

SECTION 11. SITE DEVELOPMENT STANDARDS

11.1 PURPOSE

11.2 OFF-STREET PARKING AND LOADING

11.3 OUTDOOR LIGHTING

11.4 LANDSCAPING, SCREENING AND TREE PRESERVATION

11.5 MULTI-FAMILY SITE DEVELOPMENT STANDARDS

11.6 RESIDENTIAL SUBDIVISION AND MULTI-FAMILY DEVELOPMENT ENTRY WAYS, WALLS AND FENCING

11.7 STREET AND OTHER REQUIRED IMPROVEMENTS

11.8 UTILITY SERVICE

11.1 PURPOSE

The standards in this Section are intended to provide accessible, attractive, secure and well-maintained off-street parking and loading areas with the appropriate number of spaces in proportion to the needs of the proposed use, and increase public safety by reducing congestion of public streets. This Section is also intended to reduce adverse impact caused by bright lights. The landscaping and screening requirements established by this Section are intended to preserve and enhance the appearance, public health, safety, convenience, comfort and general welfare of the City. Proper landscaping contributes to the City in many ways: enhancing its character and scenic beauty, providing clean air, reducing noise, preventing erosion of topsoil, reducing the rate of stormwater runoff, providing nesting areas for birds and habitat for other wildlife, conserving energy, and providing shade and windbreaks. These regulations are also intended to increase the compatibility of adjacent uses, and minimize the adverse impact of noise, dust, motor vehicle headlight glare or other artificial light intrusions, and other objectionable activities or impacts conducted on, or created by, adjoining or neighboring uses.

11.2 OFF-STREET PARKING AND LOADING

A. General Provisions

1. Existing Facilities

- a. The existing number of off-street parking and loading spaces shall not be reduced below the requirements of this Section. If the number of existing spaces is already less than the requirements of this Section, it shall not be further reduced.
- b. Existing off-street parking and loading areas which do not conform to the requirements of this Section, but were in conformance with the requirements of this Ordinance at the time the parking or loading facilities were established, are permitted to continue as a legal nonconforming structure.

- c. If a building permit for a building or structure was lawfully issued prior to the effective date of this Ordinance, and if construction has begun within one-hundred eighty (180) days of the issuance of a permit, the number of off-street parking and loading spaces shall be provided in the amount required for the issuance of said building permit, regardless of what may be required by this Section.

2. Damage or Destruction

When a building is reconstructed or repaired after being damaged or destroyed, off-street parking and loading facilities shall be restored or maintained in an amount equivalent to that at the time of such damage or destruction. However, it shall not be necessary to restore or maintain parking and loading facilities in excess of the applicable requirements of this Section.

3. Change in Land Use

When the existing use of a building, structure or parcel of land is changed to a new use, parking and loading spaces shall be provided as required for the new use. Additional parking or loading spaces shall be required in the amount by which the requirements for the new use exceed the requirements for the existing use.

4. Change in Intensity of Use

- a. When the intensity of use of any building, structure or parcel of land is increased, additional parking and loading spaces shall be provided. The number of additional parking and loading spaces shall be based on the increase in the number of dwelling units, gross floor area, seating capacity, or other unit of measurement used to calculate the number of required number of parking or loading spaces.
- b. When the intensity of use of any building, structure or parcel of land is decreased, the number of parking and loading spaces may be reduced so long as the parking requirements of this Section are met for the entire building, structure or parcel of land as modified.

5. Provisions for Additional Spaces

Nothing in this Section shall be deemed to prevent the voluntary establishment of off-street parking or loading facilities, provided that all regulations governing the location, design and control of such facilities shall be in accordance with this Section.

6. Limitations on Use

No motor vehicle repair or cleaning of any kind shall be permitted in any parking space, parking lot or loading berth. No gasoline, motor oil or any other automobile accessory or similar product shall be sold or dispensed in such areas.

B. Computation

The total number of required parking and loading spaces shall be based upon the requirements for the principal use of the lot. However, when more than one (1) use occupies the same lot, the number of required spaces shall be the sum of the separate requirements for each use. Exception: Commercial Centers (multi-tenant, mixed-use developments, i.e., retail, office, service, restaurants) shall provide parking as per Table 8 (Parking Requirements). All off-street parking facilities shall be completed before occupancy of the building or structure served. In computing the number of off-street parking or loading spaces required by this Section, the following standards for computation shall apply:

1. Space allocated to any off-street loading space shall not be used to satisfy the requirement for any off-street parking space, or portion thereof. Conversely, the area allocated to any off-street parking space shall not be used to satisfy the replacement for any off-street loading space or portion thereof.
2. A fraction of less than one-half ($\frac{1}{2}$) may be disregarded, and a fraction of one-half ($\frac{1}{2}$) or more shall be counted as one (1) parking or loading space.
3. In places of assembly in which patrons or spectators occupy benches, pews or similar seating facilities, each eighteen (18) inches of such seating facility shall be counted as one (1) seat for the purpose of determining the requirement for off-street parking facilities.
4. Except as otherwise specified, parking or loading spaces required on an employee basis shall be based on the maximum number of employees normally present on the premises at any one time. When the determination of the number of parking spaces is based on the number of employees, the owner and/or manager shall be counted as an employee(s).

C. Construction of Parking and Loading Facilities

1. Site Plan Review Required

Site plan review, in accordance with Section 4.7 (Site Plan and Design Review), is required prior to any construction, alteration or addition of any parking facility and for any loading facility. For purposes of this Section, construction, alteration or addition shall include all paving of previously unpaved surfaces.

2. Time of Completion

Off-street parking and loading facilities required by this Section shall be completed prior to the issuance of the use and occupancy permit for the use they serve.

D. Collective Provisions

1. Off-street parking spaces for individual uses may be provided collectively if the total number of spaces provided is equal to or greater than the sum of the spaces required for each individual use. Exception: Commercial Centers (multi-tenant, mixed-use developments, i.e., retail, office, service, restaurants) shall provide parking as per Table 8 (Parking Requirements). No parking space, or portion of a space, shall serve as the required space for more than one similar use, but can be shared among two or more individual uses under the following shared parking arrangements described in Section 11.2D2.
2. The use of a particular parking facility shall not occur by each use at the same time. The use with the highest demand must provide all required spaces. No shared use of parking spaces shall be permitted unless:
 - a. The users of the shared parking facility shall sign an agreement, approved by the City Attorney, expressing the intent to share parking facilities. This agreement shall be filed with the City and recorded with the County Register of Deeds.
 - b. Approval is obtained from the Planning Department that confirms that the use of such facility by each user does not take place at the same hours during the same days of the week.
 - c. The location and design requirements of this Section are met.
 - d. Any subsequent change in ownership or use shall require proof that the minimum parking requirements, per this Section, have been met for each use, prior to the issuance of the required use and occupancy permit.

E. Land Banked Future Parking

The Planning Commission may permit land banking of up to twenty-five (25)% of the required parking spaces through the site plan review process, if the following standards are met:

1. Sufficient evidence shall be provided by the applicant that supports the reduced parking needs.
2. The area proposed for land banking of parking spaces shall be an area suitable for parking at a future time.

3. Landscaping of the land banked area shall be in full compliance of the zoning regulations and at a minimum landscaped with turf. As a result of the site plan review process, the Planning Commission may require additional landscaping of the land-banked area.
4. The land banking area cannot be used for any other permanent use without amendment of the site plan.
5. As part of the site plan review process, the applicant shall show the area to be banked on the site plan and marked as “land banked future parking.”
6. The Planning Department, on the basis of increased parking demand for the use, shall require the conversion of all or part of the land-banked area to off-street parking spaces. Evidence of increased demand includes the fact the parking lot is 100% occupied more than once per week.
7. Failure to construct land-banked parking within 120 days of notification by the Planning Department shall be cause for revocation of the use and occupancy permit and to invoke other penalties authorized by this ordinance.

F. Location of Off-Street Parking Spaces

1. Residential Uses

- a. All required parking spaces for residential uses shall be located on the same lot as the building or use served except for condominiums where the parking may be located on adjacent common open space.
- b. For single-, two-family and townhouse dwellings, parking shall be permitted in private driveways, but no such parking may encroach onto the public right-of-way or sidewalk.
- c. Parking lots in Old Town Commercial and Old Town Residential districts should be located along the side and/or rear of the buildings rather than in front of the buildings. Parking on the side shall be screened as per Section 11.4 (Landscaping, Screening and Tree Preservation).

2. Non-Residential Uses

- a. All required off-street parking areas for non-residential uses shall be located on the same lot as, or within three-hundred (300) feet of, the building or use served. However, off-street parking accessory to a commercial or industrial use shall not be located in any residential district.
- b. When required off-street parking spaces are provided at an off-site parking area, such off-site parking areas shall be, and remain in, the same possession and ownership as the zoning lot occupied by said building or use.

No such off-site parking areas, including land-banked parking, shall be authorized and no use and occupancy permit shall be issued, unless the Planning Department has reviewed the plans and has made findings that common ownership or possession does and will continue to exist with respect to the zoning lot and the land containing the off-site parking areas, and that the off-site parking area will be maintained at all times during the life of the proposed use or building. A covenant to this effect shall be recorded with the County Register of Deeds.

- c. Off-street parking spaces are permitted within any yard. However, where a yard abuts a residential district, no off-street parking spaces shall be permitted within ten (10) feet of the lot line abutting the residential district.

G. Design Standards

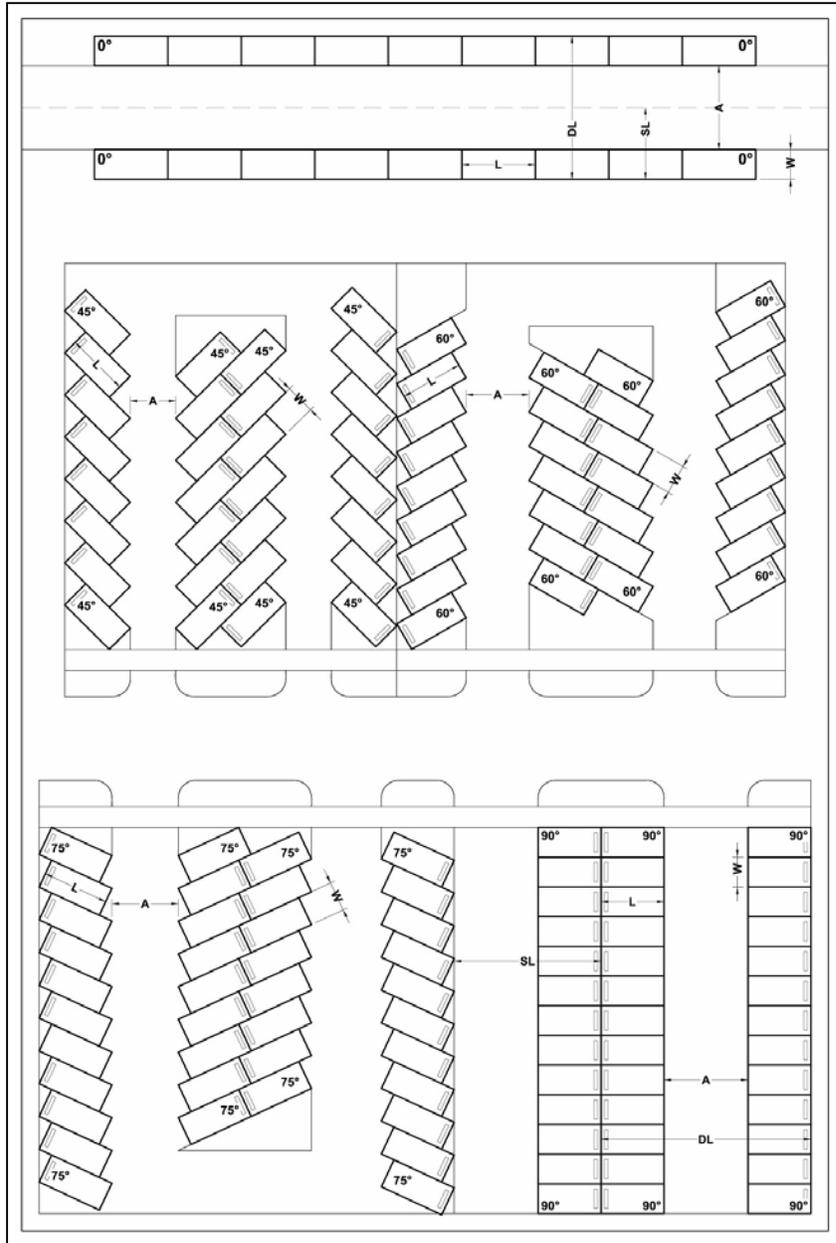
All off-street parking facilities shall comply with the following standards:

1. Dimensions

- a. Off-street parking spaces shall be designed in accordance with Figure 2 (Off-Street Parking Dimensions).
- b. All parking spaces shall have a minimum vertical clearance of seven feet six inches (7' 6").

2. Access

- a. Each off-street parking space shall open directly upon an aisle or driveway of such width as will provide adequate means of vehicular access to such parking space. All off-street parking facilities shall be provided with appropriate means of vehicular access in a manner that least interferes with traffic movement and allows the driver of the vehicle to proceed forward into traffic rather than back out.
- b. All required off-street parking facilities shall have vehicular access from a street, alley, driveway or cross-access connection.
- c. Within off-street parking facilities one-way traffic aisles shall be at least twelve (12) feet in width and two-way traffic aisles shall be at least twenty-four (24) feet in width. Furthermore, all aisles shall be designed in accordance with Figure 2 (Off-Street Parking Dimensions)



Parking Angle	Stall Width (W)	Stall Length (L)	Aisle Width (A)	Single Loaded Module ² Width (SL)	Double Loaded Module ² Width (DL)
0°	9'	21'	12'/24' ¹	20.5'/32.5' ¹	29'/41' ¹
45°	9'	18'	12'	32'	51'
60°	9'	18'	17'	38'	58'
75°	9'	19'	19'	40.8'	61.6'
90°	9'	18' ³	24' ¹	42' ¹	60' ¹

1. Two-way traffic permitted.
2. A module is defined as a drive aisle with automobiles parked on each side of the drive aisle.
3. Where a parking space abuts a sidewalk or landscape island that is 7 feet in width or wider, the parking space depth may be reduced to 16 feet.

Figure 2: Off-Street Parking Dimensions

d. Driveways

i. Residential Driveways, Excluding Multi-Family and Townhouse Dwellings

- A residential driveway shall be no wider than the width of the garage. See Figure 3 (Residential Driveway Width).
- Single-family and two-family dwellings are permitted an additional paved parking pad, located beside the house and up to fifteen (15) feet in width.
- For dwellings without a garage, facing the street, the driveway shall not exceed 24 feet in width.

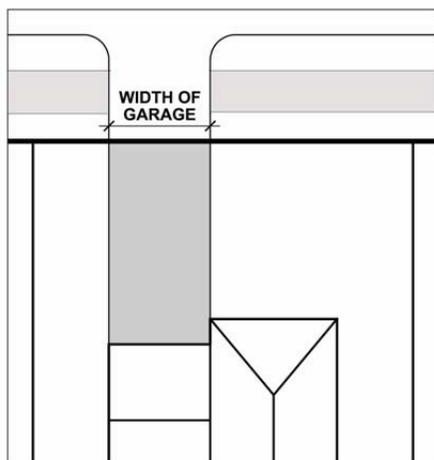


Figure 3: Residential Driveway Width

ii. Multi-Family and Townhouse Dwellings, and Non-Residential Driveways

- No driveway shall have a width exceeding twenty four (24) feet, except for non-residential driveways which provide access to loading berths or which are striped with dual exit lanes. Such driveways shall not exceed 36 feet in width.
- Driveways, off-street parking areas and access aisles for multi-family residential and non-residential parking lots shall be designed in accordance with Figure 2 (Off-Street Parking Dimensions). However, during the site plan review process, the Planning Commission may approve a reduction in the minimum width of a drive aisle subject to Fire Department approval.

iii. Single-Family Dwelling Units Driveway Curb Cuts

One (1) driveway curb cut shall be permitted on a zoning lot for a new single family (detached) dwelling unit. Two (2) curb-cuts not more than twelve (12) feet wide may be approved for a circular driveway. For lots with more than one (1) street frontage, one (1) curb-cut is allowed per frontage. More than one (1) curb cut in any other circumstance must be approved by the Public Works Department. Existing lots with more than one (1) curb cut and/or a circular driveway or straight driveway that exists at the time of adoption of this Ordinance, may be replaced and repaired.

3. Surfacing

All off-street parking areas and driveways shall be constructed of concrete, asphalt pavement or equivalent. Semi-pervious materials such as grass-crete and brick and concrete pavers may also be used, subject to the approval of the Planning Department.

4. Striping

Off-street parking areas shall delineate parking spaces with paint or other permanent materials, which shall be maintained in clearly visible condition. Parking spaces for handicapped persons shall be identified with appropriate signage or markings.

5. Curbing and Bumper Stops

All parking lots exceeding ten (10) spaces shall be edged with concrete curbing. Bumper stops, wheel stops, or curbing shall be provided as needed to prevent vehicles from damaging or encroaching upon any adjacent loading space, sidewalk, landscaped area or parking lot island, fence, wall or building. Curbing shall be at least four (4) inches in height. The length of the parking stall shall be as indicated in Figure 2 (Off-Street Parking Dimensions). This standard shall not, however, prohibit the use of planting areas as on-site stormwater management devices, wherein curbing around such planting areas may be waived.

6. Drainage and Grading

Except for parking spaces accessory to a single-family detached dwelling, no area of any parking facility shall have a slope of more than five (5)%. No access ramp shall have a slope of more than ten (10)% in the first fifteen (15) feet from the street.

7. Lighting

Illumination of an off-street parking area shall be arranged so as to deflect the direct rays of light away from adjacent properties and streets in accordance with Section 11.3 (Outdoor Lighting).

8. Landscaping and Screening

All parking lots shall be landscaped in accordance with Section 11.4 (Landscaping, Screening and Tree Preservation).

9. Special Standards for Old Town-Commercial

See Section 12.3G (Supplemental Design Standards for Old Town Commercial District) for special design standards within Old Town-Commercial zones.

H. Accessible Parking

1. Required Spaces

With the exception of single- (detached and attached) and two-family dwellings, in all off-street parking facilities where parking is provided for employees, visitors, or both, parking spaces for disabled persons shall be provided. The number of accessible parking spaces shall be included in the total number of required parking spaces and shall be in accordance with applicable laws.

2. Dimensions and Design

Such spaces shall comply with the design and locational standards of all applicable laws.

I. Stacking Spaces for Drive-Through Facilities

1. Design

Stacking spaces provided for drive-through uses shall be:

- a. A minimum of nine (9) feet in width, as measured from the outermost point of any service window to the edge of the driveway, and eighteen (18) feet in length.
- b. Placed in a single line behind each drive-through facility. Multiple facilities, i.e. dual ordering stations at quick service restaurants, shall provide separate stacking lines for each station.
- c. Located so that, when in use, they do not obstruct ingress or egress to the site and do not obstruct access to required parking or loading spaces.

- d. Stacking spaces shall begin behind the vehicle parked at a last point of service, such as a window or car wash bay.

2. Required Spaces

Every drive-through facility shall provide a minimum of three (3) stacking spaces per facility, unless otherwise required by Table 8 (Parking Requirements) or this Ordinance.

3. Reduction of Required Spaces

The number of required stacking spaces may be reduced by the Planning Commission during the site plan review process if the petitioner presents a study which demonstrates that a different requirement should be imposed. The approval of a reduced number of stacking spaces shall apply only to the specific business for which the study was conducted.

J. REQUIRED OFF-STREET PARKING SPACES

The minimum number of off-street parking spaces to be provided for the designated uses shall be as follows in Table 8 (Parking Requirements). Table 8 lists parking requirements for the generic uses listed within the districts. In some cases, uses which are considered part of a generic use category are listed with specified parking requirements. These specific uses are listed only for the purposes of this Section and do not indicate whether such uses are permitted or conditional uses within any district. Certain generic uses listed within the districts do not have parking requirements. These types of uses are not listed within Table 8.

Within Old Town-Commercial and Old Town-Residential, a portion of the required number of parking spaces may be on-street. They must be adjacent to the lot for which the parking is required.

CITY OF HENDERSONVILLE, TN TABLE 8: Parking Requirements	
GFA = Gross Floor Area sf = square feet	
Use	Parking Requirement
RESIDENTIAL USES	
Assisted Living Facility	.2 per bed + 1 per 2 employees
Bed and Breakfast	1 per bedroom
Boarding House (6 or more persons)	1 per bedroom
Community Residence	.25 per bed + 1 per 2 employees

CITY OF HENDERSONVILLE, TN
TABLE 8: Parking Requirements (cont.)

GFA = Gross Floor Area sf = square feet

Use	Parking Requirement
RESIDENTIAL USES	
Dwelling, Above the Ground Floor	1 per unit In the OTC District: Efficiency or 1-bedroom unit: 1 per dwelling unit 2-bedroom or more unit: 1.5 per dwelling unit
Dwelling, Multi-Family	Efficiency or 1-bedroom unit: 1.5 per dwelling unit 2-bedroom or more unit: 2 per dwelling unit
Dwelling, Single-Family	2 per dwelling unit
Dwelling, Townhouse	2 per dwelling unit
Dwelling, Two-Family	2 per dwelling unit
Independent Living Facility	1 per dwelling unit + 1 per 2 employees
Nursing Home	.2 per bed + 1 per 2 employees
GOVERNMENT & EDUCATIONAL USES	
Educational Facility, Primary/Secondary	Primary: 2 per classroom Secondary: 1 per 8 students (based on maximum enrollment) + 2 per classroom
Educational Facility, College/University	1 per 2 students (based on maximum enrollment) + 1 per classroom
Educational Facility, Vocational School	1 per 2 students (based on maximum enrollment) + 1 per classroom
GOVERNMENT & EDUCATIONAL USES	
Educational/Residential Boarding Campus	2 per dwelling unit + 1 per classroom + 1 per employee
Government Facility & Offices	3 per 1,000 sf GFA
Public Safety Facility	1 per 600 sf GFA
Public Works Facility	1 per 2 employees
RELIGIOUS USES	
Place of Worship	1 per 4 seats
CULTURAL , RECREATION & ENTERTAINMENT USES	
Art Gallery	1 per 800sf GFA
Cultural Facility	2 per 1,000sf GFA
<i>Community Center</i>	3 per 1,000 sf GFA
Firing Range	1 per lane
Golf Course	4 per hole
Health/Fitness Center	4 per 1,000sf of public use area
Indoor Entertainment Facility	4 per 1,000sf of public use area
<i>Movie Theater</i>	1 per 4 seats for first 400 seats + 1 per 6 additional seats after first 400

CITY OF HENDERSONVILLE, TN
TABLE 8: Parking Requirements (cont.)

GFA = Gross Floor Area sf = square feet

Use	Parking Requirement
CULTURAL , RECREATION & ENTERTAINMENT USES	
Indoor Recreation Facility	4 per 1,000sf of public use area
<i>Bowling Alley</i>	<i>2 per lane</i>
Live Entertainment	4 per 1,000sf of public use area
Marina	1 per 2 slips
Outdoor Entertainment Facility	2 per 1,000sf of public use area
Outdoor Recreation	2 per 1,000sf of public use area
Race Tracks	1 per 4 seats for the 1st 400 + 1 per 6 thereafter
Recreational Training School	1 per 250sf GFA
Social Club or Lodge	2 per 1,000sf GFA
OFFICE USES	
Call Center	1 per phone
Office	3 per 1,000sf GFA
RETAIL USES	
Commercial Center (multi-tenant, including retail, office, restaurants) ¹	1 per 200sf GFA: 1st 20,000sf 1 per 250sf GFA: next 80,000 1 per 300sf GFA: over 100,000
Motor Vehicle Dealership	1 per 1,000sf of sales & display area (indoor + outdoor)
Retail Goods Establishment	4 per 1,000sf GFA
SERVICE USES	
Animal Hospital	1 per 300sf GFA
Banquet Hall	1 per 4 seats (based on maximum capacity) + 1 per 2 employees (baed on largest shift)
Car Wash	1 per 2 employees + 2 stacking spaces per bay
Caterer	1 per employee
Day Care Center, Adult or Child	1 per employee + 1 per 10 children or adults + 2 passenger loading spaces
Equipment Repair	1 per 500sf GFA
Financial Institution	3 per 1,000sf GFA + 2 stacking spaces per lane
Funeral Home	1 space per 3 seats
General Business Services	3 per 1,000sf GFA
Helistop	2 spaces
Hospital	1 per 2 beds + 2 per 3 employees (based on largest shift)
Hotel/Motel	1 per room
Kennel	1 per 1,000sf GFA + 1 per employee

CITY OF HENDERSONVILLE, TN
TABLE 8: Parking Requirements (cont.)

GFA = Gross Floor Area sf = square feet

Use	Parking Requirement
SERVICE USES	
Medical Rehabilitation Facility, Residential	1 per 2 beds + 2 per 3 employees (based on largest shift)
Medical/Dental Clinic	1.5 per exam room or 1 per 300, whichever is greater
Medical/Dental Laboratory	1 per employee
Meeting/Event Center	1 per 4 seats (based on maximum capacity) + 1 per 2 employees (based on largest shift)
Motor Vehicle Rental Establishment	1 per 1,000sf of display area (indoor + outdoor area)
Motor Vehicle Service and Repair, Major or Minor	2 per service bay + 1 per 500sf of office & waiting area
Motor Vehicle Service Station/Fuel Center	2 per 1,000sf GFA of any accessory convenience retail and/or food service + 2 stacking spaces per bay for any accessory automatic car wash
Personal Services Establishment	3 per 1,000sf GFA
Printing Shop	1 per employee
Research and Development Facility	3 per 1,000sf GFA
Restaurant, Full and Quick Service	1 per 100sf GFA, plus 1 per 3 outdoor seats
Restaurant, Carry Out	1 per 150sf GFA
Taxidermy	1 per employee
Utility, Private	1 per 2 employees
HEAVY RETAIL, WHOLESALE & SERVICE	
Contractor Office & Storage Yard	1 per 400sf of office area + 1 per 5,000sf of storage yard (indoor + outdoor)
Food Service Contractor	1 per employee
Heavy Retail, Rental and Service Establishment	4 per 1,000sf GFA, including outdoor storage & display areas
Machine Shop	1 per employee
Motor Vehicle Operations Facility	1 per 1,000sf GFA
Reupholstery/Custom Home Textiles	1 per employee
Self-Service Storage Facility	1 per 100 storage units
Welding Shop	1 per employee
INDUSTRIAL	
Manufacturing	1 per employee
Concrete or Asphalt Plant	1 per employee
Trucking Company/Terminal	1 per employee
Warehouse/Distribution	1 per 1,000sf GFA
Sign Manufacturing/Fabricating	1 per employee

CITY OF HENDERSONVILLE, TN	
TABLE 8: Parking Requirements (cont.)	
GFA = Gross Floor Area	sf = square feet
Use	Parking Requirement
OTHER	
Cemetery & Mausoleum	1 per 250sf of office and/or chapel space
Driving Range (Principal Use)	1 per tee
High Impact Facilities	1 per employee
Plant Nursery	3 spaces per acre
Radio & Television Towers & Transmission Facilities	2 spaces
Sexually Oriented Business	1 per 100sf GFA
Wireless Telecommunications Tower	2 spaces
Storage Space Accessory to a Principal Use - Service, Office or Retail Use	1 per 1,000sf GFA (storage space only)

Note:

1. A Commercial Center is a multi-tenant development with a mixture of uses including, but not limited to, retail, service, office, and restaurants. Full service restaurants within such centers shall be provided with the number of parking spaces required for full service restaurants rather than the lesser number of spaces required for a commercial center.

K. Required Off-Street Loading Spaces

Off-street loading spaces shall be provided for a building, structure or use which requires the receipt or distribution of materials or merchandise by trucks or other vehicles in accordance with Table 9 (Off-Street Loading Requirements).

CITY OF HENDERSONVILLE, TN	
TABLE 9: Off-Street Loading Requirements	
Use	Number of Spaces Required
Non-Residential Use (excluding uses below)	
10,000-100,000 sf of gross floor area	1 loading space
Each additional 100,000 of gross floor area	1 loading space
Heavy Retail and Service, Wholesale and Distribution and Industrial Uses	
5,000 - 10,000 sf of gross floor area	1 loading space
10,001 - 40,000 sf of gross floor area	2 loading spaces
40,001 - 100,000 sf of gross floor area	3 loading spaces
For each additional 100,000 sf of gross floor area over 100,001 sf of gross floor area	1 loading space

L. Design of Off-Street Loading Spaces

1. Location

- a. All off-street loading spaces shall be located on the same zone lot as the building or use served. No off-street loading spaces shall project into a public right-of-way.
- b. Off-street loading spaces shall not take up a required parking space and shall not interfere with entrances and exits to the property.
- c. No off-street loading space shall be located in a front or corner side yard.
- d. All off-street loading spaces shall be located a minimum of fifty (50) feet from the lot line of any lot in a residential district, unless completely enclosed by building walls or a solid fence or wall, or any combination thereof, not less than six (6) feet in height.

2. Dimensions

All required off-street loading spaces shall be at least twelve (12) feet in width and at least thirty (30) feet in length, exclusive of maneuvering space, and shall have a minimum vertical clearance of at least fourteen (14) feet. During site plan review, the Planning Commission may require a loading space in excess of thirty (30) feet in length based upon the proposed use and anticipated shipping/delivery methods. In no case, shall the Planning Commission require a length in excess of sixty (60) feet.

3. Surfacing

All off-street loading spaces shall be constructed of a heavy duty concrete, asphalt or equivalent conforming to the specifications of the Public Works Department.

4. Access Control and Signage

Each required off-street loading space shall be designed with adequate means of vehicular access to a street or alley in a manner that will minimize interference with traffic movement.

5. Lighting

Loading facility lighting shall be in accordance with Section 11.3 (Outdoor Lighting). Illumination of an off-street loading facility shall be arranged so as to deflect the direct rays of light away from adjacent properties and streets.

6. Landscaping and Screening

All loading facilities shall be landscaped and screened in accordance with Section 11.4 (Landscaping, Screening and Tree Preservation).

11.3 OUTDOOR LIGHTING

A. Lighting Levels and Type

Parking lots, which exceed ten (10) parking spaces and which are located within commercial districts and at multi-family residential/non-residential uses within residential districts shall be lighted at a minimum of 0.2 foot candles and a maximum of 10 foot candles. Lighting beneath canopies, such as at fuel centers, shall not exceed thirty (30) foot candles. Canopy lights shall be fully recessed into the canopy ceiling. See light trespass restrictions below.

B. Light Distraction

Light fixtures in excess of 150 watts shall use full cut-off lenses or hoods to prevent glare or spillover onto adjacent lots and streets. No exterior lighting may be used in any manner that could interfere with the safe movement of motor vehicles on public thoroughfares. Specifically, the following types of light trespass are prohibited:

1. Any light not designed for roadway illumination that produces direct or reflected glare that could disturb the operator of a motor vehicle.
2. Any light that may be confused with, or construed as, a traffic control device, except as authorized by state, federal or local government.
3. In addition, motor vehicle service station lighting shall comply with the requirements of Section 10.3H (Motor Vehicle Service Stations).

C. Light Trespass

No lighting source from a commercial use shall cause more than one footcandle of illumination to cross the property line of an adjoining residentially zoned property.

D. Light Pole and Building Mounted Lighting Heights

The maximum height of light poles on private property, as measured from grade at the base to the bottom of the luminaire, shall be as specified below. These standards do not apply to public right-of-way lighting. Permitted light pole heights shall be as follows:

1. Non-Residential Districts

Lights poles and building-mounted fixtures shall be designed with fully shielded luminaires. Such poles or mounts shall not exceed twenty-two (22) feet in height. The Planning Commission may approve, in appropriate circumstances as part of site plan review, a pole or mount of up to thirty (30) feet.

2. Residential Districts

Light poles in residential districts shall not exceed sixteen (16) feet in heights. Light poles at places of worship, other non-residential uses and multi-family residential sites shall not exceed twenty-two (22) feet in height. Light poles on public property, including at city parks and public schools shall be subject to the policies of their governing bodies.

E. Light Pole and Fixture Design Standards

Light poles and fixtures in commercial districts should be black or dark bronze. The base of the lights should not exceed 30 inches above grade. Lights within parking lots should be placed within landscaped islands. Bases shall be painted or stained black and shall be screened with shrubs.

11.4 LANDSCAPING, SCREENING AND TREE PRESERVATION

A. Applicability

This Section shall apply to all development, construction, use of land and buildings and other activity for which site plan and/or design review approval is required as per Section 4.7 (Site Plan and Design Review). No building permit or use and occupancy permit shall be issued for any lot or use subject to the requirements of this Section unless all the requirements of this Section have been fulfilled. Failure to implement the landscape plan, or to maintain the lot or use in conformance with the landscape plan, shall be cause for revocation of the occupancy certificate and/or the application of fines and penalties, as established in this Ordinance. All landscaping is subject to periodic inspection by the Planning Department.



B. Landscape Plan

1. Landscape Plan Required

A detailed landscape plan shall be submitted to the City as part of site plan and design review as specified in Section 4.7 (Site Plan and Design Review).

2. Content of Landscape Plan

- a. The location and dimensions of all existing and proposed structures, property lines, easements, parking lots and drives, roadways and rights-of-way, sidewalks, ground signs, refuse disposal and recycling areas, sidewalks, bicycle paths and parking facilities, fences, utility lines and equipment, recreational facilities, drainage facilities, and other freestanding structures, as determined necessary by the Planning Department.
- b. The location, quantity, size, botanical name and condition of all existing plant materials, including trees and other plant material in the right-of-way, and indicating plant material to be retained and removed.
- c. The location, quantity, size and name, both botanical and common, of all proposed plant material including, but not limited to, shade and evergreen trees, shrubs, groundcover, annuals/perennials and turf.
- d. The existing and proposed grading of the site indicating contours at one (1) to two (2) foot intervals. Proposed berming shall be indicated using one (1) foot contour intervals.
- e. Elevations of all proposed fences, steps, stairs, retaining walls both fixed (cast concrete, unitized walls) and any natural rock outcroppings on the site. Top-of-wall and bottom-of-wall elevations shall be shown for retaining walls.
- f. Elevations, cross-sections, and other details as determined necessary by the Planning Department.

3. Changes to Approved Landscape Plans

Changes to the landscape plan shall be governed by Section 4.7F.

C. Selection, Installation and Maintenance of Plant Materials

1. Selection

All planting materials used shall be of good quality and meet American Standard for Nursery Stock, ANSI Z60.1 latest edition, developed by the American Nursery & Landscape Association, for minimum acceptable form, quality and size for species selected, and capable to withstand the seasonal temperature variations of Middle Tennessee, as well as the individual site microclimates. Size and

density of plant material, both at the time of planting and at maturity, are additional criteria that shall be considered when selecting plant material. Plant materials shall conform to the City's Standard Tree Selection Specifications as included in Appendix D (Landscape Standards).

2. Installation

All landscaping materials shall be installed in accordance with the current planting procedures established by the ANLA. All plant materials shall be free of disease and shall be installed so that soil of sufficient volume, composition and nutrient balance are available to sustain healthy growth. Installation shall also be in accordance with the City's Standard Tree Planting Details.

3. Required Elements

Landscape materials depicted on landscape plans approved by the City shall be considered to be required site plan elements in the same manner as buildings, parking and other improvements. As such, the owner of record, or in some instances the property owner's association, shall be responsible for the maintenance, repair and replacement of all landscape materials, and fences, steps, retaining walls and similar landscaping elements over the entire life of the development.

4. Maintenance

All landscaping materials shall be maintained in good condition, shall present a healthy, neat and orderly appearance, and shall be kept free of refuse and debris. Any dead, unhealthy or missing plants shall be replaced within six (6) months or the next reasonable available growing/planting season. Fences, steps, retaining walls and similar landscaping elements shall be maintained in good repair. The owner of the premises shall be responsible for the maintenance, repair, and replacement of all landscape materials, fences, steps, retaining walls and similar landscaping elements, and refuse disposal areas. Irrigation systems, when provided, shall be maintained in good operating condition to promote the health of the plant material and the conservation of water. Shrubs that screen parking areas shall be maintained as a continuous, unbroken hedge. Trees shall only be pruned to maintain their natural form and to remove dead or diseased wood. Topping of trees is strictly prohibited, except that *Pyrus calleryana* species may be pruned to prevent wind damage. Trees that are topped in violation of this ordinance shall be replaced with new trees of like species and size, or multiples thereof.

D. Landscape Design Standards

Landscape plans, as described above, shall be prepared by a licensed Landscape Architect, registered in the State of Tennessee, and evaluated and approved based on the following design criteria.

1. Scale and Nature of Landscape Material

The scale and nature of landscape materials shall be appropriate to the size of the site and related structures. Required landscape beds (such as at building foundations and at parking lot perimeters) shall implement multiple layering of plant material to give a sense of depth, rather than distributing plants into thin ribbons or rows. Generous plantings should define the street edge and site entry/exit points, as well as building entries.

2. Impervious Surface Ratio

The impervious surface ratio (ISR), computed by dividing the impervious surface area of the site by the total site area, shall not exceed 80%. In OTC zones, the ISR shall not exceed 90%. The remaining pervious area shall be landscaped.

3. Selection of Plant Material

Plant materials shall be selected from the recommended plant materials list included in Appendix D (Landscape Standards) or as approved by the City Landscape Architect. Plant material shall be selected for its form, texture, color, pattern of growth and suitability to local conditions. Plant sizes shall be specified according to the Plant Sizing Chart in Appendix D or as otherwise indicated in this Section.

4. Shade Trees

Except as otherwise specified in this Section, all deciduous shade trees shall have a minimum trunk size of 2.5 inches in caliper at time of planting, unless otherwise specified.

5. Evergreen Trees

Except as otherwise specified in this Section, evergreens trees shall have a minimum height of six (6) feet at planting and shall be incorporated into the landscape treatment of a site, particularly in those areas where year-round screening and buffering is required.

6. Ornamental Trees

Except as otherwise specified in this Section, single stem ornamental trees shall have a minimum trunk size of 2.5 inches in caliper at planting, unless otherwise

specified. Multiple stem ornamental trees shall have a minimum height of eight (8) feet at planting, unless otherwise specified. Multi-trunk trees having more than five trunks shall be considered shrubs.

7. Shrubs

Unless otherwise specified, all large deciduous and evergreen shrubs shall have a minimum height of three (3) feet at installation, and all small-growing deciduous and evergreen shrubs shall have a minimum height of eighteen (18) inches at installation.

Large shrubs shall be considered to be those shrubs that reach five (5) or more feet in height at maturity. Small shrubs shall be considered to be those shrubs that can grow up to five (5) feet in height if left unmaintained, but are generally kept at heights of eighteen (18) to thirty (30) inches.

8. Walls and Fences

Plant material shall be placed intermittently against long expanses of building walls, walls, fences and other barriers to create a softening effect and to help break up long expanses of blank walls with little architectural detail.

9. Natural and Historic Features

Streams, wetlands, large rock outcrops, stands of native vegetation, fence rows, cemeteries and other notable natural features must be indicated on the site plan and preserved wherever possible. Existing natural stone walls should be incorporated into the site design and preserved.

Structures over 50 years old or valued for their local significance should be located on the site plan and retained if possible. Incorporation of such structures into the site's development as a special feature is encouraged. If the structures are not to be retained or adapted, reasons should be given.

10. Planting Beds

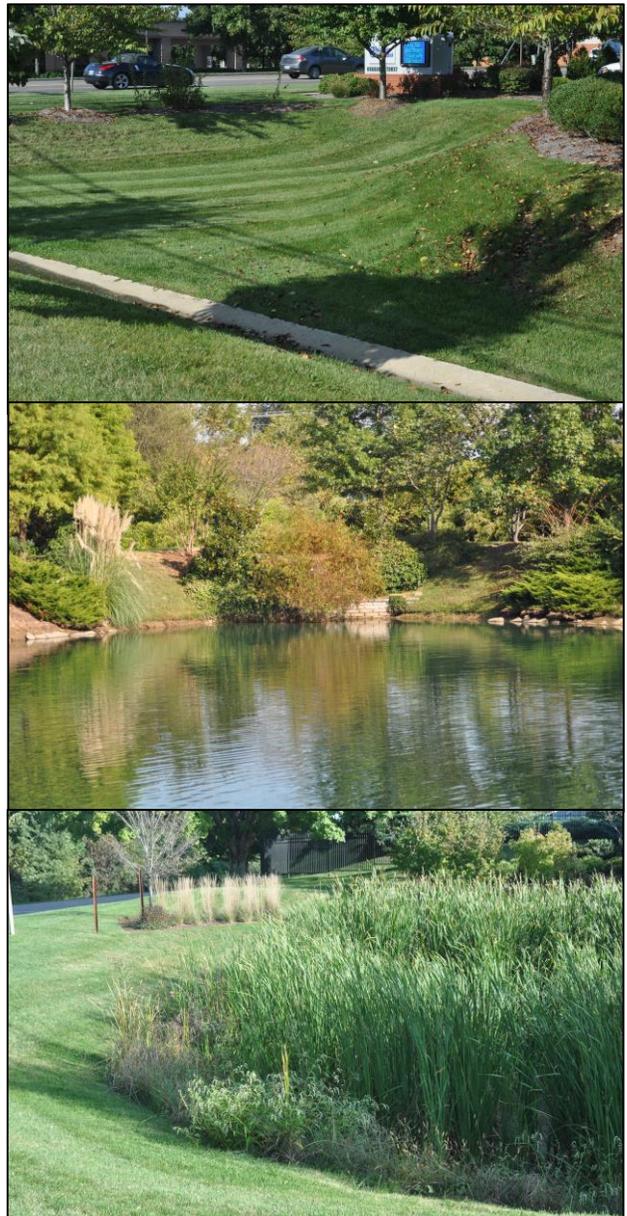
- a. Planting beds shall be mulched with naturally colored shredded hardwood, mushroom compost or pine needles. Rock, gravel or synthetic mulches are not acceptable. Planting beds shall be a minimum of 5 feet in width, except where otherwise stated within this Section.
- b. Trees planted within sidewalk or plaza zones shall be provided a minimum of 200 cubic feet of soil. A minimum of 60 square feet of pervious area shall be provided around each tree. Pervious paving may be used for this purpose if used in conjunction with structural soils.

11. Irrigation

Automatic irrigation systems are required for all required landscaped areas within commercial and industrial districts as well as multi-family developments and institutional uses. The Planning Commission may waive automatic irrigation requirements for existing areas with existing vegetation; however, plant material planted within such areas to meet transitional buffering requirements must be within 100 feet of a hose bib or be provided a temporary above-ground irrigation system. All irrigation systems shall be designed to minimize the use of water. Plans shall be prepared and stamped by a Certified Irrigation Designer, Certified Irrigation Contractor, or Landscape Architect. Irrigation systems shall be designed to meet the standards shown in Appendix D (Landscape Standards).

12. Detention and Retention Ponds

Detention and retention ponds shall be landscaped with trees, shrubs and turf. Detention ponds shall be considered a service area, and shall be screened from public view. Back slopes steeper than 4:1 exposed to public streets shall be screened with trees and shrubs. Structures (such as headwalls and weirs) within ponds located in front and side yards adjacent to public streets shall be faced with brick or stone. Slopes exceeding 3:1 shall be vegetated with plants that do not require frequent mowing. Groundcovers used for this purpose shall be planted with sufficiently tight spacing to provide 100% coverage within the first year.



13. Berming

Earthen berms and existing topographic features may be incorporated into the landscape treatment of a site where there is a need to mitigate noise and sight lines from certain noxious activities such as loading berths, outdoor storage, drive-thrus, auto service areas, heavy equipment operations, refuse disposal/storage areas, etc. Side slopes shall be no steeper than a 3:1 (four feet of run to 1 foot of rise) slope ratio to prevent erosion and be properly and safely maintained. Retained slopes may be implemented with the appropriate terracing necessary to reduce the need for safety railing.

14. Topsoil

Topsoil shall be saved and set aside during grading activities to be used for landscape areas. Topsoil shall be screened and placed over landscape areas to a depth of at least six inches. All landscape beds shall have a minimum of eighteen inches of topsoil. Each tree shall have a minimum of 24" topsoil depth over a 25 square foot area. Construction debris shall not be incorporated into the topsoil or otherwise buried on site.

15. Steep Slopes

Turf areas visible from the street should not exceed a slope of 3:1.

E. Building Foundation Landscaping

1. Building foundation landscaping is required in all commercial and industrial districts, as well as all multi-family developments and institutional uses for all new construction and additions to buildings. Landscaping shall be placed on all sides that are visible from public areas. Plantings are not required where walkways access building entrances.
2. Foundation plantings shall work in concert with transition yard plantings to frame important views, while visually softening long expanses of walls, particularly those that lack windows and/or other architectural details. Foundation plantings shall be compatible with the materials and the form of a building.
3. The minimum width of the area provided to accommodate foundation plantings is as follows:
 - a. Five (5) feet of planting area width adjacent to one-story buildings
 - b. Ten (10) feet of planting area width adjacent to buildings having two or more stories.

- c. Building segments that have long flat wall expanses (40 feet or longer) without significant architectural detailing, wall projections and recesses, shall have 10 feet wide planting beds that incorporate ornamental trees, tall evergreens and a range of shrub sizes and ground covers.

F. Parking Lot Perimeter Landscape Yard

Perimeter parking lot landscaping provides for the enhancement and screening of parking lots. Perimeter landscaping shall be required for all parking lots subject to Site Plan and Design Review and shall be established along the edge of the parking lot.

1. Applicability

The perimeter landscape yard shall run the full length of the parking lot boundary, except on sides that are not exposed to the public, and shall be protected with raised concrete curbs. Sections of curbing may be eliminated for the purpose of facilitating a bioswale designed as part of an overall water quality and drainage plan.

2. Width of Parking Lot Perimeter Landscape Yard

A perimeter landscape yard shall be a minimum of seven (7) feet in width and shall require six (6) inch curbing. In OTC zones, the perimeter landscape yard shall be a minimum of four (4) feet in width, with trees and shrubs planted a minimum of 2.5 feet from the face-of-curb.

3. Required Landscaping

The following landscaping shall be provided within the perimeter landscape yard.

a. Amount of Landscaping

Landscaping shall run the full length of the perimeter landscape yard.

b. Shrubs

A continuous, double staggered row of shrubs shall be planted with a minimum height of 30" and a maximum on-center spacing of 4 feet. Shrubs shall be planted a minimum of three (3) feet from the back-of-curb. The configuration of shrubs within the perimeter yard may be altered so long as the overall quantity is maintained, but in no case shall there be less than a single row of evergreen shrubs at the back of the parking lot curb. Shrubs placed in a single row shall be spaced a maximum of three (3) feet on center.

c. Groundcover

Landscaped areas outside of shrub and tree masses shall be planted in turf or other live groundcover, perennial or ornamental grass plantings.

G. Interior Parking Lot Landscaping

For parking lots consisting of more than 10 spaces, interior parking lot landscaping shall be required. Ten percent (10%) of the total parking lot area shall be landscaped with parking lot islands and landscaped areas. Parking lot perimeter landscape yards shall not be included toward satisfying this requirement.

1. Amount

Parking lot islands and landscaped areas shall be provided in the following amount:

- a. One 9'x18' or larger parking lot landscape island shall be provided every ten (10) contiguous parking spaces. Runs of parking over 10 spaces may accommodate up to a maximum of 20 spaces provided 18'x18' or larger landscape islands are provided. All rows of parking spaces shall be terminated by a parking lot island.
- b. Where parking medians are provided within interior parking bays, runs of parking, including adjacent perimeter parking, may be increased to 20 spaces, with a 9'x18' landscape island terminating each run. Parking medians are linear green spaces running between and perpendicular to parking rows and connecting the terminating landscaping islands together. Medians shall be a minimum of 9 feet wide as measured from back-of-curb. Medians shall be landscaped with trees and shrubs. See Illustration below.
- c. At least one (1) shade tree shall be provided for every two-thousand square feet of vehicle use area (VUA). Such trees shall be planted within parking lot islands and landscaped areas.
- d. Each parking lot island shall contain at least one shade tree. If an island must also contain a light pole, an ornamental tree may be substituted for the shade tree. Tree and pole must be separated by at least 14 feet.
- e. Off-street parking facilities larger than one-hundred thousand (100,000) square feet of VUA or 250 spaces, shall be organized into a series of smaller modules separated by linear landscaped islands with a minimum width of 9 feet, located at least every fourth parking bay, and running the length of the parking bays, to accommodate stormwater quality features, trees, shrubs groundcover, or light poles. Such planting strips or islands shall be landscaped with trees, shrub masses and suitable groundcover.



f. Within the Industrial zoning, interior landscape islands are not required.

2. Design of Planting Areas

Parking lot islands and landscaped areas shall be at least six (6) inches above the surface of the parking lot and protected with concrete curbing, except where designed specifically for the absorption of stormwater. Such islands and landscaped areas shall be properly drained and irrigated as appropriate to the site conditions to ensure survivability.

3. Type of Landscape Material

Shade trees shall be the primary plant materials used in parking lot islands and landscaped areas. Ornamental trees, shrubs, hedges and other plant materials may be used to supplement the shade tree plantings but shall not create visibility concerns for automobiles and pedestrians

4. Quantity of Landscape Material Within Parking Lot Islands and Landscaped Areas

A minimum of one (1) shade tree shall be provided for every parking lot island. If the island extends the width of a double row, then two (2) shade trees shall be provided.

5. Groundcover

A minimum of seventy percent (70%) of every parking lot island shall be planted in turf or other live groundcover, perennials or ornamental grasses. The remainder must be mulch.

6. Fill

Soil used in parking lot islands, driveway medians, and other areas internal to a vehicular use area shall be screened prior to deposition in planting areas. Construction debris shall not be buried on site. Islands shall be constructed in accordance with Appendix D (Landscape Standards).

H. Sign Landscaping

Ground signs shall be landscaped at the base of the sign in accordance with Section 13.6C9.

I. Street Yard

Except for points of access, a street yard shall be provided where the site adjoins the public street right-of-way. Alleys are exempt from this requirement.

1. The street yard shall have a minimum depth of ten feet as measured from the property line towards the interior of the property. The yard shall consist of sod grass or other approved groundcover. Shrubs required for the screening of vehicle use areas or other site elements may be located within the yard. No parking or other impervious surfaces are permitted in the street yard area.
2. Trees shall be planted within the street yard forty feet on-center, exclusive of points of access. Trees shall be a minimum of 2.5 inches caliper.
3. Existing woodlands or tree rows along the street right-of-way frontage can be substituted for the street yard tree requirement, provided the street yard depth is increased to at least twenty-five feet, as measured from the property line.
4. Street trees shall not count towards other landscaping requirements.
5. Vehicular entry and exit points shall be landscaped so as to be easily identified by users.

J. Buffer Yards

1. This Section establishes standards for the dimensions and improvement requirements of buffer yards between land uses and/or zoning districts. The yard provides transition between incompatible uses by requiring a landscape yard of a minimum specified depth along the shared property line. Buffer yards shall provide a year-round visual, noise and dust barrier.
2. In some instances, a buffer yard may not be required by the Planning Commission. These include, but are not limited to, instances where the rear wall of a commercial building is located on the rear property line or where an alley is located between a commercial property that abuts a residential property. Where it proves difficult to meet the buffer yard requirements of this Ordinance due to pre-existing site constraints, the body approving the landscape plan may approve alternative approaches or waive requirements.
3. Buffer yards shall be provided according to the matrix shown below. First identify the type of zoning for the proposed development along the left side of the matrix. Find where the zoning of the proposed development and each adjoining property intersect on the matrix. If a buffer is required, a capital letter will indicate the type of buffer to be applied. If the proposed use within a zone is also listed as a permitted use within a less-intensive zone, the corresponding class for the less intensive zone may be applied. For example, a proposed commercial use within an industrial zone may be classified as a commercial zone for the purposes of the matrix.

		EXISTING				
		Industrial	Commercial	Office	Multi-Family Residential	Other Residential
PROPOSED	Industrial		C	B	A	A
	Commercial				B	B
	Office				C	C
	High Density Residential	A	B	C		C

- a. Buffer Type A: Provide a thirty feet deep (as measured towards the interior of the property) buffer yard along the shared property line planted with:
 - i. A row of evergreen trees, 10 feet to 15 feet on-center (depending on growth habit of species selected), a double staggered row of shrubs spaced a maximum of 8 feet on-center, and 1 row of shade trees spaced a maximum of thirty-three feet on-center.
 - ii. All plants shall meet the installation and planting size requirements specified in Appendix D (Landscape Standards).
- b. Buffer Type B: Provide a twenty feet deep (as measured towards the interior of the property) buffer yard along the shared property line planted with:
 - i. Evergreen trees spaced a maximum of 10 to 15 feet on-center, a row of shrubs spaced a maximum of 8 feet on-center, and one row of shade trees spaced a maximum of 33 feet on-center.
 - ii. All plants shall meet the installation and planting size requirements specified in Appendix D (Landscape Standards).
- c. Buffer Type C: Provide a ten feet deep (as measured towards the interior of the property) buffer yard along the shared property line planted with:
 - i. Evergreen trees spaced a maximum of 10 to 15 feet on-center
 - ii. All plants shall meet the installation and planting size requirements specified in Appendix D (Landscape Standards).

4. Responsibility for buffer installation shall be as follows:
 - a. Where a developing parcel is adjacent to a vacant parcel, the developing parcel shall provide 100 percent of the buffer yard required adjacent to the vacant land.
 - b. Where a developing parcel is adjacent to an existing use, the developing parcel shall provide the full buffer yard required adjacent to the existing use.
 - c. Where all or part of a buffer yard exists on the adjacent developed parcel, but the yard does not fully comply with the standards of this subsection, the developing parcel shall be responsible for providing all the additional planting material required to conform to the above stated buffering requirements.
 - d. If the existing developed parcel contains a buffer meeting the standards of this subsection, then the developing use is not required to provide a buffer.
5. The minimum width of a required buffer yard may be reduced by up to 50 percent with the provision of a brick or stone wall at least six feet in height running the length of the reduced width. The quantity of required evergreen trees and shrubs may also be reduced by 50%. The quantity of required shade trees shall not be reduced. Fencing may be installed within drainage or utility easements provided it does not interfere with drainage or the utilities within the easement.

The minimum width of a required buffer yard may be reduced by up to 33% with the provision of a solid wood fence or heavy-duty commercial grade fence at least six feet in height running the length of the shared property boundary. The quantity of required evergreen trees and shrubs may also be reduced by 33%. The quantity of required shade trees may not be reduced. Fencing may be installed within drainage or utility easements provided it does not interfere with drainage or the utilities within the easement.

6. The required buffer yard shall not contain any development, impervious surfaces, or site features that do not function to meet the standards of this subsection or that require removal of existing vegetation, unless otherwise permitted in this ordinance. The following items shall be permitted within buffer yards provided that, in the opinion of the Planning Commission, the intent of the buffer yard is not compromised and damage to existing vegetation is minimized:
 - a. Sidewalks, trails, and bike paths;
 - b. Fences and walls;
 - c. Required landscaping;

- d. Stormwater retention or detention facilities and best management practices, provided they do not interfere with the performance and maintenance of the buffer area;
 - e. Driveway or parking lot drive aisles provided they cross the buffer yard at a 90 degree angle to the yard or do not encroach into the yard in a parallel fashion for more than 35 feet. In the latter instance, a six feet tall brick or stone wall shall be installed within the encroached area.
 - f. In the event that utility lines are installed within a buffer yard in a manner that is parallel to the buffer, additional width shall be added to the yard in an amount equivalent to the amount occupied by the utility lines and any associated easements. Any path cleared by utility installation shall be replaced with plant materials consistent with what was removed.
7. Existing vegetation located within the required buffer yard and meeting the minimum size requirements in this subsection may be credited toward the buffer standards. The amount of credit shall be at the discretion of the City's landscape architect, and shall be based on the quality, size, projected longevity and function of the vegetation.

K. Screening Requirements

1. Refuse Disposal Dumpsters and Refuse Storage Areas

Refuse disposal containers, recycling containers, and refuse and recycling storage areas shall be screened on three (3) sides by a solid brick or stone screen wall to a height at least two feet above the top elevation of the dumpster. The fourth side shall be enclosed by an opaque gate constructed of wood, vinyl, or other approved material, and situated on a concrete apron that extends a minimum of six (6) feet beyond the opening of the enclosure, so as to support the weight of the waste disposal vehicle during unloading. Plants shall be installed to blend the enclosure into the surrounding landscape. An enclosure is not required when the dumpster is located behind the building, and is in an area where it will not be visible to nearby streets or adjacent properties. All refuse shall be stored within the covered refuse disposal containers. In residential districts, this provision shall not apply where refuse is collected by the City from containers less than one-hundred (100) gallons in size at the street, curb or alley.

2. Loading Spaces

Loading spaces in all zoning districts should be located and oriented so as not be visible from the street, while still allowing access to the use it is serving. Loading docks in all zoning districts shall be screened as much as possible, unless such screening is determined unnecessary by the body approving the landscape plan. Such screening shall consist of a solid wood or simulated wood fence or masonry

screen wall to a height of no less than six (6) feet. A dense evergreen hedge may be substituted for a fence or wall, subject to approval of the landscape plan. If vegetative screening is used, a nine feet minimum width planting bed shall be provided along the length of the dock. Views into the dock shall also be screened.

3. Outdoor Storage Areas

Outdoor storage areas, as regulated by Section 10.4N (Outdoor Storage), shall be screened from view from all property lines and streets by a solid wood or simulated wood fence or masonry screen wall to a height of no less than six (6) feet but no more than eight (8) feet. Where feasible, plant materials shall be installed along the fence or wall located along the public right-of-way to provide a softening effect. No materials stored outdoors shall be of a greater height than that of the fence or wall. The required fence or wall may be substituted with a landscape screen conforming to the standards for a Buffer Type C as described in Section 11.4J3c.

4. Drive-Through Facility

Drive aisles of drive-through facilities shall be effectively screened from view at the edges of sites adjacent to residential properties in order to minimize the impact of exterior site lighting, headlight glare and any menu intercom displays. Such screening shall be approved during the site plan review process and shall consist of a solid wood or simulated wood fence, masonry screen wall, or dense evergreen hedge at least six (6) feet in height. Chain-link fencing is prohibited. Plant materials shall be installed along the fence or wall to provide a softening effect.

5. Service Areas, Service Bays and Utility Equipment

- a. Service areas, such as laydown yards, equipment or material holding areas, and service bays with overhead or roll-up doors, shall be screened from public view. Screening shall consist of evergreen trees and shrubs of sufficient height, width and quantity to provide such screening at the time of planting. Planting beds shall be a minimum of 15 feet in width. Bed width may be reduced to 10 feet if it can be demonstrated that sufficient quantities and sizes of plant material can be accommodated within that width to achieve the required screening. Screening is not required where transitional buffers provide an equal amount of screening.
- b. Utility equipment shall be screened from view from streets and other public areas. Screening shall consist of evergreen plants of sufficient height, width and quantity to provide such screening at the time of planting.

L. Tree Preservation

In an effort to maintain existing natural surroundings, mature trees and natural vegetation shall be maintained where possible. Bands of trees such as fence rows, when present alongside and rear lot lines, shall be maintained as an effective screen and wind buffer where possible.

1. A tree survey shall be required. The survey shall show the locations of each tree ten inches diameter at breast height (DBH) or greater. Species and condition shall also be noted. The survey shall be stamped by a licensed land surveyor. In situations where no grading will occur within 50 feet of a tree save area, limits of tree masses may be shown instead of individual locations.
2. Saved trees 10" DBH and greater shall be indicated on a Tree Plan. The tree protection zone shall also be shown. Saved trees shall not be disrupted by grading, construction activity, materials storage, or parking within their driplines. Tree protection fencing shall be installed at the dripline prior to any grading or construction activity. Fencing shall be installed in accordance with the City's Standard Tree Protection Fencing Detail.
3. In the event the root protection zone is disrupted, the Planning Department shall make a determination of damage and appropriate mitigation measures. At the discretion of the Planning Department, a Registered Consulting Arborist shall be hired by the property owner to assist in this determination. Recommended measures shall be completed by the property owner.
4. Removed trees 10" DBH and greater shall be indicated on the Tree Plan. Trees shall be replaced at half the DBH value of the removed tree. For example, an existing 20" DBH tree would be replaced with new trees equaling ten caliper inches. Replacement trees shall be planted on site, and may not be used to fulfill other planting requirements, except that they may be used towards tree planting requirements in Buffer Yards. Disturbance of the root zone may occur to the extent a Registered Consulting Arborist determines that it will not affect the long-term health of the tree. The minimum replacement size for new trees shall be 2.5 inches caliper. No more than 25% of replacement trees may be ornamental-type trees. The remainder shall be shade trees. Trees 10" DBH and greater removed less than one (1) year prior to the Site Plan submittal shall be replaced at 100 percent of the DBH.
5. Trees 20" DBH and greater that are retained may, at the discretion of the Planning Commission, be credited at 50% value towards replacement requirements, if the tree is in good health and the full root protection zone remains undisturbed. For instance, if sixty tree inches are required to be replaced, and a twenty inch tree is saved, the total tree replacement required may be reduced by ten.

6. If site constraints such as excessive rock, drainage problems, or inadequate space make it difficult to locate replacement trees on-site, Planning Staff may designate public property on which the trees may be planted. Alternatively, Planning Staff may allow the developer to make payment into the Tree Bank fund. Payment shall be made at the time the Building Permit is issued. The Tree Bank fund shall be administered by the Planning Department. A cost of \$50 per caliper inch of replacement trees shall be required. Tree Bank funds shall be used to install trees, landscaping and related irrigation measures on public property or easements designated by the Planning Department.

11.5 MULTI-FAMILY SITE DEVELOPMENT STANDARDS

The standards contained in this Section are specific to multi-family residential developments. Additional standards are contained in other parts of this ordinance.

- A. Multi-family developments shall comply with minimum yard requirements, maximum building coverage and other lot and building bulk standards as specified in Table 2 (Lot and Building Bulk Standards Residential Districts).
- B. Sidewalks shall be placed on both sides of all internal streets and along all adjacent external streets five (5) feet back of the street curb. Paved pedestrian walkways shall be provided for convenient and safe access to all living units from streets, driveway, parking lots or garages and for convenient circulation and access to all facilities.
- C. Open space and amenities should include the following:
 1. Open space should be provided in a minimum amount of 35% of the total area of the development. Yard area and all other pervious areas, except power transmission lines, may be counted toward this 35% requirement.
 2. Open space shall include exterior sitting areas with a total minimum area of twenty (20) square feet per bedroom, easily accessible by paved walkways to the residents the facilities are designed to serve. Generally, the sitting areas should be located no more than seven hundred-fifty (750) feet from the residential building it is to serve. All sitting areas should be equipped with benches, picnic tables and other passive recreational facilities. All sitting areas should be suitably landscaped to enhance their intended function.
 3. Open space shall also include playlots and/or playgrounds with a total minimum area of twenty (20) square feet per bedroom. These areas should include playground equipment sufficient to meet the needs of children expected to live within the development. All recreational equipment provided shall be durable commercial grade equipment. The playground shall be served by paved pedestrian walks linking individual buildings to the facility. Additional sitting areas

may be substituted for playgrounds on a square foot for square foot basis when the development is planned for elderly adults only.

4. Club house facilities with a minimum floor space of twenty (20) square feet for each dwelling unit located within the development.

5. All multi-family developments containing one hundred (100) or more dwelling units should provide swimming pool facilities.

6. Centralized garbage disposal facilities. All dumping cart/bins shall be opaquely screened and landscaped.

7. A screened and fenced parking and storage area for boats, trailers and campers with a minimum of one (1) space for each eight (8) dwelling units. This requirement may be waived by the Planning Commission if the developer agrees to prohibit the parking of boats, trailers and campers at any location within the development and a

contingency plan is provided for said parking and storage area. In the event that the prohibition is not being enforced, the Planning Commission may require the implementation of the contingency plan.

8. Street and area lights lighting the entire development.



11.6 RESIDENTIAL SUBDIVISION AND MULTI-FAMILY DEVELOPMENT ENTRY WAYS, WALLS AND FENCING

A. Site Plan and Design Review Approval Required

Any developer of a residential subdivision or multi-family development desiring to construct decorative walls, hardscape, landscape and similar decorative features at the entry way to the development and/or walls or fencing around the perimeter of the development shall first secure site plan and design review approval as specified by Section 4.7. Application should be submitted concurrent with the application for

subdivision approval. Site plan and design review approval for entry features for multi-family developments should be combined with site plan and design review approval for the multi-family site and buildings.

B. Design Standards

1. Entrance features should consist of decorative walls, fencing, columns, ornamental lighting and similar hardscape complimented with landscaping.
2. Building materials of features should include brick, stone, wrought iron, and similar quality materials.
3. All walls, fencing and other structures must be at least ten (10) feet back from the edge of street pavement and three (3) feet back from the edge of a center median and must not block visibility of motorists. Note: walls, fencing and other structures are only permitted on private medians.
4. The name of the development may be incorporated into the wall. Individual channel letters should be used or individual letters carved into the wall or a pre-cast inset. The size should be proportionate to the size of the wall.
5. Lighting should be in the form of ground mounted spot lights. These lights must be screened from view by landscaping. Landscaping and other methods shall be utilized to prevent light glare and the resulting adverse impact on surrounding property.
6. Such entry features may be located on each side of the entry and/or in any median of adequate size. Decorative brick and/or stone columns with the development's logo may be erected on each side of secondary entries. Height shall not exceed ten (10) feet.
7. Materials for perimeter fencing should be brick, wrought iron or aluminum or western cedar or equivalent with the framing away from the street. Brick columns should be erected at intervals of no more than 50 feet. Street trees and/or landscaping should be planted between the fence and street.



11.7 STREET AND OTHER REQUIRED IMPROVEMENTS

The Planning Commission shall, in conjunction with the approval of any site plan, require the construction of any and all infrastructure and other improvements (if not already in place or guaranteed by an appropriate surety) necessary to support the development and to satisfy the purposes of this ordinance. These improvements shall include, but are not limited to, streets, curb and gutter, storm sewer, detention/retention and other drainage improvements, sidewalks, bicycle and pedestrian accommodations, utilities, lighting, landscaping, irrigation, fencing, screening, parking, loading areas, and driveways. Street improvements which may be required include public and/or private streets and drives and may include new streets or improvements to existing streets necessary to improve these streets to current city standards and especially includes major thoroughfare, arterial and collector streets as shown in the City's Transportation Plan and includes local streets as well. The owner/developer shall also be required to dedicate all public improvements to the City by dedicating right-of-way and/or easements or by other methods specified by the City. See Section 4.7E3 regarding recording of plats. All improvements shall be constructed in accordance with the Public Works Department Construction Manual and the construction plans as approved by the City Engineer. Detention/retention ponds shall also conform to the design standards contained in Section 11.4D12. Bike facilities shall conform to the Land Use and Transportation Plan. The City Engineer may require a payment in-lieu-of construction of the above specified improvements. The Planning Commission may waive all or a portion of these improvements and payment if, after conferring with the staff, it is determined that the street(s) to be improved will not be further improved within the next ten (10) years.

NOTE: These improvements are not required for any Site Plan which the staff is authorized to approve as per Section 4.7D1a (Applications Eligible for Administrative Site Plan and Design Review Approval).

11.8 UTILITY SERVICE

A. Utility Service to be Underground

Electric, telephone, cable, internet and all other such service lines extending from the utility company's line to all buildings shall be installed underground in accordance with the utility company's underground installation requirements. Exceptions:

1. New and replacement building service lines in residential subdivisions where the utility company-owned lines are overhead and more than 50% of the buildings on the same street and within 1000 ft. on the same street are served with overhead service lines.
2. New and replacement building service lines in non-residential areas where the utility company-owned lines are overhead and more than 75% of the buildings on

the same street and within 1000 ft. on the same street are served with overhead service lines.

3. The Planning Commission may waive these underground requirements and approve overhead service in areas with less overhead service than specified above.

B. Sewer

All new buildings which have sanitary sewer shall be connected to a state approved public sanitary sewer system, i.e., Hendersonville Utility District or White House Utility District, or to an individual sanitary sewer or other method of disposing of sanitary sewer approved by the state or other agency authorized by law to approve such sanitary sewer disposal.