

ARTICLE VI: DISTRICT REGULATIONS

DIVISION 2. PARKING AND LOADING

§1-19-6.210. LOADING SPACE REQUIREMENTS AND DIMENSIONS.

(A) *Dimensions, clearances and signage.* There shall be 2 sizes of off-street loading spaces designated: "small" and "large". Large loading spaces are designed to accommodate uses that require high- volume delivery of goods in a tractor-trailer. Each loading space shall be exclusive of driveways, aisles and other circulation areas. All loading spaces shall have signs and markings indicating that the space is reserved for loading or unloading.

(1) A small loading space shall have minimum dimensions of not less than:

- (a) Nine feet in width;
- (b) Twenty feet in length; and
- (c) Ten feet in height clearance.

(2) A large loading space shall have minimum dimensions of not less than:

- (a) Twelve feet in width;
- (b) Fifty feet in length; and
- (c) Fifteen feet in height clearance.

(B) *Requirements.* Off-street loading space(s) will be provided and maintained on the same lot as the principal use(s) for delivery of goods in accordance with the table below:

<i>Use Classification</i>	Total Building Net Floor Area (in square feet)	Minimum Loading Spaces Required
Churches, banks, daycare, private schools, recreation & community buildings, multiple-user retail, all office, and miscellaneous commercial uses not listed herein	0 - 1,000 sq.ft.	If approved by staff, no separate loading space is required. However, a temporary loading zone may be required to be delineated on the site plan and which may be located within a parking area.
	Over 1,000 - 5,000 sq.ft.	1 small (see requirements of § (C))
	Over 5,000 sq.ft.	1 large or 2 small (see requirements of § (C)) + 1 additional large for each additional 15,000 sq.ft. or part thereof over 20,000 sq.ft.
Single-user retail, all industrial and all wholesale	0 - 5,000 sq.ft.	1 large
	Over 5,000 sq.ft.	1 large + 1 additional large for each additional 10,000 sq.ft. or part thereof over 5,000 sq.ft.

(C) If an applicant for (1) multiple-user retail; (2) office; or (3) miscellaneous commercial uses not listed in the table in subsection (B), does not intend to provide any large loading spaces, the applicant must file a request and demonstrate to the satisfaction of the Planning Commission that no high-volume delivery of goods in a tractor-trailer is required for the proposed use.

(D) *Modification.* An applicant may request that the Planning Commission approve a modification to the requirements of § [1-19-6.200](#)(B), § (A) or § (B) of this section. The applicant's request shall include written justification describing why fewer or smaller loading spaces are adequate for the proposed use. The Planning Commission may grant the applicant's request if it finds sufficient cause for the modification.

(Ord. 77-1-78, § 40-45(B), 1-24-1977; Ord. 07-11-451, 4-17-2007; Ord. 08-26-502, 10-14-2008)

§ 1-19-6.220. PARKING SPACE REQUIREMENTS.

For the purpose of this chapter, the following parking space requirements will apply. For uses not listed in the following table, parking requirements shall be determined by the Planning Commission or their authorized representatives. The requirements shall be based upon similarity to an existing use listed within the table below, characteristics of the proposed use, or hourly parking demand studies published by the Institute of Transportation Engineers (ITE).

<i>Type of Use</i>	<i>Parking Spaces Required</i>
<i>Residential</i>	
Single family, duplex or two family dwelling	2 for each dwelling unit
Multi-family dwellings, townhouses	1 space per unit, plus one-half space for each bedroom in the dwelling unit
Bed and breakfast	2 spaces per the primary dwelling, plus 1 space for each guestroom (see §1-19-8.410)
Housing for the elderly	1 for each 3 units; however, additional area must be reserved for future parking sufficient to meet the standards above, depending on housing type
<i>Commercial</i>	
Automobile sales and service garages; farm equipment sales or service	1 space per each 300 square feet of floor area
Feed and grain mill	1 space per each 300 square feet of sales floor area, plus 1 space per employee
Country inn	1 space per each guest room, plus 1 space per employee and 1 space per 50 square feet of dining room

<i>Type of Use</i>	<i>Parking Spaces Required</i>
Hotels, motels	1 per each sleeping room, plus 1 for each 2 employees
Funeral parlors, mortuaries and similar type uses	1 for each 150 square feet of floor area devoted to viewing
Retail stores	1 for each 150 square feet of floor area excluding preparation and/or storage areas
Banks, financial institutional and similar uses	1 for each 150 square feet of floor area excluding storage area
Offices, public or professional administration, or service buildings	1 for each 400 square feet of floor area
All other types of business or commercial uses permitted in any commercial district	1 for each 300 square feet of floor area
Shopping centers	5.5 spaces for each 1,000 square feet of gross leasable area
<i>Recreational or Entertainment</i>	
Dining rooms, fast food shops, restaurants, taverns, night clubs, etc.	1 space per each 50 square feet of floor area devoted to customer service, but excluding food preparation and storage
Bowling alleys	4 for each alley or lane, plus 1 additional space for each 100 square feet of the area used for restaurant, cocktail lounge or similar use
Skating rinks	1 for each 100 square feet of floor area used for the activity
Outdoor swimming pools, public, community, or club, health club, fitness center, vocational/ sports training facility, rustic retreat/camp, outdoor club	1 for each 5 persons capacity, plus 1 for each 4 seats or 1 for each 30 square feet floor area used for seating purposes, whichever is greater
Outdoor recreation center	1 space per driving range tee, plus 1 space per hole of miniature golf; plus 2 spaces per hole of chip and putt; plus one space per employee
Golf course	4 spaces per each hole, plus 1 space per each 50 square feet of floor area devoted to customer service, plus one space per 2 employees
Recreational vehicle campground, tent campground	1 space per campsite
Shooting range	1 space per firing position, plus 1 space per 2 employees

<i>Type of Use</i>	<i>Parking Spaces Required</i>
Auditoriums, sport arenas, theaters, and similar uses	1 for each 4 seats
<i>Institutional</i>	
Place of worship, other places of religious assembly, civic community center, and civic service club	1 for each 5 seats
Hospitals	1 for each bed
Medical and dental clinics and offices	1 for every 100 square feet of floor area of examination, treating room office and waiting room
Sanitariums, homes for the aged, nursing homes, children homes, asylums, and similar uses	1 for each 2 beds
Libraries, museums and art galleries	1 for each 400 square feet of floor area
<i>Schools (Public, Parochial, or Private)</i>	
Elementary and junior high schools	2 for each classroom and 1 for every 8 seats in auditoriums or assembly halls
High schools	1 for every 10 students and 1 for each teacher and employee
Business, technical and trade schools	1 for each 2 students
Colleges, universities	1 for each 4 students
Kindergartens, nursery schools and similar uses	2 for each classroom, but not less than 6 for the building
Child care centers	1 for every staff person and 1 space for every 10 licensed slots
<i>Animal Care and Service</i>	
Animal hospital, veterinary clinic, kennel	1 space per 400 square feet of floor area excluding kennels, plus 1 space per examination room, plus 1 space per employee
<i>Industrial</i>	
All industrial uses and solid waste operations	1 for every 2 employees (on the largest shift for which the building is designed) plus 1 for each motor vehicle used in the business.

(Ord. 77-1-78, § 40-45(C), 1-24-1977; Ord. 89-51-582, 8-15-1989; Ord. 92-23-058, 10-6-1992; Ord. 08-26-502, 10-14-2008; Ord. 09-21-525, 6-4-2009)

§ 1-19-6.230. JOINT USE PARKING.

Joint parking uses are permitted subject to the following conditions.

(A) The respective individual operations sharing the joint use of parking areas will not be opened or used during the same principal operating hours.

(B) The parties and the land concerned with such joint use are to be effectively bound by a written joint use agreement, the legal sufficiency of which will be subject to the approval of the County Attorney.

(C) Each unit of joint parking space may supply a unit of required off-street parking for each use bound by the written joint use agreement.

(Ord. 77-1-78, § 40-45(D), 1-24-1977; Ord. 08-26-502, 10-14-2008)

§ 1-19-6.240. SHARED PARKING.

A partial reduction in the total number of required off-street parking spaces may be granted where the applicant can demonstrate the sufficient provision of shared parking facilities based on characteristics of uses, hourly parking demand studies published by the Institute of Transportation Engineering or other appropriate source, or other documentation as determined by the Planning Commission or their authorized representatives. A shared parking plan may utilize on-street parking, community/common parking, parking areas located on the same parcel as the proposed use, adjacent to the proposed use, or two parcels that are not adjacent, subject to the following provisions:

(A) The shared parking facility shall be no farther than 500 feet from the building or use to be served;

(B) A maximum of 50% of the required off-street parking may be located off-site;

(C) Submission of a vicinity map reflecting the proposed shared parking areas(s), parking spaces, hours of operation, pedestrian access between parking area(s) and uses, as well as a detailed explanation of the proposed shared parking plan;

(D) A safe, convenient pedestrian connection must exist or be constructed between the buildings or uses and the parking area(s);

(E) The parties involved in the use of the shared parking plan shall provide evidence of an agreement for such use and parking plan by a legal instrument approved by the County Attorney.

(Ord. 07-27-467, 6-19-2007; Ord. 08-26-502, 10-14-2008)

DIVISION 3. SIGNS

§ 1-19-6.300. ERECTION AND MAINTENANCE.

Signs will be erected and maintained only when in compliance with the provisions of this and all other chapters relating to the erection, alteration, or maintenance of signs or similar devices.

(Ord. 77-1-78, § 40-46(A), 1-24-1977; Ord. 08-26-502, 10-14-2008)

§ 1-19-6.310. GENERAL REGULATIONS.

The following regulations will apply to all permitted sign uses.

(A) No sign, other than an official traffic sign, will be located within the right-of-way lines of any street, except as provided in subsection (G) and subsection (I).

(B) No free-standing sign will exceed 25 feet in height, except as provided elsewhere in this section.

(C) No permit is required for the erection, alteration or maintenance of any signs permitted in § [1-19-6.320](#), paragraphs (1) through (6), of this Code or for political signs as set forth in subsection (H) below.

(D) A permit is required for the erection or alteration of signs permitted in § [1-19-6.320](#), paragraphs (7) through (10) and as required in subsection (I) of this section.

(E) Each sign will be removed when the circumstances leading to its erection no longer apply.

(F) No sign will by reason of its intensity, color, location or movement interfere with traffic lights, signals, or other controls or obscure the view of a street or in any other manner impair public safety.

(G) Subdivision and community identification signs are permitted in the right-of-way of monumented public streets, where median strips are used to channel traffic, providing that the sign is approved by the Zoning Administrator and he issues a revocable permit conditioned upon removal of the sign at no cost to the county at such time as the county may require. In addition, the following conditions shall be met.

(1) The sign shall be kept in good repair and in safe, neat, clean, and attractive condition by the community residents or the community association.

(2) The sign must be placed 10 feet from the nose of the monument or the end of the median strip and within the monument island.

(3) The sign must be designed so as not to obstruct full sight distance.

(H) Political campaign signs identifying candidates seeking public political office or political issues and other data pertinent thereto shall be permitted as set forth: Each sign shall be located within the owner's property boundaries and shall not be located within the public right-of-way.

(I) Temporary real estate directional sign placement will be permitted in the county per the following guidelines.

(1) A temporary real estate directional sign may not exceed 3 square feet in size.

(2) A temporary real estate directional sign may not exceed 3 feet in height, measured from the ground to the top of the sign.

(3) A temporary real estate directional sign shall be supported on metal or wooden stakes, supplied by the installer, and shall not be attached to trees, utility poles, traffic-control signs, traffic signal poles, walls of buildings, barns, sheds, fences, or other physical elements.

(4) A temporary real estate directional sign may be placed only between the hours of 7:00 a.m. Saturday and 8:00 pm. Sunday. Hours may be extended to include legal holidays which are observed on Monday or Friday.

(5) In the case of existing real estate, a maximum of 3 temporary real estate directional signs per open house are permitted, without obtaining a permit, but subject to the provisions of this section.

(6) A maximum of 4 off-site community temporary real estate directional signs (not individual builders) are permitted upon the developer's obtaining a sign permit from the county which sets forth the locations of the signs and that placement will be in compliance with this section.

(7) Individual builders will be permitted to place up to 4 temporary real estate directional signs within communities in which the building activity is occurring.

(8) County staff is hereby authorized to remove any temporary real estate directional sign found to be in violation of the provisions of this section.

(9) A temporary real estate directional sign may be placed in the county right-of-way, provided that it does not obstruct sight lines or pose any safety hazard to the public.

(Ord. 77-1-78, § 40-46(B), 1-24-1977; Ord. 84-31-328, 11-27-1984; Ord. 90-21-619, 5-15-1990; Ord. 92-26-061, 10-20-1992; Ord. 06-16-412, 5-16-2006; Ord. 08-26-502, 10-14-2008)

§ 1-19-6.320. SIGNS PERMITTED AND REGULATED IN THE ZONING DISTRICT.

For the purpose of this chapter, the following sign requirements will apply, unless otherwise provided in this chapter. For uses not listed in the following table or otherwise provided in this chapter, the Zoning Administrator shall determine the permitted signage. The determination shall be based upon similarity to an existing sign type within the table below or use within this chapter.

<i>Sign Type</i>		Maximum Size Permitted ¹		<i>Zoning District Permitted*</i>	Setback From Property Line ³			<i>Conditions Required to be Met</i>
		Area sf = sq. feet	Height ² f (feet)		Front	Side	Rear	
(1)	For Sale or Rent, directional	(6 sf)	(4 f)	All districts	½	½	½	One sign per street frontage (per lot)
(2)	Subdivision opening announcement	(100 sf)	(25 f)	All districts	½	½	½	One sign per street frontage
(3)	Contractors/ artisans job-site signs	(32 sf)	(12 f)	All districts	½	½	½	One sign per street frontage of job site
(4)	Schools, place of worship, civic organizations	(32 sf)	(12 f)	Where use is permitted by this chapter	½	½	½	One sign per street frontage
(4)(a)	Institutional, governmental, college, university campus	10F	(12 f)	Where use is permitted by this chapter	½	½	½	One sign per street frontage
(5)	Home occupation	(2 sf)	C and A Districts (6 f)	In district where use is permitted	30'	10 ⁴	10'	One sign only. Signs in R D District must be attached to principal or accessory structure.

Sign Type		Maximum Size Permitted ¹		Zoning District Permitted*	Setback From Property Line ³			Conditions Required to be Met
		Area sf = sq. feet	Height ² f (feet)		Front	Side	Rear	
(6)	Limited roadside stand, boarding stable	(16 sf)	(12 f)	RC and A districts	N.A.			One sign per street frontage
(7)	Commercial and industrial owner identification and product	10F	(25 f)	All commercial and industrial districts	½	½	½	May not project more than 30" from face of building unless used as a freestanding sign
(8)	Shopping Center (includes all stores within)	30F	(40 f)	All commercial districts	½	½	½	No more than one freestanding sign, including shopping center identification sign per street frontage

DIVISION 4. LANDSCAPING AND SCREENING
§1-19-6.400 SCREENING.

(A) In accordance with the site plan review process provided in §§ [1-19-3.300](#) through [1-19-3.300.4](#) or as otherwise provided within this chapter the Planning Commission may require screening along the property line and around and within the parking areas. Minimum standards are: planting strips will be no less than 5 feet wide, planted with shrubs or trees, which are of a type and spaced at intervals which may be expected to form a year-round dense screen at least 6 feet high within 3 years. Opaque fencing may be used in lieu of trees and shrubs, subject to approval of the Planning Commission.

(Ord. 09-22-526, 7-14-2009)

DIVISION 5. LIGHTING
§ 1-19-6.500 LIGHTING.

(A) In accordance with the site plan review process provided in §§ [1-19-3.300](#) through [1-19-3.300.4](#) or as otherwise provided within this chapter, lighting emitting objectionable glare observable from surrounding properties or streets will be shielded.

(Ord. 09-22-526, 7-14-2009)

ARTICLE VII: SUPPLEMENTARY DISTRICT REGULATIONS
DIVISION 5. COMMERCIAL DISTRICTS
§ 1-19-7.500. VILLAGE CENTER ZONING DISTRICT OVERLAY STANDARDS.

(A) *Purpose and intent.* To provide for the location of a mix of commercial services and residential development within the Village Center Zoning Districts of rural communities with well and septic, and regional/district communities where public water and sewer are either existing and/or planned. Village Center zoning is applied to communities that contain an older village center as well as historic resources which are unique characteristics of Frederick County. It is the intent of the overlay standards to distinguish between development in rural communities and growth area communities that accommodate differing intensities and densities of growth, as well as sustain the distinctive village center character and community identity through carefully planned development. The design standards are to ensure that new development is compatible with the unique characteristics within each community. The scale and density of new development shall conform to the existing development patterns of the specific community in which it is located as depicted within the Village Center Zoning District design guide.

(B) *Application.*

(1) *Density.* Development within the Village Center Zoning District may not exceed 3 dwelling units per acre except in the growth area communities. In growth area communities the density shall not exceed 5 dwelling units per acre.

(2) *Height.* Structures within the Village Center Zoning District may not exceed a maximum height of 30' and no more than 2 stories. In the growth area communities the Planning Commission may grant an increase in height of up to 40' and no more than 3 stories for townhouse, multi-family, transient housing, and commercial development. The Planning Commission may grant an increased height when the specific finding is made that such increased height is:

(a) Compatible with the pattern of or relationship to existing development on adjacent or confronting lots; and

(b) Conforms to § 1-19-7.500(C).

(3) *Setbacks.* Front, side, and rear setbacks will be determined based upon the average setbacks for structures located on all lots facing and adjacent to the proposed development, but in no event less than the specific minimum setbacks where provided in § [1-19-6.100](#). Where facing and adjacent lots are vacant, the setbacks shall be based upon the average setbacks of the nearest structures. Accessory and secondary buildings shall not be utilized to determine setback averages unless the proposed use is of a similar intensity.

(4) *Mixed uses.* Mixed-use development is encouraged within the Village Center Zoning District, including residential uses on the second or third floors above ground floor commercial uses. Multiple principal structures on a single lot may be permitted within the Village Center Zoning District through the site plan approval process when the Planning Commission specifically finds that the resulting development will provide an improved design that would not otherwise be created on multiple lots. In determining whether to allow development of multiple principal structures on a single lot the Planning Commission shall require:

(a) Improved on-site and off-site traffic circulation for vehicles and pedestrians;

(b) Building placement that provides for the concentration of service entrances, mechanical equipment, utilities and non-public facilities (i.e. refuse containers or outside storage) away from public access areas;

(c) The provision of a common plaza/green area(s) (not including swimming pools or playgrounds) to be provided in addition to all other landscaping and setback requirements. The common plaza/green area(s) shall be calculated at the following rate: 726 square feet common plaza/green area(s) per 2,000 square feet of gross floor area or portion thereof;

(d) Joint use or shared parking resulting in a reduction in the number of required off-street parking spaces;

(e) A mix of integrated commercial and residential uses;

(f) Preservation of a historic structure or historic site where applicable.

(C) *Design standards.*

(1) All new development within the Village Center Zoning District shall incorporate the following design standards in addition to all other applicable requirements of the Zoning Ordinance. New development will use existing development as a guide when determining site development, layout, bulk, and form of proposed structures within the Village Center District. New development should be designed and built to reflect existing neighborhood characteristics including shape, height, massing, roof shapes, and door and window placement and proportions.

(2) The Planning Commission shall consider these standards in its review of all development within the Village Center Zoning District. The concept plan will allow for review of the proposed development in order to ensure consistency with the intent of the standards and the purpose of the VC district. The Planning Commission may not approve development applications that do not comply with the design standards or other requirements of this section.

(3) *Site development and layout.*

(a) Buildings shall be oriented such that the principal face of the building faces the most dominant adjacent public street as determined by the orientation of existing surrounding structures.

(b) Multi-story buildings with commercial use(s) on the ground and lower floors and residential uses on the upper floor(s) are encouraged.

(c) Garage and service doors for commercial development shall not be oriented to the dominant adjacent public street. Garage and service doors shall be located to the rear and/or side of buildings allowing for the principal face of the building to remain the dominant public street feature.

(d) All equipment and supplies shall be stored, maintained, and repaired outside of the front yard area.

(e) Parking shall be located to the rear and/or side of buildings. Parking lots shall not create long expanses of empty street frontage.

(f) Shared parking is strongly encouraged. The Planning Commission may reduce the minimum parking requirements where the applicant can demonstrate the need for fewer parking spaces due to availability of on-street parking, joint parking, community/shared parking as otherwise provided under § [1-19-6.240](#).

(g) Roadside sidewalks shall be provided when sites are developed or redeveloped. Sidewalks linking adjacent parcels along the primary street shall be provided wherever practical.

(h) Streets and roadways shall link to existing road networks and follow the established predominant street pattern.

(4) *Building massing and bulk.*

(a) The overall form of proposed buildings, such as height, front and side yard setbacks, roof pitch, and length of building frontage shall be similar to the surrounding buildings in order to maintain a consistent pattern and texture in the built environment.

(b) Community or institutional buildings may be granted increased height allowances for architectural features that signify the function or importance of the building to the community.

(c) Where abutting a public street, townhouse and multi-family structures shall have a maximum width of three dwelling units.

(d) Commercial buildings shall not exceed a maximum footprint of 5,000 square feet except within the growth area communities where the Planning Commission may grant a maximum commercial building footprint of up to 8,000 square feet.

(e) Building designs shall not include flat roofs, large expanses of undifferentiated façades, and long plain wall sections.

(D) *Procedures - concept plan.* Development requiring site plan review must receive concept plan approval from the Planning Commission or its authorized representative as the first step in the development review process. The concept plan must demonstrate the manner in which the Village Center Zoning District design standards have been met by the proposed development. (§ 1-19-3.300.2)

§1-19-7.510. GENERAL COMMERCIAL, HIGHWAY SERVICE.

The following provisions shall be applicable in the General Commercial, Highway Service Districts.

(A) *Access requirements.* One combined entrance/exit is permitted for each 200 feet of frontage. Access to corner lots will be at least 100 feet from intersecting street rights-of-way. Entrances to individual lots on a frontage road will be a minimum of 200 feet apart, except when developing on the circumference at the end of a cul-de-sac, then entrances may be less than 200 feet apart; however, combined entrances with adjoining properties shall be provided to limit the number of access points and give the maximum separation possible.

(B) *Vehicle and pedestrian circulation.* A plan for the internal circulation of vehicles and pedestrians will be reviewed and approved by the Planning Department.

(C) *Signs.* Square footage may be increased by 25% if no free-standing or pylon-type signs are used.

(D) Storage of flammable liquids in excess of 60,000 gallons in the general commercial and highway service districts only requires a special exception approval of the Board of Appeals. The placement of storage containers for flammable liquids shall comply with the setback requirements of § [1-19-7.610\(J\)\(4\)](#).

(E) *Storage and operations.* Notwithstanding other provisions of this Code, all operations and the storage of equipment, materials, or products in the GC or HS Districts shall be conducted within completely enclosed buildings. Storage may be permitted outdoors only when completely screened by a wall, opaque fence, or planting so that such materials will not be visible from a public way or adjoining property. The most appropriate screening for the use shall be determined at site development plan review.

(Ord. 77-1-78, § 40-62(C), 1-24-1977; Ord. 81-3-193, 1-27-1981; Ord. 83-14-281, 6-7-1983; Ord. 08-26-502, 10-14-2008; Ord. 09-21-525, 6-4-2009)

DIVISION 6. INDUSTRIAL DISTRICTS

§ 1-19-7.600. INDUSTRIAL DISTRICTS.

The following provisions shall be applicable in the Industrial Districts.

(A) *Access requirements.* One combined entrance/exit is permitted for each 200 feet of frontage. Access to corner lots will be at least 100 feet from intersecting street rights-of-way. Entrances to individual lots on a frontage road will be a minimum of 200 feet apart, except when developing on the circumference at the end of a cul-de-sac, then entrances may be less than 200 feet apart; however, combined entrances with adjoining properties shall be provided to limit the number of access points and give the maximum separation possible.

(B) *Vehicle and pedestrian circulation.* A plan for the internal circulation of vehicles and pedestrians will be reviewed and approved by the Planning Department.

(C) *Signs.* Square footage may be increased by 25% if no free-standing or pylon-type signs are used.

(D) *Storage and operations.* Notwithstanding other provisions of this Code, all operations and the storage of equipment, materials, or products in the industrial districts shall be conducted within completely enclosed buildings. Storage may be permitted outdoors only when completely screened by a wall, opaque fence, or planting so that such materials will not be visible from a public way or adjoining property. The most appropriate screening for the use shall be determined at site development plan review.

(Ord. 08-26-502, 10-14-2008; Ord. 09-21-525, 6-4-2009)

§ 1-19-7.610. INDUSTRIAL DISTRICT PERFORMANCE STANDARDS.

The following performance standards for Limited and General Industrial Districts are designed to reduce the impact of industrial districts on surrounding uses by lessening traffic congestion, protecting the health and safety of workers and nearby residents, and by preventing detrimental effects on properties adjoining or in the neighborhood. All applications for a site plan approval must be accompanied by a registered engineer's certification that the use complies with all of the applicable standards. Upon receipt of the certification, the Zoning Administrator will issue a zoning certificate. After occupancy, if there occurs continuous or frequent, even though intermittent, violations of the performance standards and provisions of these regulations without bona fide and immediate corrective work, the Zoning Administrator will suspend or revoke the zoning certificate of the use and the operation shall immediately cease until it is able to operate in accordance with this chapter, at which time the zoning certificate shall be reinstated.

(A) *Storage and operations.*

(1) In the LI District all operations and the storage of equipment, materials or products will be conducted within completely enclosed buildings or storage may be permitted outdoors only when completely screened by a wall, opaque fence, or planting so that such materials will not be visible from a public way or adjoining property. The Planning Commission shall determine the most appropriate screening for the use.

(2) (a) In the GI District, a use is permitted either indoors or outdoors but in conformance with the following.

(b) *Storage.* Storage in a GI District within 500 feet of a residential district boundary may be outdoors but will be effectively screened by a solid wall, fence, or planting so that the materials will not be visible from the Residential District.

(B) *Noise.*

(1) Noise will be measured with a sound level meter. Impact noise will be measured using the fast response of the sound level meter. Impact noises are intermittent sounds such as from a punch press or drop force hammer.

(2) The following table describes the maximum sound pressure level permitted from any industrial source and measured in any adjacent Residential District, Commercial District, or LI Limited Industrial Lot.

Maximum permitted sound levels, dB(A)				
Sound Measured to:	Decibels Continuous Slow Meter Responses		Impact Fast Meter Response	
	LI	GI	LI	GI
Residential District	55	55	60	60
Commercial District	64	64	700	75
LI District lot, adjacent to noise source	70	75	80	-

(3) The following sources of noise are exempt.

- (a) Transportation vehicles not under the control of the industrial use.
- (b) Occasionally used safety signals, warning devices, and emergency pressure relief valves.

(c) Temporary construction activity between 7:00 a.m. and 7:00 p.m.

(C) *Vibration.* No vibration will be produced which is transmitted through the ground and is discernible without the aid of instruments at or any point beyond the lot line; nor will any vibration produce a particle velocity of 2 inches per second measured at or beyond the lot line.

(D) *Dust and particulates.*

(1) The total emission rate of dust and particulate matter from all vents, stacks, chimneys, flues or other opening or any process, operation, or activity except solid waste incinerators within the boundaries of any lot, will not exceed the levels set forth below. Emissions of dust and particulates shall be in accordance with the State of Maryland rules and regulations governing air contamination and air pollution, and, in case of conflict, the most restrictive will apply.

(2) Particulate matter emission from materials or products subject to becoming windborne will be kept to a minimum by paving, sodding, oiling, wetting, covering or other means, such as to render the surface wind resistant. Such sources include vacant lots, unpaved roads, yards and storage piles or bulk material such as coal, sand, cinders, slag, sulfur, and the like.

Ambient Air Quality Standard (LI and GI Districts)

Particulate Matter

Suspended

Annual arithmetic mean, ug/m³ 65

24-hour maximum^b, ug/m³ 140

Settleable

Annual arithmetic average, mg/cm²/month 0.35

Monthly maximum 0.7

(E) *Sulfur oxides.* Emission of oxides of sulfur (as sulfur dioxide) from combustion and other processes will be limited in accordance with ambient air quality standards of the state or those of the county, whichever are the more restrictive.

Ambient Air Quality Standard (LI and GI Districts)

Sulfur Oxides

Annual arithmetic mean, ug/m³ 60

(F) *Smoke.* For the purpose of grading the density or equivalent capacity of smoke, the Ringelmann Chart as published by the United States Bureau of Mines shall be used.

(1) *LI District.* The emission of smoke darker than Ringelmann No. 1 from any chimney, stack, vent, opening, or combustion process is prohibited.

(2) *GI District.* The emission of smoke darker than Ringelmann No. 1 from any chimney, stack, vent, opening, or combustion process is prohibited; however, smoke of a shade not to exceed Ringelmann No. 2 is permitted for up to 4 minutes total in any 1 hour period.

(G) *Odor.* Odor thresholds shall be measured in accordance with ASTM d1391-57 "Standard Method for Measurement of Odor in Atmospheres (Dilution Method)" or its equivalent.

(1) *LI District.* Odorous material released from any operation or activity shall not exceed the odor threshold concentration beyond the lot line, measured either at ground level or habitable elevation.

(2) *GI District.* Odorous materials released from any operation or activity shall not exceed the odor threshold concentration at or beyond the district boundary line measured either at ground level or habitable elevation.

(H) *Toxic matter.* The ambient air quality standards for the State of Maryland shall be the guide to the release of airborne toxic materials across lot lines. Where toxic materials are not listed in the ambient air quality standards of the state, the release of such materials shall be in accordance with the fractional quantities permitted below, of those toxic materials currently listed in the threshold limit values adopted by the American Conference of Governmental Industrial Hygienists. Unless otherwise stated, the measurement of toxic matter shall be at ground level or habitable elevation, and shall be the average of any 24 hours sampling period.

(1) *LI District.* The release of airborne toxic matter will not exceed one-thirtieth of the threshold limit value across lot lines.

(2) *GI District.* The release of airborne toxic matter shall not exceed one-thirtieth of the threshold limit value beyond the district boundary line.

(I) *Detonable materials.*

(1) Activities involving the storage, utilization or manufacture of products which decompose by detonation shall be in accordance with these new regulations.

(2) Such materials shall include but are not limited to: all primary explosives such as lead azide, lead styphnate, fulminates and tetracene; all high explosives such as TNT, RDX, HMX, PETN, and picric acid; propellants and components thereof, such as dry nitrocellulose, black powder, boron hydrides, hydrazine and its derivatives; pyrotechnics and fireworks such as magnesium powder, potassium chlorate and potassium nitrate; blasting explosives such as dynamite and nitroglycerine; unstable organic compounds such as acetylides, tetrazoles and ozonides; unstable oxidizing agents such as perchloric acid, perchlorates, and hydrogen peroxide in concentration greater than 35%; and nuclear fuels, fissionable materials and products, and reactor elements such as Uranium 235 and Plutonium 239.

(a) *LI District.* The storage, utilization or manufacture of materials or products which decompose by detonation is prohibited.

(b) *GI District.* The manufacture of materials or products which decompose by detonation is limited to 5 pounds; however, such materials may be stored or utilized in any quantity.

(J) *Fire hazards.* Solid materials susceptible to fire hazards shall be subject to the following.

(1) *LI District.* The storage, utilization or manufacture of solid materials which are active to intense burning shall be conducted within spaces having fire resistive construction of no less than 2 hours and protected with an automatic fire extinguishing system.

(2) *GI District.* The storage, utilization or manufacture of solid materials which are active to intense burning shall be conducted within walls having a fire resistance no less than 2 hours or protected by an automatic fire extinguishing system or the building shall be no less than 40 feet from all lot lines. The outdoor storage of such materials shall be permitted no closer than 50 feet from all lot lines.

(3) The storage, utilization or manufacture of flammable liquids or gases which produce flammable or explosive vapors shall be permitted only in accordance with this section, exclusive of the storage of finished products in original sealed containers (60 gallons or less), which shall be unrestricted.

(4) (a) The total storage capacity of flammable liquids and gases shall not exceed those quantities permitted in the following table for each of the Industrial Districts.

<i>Liquids - Storage Capacity</i>		
LI District	60,000 gal.	
GI District	120,000 gal.	
	<i>Gases</i>	
	Above Ground	Below Ground
LI District	150,000 SCF*	300,000 SCF
GI District	300,000 SCF*	600,000 SCF

*SCF - Standard cubic feet at 60°F and 29.92 inches Mercury.

(b) The following setback requirements will apply to the location of any container which holds flammable liquids or gases.

Containers Setback From Lot Lines

<i>Water Capacity per Container (gallons)</i>	Containers		Between Above Ground Containers (feet)
	Under Ground (feet)	Above Ground (feet)	
0 to 2000	25	25	3
2,001 to 30,000	50	50	5
30,000 to 60,000	50	75	
In excess of 60,000	75	100	1/4 the sum of diameters of adjacent containers

(5) Notwithstanding the above-listed capacities for flammable liquids and gases, an owner or operator shall be permitted to exceed such capacities provided that the Zoning Administrator determines that the excess storage capacity is for an emergency fuel supply only. For purposes of this section, the term ***EMERGENCY FUEL SUPPLY*** means any fuel that is stored on site for use solely in the event of a disruption in the normal fuel supply. In no event shall the total storage capacity for an emergency fuel supply approved pursuant to this subsection exceed that amount of fuel required to operate the subject facility for a maximum of 5 consecutive 24 hour periods. The facilities to hold an emergency fuel supply shall be designed, constructed, and operated in compliance with the Frederick County Fire Prevention Code, § [1-2-64](#) of the Frederick County Code and the National Safety Codes and standards applicable to the specific emergency fuel.

(K) *Glare*. In LI and GI Districts, any operation or activity producing glare shall be conducted so that direct or indirect light from the source shall not cause illumination in excess of 0.5 footcandle when measured in a Residential District.