

Section 9 Standards for Parking, Loading, Sidewalk and Trash Handling Facilities

9.1 Purpose

The purpose of this section is to establish standards for motorized vehicle parking, for bicycle parking, for loading areas, for sidewalks, and for trash facilities. These standards are established in order to provide for the safe movement of motorized vehicles, bicycles, and pedestrians and to reduce hazards to public safety.

9.2 General Requirements

1. Off-street parking facilities for motorized vehicles and bicycles shall be provided for patrons, occupants and employees of all nonresidential uses located outside of the CBD. Commercial vehicles associated with the use shall only be parked in areas designated on an approved site plan and shall be shielded from view from any public streets and any adjacent residential property. Uses within the CBD that provide parking for motorized vehicles shall also provide it for bicycles.
2. Off-street parking for motorized vehicles and bicycles shall be provided for all dwelling units. Residential off-street parking shall consist of either a driveway, parking lot, garage or any combination of these items. Bicycle parking may be located in any of these areas or in other locations that are easily accessible and do not impede pedestrian or motorized vehicle movement into or around the site.

Other domestic and recreational vehicles such as boats, camper trailers, and utility trailers shall be stored off the street and may not be located in required front and side yard spaces. Multifamily developments may designate a specific area on a site plan for boat and trailer parking for residents of the development.

Vehicles parked in residential areas may not exceed 30 feet in overall length, 8 feet in width or 12 feet in height. Trailers may not exceed 35 feet in length or 12 feet in height. Parking of school buses associated with Durham Public Schools shall be allowed. Parking of heavy equipment or "tractor trailers" shall not be allowed.

This requirement shall not prohibit commercial vehicles from making deliveries in a residential district.

3. Nonresidential parking spaces shall not be used for the storage of merchandise, vehicle storage, vehicles for sale, or vehicle repair.
4. Any area designated for required off-street parking shall not be changed to another use until other parking facilities in conformance with zoning requirements are established elsewhere.
5. Requirements for the number of parking spaces for motorized vehicles and bicycles for each use are listed elsewhere in this section. The requirements may result in the calculation of a fractional parking space. If the fraction is less than 1/2, the fraction may be deleted. If the fraction is 1/2 or greater, the fraction shall count as 1 parking space.

Off-street parking for separate uses may be provided collectively if all other regulations are observed. A parking space designated for one use shall not be designated as fulfilling the requirements for another use unless approved by the Development Review Board (DRB).

Up to 30% of the off-street parking spaces may be sized and designated for compact vehicles. A larger percentage of compact vehicles may be allowed by the DRB. All off-street handicapped parking spaces shall be designated by a sign or other means specified by State requirements.

During the site plan approval process, the Design Review Board may allow a new or a pre-existing development to convert up to 5% of its motorized vehicle spaces to non-required additional bicycle parking, as long as the spaces are conveniently located near a building entrance. Converted parking spaces must yield at least 6 bicycle parking spaces per motorized vehicle space. A development requesting such a conversion must demonstrate a need for additional bicycle parking.

6. Shopping Centers which provide 400 or more parking spaces shall designate at least 5% of the required spaces as "Park and Ride" spaces. However, no more than 100 spaces shall be required. A sign or signs shall be used to designate that the spaces are reserved for park and ride use during non-holiday weekdays between 6 a.m. and 6 p.m. Park and ride spaces, for the purpose of this section, shall be defined as spaces to be occupied by vehicles left by individuals who transferred to other modes of transportation for the remainder of their trip to an off site location. For example, a driver who transferred from a car to a bus or carpool for the remainder of the trip to work or school. Bus shelters may be required in the vicinity of the Park and Ride area if the DRB determines that DATA, the Triangle Transit Authority, or another publicly sponsored transit provider would benefit from the improvements.
7. A building with at least 10,000 square feet of space devoted to office uses shall provide carpool parking spaces. *At least 1% of parking spaces shall be designated as reserved for carpool parking. The designated*

spaces shall be among the spaces located closest to the building entrance [other than the handicapped parking spaces.]. This requirement shall only apply if carpooling standards and administrative requirements are defined by an ordinance adopted by the Governing Body

9.3 Design Standards

9.3.1 Design Standards for Motorized Vehicles

Each required off-street parking space shall open directly onto an aisle or driveway which is designed to provide safe and efficient vehicular access to each parking space. Parking shall not be allowed to impede traffic movement on alleys or streets or to impede pedestrian or bicycle activities.

1. **Dimensions:**A required off-street parking space shall be at least 8 feet, 6 inches in width and 18 feet in length exclusive of any access drives, aisles, or columns. However, for nonresidential uses, parking spaces of a reduced size may be permanently designated, by signs, for compact vehicles. A compact vehicle space shall be at least 7 feet, 6 inches in width and at least 14 feet in length, exclusive of access drives, aisles, or columns. Parallel parking spaces shall be increased by 5 feet in length. Nonresidential parking spaces and multi-family parking spaces shall be striped on pavement or designated with some other form of permanent marking.

All spaces shall have a vertical clearance of 6 feet, 6 inches. Aisles shall not be less than 24 feet wide for 90 degree parking, 18 feet wide for 60 degree parking, 16 feet wide for 45 degree parking and 12 feet wide for parallel parking. The angle shall be measured between the centerline of the parking space and the centerline of the aisle. No parking shall be allowed in the aisles.

Parking spaces using geometric standards other than those specified elsewhere in this ordinance may be approved subject to a determination by the Durham Transportation Department that the plans for the facility are sealed by a registered engineer with recognized expertise in parking facility design and a determination that the proposed facility will satisfy offstreet parking requirements as adequately as would a facility using standard ordinance dimensions.

2. **Plan:**Parking design for nonresidential and multi-family uses shall be approved as part of site plan review. Parking spaces required to meet the standards of this section shall be located on the same lot as the building or use served unless the DRB determines that location of the parking on-site would result in an unnecessary hardship and that the intent of this section would be better served by locating the required parking on another site within 1,000 feet of the use.
3. **Screening and Landscaping:**Landscaping and buffer widths in conformance with standards found in Section 10 of this ordinance shall apply.
4. **Credit for Public Spaces:**Some or all of the required off-street parking spaces may be waived by the DRB if publicly owned off-street parking is located within a 1,000 foot walking distance from the main entrance of the proposed use and the DRB also determines that adequate parking spaces are available within the publicly owned parking area to accommodate the anticipated use.
5. **Lighting:**Parking lot lighting shall be shielded so that it does not cast direct light beyond the property line. Parking lots shall be lighted during night business hours.
6. **Surfacing:**All required off-street parking spaces, except for those associated with single family detached dwellings, shall be covered with an all weather surface designed to support anticipated loads. Loose material surfaces shall be contained with a permanent edging. The surface shall be maintained so that traffic may move safely in and out of the parking area.

9.3.2 Design Standards for Bicycle Parking

1. Bicycle parking must be visible and convenient for cyclists and must provide sufficient security from theft and damage. Designating space for bicycle parking within buildings is a preferred option when feasible. Requirements for parking in other areas can be met by (1) a bicycle storage room, bicycle lockers, or bicycle racks inside a building; (2) bicycle racks or lockers in a parking structure, underneath an awning or marquee, or near a main building; or (3) bicycle racks on the public right-of-way with approval from the City or State and where such racks do not conflict with pedestrian use. When required motorized vehicle spaces are provided in a structure, an equal percentage of the required bicycle spaces are to be located inside that structure, unless other accessible, covered bicycle parking is located elsewhere on the site.
2. Where bicycle parking facilities are not clearly visible to approaching cyclists, signs shall be posted to direct cyclists to the facilities.
3. **Dimensions**facilities shall provide at least a twenty-four inch clearance from the centerline of each adjacent bicycle and at least eighteen inches from walls or other obstructions. An aisle or other space shall be provided for bicycles to enter and leave the facility; this aisle shall have a width of at least five feet to the front or the

rear of a standard six-foot bicycle parked in the facility. Each bicycle parking space shall be sufficient to accommodate a bicycle at least six feet in length and two feet wide. Overhead clearance shall be at least seven feet.

4. Bicycle parking spaces are to be clearly marked as such and shall be separated from motorized vehicle parking by some form of physical barrier designed to protect a bicycle from being hit by a motorized vehicle.
5. Each bicycle parking space shall be provided with some form of stable frame permanently anchored to a foundation to which a bicycle frame and both wheels may be conveniently secured using either a chain and padlock or a U-lock. The frame shall support a bicycle in a stable position without damage to frame, wheels, or components. The rack known as an "inverted U-rack" is the preferred type.
6. Outdoor bicycle parking facilities shall be surfaced in the same manner as the motorized vehicle parking area and shall be equally level.
7. Lighting and other security design features shall be provided in bicycle parking facilities equivalent to that provided in the facilities for motorized vehicles.
8. Bicycle parking shall be located no further from the building's main entrance than the closest motorized vehicle parking space, excluding parking for persons with disabilities. Uses with several major entrances shall locate a portion of the required bicycle parking at each entrance.

9.4 Required Motorized Vehicle Parking

Off-street parking spaces shall be provided for all uses listed below in the amounts specified below. An exception shall be the CBD District where no off-street parking is required. The DRB may reduce the required number of spaces by up to 20% if for reasons of topography, mixes of uses, ride sharing programs, availability of transit, or other conditions specific to the site, the reduction in the required number of parking spaces satisfies the intent of this section. Buildings with multiple uses shall calculate parking based on the square footage of each use in the building.

9.4.1 Minimum Required Motorized Vehicle Parking

Use	Minimum Number of Required Off-Street Parking Spaces
Art galleries	1 space for each 300 sq. ft. of gross floor area
Auditoriums, assembly halls, theaters	1 space for each 4 seats or 1 space for each 40 sq. ft. of floor area available for the accommodation of movable seats in the assembly room
Auto repair shops	2 spaces for each service bay
Banks and other financial institutions	1 space for each 200 sq. ft. of gross floor area used by general public; 1 space for each 600 sq. ft. not used by general public
Bed and breakfast inns	1 space per rental unit; 1 space per 4 employees
Boarding houses	1 space for each rental unit
Car wash, automatic or self-service	5 spaces per bay automatic; 2 for self-service
Churches	See "Places of worship"
Clubs and lodges	1 space for 200 sq.ft. of gross floor area used by the general public or membership, 1 space for every 600 sq.ft. not used by the general public or membership
Colleges and universities	as determined by Development Review Board
Commercial dormitory	1 space for each rental unit
Convalescent centers	1 space per 4 beds plus 1 space for each 2 staff members
Convenience stores	1 space for each 200 sq.ft. of gross floor area. Areas where vehicles park to receive gasoline shall be considered parking spaces.
Contractor's offices	1 space for each 1,000 sq. ft. of gross floor area
Contractor's yards, building	1 space for each 10,000 sq. ft. of yard materials, storage
Correctional facilities	Sufficient spaces to supply 1 space for each employee per shift and 1 space for every 5 occupants. The requirement may be modified with the use permit.

Day care facility	1 space for each employee on a major shift, plus 2 drop off spaces for patrons
Diet house	4 spaces for each doctor or practitioner and 1 space for each 2 seats assigned for food service
Dormitories, fraternity, and sorority houses	1 space for each 5 beds
Dwellings:	
Single family	1 space for each dwelling unit
Two-family, Three-family and multifamily	2 spaces for each dwelling unit. The Development Review Board (DRB) may require up to 1 space for every 5 units for visitor parking.
Efficiency units	1 per unit
Retirement communities, elderly housing	1 space for every 2 multifamily units plus 1 space for each 4 staff members whose work is associated with the units or with the occupants of the units. 1 space for each single family unit
Fairgrounds	1 space for each 600 sq. ft. of gross floor area
Funeral homes	1 space for each 4 seats in chapel
Golf courses	Based on review by the DRB considering site size, topography and supporting facilities
Government buildings	Based on review by the DRB considering site size, topography and supporting facilities
Hospitals	1 space for every 2 beds; 1 space for each doctor and nurse; and 1 space for every 4 additional employees
Hotels	1 space per rental unit
Junk yards	1 space plus 1 space for each 10,000 sq. ft. of yard
Laboratories, research	1 space per 1,000 sq. ft. of floor and area facilities
Manufacturing, processing, assembly, distributions, bottling works, machine shop, metal, wood-working, plumbing, electrical, printing shop, roofing shop	1 space for each 1,000 sq. ft. of floor area
Medical, dental and similar offices	4 spaces for each doctor or nurse and 1 space for each employee
Meeting rooms, exhibit halls	1 space for each 4 seats or 1 space for each 40 sq. ft. of floor area available for the accommodation of movable seats or exhibits
Mobile home park	1 space per rental unit
Motels	1 space per rental unit
Museums	1 space for each 300 sq. ft. of gross floor area
Night clubs	1 space for each 4 seats
Offices	1 space for each 250 sq. ft. of gross floor area
Nursing homes	See: "Convalescent center"
Places of worship	1 space for every 5 seats
Radio, TV recording studio	1 space for each 300 sq ft of gross floor area
Restaurants, cafeterias, dining rooms including drive- up windows	1 space for every 4 seats
Recreation, indoor	Based on review by the Development Review Board considering site size, topography and type of use
Recreation, outdoor	Based on review by the Development Review Board
Retail spaces or other unspecified	See: "Service establishments"
School: kindergarten, elementary	1 space for each classroom and 1 space per 300 sq. ft. of administrative office space
Schools: high school, college, vocational, business	6 spaces for each classroom and 1 space per 300 sq. ft. of administrative office space
Stables, commercial	1 space for each 2 stalls
Service establishments and retail:	

A. Dealing infrequently with public such as furniture repair, secretarial services.	1 space for each 600 sq. ft. of gross floor area
B. Dealing frequently with public such as barber shops, beauty shops, laundromats, video stores, drug stores, groceries, etc.	1 space for each 200 sq. ft. of gross floor area
Transportation terminals:	
A. Freight	1 space per 1,000 sq. ft. of gross floor space
B. Passenger	1 space per 200 sq. ft. of gross floor space
Veterinary establishments	4 spaces for each doctor and 1 for each employee
Warehouses	1 space for each 5,000 sq. ft. of gross floor area
Wholesale establishments	1 space for each 900 sq. ft. of gross floor area

9.4.2 Minimum Required Bicycle Parking Spaces

Multi-family residential uses shall provide bicycle parking at the rate of 1 bicycle parking space for each 20 motorized vehicle spaces but no more than 50 total bicycle parking spaces are required for any single development. Non-residential uses with an off-street parking requirement for motorized vehicles of at least 15 spaces and not more than 40 spaces shall provide a minimum of 2 bicycle parking spaces. Non-residential uses with an off-street parking requirement greater than 40 spaces shall provide bicycle parking spaces equal to 5% of the total number of spaces required up to 100 spaces.

9.4.3 Unlisted Uses

Uses not listed shall be reviewed by the Development Review Board for a determination of required spaces.

9.5 Parking Area Landscaping Requirements

Parking areas are required to meet ordinance requirements for landscaping within the parking area and around the perimeter of the parking area. Landscaping requirements are found in Section 10 of this ordinance.

9.6 Loading Areas

Note: See Section 9.2 (3)

9.6.1 Location

No loading spaces shall be located within 30 feet of street intersections nor in any required yard space.

9.6.2 Surfacing

All open off-street loading areas shall be surfaced with an all weather material such as concrete, asphalt, or at least 4 inches of properly compacted crushed stone, designed to carry the heaviest vehicle loads that can commonly be expected. Consideration should be given to the weight of fire and sanitation equipment as well as delivery vehicles. Loading areas surfaced with loose materials such as crushed stone shall provide permanent edging around the area.

9.6.3 Repair and Service

No motor vehicle repair work or service of any kind shall be permitted in conjunction with loading facilities provided in any District.

9.6.4 Utilization

Space allocated to any off-street loading space, accessory drives, or aisles, shall not be used to satisfy the space requirements for any off-street parking or trash handling facilities.

9.6.5 Ingress and Egress

Each required off-street loading space shall be provided with a means of unobstructed ingress and egress to an alley or onto a public street wide enough to accommodate expected vehicles. Where such ingress and egress is made into a public street, it shall be through driveways or openings which meet required standards. Permanent wheel stops or curbing shall be provided to prevent any vehicle using the loading area from encroachment either on the required front yards, side yards, or adjacent property.

9.6.6 Off-Street Loading Requirements

Loading spaces shall be required for uses which normally handle large quantities of goods, including but not limited to industrial plants, wholesale establishments, warehouses, freight terminals, hospitals and retail establishments. Off-street loading spaces may be either inside or outside the building and on the same or adjoining premises. The loading spaces shall be of sufficient size and number to allow normal loading and unloading operations appropriate to the property to be served. In no case shall the loading space hinder the movement of traffic or pedestrians. The loading spaces shall be indicated on site plans submitted for approval. The DRB may require one or more additional loading areas if the magnitude of the use would anticipate the need for more loading or standing space. Loading berths shall be 10 feet by 25 feet with 14 feet of vertical clearance. The size may be modified by the DRB where site or use conditions warrant changes to this standard.

9.6.7 Landscaping Requirements

Loading areas shall be screened from public streets and adjacent residential property in accordance with the screening requirements of Section 10

9.7 Off-Street Utility, Dumpster, Recycling, and Trash Handling Facilities

All utilities (including heating and air conditioning units), dumpsters, and trash handling facilities shall be located on the same lot as the use served unless shared facilities are approved by DRB.

All utility, dumpster, and trash handling facilities including the occupant's recycling facilities shall be completely screened from public view, and from the view of any development on any adjoining property. A wall, solid wood fence, evergreen hedge, earth berm, or any combination thereof shall be provided to obscure these facilities. However, when the service side of the particular facility faces any property line, a wall or solid wood fence with gates or doors must be provided. If shrubs are used as the screening material, they shall be a minimum of 5 feet in height, spaced no farther than 4 feet apart. If a wall, solid wood fence, or berm is used as the screening material, its minimum height shall be 6 inches above the proposed facility.

Public recycling drop off sites shall be encouraged and are permitted as an accessory use in all nonresidential zones. The drop off site shall be kept free of litter, residue and debris by the party responsible for the maintenance and management of the drop off facility. Recycling drop off sites shall be located at least 50 feet away from residentially zoned property. One freestanding or wall sign is allowed up to 25 square feet in area upon issuance of a sign permit. The drop off site containers must be durable, waterproof, covered and well maintained. The name and phone number of the party responsible for maintenance shall be posted on the container. Containers on the site shall have uniform colors. The DRB may impose additional conditions if necessary to protect adjacent properties.

9.7.1 Location

All utilities (including heating and air conditioning units), dumpsters, and trash handling facilities shall be located on the same lot as the use served unless shared facilities are approved by DRB.

All utility, dumpster, and trash handling facilities including the occupant's recycling facilities shall be completely screened from public view, and from the view of any development on any adjoining property. A wall, solid wood fence, evergreen hedge, earth berm, or any combination thereof shall be provided to obscure these facilities. However, when the service side of the particular facility faces any property line, a wall or solid wood fence with gates or doors must be provided. If shrubs are used as the screening material, they shall be a minimum of 5 feet in height, spaced no farther than 4 feet apart. If a wall, solid wood fence, or berm is used as the screening material, its minimum height shall be 6 inches above the proposed facility.

Public recycling drop off sites shall be encouraged and are permitted as an accessory use in all nonresidential zones. The drop off site shall be kept free of litter, residue and debris by the party responsible for the maintenance and management of the drop off facility. Recycling drop off sites shall be located at least 50 feet away from residentially zoned property. One freestanding or wall sign is allowed up to 25 square feet in area upon issuance of a sign permit. The drop off site containers must be durable, waterproof, covered and well maintained. The name and phone number of the party responsible for maintenance shall be posted on the container. Containers on the site shall have uniform colors. The DRB may impose additional conditions if necessary to protect adjacent properties.

9.7.2 Access

All required dumpster, recycling, and trash handling facilities shall be designed with appropriate means of access to a street or alley in a manner which will least interfere with traffic movement, and which will most facilitate the service of the facilities.

9.7.3 Utilization

Space allocated to any off-street dumpster and trash handling facilities shall not be used to satisfy the space requirements for off-street parking and/or loading facilities, nor shall any parking or loading spaces be used to satisfy the space requirements for any dumpster or trash handling facility

9.8 Sidewalk Requirements

8.8.1 Sidewalks and Trails

Sidewalk, walkway, on-road improvements, and trail systems sufficient to serve both existing and projected pedestrian and bicyclists needs shall be reflected in all site and subdivision plans. Such systems may include either conventional sidewalks along street rights-of-way, wide outside travel lanes or bike lanes on roadways, or walkways and trails in alternative locations as appropriate. Design, location, dimensions, dedications, easements, and reservations, shall conform to applicable City and/or County Urban Growth Area policies and plans for sidewalks, bicycle routes, and trails.

1. Location: Unless an alternate walkway is approved, conventional sidewalks within the Urban Growth Area shall be located as follows:

- a. On both sides of major and minor thoroughfares (as defined by the adopted Thoroughfare Plan) except on freeways;
- b. On one side of collector streets and nonresidential streets with existing or projected traffic of 2,000 or more vehicles per day;
- c. On one side of residential streets of all types that are not cul-de-sacs.
- d. On one or both sides of local streets in nonresidential areas where review indicates that sidewalks are, or will be, needed to accommodate pedestrian traffic.

2. If a conflict exists between these standards and the provisions of the Subdivision Ordinance, then the stricter requirements shall apply.

When the approving body determines that the construction of a conventional sidewalk or alternative walkway is unfeasible due to special circumstances, including but not limited to: impending road widening, significant street trees, severe roadside conditions, or limited pedestrian volumes; the approving body may require either: (1) payment in lieu of sidewalk construction; or (2) a combination of sidewalk and/or alternative walkways and/or payment in lieu funds.

In general, sidewalks shall be 5 feet in width and shall be constructed of concrete. Alternate dimensions and materials may be approved by the City Engineering Department.

3. Either wide outside travel lanes or bicycle lanes, as determined by the City Public Works Department or the North Carolina Department of Transportation, shall be a part of any road improvements made on roadways which are indicated as bicycle routes on either the City's Durham Urban Trails and Greenways Master Plan or the Metropolitan Planning Organization's Regional Bicycle Plan.