



Site Provisions

A. General

This section provides design criteria for site requirements such as number of parking spaces, landscaping, parking setback, etc. While most jurisdictions have their own parking and zoning ordinances covering these items, they are included here as guidance for those communities that do not have such ordinances. This information may also be used as a supplement to existing ordinances.

B. Number of Parking Spaces Required

- 1. General Parking Ratios:** Adequate off-street parking should be provided for all residential, commercial, industrial, and public use properties. Table 8C-1.01 below provides minimum parking space standards for common land uses. For large traffic generators, a specific parking study should be completed.

Table 8C-1.01: Parking Ratios

Land Use	Spaces per Unit
<i>Residential and Lodging</i>	
Single and two family dwellings	2.0 / unit (tandem parking allowed)
Row dwellings	2.0 / unit + 1 visitor space per 4 units
Multiple family (apartment and condo)	1 to 2 bedroom units: 2.0 spaces / unit 3+ bedroom units: 2.5 spaces per unit plus 3.0 / 1,000 sf of GFA for lease management
Mobile home park	2.0 / unit (tandem parking allowed) plus 1 visitor space per 10 units plus 3.0 / 1,000 sf of GFA for lease management
Housing for seniors	1.0 / unit plus 10 / 1,000 sf of GFA for multipurpose buildings
Hotel/motel	1.25 / room + 10 / 1,000 sf of GFA of lounge or restaurant + 20 / 1,000 sf of GFA of conference or banquet facilities
<i>Retail Sales and Services</i>	
General and convenience retail	2.75 / 1,000 sf of GFA
Grocery stores	6.75 / 1,000 sf of GFA
Heavy/hard goods	2.5 / 1,000 sf of GFA, including outdoor sales area
Discount superstores	5.5 / 1,000 sf of GFA, including outdoor sales area
Specialty superstores	4.5 / 1,000 sf of GFA, including outdoor sales area
Shopping center	Special parking study required
<i>Food and Beverage Services</i>	
Restaurant, sit down	10 / 1,000 sf of GFA
Restaurant, fast food	1.5 / 1,000 sf of GFA
Restaurant, take out only	2 / 1,000 sf of GFA
Bar/nightclub	10 / 1,000 sf of GFA
<i>Office and Business Services</i>	
< 25,000 sf of GFA	3.8 / 1,000 sf of GFA
25,000 to 100,000 sf of GFA	Scale between 3.8 and 3.4 / 1,000 sf of GFA
100,000 sf of GFA	3.4 / 1,000 sf of GFA
Consumer services	4.6 / 1,000 sf of GFA
Data processing and telemarketing	6.0 / 1,000 sf of GFA
Medical office (not part of hospital)	4.5 / 1,000 sf of GFA
<i>Industrial, Storage, and Wholesale</i>	
Manufacturing or industrial	1.85 / 1,000 sf of GFA, plus parking for office, sales, or similar use where those uses exceed 10% of sf of GFA
Storage or wholesale	0.67 / 1,000 sf of GFA
Mini-warehouse	1.75 / 1,000
<i>Educational or Institutional Uses</i>	
Elementary or middle schools	1.0 / employee + 10 spaces for visitors
High school	1.0 / employee + 0.3 / student
Church or theatre	0.4 / seat

GFA: Gross Floor Area means the area in square feet within the exterior walls of a building, exclusive of any area used for off-street parking, courtyards, or mechanical equipment.

Source: Adapted from ULI/NPA

2. **Accessible Parking Ratios:** When parking spaces are provided, a portion of the parking spaces must be made accessible according to the 2010 ADA Standards for Accessible Design (2010 Standards). These standards specify the number of parking spaces within a parking facility that must be accessible. Table 8C-1.02 summarizes the minimum accessible parking ratios. For additional information, refer to Part 208 of the 2010 Standards.

Table 8C-1.02: Minimum Accessible Parking Ratios

Total Number of Spaces Provided	Minimum Number of 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% of total
1,001 and over	20, plus 1 for each 100, or fraction thereof, over 1,000

- a. **Residential Facilities:** Accessible parking requirements for residential facilities differ from the table above and are based, in part, on the number of accessible dwelling units provided. Refer to Part 208.2.3 of the 2010 Standards for specific requirements.
- b. **Hospital Outpatient Facilities:** Ten percent of the patient and visitor parking spaces provided to serve hospital outpatient facilities shall be accessible (2010 Standards, 208.2.1).
- c. **Rehabilitation Facilities and Outpatient Physical Therapy Facilities:** Twenty percent of patient and visitor parking spaces shall be accessible. Rehabilitation and outpatient physical therapy facilities serve patients with conditions affecting mobility such as braces, canes crutches, prosthetic devices, wheelchairs or powered mobility aids, arthritis, neurological or orthopedic conditions affecting one's ability to walk, and respiratory or cardiac conditions that impose significant functional limitations (2010 Standards, 208.2.2).
- d. **Van-accessible Spaces:** For every six accessible parking spaces, or fraction thereof, one van accessible parking space must be provided. If only one accessible parking space is required, it must be van-accessible. This requirement applies to all facility types.

C. Parking Lot Setback Requirements

Tables 8C-1.03 and 8C-1.04 present recommended parking lot setback distances.

Table 8C-1.03: Residential Parking Lot Setbacks

Residential Parking Lot Location	Setback (feet)
In all residential districts (from street right-of-way)	10 ^{2, 3, 4}
Along alley line across from a residential district	5 ^{1, 2, 3}
Along adjacent residential district property lines	10 ^{2, 3}
Along adjoining residential district parking lots	5 ^{2, 3}
Along adjacent commercial or industrial district property lines	0 ^{2, 3}

¹ No setback required when use as single family, duplex, or when the use is across from a parking lot

² Setback area should consist of a permeable material and should be landscaped

³ No vehicle should encroach into a required setback

⁴ Parking on driveways parallel to a public sidewalk for single family residences should maintain a minimum setback of 10 feet from the public street right-of-way

Table 8C-1.04: Commercial / Industrial Parking Lot Setbacks

Commercial/Industrial Parking Lot Location	Setback (feet)
Along alley lines bordering a residential district	5 ^{1, 2, 3}
Commercial or industrial districts abutting a residential district	10 ^{2, 3}
Commercial or industrial districts abutting a residential district parking lot	5 ^{2, 3}
Adjacent to a commercial or industrial district property line	0 ^{2, 3}
Office and commercial districts	15 ^{2, 3, 4}
Light industrial and general industrial districts	10 ^{2, 3, 4}
Business park and professional commerce park districts	20 ^{2, 3, 4}

¹ No setback required along that portion of an alley across from a residential parking lot

² Setback area should consist of a permeable material and should be landscaped

³ No vehicle should encroach into a required setback

⁴ Setback from public street right-of-way

All parking lots should provide a curb or wheel barrier around the entire perimeter, unless a walkway or border is provided. When adjacent to required setback and adjoining property lines, wheel barriers or curbs should be located 2 feet from the edge of property lines, public sidewalks, and adjacent parking lots to prevent vehicle encroachment into the setback area.

D. Landscaping and Screening

1. General Requirements:

- a. Landscaping:** The Designer should refer to the individual Jurisdiction zoning ordinance for parking lot landscaping requirements. If no such ordinance exists then the requirements set forth in this section should be used.

It is desired that all parking areas be aesthetically improved to reduce obtrusive characteristics that are inherent to their use. Therefore, wherever practical, such parking areas should be effectively screened from general public view by incorporating the natural landscape and topography. All parking areas should include landscape areas, islands, screens, etc., equal to not less than 10% of the total paved area. Landscaped islands within the parking area should be ground cover of grass (i.e. sod), shrubs, or other acceptable living

plant life, unless an alternate ground cover is specifically approved as part of the site plan review by the Jurisdiction.

Landscape islands should not be less than a minimum of 8 feet in width from back of curb to back of curb, landscape planters a minimum 6 feet in diameter, and no parking space should be greater than 75 feet from a landscaped open space. Parking spaces should be separated from any adjoining roadway, by a landscaped island or elevated separation (i.e. sidewalk) of a minimum of 9 feet in width except along the roadway or parking bay aisle that provides the direct access.

Earthen berms should be a minimum of 3 feet above the top of curb of the adjoining parking lot, if applicable, or public thoroughfare; should be designed to not affect the drainage and sight distance of the surrounding area; and should be aesthetically pleasing to the general public. Berms may be required to be higher if the minimum height is identified during the development review process as being inadequate to provide effective screening and buffering.

- b. Screening:** Screening may consist of one or any combination of the following.
- Wood or masonry walls or fences
 - Landscaped earthen berms
 - Plant materials of such size, branching density, spacing, and quantity to provide a minimum of 60% opacity while dormant. Such materials should provide screening function within three growing seasons after the initial planting. Failure to accomplish such function, whether due to slow growth, death, or other reason, may be grounds for requiring the addition of wood or masonry walls or fences. In some Jurisdictions, a published list of approved materials may be available. Any changes to this list must be made by a certified landscape architect.

2. Additional Requirements for Parking Lots in Residential Districts:

- a. A 6 foot high opaque screen should be installed and maintained when a residential parking area abuts another lower density residential district except in any required front yard setback area. No screening is required when said residential parking area abuts another parking area or a non-residential district.
- b. A three foot high opaque screen may be installed and maintained along each alley and street line when the premises is located across the street or alley from any lower density residential district. No screening is required when said residential parking area is located across the street or alley from another parking area or from a non-residential district.

3. Additional Requirements for Parking Lots in Commercial and Industrial Districts:

- a. A 6 foot high opaque screen should be installed and maintained when a commercial and industrial parking lot abuts a residential district. No screening is required when said commercial and industrial parking area abuts another parking area or a non-residential use.
- b. A 3 foot high opaque screen should be installed and maintained along each alley and street line when the premises is located across the street or alley from any residential district. No screening is required when said commercial and industrial parking area is located across the street or alley from another parking area or from a non-residential district.
- c. A 3 foot high opaque screen should be installed and maintained along adjoining residential district. No screening is required when adjoining use is non-residential or parking.

E. Lighting

When lighting is required, cutoff style luminaries should be utilized to minimize glare and prevent light trespass onto adjacent properties. Design lighting according to Chapter 11 - Street Lighting. Check with the local jurisdiction for lighting requirements. If none exist, refer to Table 8C-1.05 for the recommended illuminance values and uniformity ratios for parking lots.

Table 8C-1.05: Recommended Maintained Illuminance Values and Uniformity Ratios

	Basic	Enhanced Security
Minimum horizontal illuminance on surface	0.2 footcandles	0.5 footcandles
Minimum vertical illuminance at 5 feet above surface	0.1 footcandles	0.25 footcandles
Uniformity ratio (max. to min.)	20:1	15:1

Source: ULI / NPA

F. Pavement Markings

The location of each parking space and direction of traffic flow should be identified by surface markings and should be maintained so as to be readily visible at all times. In general, yellow markings tend to stand out better than white from the background parking surface. White paint on concrete also tends to fade with time, making it difficult to distinguish the striping. All pavement striping should be 4 inches in width. Markings may either be painted or cold applied marking tape.