CHAPTER 9
PARKING

A primary goal of smart growth is to enable people to modify their travel behavior by using alternate modes of travel, reducing trip length and combining trips. As a result, communities that reflect the principles of smart growth will have a reduced number of vehicle trips and vehicle miles traveled. However, not all vehicle trips will be replaced by transit, walking or bicycling trips. A well-designed place must accommodate all modes of travel, including the automobile. The challenge for designers is to provide a parking supply that is slightly constrained but does not deter customers, frustrate tenants or create problems for nearby residents. It is also essential to accommodate parking while still creating walkable, pedestrian-oriented streets.

9.1 Surface Parking

Surface parking lots are a convenient, economical way to provide vehicle parking. When they are designed well, they can fit into a neighborhood without being visually obtrusive.

As densities in a Smart Growth Area increase over time, surface parking lots should gradually be replaced by other forms of parking that make more efficient use of the land, including shared parking garages, podium parking, and below-grade parking. New development should not include surface parking lots in areas where structured parking is already prevalent.

9.1.1 Placement

Parking lots should be visually separated from the street, as well as the surrounding residential uses.

- Place parking lots behind buildings wherever possible, so that pedestrians can access buildings more easily and to ensure that buildings have a visual presence on the street.
- If a parking lot is adjacent to a residential area, provide fences, walls and landscaping to create a buffer around the back and side of the lot.

9.1.2 Design Features

Landscaping and pathways make parking lots more attractive and functional. They also help to buffer parking lots from surrounding uses.

- Provide clearly marked pedestrian paths between all parking areas and the buildings they serve. Highlight these paths with decorative paving, trellises, canopies and similar improvements.

A pedestrian path leads to a shared parking lot behind these buildings in Oakland, California.

A decorative gate and fence screen a parking lot in Berkeley, California.

- Use landscaping and pedestrian paths to divide large parking lots into smaller units, and provide lighting along these paths.
- Plant canopy trees throughout the parking lot to provide shade and create visual interest.
- Where parking lots are adjacent to a street, use low walls and attractive, varied landscaping to provide screening.
- Use downward-directed lighting and cut-off shields to avoid casting light onto adjacent properties or into the sky.

9.2 Parking Garages

Parking garages must be designed so that they are well integrated with their surroundings. Careful attention to architectural detail can conceal the special-purpose nature of parking garages, allowing them to fit the context of nearby buildings. Chapter 2 provides a visual simulation showing how a new parking garage that meets these principles could fit into La Mesa.

- Use horizontal lines on exterior façades to separate each floor, rather than reproducing the sloping condition of the interior structure.
- Break up the building's façade with vertical elements, such as projecting columns and offset wall planes, as well as variations in color, texture and materials.
- Provide openings on each floor of the garage that adequately screen vehicles while creating a sense of transparency.
- Limit the height and bulk of parking structures so that they are reasonably consistent with adjacent buildings.
- Reinforce the pedestrian realm by wrapping the parking garage with retail or office uses.
- Use projecting elements, awnings or other architectural details to highlight pedestrian entrances to the garage.

See Also
"Transformation of Existing Places" on page 20

This garage in San Diego is wrapped by active uses at the street, and its architectural details are integrated with those of surrounding buildings.

9.3 Universal Design of Parking

All parking areas must be designed so that they are convenient and safe for everyone who uses them, regardless of their level of mobility.

- Provide parking spaces for people with disabilities near all uses on a site, in accordance with local regulations. Meet or exceed the standards of the *Americans with Disabilities Act Accessibility Guidelines* (ADAAG), shown in Table 9-1.
- On pedestrian paths, use materials with a flat, smooth surface, and provide low-slope ramps rather than steps wherever possible.

Curb ramps in Chula Vista provide access to sidewalks for all users.

Table 9-1   **ADAAG Standards for Accessible Parking Spaces**

Total Parking Spaces	Minimum Accessible Spaces
1 to 25	1
26 to 50	2
51 to 75	3
76 to 100	4
101 to 150	5
151 to 200	6
201 to 300	7
301 to 400	8
401 to 500	9
501 to 1,000	2 percent of total
1,001 and over	20, plus 1 for each 100 over 1,000

9.4 Bicycle Parking

Bicyclists require safe, secure places to park their bikes, just as drivers require space for their cars.

- ◆ Locate bicycle parking areas near building entrances, and provide a clear pedestrian path between the parking area and the entrance.
- ◆ Include bicycle parking in all parking lots and parking structures.
- ◆ Provide secure bicycle parking in limited-access garages or storage areas where practical.
- ◆ Provide durable, permanently-anchored bicycle racks that allow bikes to be secured with U-locks or cable locks. Use racks that can support the frame at two points, such as inverted U racks.
- ◆ In large bicycle parking areas, include spaces that are long enough to accommodate a bicycle that is towing a trailer.

This rack in San Diego provides secure parking for bicycles.

9.5 Parking Demand Management

Most parking regulations seek to ensure that people who want to visit a site are not turned away by a lack of parking, and do not spill over onto other streets or parking lots. Traditional parking requirements typically meet these goals by requiring an excessive number of vehicle parking spaces for each land use. However, when the demand for parking is carefully managed, the amount of parking can be reduced, potentially by 25 percent or more, while still meeting the needs of drivers.

Signage in San Diego directs drivers to public shared parking lots.

9.5.1 Unbundled Parking Costs and Cash-Out Programs

The costs of parking are often bundled into the rent or purchase price for residential and commercial units and buildings, which requires everyone to bear the costs of parking whether they need it or not. In contrast, when parking costs are "unbundled," or separated, from other costs, the only people who must pay for parking are the ones who actually need it. For example, San Francisco's Central Waterfront Plan requires the cost of parking to be unbundled from the sale prices and rental fees for residential units.

Employers can offer a similar benefit to their employees by providing a cash-out program, so employees can choose between employer-subsidized parking or a cash payment. Some employers combine this benefit with subsidies for carpooling or public transit costs.

These strategies can create an incentive to carpool or use alternative modes of transportation, which may be less expensive than paying the true cost of parking. For example, one study of employers in the Los Angeles region found that parking cash-out programs could reduce solo driving by 17 percent on average. As a result, these strategies may support reductions in parking requirements.

- Separate the payment of parking costs from rent payments or purchase prices, and allow tenants and owners to pay only for the parking they use.
- Offer a parking cash-out program that allows employees to receive either owner-subsidized free parking or a cash payment equal to the value of the parking subsidy.
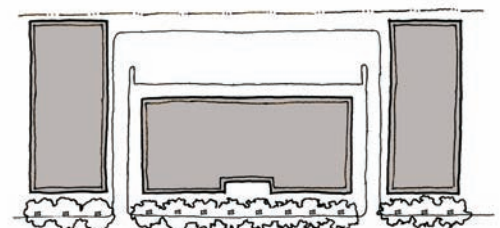
9.5.2 Shared Parking

Many jurisdictions allow parking requirements to be reduced when shared parking is provided. Developers can take advantage of these parking reductions to free up land for other uses.

- Establish shared parking agreements with other developers and landowners, as well as agencies that control public parking facilities.
- Display signs and maps to provide information about the location and availability of shared parking facilities.

A shared parking lot provides parking for several businesses.

An on-street sign in San Jose, California, indicates where spaces are available at nearby parking garages.

9.5.3 Demand Management Technologies

Real-time signs can distribute parking demand between different locations by telling drivers where they can find a parking space. In addition, technology can be used to accommodate sophisticated pricing strategies to manage demand. In the years to come, additional new technologies are likely to create new ways for parking spaces to be used more efficiently.

- Display real-time information at parking structures about how many spaces are available.
- Place electronic signs on the street pointing drivers to parking areas with available spaces.
- Use pay stations that provide options for variable pricing and multiple payment methods.

9.5.4 Vehicles that Reduce Demand

Car-sharing programs allow a large group of people to rent vehicles for a brief period, typically just a few hours at a time. By reducing car ownership, these vehicles help to reduce the overall demand for vehicle parking. In addition, vanpools reduce parking demand by transporting many workers in a single vehicle.

- Set aside conveniently located parking spaces for car-sharing pods. Ensure that they are accessible to all members of the car-sharing service.
- Use car-sharing vehicles as an alternative to a corporate vehicle fleet.
- Provide parking spaces for vanpool vehicles at major employment sites.
- Consider providing special parking spaces for vehicles that take up less space than cars, including motorcycles and neighborhood electric vehicles.

Car-sharing vehicles are located near the entrance to this transit station in Berkeley, California.

9.6 Parking Standards and Policies

Planners, urban designers and architects can ensure that vehicle parking is incorporated into new projects as thoughtfully as possible. However, local jurisdictions set the basic requirements for vehicle parking, such as the minimum number of spaces to be provided and the provisions for shared parking between multiple land uses. Cities and counties can use the following guidelines as a starting point to write parking ordinances that support the principles of smart growth.

9.6.1 Minimum and Maximum Requirements

Parking requirements are often drawn from parking generation rates published by the Institute of Transportation Engineers. These rates typically reflect a small number of studies that measure peak parking demand at suburban locations. The maximum parking demand in these studies often becomes the minimum parking standard in local zoning ordinances. As a result, developers are encouraged to provide excessive vehicle parking, and people are encouraged to drive, which is contrary to the principles of smart growth. To support alternatives to the automobile, parking requirements must be more carefully tailored to local needs.

- Reduce minimum parking requirements where appropriate. Allow developers to provide more parking than the minimum, up to a set maximum, if they believe that it is needed.
- Reduce or eliminate parking requirements where there are shared parking areas that can accommodate peak parking demand.
- Set more stringent maximum parking standards in areas where public transit is well established, frequent and convenient.
- Allow on-street parking spaces that are adjacent to a business to be counted towards that business' parking requirement.
- Allow for reduced parking requirements if a project includes transportation demand management (TDM) strategies, such as providing on-site car-sharing vehicles, van pool parking and discounted transit passes.
- Accommodate parking strategies that can make more efficient use of limited space, such as valet parking.
- Allow projects to reserve landscaped areas for future use as surface parking lots, if warranted by demand. Ensure that the project's landscaping requirements will still be met if the landscaped area is replaced by a surface parking lot.
- Amend off-street parking ordinances to include a requirement for numerically and functionally sufficient bicycle parking. For places of employment, consider requiring bike lockers, indoor bike parking or another secure form of bike parking.

- In beach communities and other destinations that have seasonal peaks of visitors, consider using public parking lots and garages, parking management districts and similar tools to meet temporary seasonal demand for parking. Avoid setting the minimum parking requirements based on peak demand.
- Within a jurisdiction's coastal zone, ensure that adequate public parking is available to provide the public with access to coastal resources.

9.6.2 Parking Management Districts

Local jurisdictions can create parking management districts in which the amount and cost of parking is regulated, so that the area meets its parking needs while promoting transit use, ridesharing and other alternatives to the single-occupancy vehicle.

- Provide publicly-owned, centralized parking facilities by collecting impact fees, in-lieu fees and other assessments from developers.
- Manage the price of on-street parking so that no more than 85 percent of visible spaces are occupied at a given time. This ensures that drivers who are willing to pay for a convenient, on-street parking space can find one as quickly as possible, rather than increasing congestion as they search for a space.
- Increase parking fees at times of day when parking demand is highest.
- Provide discounted parking rates in locations that are less convenient.
- Use parking technologies that provide drivers with several convenient options for payment, potentially including credit cards and cell phones.
- Use revenues from parking fees to finance streetscape improvements, enhanced transit and day-to-day maintenance.
- Establish district-wide parking caps in places with frequent transit service.

Shared parking conveniently located behind retail buildings in Berkeley, California, encourages people to link trips.

9.6.3 Shared Parking Regulations

Different land uses often experience peak parking demand at different times of the day or week. In addition, businesses are often located so close to one another that people can park once and walk between them. As a result, many jurisdictions allow multiple land uses to provide shared parking areas, which reduces the total amount of parking that must be provided.

If a parking lot is shared between two separately-owned properties, it is essential for both property owners to sign a legally binding agreement that guarantees access to the parking spaces. The local jurisdiction should have the power to enforce this agreement. Most cities and counties that allow shared parking, such as the City of San Diego, have developed model agreements that must be signed by the property owners and recorded against the property.

* Reduce the total parking requirement for multiple land uses that might be visited in a single trip, or that experience peak demand at different times of the day. Ensure that the typical parking duration and turnover rates of each use are compatible as well.
* Do not provide reserved parking spaces for a single business.
* Allow parking facilities to be located on separate sites from the land uses they serve.
* Set a maximum distance between an off-site parking facility and the land uses that it serves. Typical distances would be 400 to 600 feet for visitor parking and 600 to 1,000 feet for employee parking.
* If a parking lot has a different property owner than the businesses that use the parking lot, require a legally binding agreement between the property owners. Ensure that there is a mechanism to enforce this agreement.

9.6.4 Parking Configuration

Developers can often make more efficient use of a site when they have flexibility to configure vehicle parking spaces in nontraditional ways.

* For residential uses, allow tandem parking spaces, where one car parks behind another, or stacked parking, where two or three cars park above one another on a hydraulic lift.
* Allow large commercial and institutional uses to meet their peak parking demand by temporarily converting regular parking areas to higher-capacity valet parking areas.
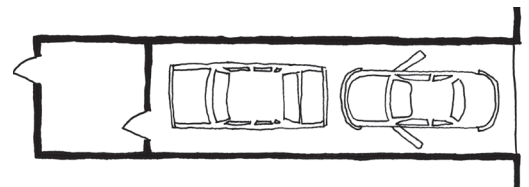
Tandem parking spaces allow for flexibility in a project's design.