

Build a Better Burb

HOW TO MANUAL



BETTER TRANSIT / LESS PARKING

Stuck in Traffic

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STUCK IN TRAFFIC



Credit: Simon Forsyth under Creative Commons license

In a 2010 survey conducted for Transportation for America, 73 percent of respondents said they have no transportation alternatives that allow them to reduce their reliance on their cars.

Traffic is the economic lifeblood of every community. Without it, businesses wither and die. But too much in any one place at any given time and we are stuck with no way out. Congestion is a bane we have brought upon ourselves. It is a function of how we have designed our cities, towns and transportation networks to accommodate our cars and in the process have made it almost impossible to get around without one. If we want less traffic, we have to do something differently. Trial and error have shown there is no way to build our way out of congestion by building more roads.

CONGESTION CULPRITS



Chances a pedestrian can safely cross this typical arterial are slim to none.

Credit: Dan Burden for National Complete Streets Coalition under Creative Commons license

The 2008 National Household Travel Survey found that 72 percent of trips of a mile or less are made by car.



No accommodations for pedestrians or bicyclists
Credit: National Complete Streets Coalition
under Creative Commons license

The primary reason we are so often stuck with heavy traffic is not that there are too many cars but that there are too few viable alternatives to driving. Suburban street patterns lengthen the distances between destinations, making walking or bicycling impractical. They also force vehicular traffic onto a few major arteries. The lack of alternate routes ensures congestion at peak usage hours and gridlock if there is a blockage.

Compounding the problem, many streets are built without sidewalks, crosswalks, or bicycle lanes. Few communities have adequate local transit service. Without these facilities, people have little choice but to drive, even to places a short distance away.

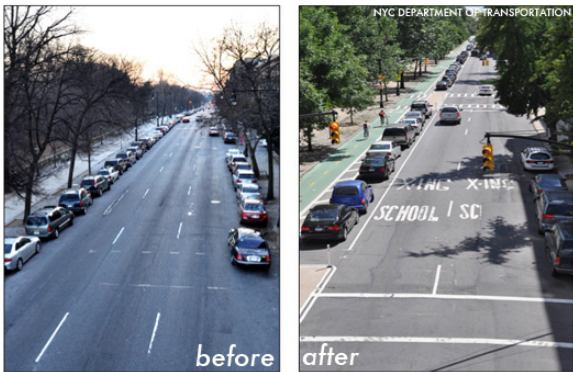
RX FOR RELIEVING TRAFFIC PROBLEMS



Complete Street - Hamburg, NY
Credit: National Complete Streets Coalition under Creative Commons license

All effective prescriptions for relieving traffic problems are two-pronged: they increase transportation options and they offer incentives for driving less. Though many incentive programs are based on giving cost subsidies or imposing additional costs, the most effective ways of encouraging people to use other modes of transportation is to make it physically less convenient to use their cars to negotiate short distances and to make it safer, more comfortable and more attractive to use an alternative mode. This requires shifting attention away from private automotive vehicles and refocusing on providing for or enhancing other transportation options.

THE PRESCRIPTIONS: COMPLETE THE STREETS OF YOUR COMMUNITY



Prospect Park, Brooklyn, NY
Credit: NYCDOT for National Complete Streets Coalition under Creative Commons License

A “complete street” is one that accommodates not only automobiles but pedestrians, bicyclists and transit vehicles, too, by providing broad handicapped accessible sidewalks, enhanced crosswalks, bicycle lanes, and transit stops.

Emphasizing complete streets is important because every trip has a pedestrian component and safe and convenient alternatives to driving reduce the number of cars on the road. Nearly half of the states and more than 200 local governments in the U.S. have adopted Complete Streets policies. In May 2011, the Safe and Complete Streets Act

of 2011 (H.R. 1780 - Matsui, LaTourette) was introduced in Congress. In fact, though, the Federal Highways Administration (FHWA) guidance policy since 2000 has been that bicycle and pedestrian facilities “will be incorporated into all transportation projects unless exceptional circumstances prevent this.”

Completing streets in your community can be done within the current network of streets, though this may require reconfiguring them to accommodate adequate sidewalks and providing room for bicycles to safely maneuver. In some instances it may merely be a matter of restriping or relocating parking. In others it may entail more major modifications within the public right-of-way.

Putting busy streets on a “road diet,” which means reducing the number of automobile travel lanes in order to provide for other modes, has quality of life benefits far beyond merely making space for pedestrians, bikes and buses, as it increases road safety for all users while minimally affecting road capacity.

The addition of bicycle lanes, crosswalks, markings and signals on the street adjacent to Prospect Park in Brooklyn, NY, reduced collisions by 16 percent according to NYC's Department of Transportation. The number of people bicycling on weekdays increased threefold. Pedestrians are able to cross more easily and quickly due to the elimination of a travel lane, and more safely due to the better markings.

Not only pedestrians and bicyclists benefit from completing the streets. In mixed-use and commercial districts, merchants benefit as well from increased foot traffic and the visibility and accessibility that this provides.

As applied in model communities

Boulder, CO

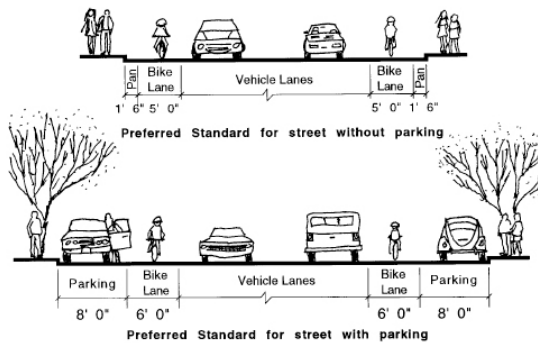


Since 1989, the City of Boulder has invested its transportation funds in policies that promote “convenience, comfort, safety” for pedestrians and “consider bicycle needs in all road projects.” The payoff has been that Boulder residents walk to work at 3 times the average for U.S. communities, take transit to work at 2 times the national average, and bicycle to work at 18 times the national average. Single-occupant vehicle work trips have declined 7.7 percent since 2000. ¹

Along with a high-profile Share the Road program and improvements to transit services, the City adopted street design standards that require:

- 1) ADA-compliant sidewalks on both sides of streets.
- 2) Sidewalks a minimum of 12 feet wide in commercial areas. Sidewalk minimum widths in residential areas range from 4 feet on local streets to 8 feet along arterials.
- 3) Bicycle lanes are required per subcommunity area plans, the Boulder Transportation Management Plan and the Boulder Valley Comprehensive Plan. They must be a minimum of 5 feet wide on streets where there are parking lanes and a minimum of 6.5 feet wide on those where there is no parking.

figure 6-13. cross-section of the preferred bicycle lane width standards



Source: City of Boulder Design and Construction Standards, Chapter 2 Transportation Design
http://www.bouldercolorado.gov/files/PDS/codes/dcs/new_dcs/2009ch02.pdf

¹ Source: American Community Survey, 2008.

Charlotte, NC

The City of Charlotte has done considerably more than merely tout itself as a place “integrating land use and transportation policy.” It has adopted award-winning *Urban Street Design Guidelines* (USDG) to implement the policies in its Transportation Action Plan.² The Guidelines are being applied not only to new thoroughfares, but are used whenever streets and roads are renovated, rebuilt or converted. Rather than dictate strict standards, the USDG provides templates based on road type – main street, avenue, boulevard, parkway, local residential street - - and a six-step process for determining which standards should be applied given the neighborhood context. In most cases, sidewalks with a minimum of 6 feet of unobstructed width are required, though the minimum for a local residential street is 5 feet. On main streets where there is likely to be heavy pedestrian traffic, the preferred minimum unobstructed sidewalk width is 10 feet, and in no instance is it to be less than 6 feet.

Maximum block lengths vary by street type, with the maximum for main streets set at 400 feet. Wherever maximum lengths are exceeded, traffic calming measures must be taken. On local residential streets, traffic slow points designed to keep traffic speeds within the posted 25 mph limit must be included every 300 to 500 feet.

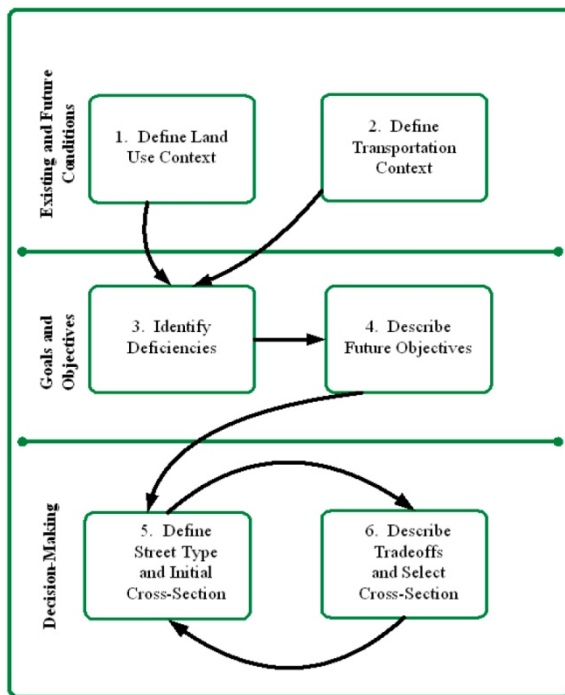


Figure 3.1. The Six-Step process for Applying Charlotte's Urban Street Design Guidelines.

<http://charmeck.org/city/charlotte/Transportation/PlansProjects/Pages/Urban%20Street%20Design%20Guidelines.aspx>

² Charlotte was awarded the Environmental Protection Agency's National Award for Smart Growth Achievement in Policies and Regulations in December 2009 for its *Urban Street Design Guidelines*.

In order to provide a complete street when Charlotte's East Boulevard was resurfaced, the number of travel lanes was reduced from 4 to 2 plus a center turn lane. Bicycle lanes were added in both directions. These changes were made both in the commercial and residential portions of the thoroughfare.



Charlotte's reconfigured East Boulevard
Source: City of Charlotte, Urban Street Design Guidelines



Source: National Complete Streets Coalition under
Creative Commons License

Santa Barbara, CA

With broad sidewalks and a network of pedestrian walkways or paseos in the historic downtown, Santa Barbara provides a highly attractive pedestrian environment and convenient access for walkers. Streets are complete with the provision of bicycle lanes and transit pullouts along both sides of the City's major downtown thoroughfares. There is little on-street parking in the downtown core of Santa Barbara; instead, drivers are directed to strategically located parking structures with vehicle entrances on side streets. Paseos provide pedestrian pathways from parking structures to the main thoroughfares and to courtyard shops.



State Street sidewalk, Santa Barbara



Paseo to Courtyard Shops



Paseo from State Street to Ortega Street parking structure
Credits: City of Santa Barbara

TAME THROUGH TRAFFIC



“Sharrow”: a mashup of the words *share* and *arrow* is a “Share the Road” marking indicating designated bicycle route.
Credit: WRCG

The mere act of completing a street by providing for bicycle lanes and pedestrian facilities will help to slow traffic down, which is particularly beneficial for downtown areas. Wide open street expanses are conducive to speeding. Eliminating lanes or visually hemming in existing ones will cause drivers to slow down and drive more cautiously. Traffic tamers include:

- Reduction of travel lanes
- On-street parking
- Addition of bicycle lanes or sharrows
- Raised crosswalks and/or intersections
- Street trees, landscaping and medians
- Chicanes
- Roundabouts/traffic circles
- Speed monitors and enforcement

As applied in model communities

Boulder, CO



In addition to its commitment to complete streets, Boulder has adopted the traffic circle or roundabout as its preferred method to slow traffic and has installed several. Roundabouts have the advantage of slowing traffic while allowing it to move smoothly.

Under the City's Neighborhood Traffic Mitigation Program, speed humps may be installed in neighborhoods by citizen request, but speed humps are not allowed on Critical Emergency Response Routes.

The City also aggressively enforces speed limits and uses speed monitors, which are surprisingly effective in getting drivers to slow down.

Credit: City of Boulder

Charlotte, NC



In implementing its complete streets policy, Charlotte has used nearly all of the options available to tame traffic including reconfiguring streets to remove travel lanes (see photos of East Boulevard). City policy also requires traffic calming features on any street where the block length exceeds the maximum preferred length.



Traffic calming features
Credits: City of Charlotte

Santa Barbara, CA



Milpas Street roundabout with wedge islands
Credit: City of Santa Barbara, CA

Santa Barbara has installed numerous roundabouts in recent years in order to simultaneously slow traffic and keep it moving smoothly. It also provides for on-street parking on residential side streets, even though these streets are relatively narrow, which also has the effect of slowing traffic. Drivers tend to slow down when parked cars and street trees visually reduce the width of their travel lane.

The City has also installed a number of raised crosswalks that reduce mid-block traffic speeds by 2 to 8 mph depending on local conditions. They increase pedestrian safety by making walkers more visible to drivers. Depending on design, they can slow emergency vehicle response by 3 to 6 seconds per installation, so they are best used judiciously.

Curb extensions are widely used, as are wedge islands around roundabouts (see Milpas roundabout). These reduce the width of pedestrian crossings and provide safe havens. They also serve to slow traffic, as they visually narrow the travel lanes and are conducive to more cautious driving.



Raised crosswalk slows traffic
Credit: City of Santa Barbara, CA

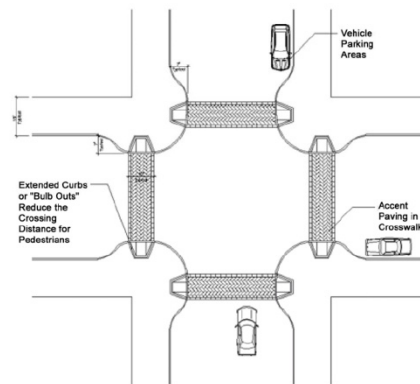


Figure VIII-4. Design of Curb Extensions

Illustration of curb extensions
Credit: City of Santa Barbara, CA

PROVIDE TRANSIT OPTIONS AND FACILITIES



Multi-modal DuPont Circle, Washington, D.C.
Credit: EPA Smart Growth under Creative Commons license

A critical adjunct to a complete streets program is the provision of local transit options for the young, elders, and those with physical limitations. Trolley and trams on fixed routes make it possible for those who cannot walk long distances to get around downtown without a car. Convenient connections to suburban locations by bus rapid transit or commuter rail, where available, complete the options.



DASH bus stops at covered bus stop in Boulder
Credit: EPA Smart Growth under Creative Commons license

Providing transit vehicles alone is not enough, however. Places that have well-used transit services also provide numerous convenient stops and comfortable waiting facilities for riders. Buses and trains that accommodate wheelchairs and bicycles also boost transit use.

As applied in model communities

Boulder, CO

Boulder has an extensive rubber-tired public transit system that includes the community transit network routes (in increasing order of service distance) HOP, SKIP, JUMP, BOUND, DASH and STAMPEDE, in addition to local, suburban and regional routes geared more toward commuters.

Why **not** take the bus?
Top reasons given by residents

Indirect routes and infrequent buses mean lengthy travel times.
Inadequate pedestrian facilities make getting to the bus stop difficult and often dangerous.
 Inadequate bus stop facilities make waiting uncomfortable.
Poor facility design and lack of lighting make stops feel unsafe.
 Big diesel buses are unattractive.

HOP was the first of the community transit network routes to go into service, in 1994. It immediately exceeded ridership projections. Much of its success is attributable to public involvement in the planning stages. Polls were conducted to determine *Why not take the bus?* Based on the answers received, Boulder put an emphasis on providing pedestrian connections and attractive bus stops and transit centers. The City also redesigned its fleet by matching rider preferences for smaller vehicles powered by clean fuels, with wheelchair accessibility and equipped to accommodate bicycles. As ridership increased and more funding became available, SKIP, JUMP and the other community routes were added.

Features of customized HOP buses

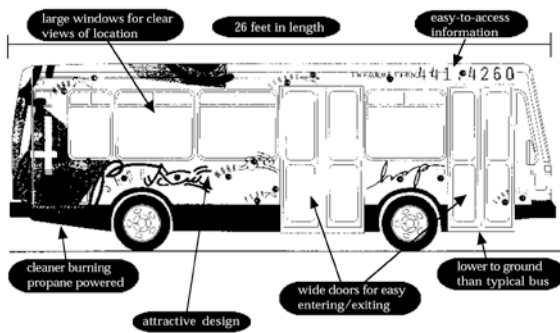


figure 6-30. neighborhood transit centers



Illustration credits: City of Boulder, CO

Charlotte, NC



Credit: City of Charlotte, NC



Credit: City of Charlotte, NC

Charlotte-Mecklenburg is taking an interlocking and multi-pronged approach to reducing reliance on private automobiles within the Charlotte area. The centerpiece of the 2025 Transit System Corridor Plan is CATS, the Charlotte Area Transit System, which will comprise 28 miles of bus rapid transit (BRT), 21 miles of light rail transit (LRT), 11 miles of streetcar service, and 29 miles of commuter rail by the time it is completed. Traffic models forecast a 25 percent reduction in vehicle traffic in Charlotte's core when the Transit System Corridor Plan is complete.

LYNX is the light rail component of this strategy. Currently LYNX's Blue Line has 15 stations, with free parking provided at 7 of the outlying locations and bicycle parking at all. LYNX cars also accommodate bicycles on board.

Santa Barbara, CA



Waterfront and Downtown Shuttle
Credit: Kate Schwab, Santa Barbara MTD

The Metropolitan Transit District (MTD) operates 30 regular bus routes in Santa Barbara County including shuttles along and between the Waterfront and the Downtown. These fixed route shuttle services run on 15- and 10-minute schedules respectively from 10 a.m. until 6 p.m. Sunday thru Thursday and from 10 a.m. until 10 p.m. on Fridays and Saturdays (shuttle service begins at 9 a.m. but with a slightly longer headway). The shuttles are popular with tourists and locals alike. They are critical to reducing traffic in Santa Barbara's busiest areas, as they allow people to park just once to visit several destinations, including the Zoo.



Credit: Kate Schwab, Santa Barbara MTD

With the exception of the Downtown and Waterfront shuttles, which run in a relatively compact and highly bikeable area, all MTD buses are equipped to carry bicycles. Buses and shuttles are all wheelchair accessible.

LOWER PARKING REQUIREMENTS

Excessive parking and private lots in commercial areas encourage people to drive between businesses rather than park once and walk short distances between destinations. Lowering parking space requirements, particularly for individual uses within commercial and mixed-use districts, helps correct this problem when coupled with a program to consolidate parking in specific central places.

Seattle, WA, abolished use-specific minimum parking standards for commercial properties in 1986 and adopted a requirement of 1 space per 1,000 square feet of non-residential space, though even this requirement may be waived if the building is in a designated pedestrian corridor. Larger projects may also be eligible for other concessions, such as participation in a “parking cash-out” program, in which employees of larger firms are paid to forego a company-provided parking space and commit to taking transit, carpooling, bicycling or walking to work.

Parking ratio requirements for commercial projects in the mixed-use districts of Kirkland, WA, Palo Alto, CA, and Philadelphia’s City Center district range from half to less than a quarter of those typically seen in the single-purpose districts of other cities. Kirkland requires 2 spaces per 1,000 square feet and Palo Alto’s ratio is 1.8 spaces/1,000 square feet. The ratio in Philadelphia’s City Center is 0.89 spaces per 1,000 square feet.

Milwaukee, WI, also has adopted a parking ratio for retail of 1 space per 1,000 square feet. The city discourages open parking fields, preferring structures and requiring half the ground floor space of parking structures to be devoted to retail.

San Francisco, CA, has no minimum parking requirement, but does set a maximum number on spaces allowed for various types of residential units, ranging from 0.25 to 0.75 per unit. Developers may build 1 space per unit provided the parking spaces are sold or leased separately from the living units.

As applied in model communities

Boulder, CO



Boulder curbside bicycle parking
Credit: Tara Anderson under Creative Commons license

Boulder has set rather typical minimum parking space requirements for most of its residential zoning districts, but has established a 1 space per dwelling unit maximum for its Mixed Use-4, and high density residential zones RH-3 and RH-7, which include limited pedestrian-oriented commercial uses designed to serve the surrounding neighborhood. These zones are also close to primary destinations (such as shopping or entertainment venues) or to transit centers.

In addition to automobile parking spaces, the city also requires the greater of 4 spaces or 1 space per 10 dwelling units for short-term bicycle parking in the Mixed Use-4, RH-3 and RH-7 zones. Two long-term bicycle parking spaces per dwelling unit are also required in these zones.

Charlotte, NC



Bicycle Parking, Charlotte
Credit: City of Charlotte, NC

While parking standards for other parts of Charlotte are similar to those for average places around the nation (e.g., minimum of 2 off-street parking spaces per detached dwelling unit), the minimum requirements in the City’s Pedestrian Overlay (PED), Mixed Use Development (MUDD), and Transit Oriented Development (TOD) districts are substantially lower. In the TOD maximum allowable standards are also set.

Use	PED	MUDD	TOD
Residential	Min. 1 per unit	Min. 1 per unit	Max 1.6 per unit
Hotel	0.5 per room min	0.5 per room min	0.5 per room max
Restaurant/Nightclub	1 per 125 s.f. gross	1 per 600 s.f. gross	Min. 1:150 s.f.; max 1:75 s.f.
Retail	1 per 600 s.f. gross	1 per 600 s.f. gross	1:250 s.f. max.
Office	1 per 600 s.f. gross	1 per 600 s.f. gross	Max 1:300 s.f. (MU shared parking allowed)

Santa Barbara, CA

While Santa Barbara generally imposes typical parking ratios, it does allow for reductions in two instances: in mixed-use developments where residential uses occupy at least 50 percent of the floor area, parking requirements may be reduced by up to 50 percent, and rather than 1 space per 2-bedroom unit, only 1 space would be required. For each 1-bedroom unit, only ¾ of a space would be required. For commercial buildings, parking requirements may be reduced given an approved alternate mode transportation plan for workers.

PARKING BY DESIGN

Two views of an award-winning parking garage, Staunton, VA
Credits: EPA Smart Growth



Parking locations should be carefully considered, then designated and designed to minimize the presence of parked cars in downtown and mixed-use streetscapes. Locations should be chosen so as to direct foot traffic past restaurants and shops and encourage drivers to park once and walk between multiple destinations.

Parking should be priced so as to encourage a park-once mentality. There is no such thing as free parking. There is only subsidized parking. In some cases, it is the municipality and its citizens who pay the price. In others it is the customers of merchants who pay higher rents and then pass the cost along. But when individual drivers mistakenly perceive the cost to be free, they use more parking than they would if they had to pay for it explicitly.

Pedestrian accessibility is improved when potential conflicts with cars are minimized. It is to this end that many cities restrict the number and placement of driveways leading to surface parking or parking garages.

The design guidelines for the Clarendon Station Area of Arlington, VA, relegate parking entrances to alleys or to secondary streets if there are no alleys. They are not allowed on the primary streets unless there is no other access point available. The stated purpose of these policies is to avoid collisions between pedestrians and vehicles.

Seattle also requires that private parking be situated away from the street. It must either be inside a structure or to the side or rear of the property.

Virginia Beach, VA, design guidelines for parking structures in commercial districts require the structure to make a positive contribution to the urban fabric. Ground floor retail is strongly encouraged, but if this is impractical then architectural enhancements, such as wall art, are required. Blank or otherwise uninteresting walls are disallowed and building materials are expected to be attractive and of high quality.

Imposing parking fees is a relatively easy parking management strategy to implement, one that can indirectly have a big positive impact on walkability of a downtown district.

Pasadena, CA, installed parking meters in its commercial districts in 1993 and dedicated the proceeds to streetscape improvements and parking garage construction. The program generates more than \$5 million a year, which has allowed the city to provide and maintain street trees, decorative lighting, way-finding signage, sidewalk and crosswalk improvements, and additional parking garages. The proceeds also fund augmented district policing and daily street cleaning.

Bicycle parking should also be provided in sufficient amounts in convenient, safe and secure locations. Some communities have begun to require bicycle parking to constitute a minimum of 10 percent of all parking provided.

As applied in model communities

Boulder, CO



Design with traditional commercial features, this parking facility has retail/commercials spaces along the street

Credit: City of Boulder, CO

Boulder design guidelines explicitly call for parking to be located conveniently but not to the detriment of either the surrounding buildings or the pedestrian environment. Parking is not to be located on corner lots, and parking structures must include a retail wrap. Surface parking is to be located to the rear of buildings and, if possible, accessed from an alley to minimize curb cuts that disrupt pedestrian traffic. Surface lots must also be landscaped to minimize their visual impact on the streetscape.

Charlotte, NC



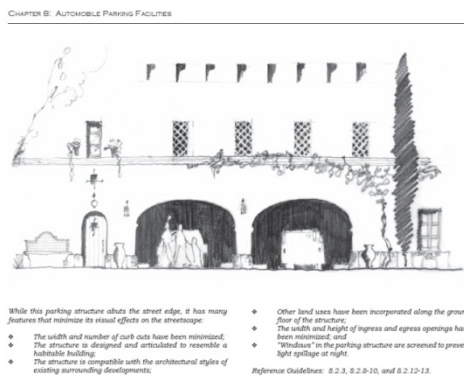
Credit: City of Charlotte, NC

Nearly all of the parking available in Charlotte's downtown is privately owned and operated. Only about 5 percent of spaces are publicly provided. Of the public spaces, 1,100 are on-street and metered, and most have a 2-hour maximum.

The predominance of private parking created the impression that there was little parking available downtown, and in response the City of Charlotte undertook an innovative program. Under the Charlotte Parking Collaborative, the City has invested in programs that facilitate parking at

private facilities. The City has erected prominent signs in advance of parking structures. The signs not only indicate location but real-time information on space availability. The benefit to the City of this investment is that facilitating drivers' finding parking spaces reduces congestion and exhaust pollution. In addition to the signs, the City also provides parking location information on a Find Your Way website.

Santa Barbara, CA



Credit: City of Santa Barbara, CA

Though there are a few private lots, the bulk of the parking spaces in Santa Barbara's downtown are located in 12 municipal parking structures and lots. Most of these facilities are accessed one block off State Street, the city's main shopping street, via Anacapa and Chapala Streets or their cross streets. In addition to cross street connections, paseos provide mid-block pedestrian pathways to parking structures in several locations. Parking is free for the first 75 minutes and \$1.50 for each hour or part of an hour thereafter. Downtown and Waterfront transit trolleys shuttle visitors and locals up and down State Street, out to the pier, the beach and the zoo. The centralized parking encourages people to park once

and walk in the downtown district.

Santa Barbara's architectural guidelines ensure that, regardless of ownership, parking facilities are unobtrusive.



Credit: City of Santa Barbara, CA

MODEL COMMUNITIES

Boulder, CO

Situated 30 miles northwest of Denver, Boulder is home to the University of Colorado. Between 1950 and 1970, the city more than doubled in size and that rapid expansion prompted the 1970 adoption of the Boulder Valley Comprehensive Plan, which focused on controlling urban expansion and protecting the surrounding open space and scenic vistas that make Boulder one of the most desirable places to live. With an estimated 2009 population of 100,160, the city routinely shows up on “Best Places” lists. Among its 2010 mentions, Boulder was deemed by Men’s Health magazine to be the second Healthiest Town in the U.S., due in part to the hundreds of miles of bicycle paths, lanes and routes throughout the city.

Charlotte, NC

With a 2009 population of 704,422, Charlotte is known primarily as a national banking center, second only in that regard to New York, but there are 5 non-banking Fortune 500 companies headquartered there as well. The city ranked #8 on CNN Money’s 2010 list of Best Places to Live and Launch based in part on its abundant young and well-educated workforce. Its reputation as an exciting and vibrant place and its wealth of universities and colleges in the immediate area attract young people from across the country. Charlotte has placed a high priority on maintaining the high quality of life that its residents expect while building a city that reflects its status as a national financial center.

Santa Barbara, CA

Santa Barbara’s dazzling location on California’s Central Coast makes it one of the world’s most beautiful places to live, but its attention to careful planning and strict urban design standards has placed it among the most desirable places as well. With a 2009 population of 86,353, the City has been careful to preserve and build upon the rich architectural heritage of its Spanish colonial days. The core of the city is built on a fine grid of streets and paseos (pedestrian passages) that make it a highly walkable place. And though high real estate prices deter many from living in Santa Barbara, the city’s natural beauty and urbane amenities make it a top destination for visitors from around the world.

be bold

Long Island Index

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