, and function as shared travel ways with pedestrians and bicyclists. Alleys can be used as short cuts and connections for bicyclists and pedestrians in areas with long blocks. Alleys are not used for transit connections but can provide additional grid connectivity and supplement roadway networks. Lighting is essential when making use of alleys for multimodal connectivity.

TABLE 2L
ALLEY VARIATIONS

Context Zones		Mode Prioritization: Priority				Vehicle Lane (Width)
Urban	Ideal	Walk	Bike	Auto	Transit	Varies
	Urban Commercial/Mixed Use	Walk	Bike	Transit	Auto	Varies
	Urban Residential	Walk	Bike	Auto	Transit	Varies
	Urban Single Use	Bike	Walk	Auto	Transit	Varies
Suburban	Suburban Commercial	Transit	Auto	Walk	Bike	Varies
	Suburban Residential	Walk	Bike	Auto	Transit	Varies
	Suburban Mixed-Use	Walk	Bike	Transit	Auto	Varies
	Suburban Single Use	Bike	Auto	Walk	Transit	Varies
Rural	Rural Residential/Agricultural	Auto	Bike	Walk	Transit	Varies
	Rural Village	Walk	Auto	Bike	Transit	Varies
Context Overlays		**Priority**				**Vehicle Lane (Width)**
All	Pedestrian Priority Areas	Walk	Transit	Bike	Auto	Varies
	Entertainment/Cultural Districts	Walk	Transit	Bike	Auto	Varies
	Transit Oriented Development	Transit	Walk	Bike	Auto	Varies
	Green Street	Transit	Bike	Walk	Auto	Varies
	Park Zones	Walk	Bike	Transit	Auto	Varies
	School Zones	Walk	Bike	Transit	Auto	Varies
	Home Zones	Walk	Bike	Auto	Transit	Varies
	Social Streets	Walk	Bike	Auto	Transit	Varies

INTERSECTIONS & TRANSITION TYPOLOGIES

Getting Started

Street typology and land use context can be used to inform the design of intersections and other transitions in the transportation networks. This section explores guidelines for the use of these tools.

2d

INTERSECTION TYPOLOGY APPLICATIONS 2.27

This section provides matrices to help designers assess when to use various intersection treatments to accommodate pedestrians, bicycles and multimodal roundabouts. Crash data and field observations also must be studied before making a final design determination. Intersection treatment geometrics are defined in Section 3.4.

PEDESTRIAN TREATMENT MATRIX (TABLE 2M)

BICYCLE TREATMENT MATRIX (TABLE 2N)

MODERN ROUNDABOUT MATRIX (TABLE 2O)

TRANSITION TYPOLOGY APPLICATIONS 2.28

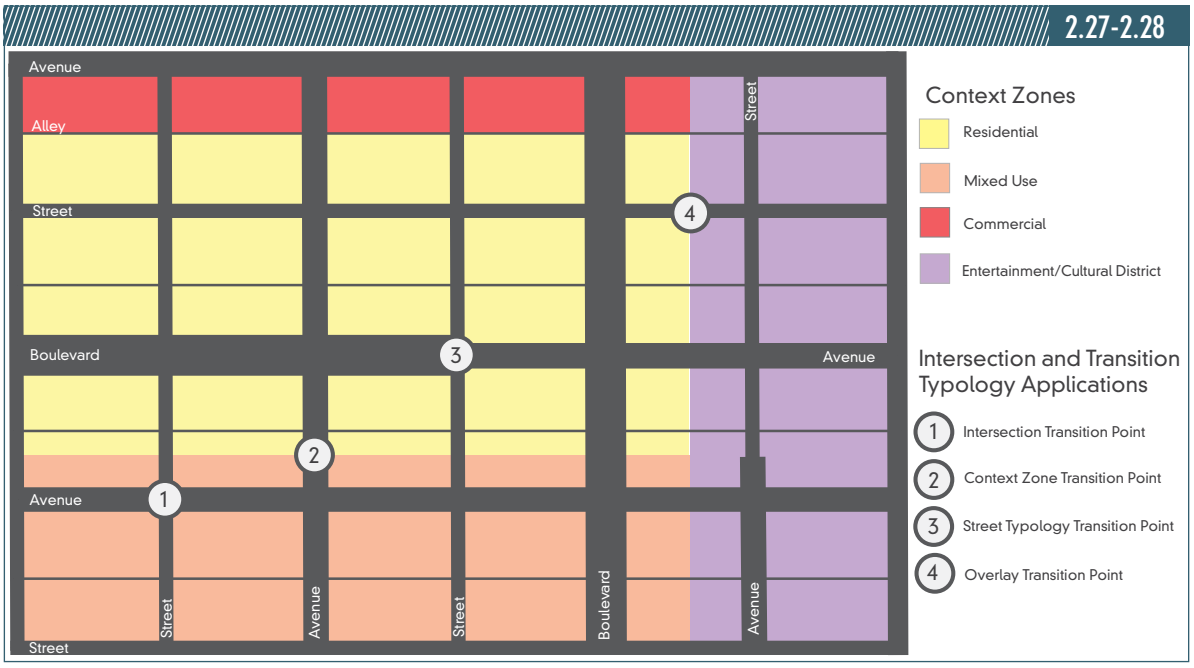
This section provides context- and street typology-based matrices to help designers assess when to use various multimodal transition treatments for changes in street typology, context zone, or overlay zone. Field analysis should be used to make final design determinations. Multimodal transitions are defined in Section 3.4.

STREET TYPOLOGY TRANSITIONS (TABLE 2P) The street typology transition table presents guidelines for design at the intersection of two different street typologies, as when a boulevard meets an avenue. These also can be applied where a street typology changes, e.g., a street transitions into an avenue.

CONTEXT ZONE TRANSITIONS (TABLE 2Q) The context zone transition table presents guidelines for transitional roadway elements where a roadway runs through different context zones, e.g., from urban commercial to suburban commercial, or from suburban commercial to suburban residential.

OVERLAY ZONE TRANSITIONS (TABLE 2R) The overlay zone transition table presents guidelines for transitional roadway elements where a roadway runs from a context zone into a place overlay/district, e.g., from a suburban commercial area into a transit-oriented development, or from an urban residential area into a school zone.

FIGURE 2.27 - 2.28 INTERSECTION AND TRANSITION Typology Application Illustration



KEY	Encouraged	Permitted	Discouraged
Intersection and Transition Application Key	Likely to need transition treatments and multimodal signals due to changes in typology or context	Frequently requires transition treatments and multimodal signals; depending on crash rates, ped/bike counts, and vehicle speeds	Seldom requires transition treatments and multimodal signals; depending on crash rates, ped/bike counts, and vehicle speeds

TABLE 2M PEDESTRIAN TREATMENT MATRIX

Intersections	Boulevard	Avenue	One-Way Avenue	Street	One-Way Street	Alley
Boulevard	◉	◉	◉	◉	◉	◉
Avenue	◉	◉	◉	◉	◉	◉
One-Way Avenue	◉	◉	◉	◉	◉	◉
Street	◉	◉	◉	◉	◉	◉
One-Way Street	◉	◉	◉	◉	◉	◉
Alley	◉	◉	◉	◉	◉	◉

TABLE 2O MODERN ROUNDABOUT MATRIX

Intersections	Boulevard	Avenue	One-Way Avenue	Street	One-Way Street	Alley
Boulevard	◉	◉	◉	◉	◉	◉
Avenue	◉	◉	◉	◉	◉	◉
One-Way Avenue	◉	◉	◉	◉	◉	◉
Street	◉	◉	◉	◉	◉	◉
One-Way Street	◉	◉	◉	◉	◉	◉
Alley	◉	◉	◉	◉	◉	◉

TABLE 2N BICYCLE TREATMENT MATRIX

Intersections	Boulevard	Avenue	One-Way Avenue	Street	One-Way Street	Alley
Boulevard	◉	◉	◉	◉	◉	◉
Avenue	◉	◉	◉	◉	◉	◉
One-Way Avenue	◉	◉	◉	◉	◉	◉
Street	◉	◉	◉	◉	◉	◉
One-Way Street	◉	◉	◉	◉	◉	◉
Alley	◉	◉	◉	◉	◉	◉

TABLE 2P STREET TYPOLOGY TRANSITION MATRIX

Intersections	Boulevard	Avenue	One-Way Avenue	Street	One-Way Street	Alley
Boulevard	◉	◉	◉	◉	◉	◉
Avenue	◉	◉	◉	◉	◉	◉
One-Way Avenue	◉	◉	◉	◉	◉	◉
Street	◉	◉	◉	◉	◉	◉
One-Way Street	◉	◉	◉	◉	◉	◉
Alley	◉	◉	◉	◉	◉	◉

TABLE 2Q CONTEXT ZONE TRANSITION MATRIX

Intersections	Urban Commercial/Mixed Use	Urban Residential	Urban Single Use	Suburban Commercial	Suburban Residential	Suburban Mixed-Use	Suburban Single Use	Rural Residential/Agricultural	Rural Village
Urban Commercial/Mixed Use	—	Urban Residential							
Urban Residential	◉	—	Urban Single Use						
Urban Single Use	◉	◉	—	Suburban Commercial					
Suburban Commercial	◉	◉	◉	—	Suburban Residential				
Suburban Residential	●	◉	◉	◉	—	Suburban Mixed-Use			
Suburban Mixed-Use	◉	◉	◉	●	●	—	Suburban Single Use		
Suburban Single Use	◉	◉	◉	◉	◉	◉	—	Rural Residential/Agricultural	
Rural Residential/Agricultural	●	●	●	●	◉	◉	◉	—	Rural Village
Rural Village	●	●	●	●	●	●	●	●	—

TABLE 2R OVERLAY TRANSITION MATRIX

Intersections	Urban Commercial/ Mixed Use	Urban Residential	Urban Single Use	Suburban Commercial	Suburban Residential	Suburban Mixed-Use	Suburban Single Use	Rural Residential/ Agricultural	Rural Village
Transit Oriented Development	◉	●	◉	●	●	◉	◉	●	◉
Entertainment/Cultural Districts	◉	●	◉	●	●	◉	◉	●	◉
Green Streets	●	●	◉	●	●	●	◉	●	●
Park Zones	●	●	◉	●	◉	●	◉	◉	●
School Zones	●	●	◉	●	◉	●	◉	◉	●
Home Zones	●	●	◉	●	●	●	◉	●	●
Social Zones	●	●	◉	●	●	●	◉	●	●