

## SECTION 14 EMPLOYMENT CENTER DISTRICT

### 14.1 STATEMENT OF INTENT

Employment Center Districts are defined as planned developments primarily for light industrial uses which are environmentally sound, sustainable and compatible with adjacent uses. They are further defined as areas devoted to industrial uses which present an attractive appearance and complement surrounding land use character by means of appropriate setting of *buildings* and service areas and landscape treatment.

It is intended that Employment Center Districts be located in areas having one or more major highways, and clearly demonstrated suitable for the intended uses in so far as physical characteristics and relationship to surrounding *development*.

### 14.2 PERMITTED PRINCIPAL USES AND STRUCTURES

For every industrial *structure* and use erected, reconstructed, altered, or enlarged after the effective date of this Ordinance, a *site plan* shall be filed. No building permit shall be issued until said *site plan* is approved by the *Planning Commission* or where applicable the Planning Director.

1. Manufacture, processing, fabrication, and assembly of products. These uses include but are not limited to scientific and precision instruments, photographic equipment, communications equipment, computation equipment, drugs, medicines, pharmaceuticals, household appliances, toys, sporting and athletic goods, glass products made of purchased glass, electric lighting and wiring equipment, service industry machines, lithographic and printing processes, industrial controls, radio and TV receiving sets, watches and clocks, bags and containers, sanitary paper products, optical goods, electrical machinery, prefabricated and modular housing and components, dairy product feed and grain, baked and confectioners' goods, farm machinery, frozen food processing, packing plants, animal and seafood processing, fruit and vegetable processing, canning and storage.
2. Businesses and industries, including research and development companies, of a similar nature to those listed in Article V Section 14.2.1 may also be permitted by the Zoning Administrator. The Zoning Administrator shall consider the following:
  - a. The impact of the proposed business or industry on existing or planned public facilities.
  - b. The impact of the operation of the facility on the surrounding area.
  - c. The health, safety, and welfare of employees and residents of the neighborhood.
3. Distribution centers and warehousing provided that a single building footprint does not exceed 75,000 square feet in size. The restriction on building footprint does not apply to the Employment Center District in the Route 301 corridor. In reviewing the *site plan*, the *Planning Commission*, or where applicable the Planning Director, shall consider the following:
  - a. The impact of the proposed business or industry on existing or planned public facilities.
  - b. The impact of the operation of the facility on the surrounding area.
  - c. The health, safety, and welfare of employees and residents of the neighborhood.
4. Manufacture of concrete and ceramics products and sewage treatment plants provided such uses shall be located at least 400 feet from any residential district boundary. Outdoor storage of materials is prohibited.

5. *Personal wireless facilities* collocated on existing towers, water towers, electrical transmission towers, fire towers, silos, *grain dryers*, or other *structures* provided the height of the existing *structure* is not above that permitted by this Ordinance.
6. Public utility *buildings, structures*, water treatment plants, and transmission lines.
7. Blacksmith, welding and machine shops. Outdoor storage of materials is prohibited unless otherwise approved by the *Planning Commission* and subject to such conditions as may be determined by the *Planning Commission*.
8. Vocational and trade schools including training facilities
9. *Airports*, landing fields, helistops, and heliports.
10. Governmental public works and utility *buildings* or *structures*.
11. *Single family dwelling*, one per existing property, subject to the *yard* requirements found in the Agricultural Zoning District, provided however, that bona fide *intrafamily transfers* may be permitted in the industrial district (thus exceeding the one *single family dwelling* per existing property requirement) under the following conditions:
  - a. The owner of the parcel or the proposed parcel shall attest, in writing, to the bona fide family relationship and that the intent of the *subdivision*/use is not for ultimate transfer to a third party.
  - b. Any deed for a *lot* that is created by a bona fide *intrafamily transfer* shall contain the covenant stating that the *lot* is created subject to the provisions of this section and that the provisions of this section shall control as long as the property continues to be zoned for industrial uses.
  - c. A *lot* created by a bona fide *intrafamily transfer* may not be conveyed subsequently to any *person* other than a member of the owners immediate family except under the following procedures:  
The Kent County Planning Commission must determine that:
    - i. The *lot* was created as a part of bona fide *intrafamily transfer* and not with the intent of subdividing the original parcel of land for purposes of ultimate transfer to a third party; and
    - ii. The owner of the transferred property dies; or
    - iii. A change of circumstances has occurred since the original transfer was made that is consistent with the intent of this ordinance.
  - d. This subsection shall not prevent the conveyance of such a *lot* to a third party as security for a mortgage or deed of trust, or subsequent conveyances resulting from a foreclosure.
  - e. The maximum *lot* size shall be two acres.
  - f. Any deed or *subdivision* plat for a *lot* created by a bona fide *intrafamily transfer* shall contain a statement that the adjacent property is zoned for industrial uses.
  - g. The parcel is created for the construction of a primary residence only.
  - h. This provision applies to those individuals owning industrial zoned land prior to July 7, 1994. Subsequent owners of industrial zoned land shall be limited to one *single family dwelling*.
12. Boat building and boat repair. Outdoor storage of materials and boats under construction is prohibited unless otherwise permitted by the *Planning Commission* and subject to such conditions as may be determined by the *Planning Commission*.

13. *Truck terminals*, limited to 20 trucks provided the parking and loading area is fenced, screened, and located at least 400 feet from any residential district boundary and 100 feet from all property lines. The limitation on the number of trucks does not apply to Employment Center Districts in the Route 301 corridor.
14. Storage and office trailers, temporary during construction.
15. Offices provided that a single building footprint is 10,000 square feet or greater.
16. *Agriculture*, excluding the raising of livestock and fowl, including horticulture, hydroponics, and truck farming, general farming, cultivation of field crops, and raising of orchards, groves, and nurseries.

#### 14.3 SPECIAL EXCEPTIONS

The following principal uses and *structures* may be permitted as special exceptions in the Employment Center District, subject to *site plan* review. Detail limitations and standards for these uses may be found in Article VII of this Ordinance.

1. *Personal wireless facility tower*
2. Radio and television tower, commercial

#### 14.4 PERMITTED ACCESSORY USES

The following *accessory uses* are permitted in the Employment Center District. A *site plan* shall be required.

1. *Day care group*
2. Dwellings, limited to two (2) for persons permanently employed on the *premises*
3. Offices
4. Out of water boat storage
5. *Restaurants* without drive through facilities
6. Retail sales of products produced *on-site*
7. Uses and *structures* which are customarily accessory and incidental to any permitted use shall be permitted in the district provided they are clearly subordinate to the principal use

#### 14.5 DENSITY, HEIGHT, WIDTH, BULK, AND FENCE REQUIREMENTS

|   | STANDARD                 | INDUSTRIAL<br>SUBDIVISION |
|---|--------------------------|---------------------------|
| Gross <i>density</i> (dwelling units/ acre) | 0.05 (1/20) <sup>1</sup> | <sup>2</sup>              |
| Minimum <i>lot size</i>                     | 20 acres                 | NA                        |
| Maximum residential <i>lot size</i>         | 2 acres                  | 2 acres                   |
| Minimum <i>lot frontage</i>                 | 75 feet                  | <sup>2</sup>              |
| Minimum <i>yard</i>                         |                          |                           |
| - <i>Front</i>                              |                          |                           |
| - Existing <i>Primary road</i>              | 100 feet <sup>3</sup>    | 100 feet <sup>3</sup>     |
| - <i>Other roads</i>                        | <sup>2</sup>             | <sup>2</sup>              |
| - <i>Side and Rear</i>                      |                          |                           |
| - Adjacent to I, ICA, EC                    | 15 feet                  | <sup>2</sup>              |
| - Adjacent to CC, CCCA, M, AZD, RCD         | 40 feet <sup>3</sup>     | <sup>2</sup>              |
| - Adjacent to V, RR, CAR                    | 100 feet <sup>3</sup>    | <sup>2</sup>              |
| - Adjacent to public road                   | 100 feet <sup>4</sup>    | 100 feet <sup>4</sup>     |
| Height                                      |                          |                           |
| - Industrial <i>structure</i>               | 45 feet                  | 45 feet                   |
| - Residential <i>structure</i>              | 35 feet                  | 35 feet                   |
| - Towers, silos, etc.                       | 150 feet <sup>5</sup>    | 150 feet <sup>5</sup>     |
| - Fence <sup>6</sup>                        |                          |                           |
| - Security                                  | 8 feet                   | 8 feet                    |
| - Ornamental                                |                          |                           |
| <i>Front and Side</i>                       | 4 feet                   | 4 feet                    |
| <i>Rear</i>                                 | 8 feet                   | 8 feet                    |
| Maximum building footprint                  |                          |                           |
| - Distribution Center                       |                          |                           |
| - Route 301 Corridor                        | NA                       | NA                        |
| - Other locations                           | 75,000 sq. ft.           | 75,000 sq. ft.            |
| - Other industrial <i>buildings</i>         |                          |                           |
| - Route 301 Corridor                        | NA                       | NA                        |
| - Other locations                           | 250,000 sq. ft.          | 250,000 sq. ft.           |
| Minimum building footprint                  |                          |                           |
| - Office <i>buildings</i>                   | 10,000 sq. ft.           | 10,000 sq. ft.            |

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<sup>1</sup> *Intrafamily transfers* only

<sup>2</sup> As approved during *subdivision* review

<sup>3</sup> When a side or rear lot line coincides with a side or rear lot line of a property in a non-industrial zone, the required yard shall be landscaped and screened and shall be unoccupied by buildings, *structures*, or parking area.

<sup>4</sup> May be reduced or increased during *site* plan review

<sup>5</sup> Except in the *Airport Safety Zone*

<sup>6</sup> Fences do not need to meet the yard requirements.

## 14.6 EMPLOYMENT CENTER DISTRICT PERFORMANCE STANDARDS

Any industrial use established after August 1, 1989 shall be operated so as to meet the performance standards established hereinafter. Any use already established on August 1, 1989 shall be permitted to continue provided that no *alteration*, expansion, enlargement, or modification shall be permitted which effectively increases the degree of nonconformity which existed prior to any *alteration*, expansion, enlargement, or modification. An application to alter, expand, enlarge, or modify an existing use which does not meet the performance standards shall include a statement identifying measures proposed to bring the use into conformity with the performance standards.

Points of measurement to determine compliance with the performance standards shall be the property *lot line* or zoning line nearest the source that is the subject of measurement.

1. NOISE - All sources of noise (except those not under direct control of occupant of use, such as vehicles), must not create sound or impact noise levels in excess of the values specified below when measured at the points indicated. In addition, between 7:00 P.M. and 7:00 A.M., the permissible sound levels at a residential district boundary where adjoining Industrial Districts, shall be reduced by five decibels in each octave band and in the overall band for impact noises.

### Method of Measurement and Meaning of Terms:

Noise shall be measured by means of a sound level meter and octave band analyzer, calibrated in decibels (re 0.0002 microbar) and shall be measured at the nearest *lot line* from which the noise level radiates. Impact noises shall be measured by means of an impact noise analyzer. Impact noises are those whose peak values fluctuate more than six decibels from the steady values indicated on the sound level meter set at fast response.

Decibel - A measurement of the intensity (volume) of a sound.

Octave band - A prescribed interval of sound frequencies which classifies sound according to its pitch.

Preferred frequency octave bands - A stigmatized series of octave bands prescribed by the American Standards Association in Sel. 6-1970 Preferred Frequencies for Acoustical Measurements.

Sound level meter - An electronic instrument which includes a microphone, an amplifier, and an output meter which measures noise and sound pressure levels in a specified manner. It may be used with the octave band analyzer that permits measuring the sound pressure level in discrete octave bands.

MAXIMUM PERMITTED SOUND LEVELS (Decibels)

| Octave band,<br>cycles/second | At residential<br>boundaries | At other <i>lot</i><br><i>lines</i> |
|-------------------------------|------------------------------|-------------------------------------|
| 31.5                          | 64                           | 72                                  |
| 63                            | 64                           | 74                                  |
| 125                           | 60                           | 70                                  |
| 250                           | 54                           | 65                                  |
| 500                           | 48                           | 59                                  |
| 1,000                         | 42                           | 55                                  |
| 2,000                         | 38                           | 51                                  |
| 4,000                         | 34                           | 47                                  |
| 8,000                         | 30                           | 44                                  |
| Overall                       | 80                           | 90                                  |

- VIBRATION - The product of displacement in inches times the frequency in cycles per second of earthborn vibrations from any activity shall not exceed the values specified below when measured at the points indicated.

Method of Measurement and Meaning of Terms:

Earthborn vibrations shall be measured by means of a three component recording system, capable of measuring vibration in three mutually perpendicular directions. The displacement shall be the maximum instantaneous vector sum of the amplitude in the three directions.

Vibrations - The periodic displacement of oscillation of the earth.

MAXIMUM PERMITTED VIBRATIONS (INCHES PER SECOND)  
AREA OF MEASUREMENT

| Type of Vibrations                 | At Residential<br>Boundaries | At other <i>Lot lines</i> |
|------------------------------------|------------------------------|---------------------------|
| Continuous                         | 0.003                        | 0.015                     |
| Impulsive - 100/min or<br>less     | 0.006                        | 0.030                     |
| Less than 8 pulses per 24<br>hours | 0.015                        | 0.075                     |

- GLARE - No direct or sky reflected glare, whether from flood lights or from high temperature processes such as combustion, welding or otherwise, is to be visible beyond the *lot line*, except for *signs*, parking lot lighting and other lighting permitted by this Ordinance or required by any other applicable regulation, ordinance or law.
- AIR POLLUTION - The rules and *regulations* of the State of Maryland shall apply.
- WATER POLLUTION - The rules and *regulations* of the State of Maryland shall apply.
- RADIOACTIVITY - There shall be no radioactive emission which would be dangerous to the health and safety of persons on or beyond the *premises* where such radioactive material is used. Determination of existence of such danger and the handling of radioactive materials, the discharge of such materials into the atmosphere and streams or other water, and the disposal of

radioactive wastes shall be by reference to and in accordance with applicable current *regulations* of the governments of the United States and Maryland.

7. ELECTRICAL INTERFERENCE - There shall be no electrical disturbance emanating from any *lot* which would adversely affect the operation of any equipment on any other *lot* or *premises*.
8. SMOKE AND PARTICULATE MATTER LIMITATIONS -
  - a. General Limitations - In addition to the performance standard specified hereinafter, the emission of smoke or particulate matter in such manner or quantity as to be detrimental to or endanger the public health, safety, comfort, or welfare is hereby declared to be a public nuisance and shall henceforth be unlawful.

Particulate matter emission caused by the wind from open storage areas, *yards*, *roads*, etc., within *lot lines* shall be kept to a minimum by appropriate landscaping, paving, wetting, or other means.

For the purposes of determining the density or equivalent opacity of smoke, the Ringelmann Chart as adopted and published by the United States Bureau of Mines in Circular No. 8333 (7718) shall be employed.
  - b. Permitted Smoke Emission - Within 1,000 feet of a residence or commercial zoning district boundary line, the emission of visible smoke from any vent, stack, chimney, or combustion process, darker than Ringelmann No.2 for a period or periods aggregating more than 4 minutes in any 60 minute period shall not be permitted.
9. TOXIC MATTER LIMITATIONS - In any Industrial District, toxic materials which are released shall not exceed 10% of the maximum permissible airborne concentration allowed an industrial worker when measured at any point beyond the *lot line*, either at ground level or habitable elevation, whichever is more restrictive. When maximum permissible airborne concentrations of toxic materials allowed an industrial worker are not contained in the most recent list of Threshold Limit Values published by the American Conference of Governmental Industrial Hygienists, the applicant shall satisfy the County *Health Officer* that proposed levels will be safe to the general population.
10. ODOROUS MATTER LIMITATIONS - The release of odorous matter from any Industrial District across residential or commercial district boundary lines shall be so controlled that at ground level or at habitable elevations the concentration shall not exceed the odor threshold lines. Further, the release of odorous matter across *lot lines* shall not become a nuisance or source of discomfort to neighboring uses. As a guide in determining qualities of offensive odors, Table III (Odor Thresholds), Chapter 5, "Air Pollution Abatement Manual", by Manufacturing Chemists Association, Inc. (as amended) may be used.
11. CERTIFIED *ENGINEER'S* REPORT SUBMITTAL - The applicant for a *grading* permit, *sediment control permit*, or building permit for uses in an Industrial District, or applicants for *variances* to the district shall be required to submit proof that the uses proposed will not cause violations of Federal, State or County laws or *regulations*. For industrial uses which will produce emissions of pollutants to the waters or air of the County, this proof shall include measurements of the ambient water and air quality as well as documentation in the form of figures that the additional planned and proposed industrial use will not cause the violation of either ambient or source standards outlined by the laws and *regulations* of the Federal, State, or County governments.

Each future occupant of an industrial character shall submit to the County as a part of final *site development* plan approval, a certified *engineer's* report describing: the proposed operation, all

machines, processes, products and by-products, stating the nature and expected levels of emission or discharge to land, air, water or liquid, solid, or gaseous effluent and electrical impulses, vibrations and noise under normal operations and the specifications or treatment methods and mechanisms to be used to control such emission or discharge.

Existing industrial uses shall be permitted to continue and to expand, enlarge or modify provided that the industry continues to comply with the performance standards. Existing industrial uses that do not conform to the performance standards shall be permitted to expand, modify, or enlarge provided the expansion, modification, or enlargement does not increase the degree of nonconformance and that the applicant submits a statement that identifies measures to bring the industry into compliance. When the *Planning Commission* finds that an existing industry is not making a good faith effort to comply with the performance standards, the *Planning Commission* may deny an application for expansion, modification, or enlargement and may initiate an enforcement action.

#### 14.7 EMPLOYMENT CENTER DISTRICT GENERAL STANDARDS

1. As a part of the *site plan* review, the applicant shall submit a statement that includes an explanation of the following:
  - a. The type of raw materials, waste products, and other byproducts associated with the process.
  - b. The identity of all chemicals and solids to be discharged into the sewage system.
  - c. The type and amount of traffic expected to be generated by the operation.
  - d. The proposed hours of operation.
  - e. The proposed architectural design (graphic or narrative) of all *structures*.
2. The *Planning Commission*, or where applicable the Planning Director may require additional standards and requirements to those stated in this Article as are necessary for the protection of the environment and the health and safety of the citizens of the County
3. The use established shall not create or be a continuation of highway “strip” *development* with multiple access points creating highway hazards and visual clutter in so far as practical. A highway strip is two or more access points or “curb cuts” off of an existing State or County Road within 3,000 feet of each other. Any use in an employment center district shall have access at least 3,000 feet from any highway strip, in so far as possible. The *Planning Commission* may waive this requirement when the Commission finds all of the following:
  - a. The proposal complies with the spirit and intent of the Land Use Ordinance and the *Comprehensive Plan*.
  - b. That the waiver will not cause a substantial detriment to adjacent or neighboring property.
  - c. That the waiver will not create a safety hazard or increase traffic congestion.
  - d. The waiver is the minimum necessary to relieve a practical difficulty and is not sought for reasons of convenience, profit or caprice.
4. Central water and sewer systems may be required by the *Planning Commission* in an Employment Center District. If a public system is available, use of such system shall be mandatory.
5. *Signs* in industrial area shall be permitted in accordance with the *regulations* contained in Article VI, Section 2 of this Ordinance.

6. Minimum *off-street parking* and *loading spaces* shall be required of each use in the Employment Center District in accordance with the *regulations* contained in Article VI, Section 1of this Ordinance.
7. In so far as possible, all uses shall be conducted within a completely enclosed *structure* or be completely screened. Outdoor storage of materials and unfinished products is prohibited unless otherwise approved by the *Planning Commission* and subject to such conditions as may be determined by the *Planning Commission*.
8. The Department of Planning and Zoning shall approve *street* names. A name may not be approved if it duplicates or is too similar to the name of another road in the county or incorporated towns.

#### 14.8 ENVIRONMENTAL STANDARDS

The purpose of these standards is to provide for the proper stewardship of the County’s natural resources. Specifically it is the overall goal of the county to maintain the quality of the County’s *ecosystem* in the face of continuing activity, growth and change.

##### A. EMPLOYMENT CENTER DISTRICT GENERAL ENVIRONMENTAL STANDARDS

1. *Development* shall minimize *adverse impacts* to *non-tidal* or *tidal wetlands*, estuaries, the Chesapeake Bay, *tributary streams*, and the natural and *riparian habitat* of these streams, habitat protection areas, or other significant habitat identified by the Department of Planning and Zoning.
2. *Development* shall minimize the effects of runoff on the existing volume of water or quality of any water body. Urban best management practices shall be used.
3. Whenever possible, land subject to periodic flooding shall not be developed for any use that might involve danger to health, life or property or aggravate floods.

##### B. EMPLOYMENT CENTER DISTRICT SPECIFIC ENVIRONMENTAL STANDARDS

###### 1. *Agriculture*

No new agricultural land shall be created by:

- a. Draining, filling, or diking any *palustrine wetlands* which have *seasonally flooded* or *wetter water regime* unless the impact is mitigated.
- b. *Clearing* or an area of *forest* or woodland greater than 40,000 square feet in a one-year period without filing a *Forest Conservation Plan*. An agricultural *Declaration of Intent* shall be filed with the Kent County Department of Planning and Zoning.
- c. *Clearing* of existing *natural vegetation* within the *stream protection corridor*.

###### 2. *Anadromous fish*

- a. Concrete riprap or other artificial surface shall not be installed on the bottom of natural streams unless it can be demonstrated that water quality and fishery habitat will be improved.
- b. Physical alteration of a stream, including but not limited to channelization, that interferes with the movement of fish shall be prohibited.

3. *Forest Conservation*

This section applies to *major* and *minor site plans* on units of land 40,000 square feet or greater; major and minor subdivisions; and *grading* and *sediment control permits* that result in the cumulative cutting, *clearing*, or *grading* or more than 40,000 square feet of *forest*. A *forest Declaration of Intent* is required for activities specifically exempt in Article VI, Section 8.2 of this Ordinance.

- a. A parcel with less than 15% of its *net tract area* in *forest cover* shall be afforested up to 15% of its *net tract area*.
- b. A parcel with less than 15% of its *net tract area* in *forest* may be cut or cleared provided:
  - i. The *afforestation* required to achieve the 15% *afforestation* level is determined prior to any *clearing of forest*.
  - ii. The *afforestation* area consists of two (2) times the total surface area cleared and the area needed to achieve the 15% *afforestation* level before *clearing* occurred. For example, the *afforestation* area for a project with a *net tract area* of one hundred acres with ten (10) acres of existing forest of which five (5) is to be cleared is fifteen (15) acres – five (5) acres to achieve the required *afforestation* level and ten (10) acres to replace the *forest* cleared.
- c. A parcel with more than 15% of its *net tract area* in *forest* may be cut or cleared provided *reforestation* occurs at a rate of one-quarter (¼) acre planted for each acre removed above 15% of the *net tract area* or at a rate of two (2) acres planted for every acres removed below 15% of the *net tract area*. *Forest* retained over 15% of the *net tract area* is credited toward the required *reforestation*. For example, a project with a *net tract area* of one hundred acres and existing *forest* of 30 acres of which 20 acres is to be cleared has a *reforestation* area of 13.75 acres.
- d. The required *reforestation* or *afforestation* may be accomplished *on-site*, *off-site*, by contributing to a *forest bank* in the same *watershed* or by contributing to the Kent County Reforestation Fund. The preferred method of *afforestation* or *reforestation* is forest banking or *off-site afforestation*.
- e. Whenever possible and appropriate, *afforestation* and *reforestation* shall included native species.

4. *Habitat*

- a. *Wildlife corridors* shall be preserved whenever possible.
- b. Fragmentation of habitat areas shall be minimized.
- c. *Hedgerows* are desirable for screening.

5. *Natural heritage areas* and locations considered for Areas of Critical State Concern

These areas of local significance shall be preserved whenever possible. These areas are identified in Article VI, Section 3.8 of this Ordinance.

6. *Non-tidal wetlands*

*Non-tidal wetlands* shall be protected according to the *regulations* of the State of Maryland, Army Corps of Engineers, United States Fish and Wildlife Service, Environmental Protection Agency, and all other applicable State and Federal *Regulations*.

7. *Stream Protection Corridor*

All new *development* or redevelopment shall provide a 100-foot naturally vegetated *stream protection corridor* along all *tributary streams*. New *development activities*, including *structures*, parking areas, *structures*, septic systems, and similar *impervious surfaces* shall not be permitted in the *stream protection corridor*. *Roads* that cross the *stream protection corridor* shall be

minimized. The *Planning Commission* may modify the *stream protection corridor* when the following can be demonstrated:

- a. A reduced corridor achieves significant water quality and habitat improvements equal to the required corridor.
- b. More than 50% of the corridor is impervious or more than 75% of the corridor is disturbed with stone, septic systems, decks, or other obvious human impacts.
- c. The *site* shall include all contiguous parcels under single ownership.

8. *Stormwater Management*

No *person* shall develop any land for residential, commercial, industrial, or institutional uses or redevelop land without having provided for appropriate *stormwater management* measures that control or manage runoff from such developments except as provided in Article VI, Section 10 of this Ordinance. Stormwater management shall be accomplished for all new *development* or *redevelopment* in accordance with the provisions of Article VI, Section 10 of this Ordinance.

9. Threatened and Endangered Species and Species in Need of Conservation

Threatened and *endangered species* and *species in need of conservation* shall be checked and noted by the applicant before any approvals are granted by the Planning Director, *Planning Commission*, or Zoning Administrator. The Federal or State guidelines (whichever is stricter) for habitat protection must be followed during *development*. Plans shall also include provisions for continuance of the habitat protection after *development*. This can include *conservation easements*, cooperative agreements, special provisions in *forest management plans*, and donation or sale to a third party.

10. Water Quality

All new *development* or *redevelopment* shall reduce the pollutant loading from the *site* and shall comply with the *stormwater management* measures found in Article VI, Section 10 of this Ordinance.

#### 14.9 EMPLOYMENT CENTER DISTRICT DESIGN STANDARDS

The purpose of these standards is to give a sense of the physical aspects of the County's environment to those contemplating new *development* in the community. Pertinent to this physical appearance is the design of the *site*, *buildings* and *structures*, plantings, *signs*, *street* hardware, and miscellaneous other objects that the public observes.

These standards are not intended to restrict imagination, innovation, or variety, but rather assist in focusing on design principals which can produce creative solutions that will develop a satisfactory visual appearance within the County, preserve taxable values, and promote the public health, safety, and welfare.

##### A. EMPLOYMENT CENTER GENERAL DESIGN STANDARDS

1. The landscape shall be preserved in its natural state, in so far as possible, by leaving the most sensitive area of the *site* intact and by minimizing *tree* and *soil* removal. Any grade changes shall be in keeping with the general appearance of the neighboring developed areas. Whenever possible, *development* shall be located outside the *floodplain*.
2. All *open space* (landscaped and usable) shall be designed to add to the visual amenities of the area by maximizing its visibility for persons passing the *site* or overlooking it from nearby properties.

3. *Streets* shall be designed and located in such a manner as to maintain and preserve natural *topography*, cover, significant landmarks and trees; to minimize *cut* and *fill*; and to preserve and enhance views and vistas on or off the subject properties.

B. EMPLOYMENT CENTER SPECIFIC DESIGN STANDARDS

1. *Site Access*

- a. *Site access* shall be subject to the following *regulations* to help ensure safety and alleviate traffic congestion:
  - i. Where property abuts a *primary*, *secondary*, or a *collector road*, access to the property shall be by way of the *secondary* or *collector road*. Exceptions to this rule shall be instances where the *Planning Commission*, or where applicable the Planning Director, determines that direct access onto the *primary road* would promote traffic safety.
  - ii. Where one or more contiguous parcels abutting a *primary road* are under single ownership and any one of the parcels abuts a *secondary* or *collector road*, access to the property shall be by of the *secondary road*. Exceptions to this rule shall be instances where the *Planning Commission*, or where applicable the Planning Director, determines that direct access onto the *primary road* would promote traffic safety.
  - iii. Only one direct approach onto a *primary road* from an individual parcel of record as of August 1, 1989 shall be permitted unless the *Planning Commission*, or where applicable the Planning Director, finds one of the following:
  - iv. An additional entrance is significantly beneficial to the safety and operation of the highway.
    - a) One entrance is a safety hazard or increases traffic congestion.
    - b) The property is bisected by *steep slopes*, bodies of water, or other topographic feature so as to render some portion of the property inaccessible without additional road access.
- b. Where a proposed road is designated on an approved County or Town map, *site plans* for *development* adjacent to the designated *roadway* shall include provisions for future access to the *roadway*.
- c. Existing, planned, or platted *streets* on adjacent properties shall be continued when the *Planning Commission* or where applicable the Planning Director determines that the continuation is necessary for safe and reasonable circulation between the properties.
- d. When deemed necessary by the *Planning Commission* or where applicable the Planning Director, developments shall provide access to adjacent tracts not presently developed.
- e. Access shall be consolidated whenever possible.
- f. Whenever possible, *roads* shall be constructed above the elevation of the *100-year floodplain*.
- g. The applicant shall demonstrate that access to the project is adequate and the roads which will be impacted have the capacity to handle the traffic generated by the proposed project and will not endanger the safety of the general public.\*

2. *On-site Circulation*
  - a. *Sites* shall be designed to prevent awkward or dangerous vehicular flow.
  - b. *Loading and unloading spaces* shall not block the passage of other vehicles on the service drive or major pedestrian ways or create blind spots when trucks are loading or unloading.
  - c. *Sites* shall be designed to discourage pedestrians and vehicles from sharing the same pathways.
  - d. Safe, convenient, and centralized handicap parking shall be provided.
  - e. Trash boxes must be accessible to collection trucks when all vehicle parking spaces are filled.
  - f. Parking shall not be permitted in the required *front yard*.
  
3. *Floodplain*
  - a. In order to prevent excessive *flood* damage and to allow for the protection of the natural and beneficial *floodplain* functions, all *development, new construction, and substantial improvements* to existing *structures* in all *floodplain* zones shall comply with the requirements of Article VI, Section 7 of this Ordinance, including but not limited to the following:
    - i. Elevation of all new or substantially improved *structures*;
    - ii. Compliance with venting and other construction standards; and
    - iii. Submission and recordation, where applicable, of *Elevation Certificates, Non-conversion Agreements*, deed restrictions, and venting affidavits.
  - b. Placement of *buildings* and materials. In general, *buildings* and *accessory structures* should be located entirely out of the *floodplain*, out of the *flood* protection setback, or on land that is least susceptible to flooding. All *structures* permitted in the *floodplain* shall be oriented so as to offer the least resistance to the flow of floodwaters.
  - c. General *development* shall not occur in the *floodplain* where alternative locations exist. Before a permit is issued, the applicant shall demonstrate that new *structures* cannot be located out of the *floodplain* and that encroachments onto the *floodplain* are minimized.
  
4. *General Landscape Requirements*
  - a. The *front yard* shall be landscaped and shall be maintained in a neat and attractive condition.
  - b. *Sites* shall be permanently maintained in good condition with at least the same quality and quantity of landscaping as originally proposed.
  - c. The *landscape plan* shall be prepared by a registered professional forester, landscape architect, or other professional with equivalent experience and qualifications.
  - d. The *Planning Commission*, or where applicable the Planning Director, may waive the landscape requirements when it is demonstrated that the spirit and intent of the requirement is accomplished through other means or the nature of the change is one that does not require additional landscaping.
  
5. *Screening*
  - a. Screening is required to protect adjoining properties and *roadways* from noise, glare, and uses which are visually incompatible with neighboring land uses. Screening is required:
    - i. On *sites* which involve loading or unloading (including the storage of vehicles and boats), trash, or disposal areas and where accessory *buildings* and *structures* are adjacent to residential properties.
    - ii. Where exterior storage areas are visible from *roadways*, sidewalks, or nearby residential properties.

- iii. When noise not typically occurring in residential areas is expected to project onto nearby properties.
- iv. To *screen* parking areas from motorists, pedestrians, and adjoining residential properties.
- v. Where the industrial district abuts a residential district or a *primary* or *secondary road*.
- vi. Where the *Planning Commission* determines that additional screening is necessary to protect properties in the area.
- b. Landscaped screens shall be designed to complement other landscaping occurring naturally on the *site*, planted previously, or approved as a part of a *site plan* review. Whenever possible, existing vegetation and landform shall be used to create screens.
- c. The *screen* shall be capable of providing year round screening.
- d. When noise is likely to be a factor, the *screen* shall be of sufficient construction to be an effective noise buffer.
- e. Screening shall consist of trees and plants and may include masonry, or wooden fencing used with or without *berms*. Screening shall consist of a functional and well-designed combination of the following:
  - i. Vegetative ground cover
  - ii. Coniferous and deciduous shrubs
    - a) Specimens of which will reach and maintain a minimum height of 5 feet of full vegetative growth.
    - b) Plants which measure a minimum of 3 feet in height at the time of planting and are expected to attain a 5-foot height within 3 years.
  - iii. Coniferous and deciduous trees
 

Species and sizes of which will be chosen to best accomplish an adequate *screen* (i.e., evergreens used for visual screening, deciduous trees for seasonal screening)
- f. Natural *slopes* and existing vegetation may be substituted for some or all of the requirements above, provided that these features serve to *screen* the area from adjoining properties and *roadways*. The *Planning Commission*, or where applicable the Planning Director, shall determine the acceptability of using existing *slopes* and vegetation for this purpose. The *Planning Commission*, or where applicable the Planning Director, may waive screening where it is physically impossible to accomplish.
- g. Screening and fencing shall be maintained in at least the same quality and quantity as initially approved.

6. Lighting

- a. Lighting on the *site* shall be designed to avoid glare onto adjacent properties.
- b. Lighting on the *site* shall be sufficient to provide for the safety and security of the business, its employees, and its customers.

7. *Site Planning*

External Relationship: *Site* planning within the District shall provide protection of individual lots from adverse surrounding influences and for protection of surrounding areas from adverse influences existing within the District. In particular:

- a. Principal vehicular access points shall be designed to encourage smooth traffic flow with controlled turning movements and minimum hazards to vehicular or pedestrian traffic. Storage, turn lanes, or traffic dividers may be required by the *Planning Commission* where existing or anticipated heavy flows indicate need. In general, *streets* shall not be connected with *streets* outside the District in such a way as to encourage the use of such *streets* by substantial amounts of through traffic.

- b. *Yards*, fences, walls, or vegetative screening shall be provided where needed to protect residential districts or public *streets* from undesirable views, lighting, noise, or other *off-site* influences. In particular, outdoor storage, extensive *off-street parking* areas, and service areas for loading and unloading vehicles, and for storage and collection of refuse and garbage shall be effectively screened.

8. *Subdivision*

- a. All reasonable efforts should be made to protect adjacent residential areas from potential nuisances from the industrial *subdivision* by providing extra depth in parcels adjacent to existing or residential *development*.
- b. Proposed *street* layout, blocks, and parcels shall be suitable in area and dimension for the type of *development* anticipated.
- c. The total area shall be sufficient to provide adequate space for *off-street parking*, loading, landscaping, and other facilities.
- d. The *lot* arrangement, design, and orientation shall be such that all lots will provide satisfactory building *sites*, properly related to *topography* and the character of surrounding *development*.
- e. Every *lot* shall abut upon and have access to a public road or approved *private road*.
- f. Lots adjoining *major thoroughfares* and railroad lines should be designed with extra depth and provision for an appropriate means of buffer or deeper building setbacks.
- g. Where land in a *subdivision* adjoins a railroad line, the *street* layout shall make allowance for future grade separated railroad crossings at appropriate locations by providing extra *street right of way* widths for such crossings and by restricting intersecting *streets* at locations where they would cause interference with necessary approaches to such crossings.
- h. Proposed *streets* in the *subdivision* shall provide for the continuation of existing, planned, or platted *streets* on adjacent tracts, unless such continuation shall be prevented by *topography* or other physical feature or unless such extension is found by the *Planning Commission* to be unnecessary for the coordination of *development* between the *subdivision* and such adjacent *tract*.
- i. Where the *Planning Commission* deems it desirable or necessary to provide access to adjacent tracts not presently subdivided, proposed *streets* in the *subdivision* shall be extended to the boundary lines with such tracts.
- j. Where the *subdivision* adjoins or embraces any part of a *major thoroughfare* as designated on the Kent County Major Thoroughfare Map, the layout of such *subdivision* shall provide for the platting and dedication of such part of the *major thoroughfare* in the location and at the width indicated on the *major thoroughfare* plan, except that the *subdivider* shall not be required to dedicate that part of such *major thoroughfare* that is in excess of eighty (80) feet in width.
- k. Where deemed desirable to the layout of the *subdivision* and adjoining area, the *Planning Commission* may require the platting and dedication of one or more *collector streets* or parts thereof, to serve the *subdivision*.
- l. Subdivisions shall be in full compliance with the provisions of this Ordinance.
- m. *Private roads* are permitted in minor subdivisions and are subject to the following conditions:
  - i. Each road shall serve no more than five parcels. In the event that a sixth parcel is created, the sixth parcel and all further divisions of land shall front on a public road.
  - ii. The *subdivision* shall provide a 50-foot *right of way* for each *private road*.

- iii. The construction of all lanes and *private roads* shall adhere to the requirements established by the Kent County Department of Public Works and sediment control and *stormwater management regulations*.
- iv. The deed and contract of sale of all lots in the *subdivision* shall state: “The road is private and not the responsibility of Kent County.”
- v. The plat shall identify all *private roads* and shall state: “The road is private and not the responsibility of Kent County.”

9. Kent County *Airport* Safety Requirements

This section applies to properties that fall within the Kent County *Airport* Safety Zone as designated on the Kent County *Airport* Safety Zone Map. The Kent County *Airport* Safety Zone Map is incorporated into and made a part of this Ordinance. It is the purpose of this section to promote the public safety of the residents and visitors of Kent County by prohibiting to the extent possible, the creation or establishment of obstructions that are a hazard to air navigation.

- a. No new ponds shall be constructed within 5,000 feet of the runway.
- b. No new solid waste disposal *sites* shall be permitted within 5,000 feet of any publicly licensed *airport*. New solid waste disposal *sites* shall not be permitted within the limits of the *airport* safety zone if the FAA determines the *site* to be a hazard.
- c. Developments which produce lights, illumination, or other visual hazards or which produce electronic interference with *airport*/airplane navigation signals are subject to the standards specifies in the FAA procedure manual 7400-2C.
- d. Except as otherwise provided in this Ordinance, no *structure* shall be erected, altered, or maintained and no *tree* or other vegetation shall be allowed to grow in excess of the height limitations as designated on the Kent County *Airport* Safety Zone Map.

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## SECTION 15 INDUSTRIAL DISTRICT

### 15.1 STATEMENT OF INTENT

This district is intended to provide for a range of industrial uses which are environmentally sound, sustainable, and compatible with adjacent uses. Furthermore, the district is limited to light manufacturing and support businesses. Light industries include those which manufacture, process, store, package or distribute goods and materials, and are, in general, dependent on raw materials refined elsewhere.

### 15.2 PERMITTED PRINCIPAL USES AND STRUCTURES

For every industrial *structure* and use erected, reconstructed, altered, or enlarged after the effective date of this Ordinance, a *site plan* shall be filed. No building permit shall be issued until said *site plan* is approved by the *Planning Commission*, or where applicable the Planning Director.

1. Manufacture, processing, fabrication, and assembly of products. These uses include but are not limited to scientific and precision instruments, photographic equipment, communications equipment, computation equipment, drugs, medicines, pharmaceuticals, household appliances, toys, sporting and athletic goods, glass products made of purchased glass, electric lighting and wiring equipment, service industry machines, lithographic and printing processes, industrial controls, radio and TV receiving sets, watches and clocks, bags and containers, sanitary paper products, optical goods, electrical machinery, prefabricated and modular housing and components, dairy product feed and grain, baked and confectioners' goods, farm machinery, frozen food processing, packing plants, animal and seafood processing, fruit and vegetable processing, canning and storage.
2. Businesses and industries, including research and *development* companies, of a similar nature to those listed in Article V Section 14.2.1 of this Ordinance may also be permitted by the Zoning Administrator. The Zoning Administrator shall consider the following:
  - a. The impact of the proposed business or industry on existing or planned public facilities.
  - b. The impact of the operation of the facility on the surrounding area.
  - c. The health, safety, and welfare of employees and residents of the neighborhood.
3. Distribution centers and warehousing provided that a single building footprint does not exceed 75,000 square feet in size. The restriction on building footprint does not apply to the Employment Center District in the Route 301 corridor. In reviewing the *site plan*, the *Planning Commission*, or where applicable the Planning Director, shall consider the following:
  - a. The impact of the proposed business or industry on existing or planned public facilities.
  - b. The impact of the operation of the facility on the surrounding area.
  - c. The health, safety, and welfare of employees and residents of the neighborhood.
4. *Agriculture*, excluding the raising of livestock and fowl, including horticulture, hydroponics, and truck farming, general farming, cultivation of field crops, and raising of orchards, groves, and nurseries.
5. Manufacture of concrete and ceramics products, commercial *sawmills*, sewage treatment plants, and lumberyards provided such use shall be located at least 400 feet from any residential district boundary.

6. Manufacture, processing, and distribution of hot mix asphalt (a.k.a. bituminous concrete or asphalt concrete) including the storage of raw materials *on-site*, provided asphalt cement shall not be refined on the *site*, and further provided that such facilities shall be located within two miles of Route 301.
7. *Personal wireless facilities* collocated on existing towers, water towers, electrical transmission towers, fire towers, silos, *grain dryers*, or other *structures* provided the height of the existing *structure* is not above that permitted by this Ordinance.
8. Public utility *buildings, structures*, water treatment plants, and transmission lines.
9. Blacksmith, welding and machine shops
10. Contractors' yard
11. Vocational and trade schools including training facilities
12. *Airports*, landing fields, helistops, and heliports
13. Governmental public works and utility *buildings or structures*
14. *Single family dwelling*, one per existing property, subject to the *yard* requirements found in the Agricultural Zoning District, provided however, that bona fide *intrafamily transfers* may be permitted in the industrial district [thus exceeding the one *single family dwelling* per existing property requirement] under the following conditions:
  - a. The owner of the parcel or the proposed parcel shall attest, in writing, to the bona fide family relationship and that the intent of the *subdivision/use* is not for ultimate transfer to a third party.
  - b. Any deed for a *lot* that is created by a bona fide *intrafamily transfer* shall contain a covenant stating that the *lot* is created subject to the provisions of this section and that the provisions of this section shall control as long as the property continues to be zoned industrial.
  - c. A *lot* created by a bona fide *intrafamily transfer* may not be conveyed subsequently to any *person* other than a member of the owners immediate family except under the following procedures:  
The Kent County Planning Commission must determine that:
    - i. The *lot* was created as a part of bona fide *intrafamily transfer* and not with the intent of subdividing the original parcel of land for purposes of ultimate transfer to a third party; or
    - ii. The owner of the transferred property dies; or
    - iii. A change of circumstances has occurred since the original transfer was made that is consistent with the intent of this ordinance.
  - d. This subsection shall not prevent the conveyance of such a *lot* to a third party as security for a mortgage or deed of trust or subsequent conveyances resulting from a foreclosure.
  - e. The maximum *lot* size shall be two acres;
  - f. Any deed or *subdivision* plat for a *lot* created by a bona fide *intrafamily transfer* shall contain a statement that the adjacent property is zoned industrial;
  - g. The parcel is created for the construction of a primary residence only; and
  - h. These provisions apply to those individuals owning industrial zoned land prior to July 7, 1994. Subsequent owners of industrial zoned land shall be limited to a one *single family dwelling*.

15. Boat building and boat repair
16. *Truck terminals*, limited to 20 trucks provided the parking and loading area is fenced, screened, and located at least 400 feet from any residential district boundary and 100 feet from all property lines. The limitation on the number of trucks does not apply to Employment Center Districts in the Route 301 corridor.
17. Storage and office trailers, temporary during construction

### 15.3 SPECIAL EXCEPTIONS

The following principal uses and *structures* may be permitted as special exceptions in the Industrial District, subject to *site plan* review. Detailed limitations and standards for these uses may be found in Article VII of this Ordinance.

1. *Personal wireless facility tower*
2. Radio and television tower, commercial
3. Production of biofuels\*

### 15.4 PERMITTED ACCESSORY USES

The following *accessory uses* are permitted in the Industrial District. A *site plan* shall be required.

1. *Day care group*
2. Dwellings, limited to two (2) for persons permanently employed on the *premises*
3. Offices
4. Out of water boat storage
5. *Restaurants* without drive through facilities
6. Retail sales of products produced *on-site*
7. Uses and *structures* which are customarily accessory and incidental to any permitted use shall be permitted in the district provided they are clearly subordinate to the principal use

## 15.5 DENSITY, HEIGHT, WIDTH, BULK, AND FENCE REQUIREMENTS

|   | STANDARD                 | INDUSTRIAL<br>SUBDIVISION |
|---|--------------------------|---------------------------|
| Gross <i>density</i> (dwelling units/ acre) | 0.05 (1/20) <sup>1</sup> | <sup>2</sup>              |
| Minimum <i>lot size</i>                     | 20 acres                 | NA                        |
| Maximum residential <i>lot size</i>         | 2 acre                   | 2 acre                    |
| Minimum <i>frontage</i>                     | 75 feet                  | <sup>2</sup>              |
| Minimum <i>yard</i>                         |                          |                           |
| - <i>Front</i>                              |                          |                           |
| - Existing <i>Primary road</i>              | 100 feet <sup>3</sup>    | 100 feet <sup>3</sup>     |
| - Other <i>roads</i>                        | <sup>2</sup>             | <sup>2</sup>              |
| - <i>Side and Rear</i>                      |                          |                           |
| - Adjacent to EC, I, ICA-LDA, & ICA         | 15 feet                  | <sup>2</sup>              |
| - Adjacent to AZD, RCD, CC, C, CCA, & M     | 40 feet <sup>3</sup>     | <sup>2</sup>              |
| - Adjacent to V, RR, CAR                    | 100 feet <sup>3</sup>    | <sup>2</sup>              |
| - Adjacent to public road                   | 100 feet <sup>4</sup>    | 100 feet <sup>4</sup>     |
| Height                                      |                          |                           |
| - Industrial <i>structure</i>               | 45 feet                  | 45 feet                   |
| - Residential <i>structure</i>              | 35 feet                  | 35 feet                   |
| - Towers, silos, etc.                       | 150 feet <sup>5</sup>    | 150 feet <sup>5</sup>     |
| - Fence <sup>6</sup>                        |                          |                           |
| - Security                                  | 8 feet                   | 8 feet                    |
| - Ornamental                                |                          |                           |
| <i>Front and Side</i>                       | 4 feet                   | 4 feet                    |
| <i>Rear</i>                                 | 8 feet                   | 8 feet                    |
| Maximum building footprint                  |                          |                           |
| - Distribution Center                       |                          |                           |
| - Route 301 Corridor                        | NA                       | NA                        |
| - Other locations                           | 75,000 sq. ft.           | 75,000 sq. ft.            |
| - Other industrial <i>buildings</i>         |                          |                           |
| - Route 301 Corridor                        | NA                       | NA                        |
| - Other locations                           | 250,000 sq. ft.          | 250,000 sq. ft.           |
| Minimum building footprint                  |                          |                           |
| - Office <i>buildings</i>                   | 10,000 sq. ft.           | 10,000 sq. ft.            |

<sup>1</sup> *Intrafamily transfers* only.

<sup>2</sup> As approved during *subdivision* review.

<sup>3</sup> When a side or rear lot line coincides with a side or rear lot line of a property in a non-industrial zone, the required yard shall be landscaped and screened and shall be unoccupied by buildings, *structures*, or parking area.

<sup>4</sup> May be reduced or increased during *site* plan review.

<sup>5</sup> Except in the *Airport Safety Zone*.

<sup>6</sup> Fences do not need to meet the yard requirements.

## 15.6 INDUSTRIAL PERFORMANCE STANDARDS

Any industrial use established after August 1, 1989 shall be operated so as to meet the performance standards established hereinafter. Any use already established on August 1, 1989 shall be permitted to continue provided that no *alteration*, expansion, enlargement, or modification shall be permitted which effectively increases the degree of nonconformity that existed prior to any *alteration*, expansion, enlargement, or modification. An application to alter, expand, enlarge, or modify an existing use which does not meet the performance standards shall include a statement identifying measures proposed to bring the use into conformity with the performance standards.

Points of measurement to determine compliance with the performance standards shall be the property *lot line* or zoning line nearest the source that is the subject of measurement.

1. NOISE - All sources of noise (except those not under direct control of occupant of use, such as vehicles), must not create sound or impact noise levels in excess of the values specified below when measured at the points indicated. In addition, between 7:00 P.M. and 7:00 A.M., the permissible sound levels at a residential district boundary where adjoining Industrial Districts, shall be reduced by five decibels in each octave band and in the overall band for impact noises.

Method of Measurement and Meaning of Terms:

Noise shall be measured by means of a sound level meter and octave band analyzer, calibrated in decibels (re 0.0002 microbar) and shall be measured at the nearest *lot line* from which the noise level radiates. Impact noises shall be measured by means of an impact noise analyzer. Impact noises are those whose peak values fluctuate more than six decibels from the steady values indicated on the sound level meter set at fast response.

Decibel - A measurement of the intensity (volume) of a sound.

Octave band - A prescribed interval of sound frequencies which classifies sound according to its pitch.

Preferred frequency octave bands - A stigmatized series of octave bands prescribed by the American Standards Association in Sel. 6-1970 Preferred Frequencies for Acoustical Measurements.

Sound level meter - An electronic instrument which includes a microphone, an amplifier, and an output meter which measures noise and sound pressure levels in a specified manner. It may be used with the octave band analyzer that permits measuring the sound pressure level in discrete octave bands.

MAXIMUM PERMITTED SOUND LEVELS (Decibels)

| Octave band,<br>cycles/second | At residential<br>boundaries | At other <i>lot</i><br><i>lines</i> |
|-------------------------------|------------------------------|-------------------------------------|
| 31.5                          | 64                           | 72                                  |
| 63                            | 64                           | 74                                  |
| 125                           | 60                           | 70                                  |
| 250                           | 54                           | 65                                  |
| 500                           | 48                           | 59                                  |
| 1,000                         | 42                           | 55                                  |
| 2,000                         | 38                           | 51                                  |
| 4,000                         | 34                           | 47                                  |
| 8,000                         | 30                           | 44                                  |
| Overall                       | 80                           | 90                                  |

- VIBRATION - The product of displacement in inches times the frequency in cycles per second of earthborn vibrations from any activity shall not exceed the values specified below when measured at the points indicated.

Method of Measurement and Meaning of Terms:

Earthborn vibrations shall be measured by means of a three component recording system, capable of measuring vibration in three mutually perpendicular directions. The displacement shall be the maximum instantaneous vector sum of the amplitude in the three directions.

Vibrations - The periodic displacement of oscillation of the earth.

MAXIMUM PERMITTED VIBRATIONS (INCHES PER SECOND)  
AREA OF MEASUREMENT

| Type of Vibrations                 | At Residential<br>Boundaries | At other <i>Lot lines</i> |
|------------------------------------|------------------------------|---------------------------|
| Continuous                         | 0.003                        | 0.015                     |
| Impulsive - 100/min or<br>less     | 0.006                        | 0.030                     |
| Less than 8 pulses per 24<br>hours | 0.015                        | 0.075                     |

- GLARE - No direct or sky reflected glare, whether from flood lights or from high temperature processes such as combustion, welding or otherwise, is to be visible beyond the *lot line*, except for *signs*, parking lot lighting and other lighting permitted by this Ordinance or required by any other applicable regulation, ordinance or law.
- AIR POLLUTION - The rules and *regulations* of the State of Maryland shall apply.
- WATER POLLUTION - The rules and *regulations* of the State of Maryland shall apply.
- RADIOACTIVITY - There shall be no radioactive emission which would be dangerous to the health and safety of persons on or beyond the *premises* where such radioactive material is used. Determination of existence of such danger and the handling of radioactive materials, the discharge of such materials into the atmosphere and streams or other water, and the disposal of

radioactive wastes shall be by reference to and in accordance with applicable current *regulations* of the governments of the United States and Maryland.

7. ELECTRICAL INTERFERENCE - There shall be no electrical disturbance emanating from any *lot* which would adversely affect the operation of any equipment on any other *lot* or *premises*.
8. SMOKE AND PARTICULATE MATTER LIMITATIONS -
  - a. General Limitations - In addition to the performance standard specified hereinafter, the emission of smoke or particulate matter in such manner or quantity as to be detrimental to or endanger the public health, safety, comfort, or welfare is hereby declared to be a public nuisance and shall henceforth be unlawful.

Particulate matter emission caused by the wind from open storage areas, *yards*, *roads*, etc., within *lot lines* shall be kept to a minimum by appropriate landscaping, paving, wetting, or other means.

For the purposes of determining the density or equivalent opacity of smoke, the Ringelmann Chart as adopted and published by the United States Bureau of Mines in Circular No. 8333 (7718) shall be employed.
  - b. Permitted Smoke Emission - Within 1,000 feet of a residence or commercial zoning district boundary line, the emission of visible smoke from any vent, stack, chimney, or combustion process, darker than Ringelmann No.2 for a period or periods aggregating more than 4 minutes in any 60 minute period shall not be permitted.
9. TOXIC MATTER LIMITATIONS - In any Industrial District, toxic materials which are released shall not exceed 10% of the maximum permissible airborne concentration allowed an industrial worker when measured at any point beyond the *lot line*, either at ground level or habitable elevation, whichever is more restrictive. When maximum permissible airborne concentrations of toxic materials allowed an industrial worker are not contained in the most recent list of Threshold Limit Values published by the American Conference of Governmental Industrial Hygienists, the applicant shall satisfy the County *Health Officer* that proposed levels will be safe to the general population.
10. ODOROUS MATTER LIMITATIONS - The release of odorous matter from any Industrial District across residential or commercial district boundary lines shall be so controlled that at ground level or at habitable elevations the concentration shall not exceed the odor threshold lines. Further, the release of odorous matter across *lot lines* shall not become a nuisance or source of discomfort to neighboring uses. As a guide in determining qualities of offensive odors, Table III (Odor Thresholds), Chapter 5, "Air Pollution Abatement Manual", by Manufacturing Chemists Association, Inc. (as amended) may be used.
11. CERTIFIED *ENGINEER'S* REPORT SUBMITTAL - The applicant for a *grading* permit, *sediment control permit*, or building permit for uses in an Industrial District, or applicants for *variances* to the district shall be required to submit proof that the uses proposed will not cause violations of Federal, State or County laws or *regulations*. For industrial uses which will produce emissions of pollutants to the waters or air of the County, this proof shall include measurements of the ambient water and air quality as well as documentation in the form of figures that the additional planned and proposed industrial use will not cause the violation of either ambient or source standards outlined by the laws and *regulations* of the Federal, State, or County governments.

Each future occupant of an industrial character shall submit to the County as a part of final *site development* plan approval, a certified *engineer's* report describing: the proposed operation, all

machines, processes, products and by-products, stating the nature and expected levels of emission or discharge to land, air, water or liquid, solid, or gaseous effluent and electrical impulses, vibrations and noise under normal operations and the specifications or treatment methods and mechanisms to be used to control such emission or discharge.

Existing industrial uses shall be permitted to continue and to expand, enlarge or modify provided that the industry continues to comply with the performance standards. Existing industrial uses that do not conform to the performance standards shall be permitted to expand, modify, or enlarge provided the expansion, modification, or enlargement does not increase the degree of nonconformance and that the applicant submits a statement that identifies measures to bring the industry into compliance. When the *Planning Commission* finds that an existing industry is not making a good faith effort to comply with the performance standards, the *Planning Commission* may deny an application for expansion, modification, or enlargement and may initiate an enforcement action.

### 15.7 INDUSTRIAL GENERAL STANDARDS

1. As a part of the *site plan* review, the applicant shall submit a statement that includes an explanation of the following:
  - a. The type of raw materials, waste products, and other by-products associated with the process.
  - b. The identity of all chemicals and solids to be discharged into the sewage system.
  - c. The type and amount of traffic expected to be generated by the operation.
  - d. The proposed hours of operation.
  - e. The proposed architectural design (graphic or narrative) of all *structures*.
2. The *Planning Commission*, or where applicable the Planning Director may require additional standards and requirements to those stated in this Article as are necessary for the protection of the environment and the health and safety of the citizens of the County.
3. The use established shall not create or be a continuation of highway “strip” *development* with multiple access points creating highway hazards and visual clutter in so far as practical. A highway strip is two or more access points or “curb cuts” off of an existing State or County road within 3,000 feet of each other. Any use in an Industrial District shall have access at least 3,000 feet from any highway strip, in so far as possible. The *Planning Commission* may waive this requirement when the Commission finds all of the following:
  - a. The proposal complies with the spirit and intent of the Land Use Ordinance and the Comprehensive Plan.
  - b. That the waiver will not cause a substantial detriment to adjacent or neighboring property.
  - c. That the waiver will not create a safety hazard or increase traffic congestion.
  - d. The waiver is the minimum necessary to relieve a practical difficulty and not sought for reasons of convenience, profit, or caprice.
4. Central water and sewer systems may be required by the *Planning Commission* in an Industrial District. If a public system is available, use of such system shall be mandatory.
5. *Signs* in industrial areas shall be permitted in accordance with the regulations contained in Article VI, Section 2 of this Ordinance.
6. Minimum *off-street parking* and *loading spaces* shall be required of each use in an Industrial District in accordance with the *regulations* contained in Article VI, Section 1 of this Ordinance.

7. In so far as possible, all uses shall be conducted within a completely enclosed *structure* or be completely screened. Finished or semi-finished products manufactured on the *premises* may be stored in the open if screened from the *street* and adjacent uses.
8. The Department of Planning and Zoning shall approve *street* names. A name may not be approved if it duplicates or is too similar to the name of another road in the county or incorporated towns.

## 15.8 INDUSTRIAL ENVIRONMENTAL STANDARDS

The purpose of these standards is to provide for the proper stewardship of the County's natural resources. Specifically, it is the overall goal of the County to maintain the quality of the County's *ecosystem* in the face of continuing activity, growth and change.

### A. INDUSTRIAL GENERAL ENVIRONMENTAL STANDARDS

1. *Development* shall minimize *adverse impacts* to *non-tidal* or *tidal wetlands*, estuaries, the Chesapeake Bay, *tributary streams*, and the natural and *riparian habitat* of these streams, habitat protection zones, or other significant habitat identified by the Department of Planning and Zoning.
2. *Development* shall minimize the effects of runoff on the existing volume of water or quality of any water body. *Urban best management practices* shall be used.
3. Whenever possible, land subject to periodic flooding shall not be developed for any use that might involve danger to health, life or property or aggravate floods.

### B. INDUSTRIAL SPECIFIC ENVIRONMENTAL STANDARDS

1. *Agriculture*  
No new agricultural land shall be created by:
  - a. Draining, filling or diking any *palustrine wetlands* which have a *seasonally flooded* or *wetter water regime* unless the impact is mitigated.
  - b. *Clearing* of an area of *forest* or woodland greater than 40,000 square feet in a one-year period without filing a *Forest Conservation Plan*. An agricultural *Declaration of Intent* shall be filed with the Kent County Department of Planning and Zoning.
  - c. *Clearing* of existing *natural vegetation* within the *stream protection corridor*.
2. *Anadromous fish*
  - a. Concrete riprap or other artificial surface shall not be installed on the bottom of natural streams unless it can be demonstrated that water quality and fishery habitat will be improved.
  - b. Physical alteration of a stream, including but not limited to channelization, that interferes with the movement of fish shall be prohibited.
3. *Forest Conservation*  
This section applies to *major* and *minor site plans* on units of land 40,000 square feet or greater; major and minor subdivisions; and *grading* and *sediment control permits* that result in the cumulative cutting, *clearing*, or *grading* of more than 40,000 square feet of forest. A forest

*Declaration of Intent* is required for activities specifically exempted in Article VI, Section 8.2 of this Ordinance.

- a. A parcel with less than 15% of its *net tract area* in *forest cover* shall be afforested to 15% of its *net tract area*.
  - b. A parcel with less than 15% of its *net tract area* in *forest* may be cut or cleared provided:
    - i. The *afforestation* required to achieve the 15% *afforestation* level is determined prior to any *clearing of forest*.
    - ii. The *afforestation* area consists of two (2) times the total surface area cleared and the area needed to achieve the 15% *afforestation* level before clearing occurred. For example, the *afforestation* area for a project with a *net tract area* of one hundred acres with ten (10) acres of existing *forest* of which five (5) acres will be cleared will be fifteen (15) acres – five (5) acres to achieve the required *afforestation* level and ten (10) acres to replace the forest cleared.
  - c. A parcel with more than 15% of its *net tract area* in *forest* may be cut or cleared provided *reforestation* occurs at a rate of one-quarter (¼) acre planted for each acre removed above 15% of the *net tract area* or at a rate of two (2) acres planted for every acre removed below 15% of the *net tract area*. *Forest* retained over 15% of the *net tract area* is credited toward the required *reforestation*. For example, a project with *net tract area* of one hundred (100) acres and an existing *forest* of thirty acres of which twenty acres is to be cleared requires a *reforestation* area of 13.75 acres.
  - d. The required *reforestation* or *afforestation* may be accomplished *on-site*, *off-site*, by contributing to a forest bank in the same watershed or by contributing to the Kent County Reforestation Fund. The preferred method of *afforestation* or *reforestation* is forest banking or *off-site afforestation*.
  - e. Whenever possible and appropriate, *afforestation* and *reforestation* shall include native species.
4. *Natural heritage areas* and locations considered for Areas of Critical State Concern  
These areas of local significance shall be preserved whenever possible. These areas are identified in Article VI, Section 3.8 of this Ordinance.
5. *Non-tidal wetlands*  
*Non-tidal wetlands* shall be protected according to the *regulations* of the State of Maryland, Army Corps of Engineers, United States Fish and Wildlife Service, Environmental Protection Agency, and all other applicable State and Federal *Regulations*.
6. *Stream Protection Corridor*  
All new *development* or redevelopment shall provide a 100-foot naturally vegetated *stream protection corridor* along all *tributary streams*. New *development activities*, including *structures*, parking areas, septic systems, and similar *impervious surfaces* shall not be permitted in the *stream protection corridor*. *Roads* that cross the *stream protection corridor* shall be minimized. The *Planning Commission* may modify the *stream protection corridor* when the following can be demonstrated:
  - a. A reduced corridor achieves significant water quality and habitat improvements equal to the required corridor.
  - b. More than 50% of the corridor is impervious or more than 75% of the corridor is disturbed with stone, septic systems, decks, or other obvious human impacts.
  - c. The *site* shall include all contiguous parcels under single ownership.

7. *Stormwater Management*  
No *person* shall develop any land for residential, commercial, industrial, or institutional uses or redevelop land without having provided for appropriate *stormwater management* measures that control or manage runoff from such developments except as provided in Article VI, Section 10 of this Ordinance. *Stormwater Management* shall be accomplished for all new *development* or *redevelopment* in accordance with the provisions of Article VI, Section 10 of this Ordinance.
8. Threatened and Endangered Species and Species in Need of Conservation  
Threatened and *endangered species* and *species in need of conservation* shall be checked and noted by the applicant before any approvals are granted by the Planning Director, *Planning Commission*, or Zoning Administrator. The Federal or State guidelines (whichever is stricter) for habitat protection must be followed during *development*. Plans shall also include provisions for continuance of the habitat protection after *development*. This can include *conservation easements*, cooperative agreements, special provisions in *forest management plans*, and donation or sale to a third party.
9. Water Quality  
All new *development* or *redevelopment* shall reduce the pollutant loading from the *site* and shall comply with the *stormwater management* qualitative control measures found in Article VI, Section 10 of this Ordinance.

#### 15.9 INDUSTRIAL DISTRICT GENERAL DESIGN STANDARDS

The purpose of these standards is to give a sense of the physical aspects of the County's environment to those contemplating new *development* in the community. Pertinent to this physical appearance is the design of the *site*, *buildings* and *structures*, plantings, *signs*, *street* hardware, and miscellaneous other objects that the public observes.

These standards are not intended to restrict imagination, innovation, or variety, but rather assist in focusing on design principals which can produce creative solutions that will develop a satisfactory visual appearance within the County, preserve taxable values, and promote the public health, safety, and welfare.

1. *Site Access*  
*Site* access shall be subject to the following *regulations* to help ensure safety and alleviate traffic congestion:
  - a. Where property abuts a *primary*, *secondary*, or a *collector road*, access to the property shall be by way of the *secondary* or *collector road*. Exceptions to this rule shall be instances where the *Planning Commission*, or where applicable the Planning Director, determines that direct access onto the *primary road* would promote traffic safety.
  - b. Where one or more contiguous parcels abutting a *primary road* are under single ownership and any one of the parcels abuts a *secondary* or *collector road*, access to the property shall be by way of the *secondary road*. Exceptions to this rule shall be instances where the *Planning Commission*, or where applicable the Planning Director, determines that direct access onto the *primary road* would promote traffic safety.
  - c. Only one direct approach onto a *primary road* from an individual parcel of record as of August 1, 1989 shall be permitted unless the *Planning Commission*, or where applicable the Planning Director, finds one of the following:
    - i. An additional entrance is significantly beneficial to the safety and operation of the highway.
    - ii. One entrance is a safety hazard or increases traffic congestion.

- iii. The property is bisected by *steep slopes*, bodies of water, or other topographic feature so as to render some portion of the property inaccessible without additional road access.
  - d. Where a proposed road is designated on an approved County or Town map, *site plans* for *development* adjacent to the designated *roadway* shall include provisions for future access to the *roadway*.
  - e. Existing, planned, or platted *streets* on adjacent properties shall be continued when the *Planning Commission* or where applicable the Planning Director determines that the continuation is necessary for safe and reasonable circulation between the properties.
  - f. When deemed necessary by the *Planning Commission* or where applicable the Planning Director, developments shall provide access to adjacent tracts not presently developed.
  - g. Access shall be consolidated whenever possible.
  - h. Whenever possible, *roads* shall be constructed above the elevation of the *100-year floodplain*.
  - i. The applicant shall demonstrate that access to the project is adequate and the roads which will be impacted have the capacity to handle the traffic generated by the proposed project and will not endanger the safety of the general public.\*
  
- 2. *On-site Circulation*
  - a. *Sites* shall be designed to prevent awkward or dangerous vehicular flow.
  - b. *Loading* and *unloading spaces* shall not block the passage of other vehicles on the service drive or major pedestrian ways or create blind spots when trucks are loading or unloading.
  - c. *Sites* shall be designed to discourage pedestrians and vehicles from sharing the same pathways.
  - d. Safe, convenient, and centralized handicap parking shall be provided.
  - e. Trash boxes must be accessible to collection trucks when all vehicle parking spaces are filled.
  - f. Parking shall not be permitted in the required *front yard*.
  
- 3. *Floodplain*
  - a. In order to prevent excessive *flood* damage and to allow for the protection of the natural and beneficial *floodplain* functions, all *development*, *new construction*, and *substantial improvements* to existing *structures* in all *floodplain* zones shall comply with the requirements of Article VI, Section 7 of this Ordinance, including but not limited to the following:
    - i. Elevation of all new or substantially improved *structures*;
    - ii. Compliance with venting and other construction standards; and
    - iii. Submission and recordation, where applicable, of *Elevation Certificates*, *Non-conversion Agreements*, deed restrictions, and venting affidavits.
  - b. Placement of *buildings* and materials. In general, *buildings* and *accessory structures* should be located entirely out of the *floodplain*, out of the *flood* protection setback, or on land that is least susceptible to flooding. All *structures* permitted in the *floodplain* shall be oriented so as to offer the least resistance to the flow of floodwaters.
  - c. General *development* shall not occur in the *floodplain* where alternative locations exist. Before a permit is issued, the applicant shall demonstrate that new *structures* cannot be located out of the *floodplain* and that encroachments onto the *floodplain* are minimized.

4. General Landscape Requirements
  - a. The *front yard* shall be landscaped and shall be maintained in a neat and attractive condition.
  - b. *Sites* shall be permanently maintained in good condition with at least the same quality and quantity of landscaping as originally proposed.
  - c. The *landscape plan* shall be prepared by a registered professional forester, landscape architect, or other professional with equivalent experience and qualifications.
  - d. The *Planning Commission*, or where applicable the Planning Director, may waive the landscape requirements when it is demonstrated that the spirit and intent of the requirement is accomplished through other means or the nature of the change is one that does not require additional landscaping.
  
5. Screening
  - a. Screening is required to protect adjoining properties and *roadways* from noise, glare, and uses which are visually incompatible with neighboring land uses. Screening is required:
    - i. On *sites* which involve loading or unloading (including the storage of vehicles and boats), trash, or disposal areas and where accessory *buildings* and *structures* are adjacent to residential properties.
    - ii. Where exterior storage areas are visible from *roadways*, sidewalks, or nearby residential properties.
    - iii. When noise not typically occurring in residential areas is expected to project onto nearby properties.
    - iv. To *screen* parking areas from motorists, pedestrians, and adjoining residential properties.
    - v. Where the industrial district abuts a residential district or a *primary* or *secondary road*.
    - vi. Where the *Planning Commission* determines that additional screening is necessary to protect properties in the area.
  - b. Landscaped screens shall be designed to complement other landscaping occurring naturally on the *site*, planted previously, or approved as a part of a *site plan* review. Whenever possible, existing vegetation and landform shall be used to create screens.
  - c. The *screen* shall be capable of providing year round screening.
  - d. When noise is likely to be a factor, the *screen* shall be of sufficient construction to be an effective noise buffer.
  - e. Screening shall consist of trees and plants and may include masonry, or wooden fencing used with or without *berms*. Screening shall consist of a functional and well-designed combination of the following:
    - i. Vegetative ground cover
    - ii. Coniferous and deciduous shrubs
      - a) Specimens of which will reach and maintain a minimum height of 5 feet of full vegetative growth.
      - b) Plants which measure a minimum of 3 feet in height at the time of planting and are expected to attain a 5-foot height within 3 years.
    - iii. Coniferous and deciduous trees
 

Species and sizes of which will be chosen to best accomplish an adequate *screen* (i.e. evergreens used for visual screening, deciduous trees for seasonal screening)
  - f. Natural *slopes* and existing vegetation may be substituted for some or all of the requirements above, provided that these features serve to *screen* the area from adjoining properties and *roadways*. The *Planning Commission*, or where applicable the Planning Director, shall determine the acceptability of using existing *slopes* and vegetation for this

purpose. The *Planning Commission*, or where applicable the Planning Director, may waive screening where it is physically impossible to accomplish.

- g. Screening and fencing shall be maintained in at least the same quality and quantity as initially approved.

6. Lighting

- a. Lighting on the *site* shall be designed to avoid glare onto adjacent properties.
- b. Lighting on the *site* shall be sufficient to provide for the safety and security of the business, its employees, and its customers.

7. Site Planning

External Relationship: *Site* planning within the District shall provide protection of individual lots from adverse surrounding influences and for protection of surrounding areas from adverse influences existing within the District. In particular:

- a. Principal vehicular access points shall be designed to encourage smooth traffic flow with controlled turning movements and minimum hazards to vehicular or pedestrian traffic. Storage, turn lanes, or traffic dividers may be required by the *Planning Commission* where existing or anticipated heavy flows indicate need. In general, *streets* shall not be connected with *streets* outside the District in such a way as to encourage the use of such *streets* by substantial amounts of through traffic.
- b. *Yards*, fences, walls, or vegetative screening shall be provided where needed to protect residential districts or public *streets* from undesirable views, lighting, noise, or other *off-site* influences. In particular, outdoor storage, extensive *off-street parking* areas, and service areas for loading and unloading vehicles, and for storage and collection of refuse and garbage shall be effectively screened

8. Subdivision

- a. All reasonable efforts should be made to protect adjacent residential areas from potential nuisances from the industrial *subdivision* by providing extra depth in parcels adjacent to existing or residential *development*.
- b. Proposed *street* layout, blocks, and parcels shall be suitable in area and dimension for the type of *development* anticipated.
- c. The total area shall be sufficient to provide adequate space for *off-street parking*, loading, landscaping, and other facilities.
- d. The *lot* arrangement, design, and orientation shall be such that all lots will provide satisfactory building *sites*, properly related to *topography* and the character of surrounding *development*.
- e. Every *lot* shall abut upon and have access to a public road or approved *private road*.
- f. Lots adjoining *major thoroughfares* and railroad lines should be designed with extra depth and provision for an appropriate means of buffer or deeper building setbacks.
- g. Where land in a *subdivision* adjoins a railroad line, the *street* layout shall make allowance for future grade separated railroad crossings at appropriate locations by providing extra *street right of way* widths for such crossings and by restricting intersecting *streets* at locations where they would cause interference with necessary approaches to such crossings.
- h. Proposed *streets* in the *subdivision* shall provide for the continuation of existing, planned, or platted *streets* on adjacent tracts, unless such continuation shall be prevented by *topography* or other physical feature or unless such extension is found by the *Planning Commission* to be unnecessary for the coordination of *development* between the *subdivision* and such adjacent *tract*.

- i. Where the *Planning Commission* deems it desirable or necessary to provide access to adjacent tracts not presently subdivided, proposed *streets* in the *subdivision* shall be extended to the boundary lines with such tracts.
- j. Where the *subdivision* adjoins or embraces any part of a *major thoroughfare* as designated on the Kent County Major Thoroughfare Map, the layout of such *subdivision* shall provide for the platting and dedication of such part of the *major thoroughfare* in the location and at the width indicated on the *major thoroughfare* plan, except that the *subdivider* shall not be required to dedicate that part of such *major thoroughfare* that is in excess of eighty (80) feet in width.
- k. Where deemed desirable to the layout of the *subdivision* and adjoining area, the *Planning Commission* may require the platting and dedication of one or more *collector streets* or parts thereof, to serve the *subdivision*.
- l. Subdivisions shall be in full compliance with the provisions of this Ordinance.
- m. *Private roads* are permitted in minor subdivisions and are subject to the following conditions:
  - i. Each road shall serve no more than five parcels. In the event that a sixth parcel is created, the sixth parcel and all further divisions of land shall front on a public road.
  - ii. The *subdivision* shall provide a 50-foot *right of way* for each *private road*.
  - iii. The construction of all lanes and *private roads* shall adhere to the requirements established by the Kent County Department of Public Works and sediment control and *stormwater management regulations*.
  - iv. The deed and contract of sale of all lots in the *subdivision* shall state: "The road is private and not the responsibility of Kent County."
  - v. The plat shall identify all *private roads* and shall state: "The road is private and not the responsibility of Kent County."

9. Kent County *Airport* Safety Requirements

This section applies to properties that fall within the Kent County *Airport* Safety Zone as designated on the Kent County *Airport* Safety Zone Map. The Kent County *Airport* Safety Zone Map is incorporated into and made a part of this Ordinance. It is the purpose of this section to promote the public safety of the residents and visitors of Kent County by prohibiting to the extent possible, the creation or establishment of obstructions that are a hazard to air navigation.

- a. No new ponds shall be constructed within 5,000 feet of the runway.
- b. No new solid waste disposal *sites* shall be permitted within 5,000 feet of any publicly licensed *airport*. New solid waste disposal *sites* shall not be permitted within the limits of the *airport* safety zone if the FAA determines the *site* to be a hazard.
- c. Developments which produce lights, illumination, or other visual hazards or which produce electronic interference with *airport/airplane* navigation signals are subject to the standards specifies in the FAA procedure manual 7400-2C.
- d. Except as otherwise provided in this Ordinance, no *structure* shall be erected, altered, or maintained and no *tree* or other vegetation shall be allowed to grow in excess of the height limitations as designated on the Kent County *Airport* Safety Zone Map.

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## SECTION 16 INDUSTRIAL DISTRICT - CRITICAL AREA - LDA

### 16.1 STATEMENT OF INTENT

This district is intended to provide for a range of industrial uses which are environmentally sound, sustainable, and compatible with adjacent uses. Furthermore, the district is limited to light manufacturing and support businesses. Light industries include those which manufacture, process, store, package or distribute goods and materials and are, in general, dependent on raw materials refined elsewhere.

### 16.2 PERMITTED PRINCIPAL USES AND STRUCTURES

For every industrial *structure* and use erected, reconstructed, altered, or enlarged after the effective date of this Ordinance, a *site plan* shall be filed. No building permit shall be issued until said *site plan* is approved by the *Planning Commission*, or where applicable the Planning Director.

1. Manufacture, processing, fabrication, and assembly of products. These uses include but are not limited to scientific and precision instruments, photographic equipment, communications equipment, computation equipment, drugs, medicines, pharmaceutical, household appliances, toys, sporting and athletic goods, glass products made of purchased glass, electric lighting and wiring equipment, service industry machines, lithographic and printing processes, industrial controls, radio and TV receiving sets, watches and clocks, bags and containers, sanitary paper products, optical goods, electrical machinery, prefabricated and modular housing and components, dairy product feed and grain, baked and confectioners' goods, farm machinery, frozen food processing, packing plants, animal and seafood processing, fruit and vegetable processing, canning and storage.
2. Businesses and industries, including research and development companies, of a similar nature to those listed in Article V Section 15.2.1 may also be permitted by the Zoning Administrator. The Zoning Administrator shall consider the following:
  - a. The impact of the proposed business or industry on existing or planned public facilities.
  - b. The impact of the operation of the facility on the surrounding area.
  - c. The health, safety, and welfare of employees and residents of the neighborhood.
3. Distribution centers and warehousing including motor freight terminals, provided that a single building footprint does not exceed 75,000 square feet in size. In reviewing the *site plan* the *Planning Commission* shall consider the following:
  - a. The impact of the proposed business or industry on existing or planned public facilities.
  - b. The impact of the operation of the facility on the surrounding area.
  - c. The health, safety, and welfare of employees and residents of the neighborhood.
4. *Agriculture*, excluding the raising of livestock and fowl, including horticulture, hydroponics, and truck farming, general farming, cultivation of field crops, and raising of orchards, groves, and nurseries.
5. Manufacture of concrete and ceramics provided such use shall be located at least 400 feet from any residential district boundary. Outdoor storage of materials is prohibited unless otherwise permitted by the *Planning Commission* and subject to conditions as may be determined by the *Planning Commission*.

6. *Personal wireless facilities* collocated on existing towers, water towers, electrical transmission towers, fire towers, silos, *grain dryers*, or other *structures* provided the height of the existing *structure* is not above that permitted by this Ordinance.
7. Public utility buildings, structures, water treatment plants, and transmission lines, except:
  - a. Transportation facilities and utility transmission facilities, except those necessary to serve permitted uses, or where regional or interstate facilities must cross tidal waters (utility transmission facilities do not include power plant); or
  - b. Permanent sludge handling, storage, and disposal facilities, other than those associated with wastewater treatment facilities. However, agricultural or horticultural use of sludge under appropriate approvals when applied by an approved method at approved application rates may be permitted in the Critical Area, except in the 100 foot buffer.
8. Blacksmith, welding and machine shops
9. Contractors' yard
10. Vocational and trade schools including training facilities
11. *Airports*, landing fields, helistop, or heliports
12. Governmental public works and utility *buildings* or *structures*
13. *Single family dwelling*, one per existing property, subject to the *yard* requirements found in the Agricultural Zoning District, provided however, that bona fide *intrafamily transfers* may be permitted in the industrial district (thus exceeding the one *single family dwelling* per existing property requirement) under the following conditions:
  - a. The owner of the parcel or the proposed parcel shall attest, in writing, to the bona fide family relationship and that the intent of the *subdivision*/use is not for ultimate transfer to a third party.
  - b. Any deed for a *lot* that is created by a bona fide *intrafamily transfer* shall contain the covenant stating that the *lot* is created subject to the provisions of this section and that the provisions of this section shall control as long as the property continues to be zoned industrial.
  - c. A *lot* created by a bona fide *intrafamily transfer* may not be conveyed subsequently to any *person* other than a member of the owners immediate family except under the following procedures:  
The Kent County Planning Commission must determine that:
    - i. The *lot* was created as a part of bona fide *intrafamily transfer* and not with the intent of subdividing the original parcel of land for purposes of ultimate transfer to a third party; and
    - ii. The owner of the transferred property dies; or
    - iii. A change of circumstances has occurred since the original transfer was made that is consistent with the intent of this ordinance.
  - d. This subsection shall not prevent the conveyance of such a *lot* to a third party as security for a mortgage or deed of trust or subsequent conveyances resulting from a foreclosure.
  - e. The maximum *lot* size shall be two acres;
  - f. Any deed or *subdivision* plat for a *lot* created by a bona fide *intrafamily transfer* shall contain a statement that the adjacent property is zoned industrial;
  - g. The parcel is created for the construction of a primary residence only; and

- h. These provisions apply to those individuals owning industrial zoned land prior to July 7, 1994. Subsequent owners of industrial zoned land shall be limited to a one *single family dwelling*.
- 14. Boat building and boat repair
- 15. Transmission towers, including cellular towers
- 16. Storage and office trailers, temporary during construction
- 16.3 PERMITTED ACCESSORY USES

The following *accessory uses* are permitted in the Industrial District. A *site plan* shall be required.

- 1. *Day care group*
- 2. Dwellings, limited to two (2) for persons permanently employed on the *premises*
- 3. Offices
- 4. Out of water boat storage
- 5. *Restaurants* without drive through facilities
- 6. Retail sales of products produced *on-site*
- 7. Uses and *structures* which are customarily accessory and incidental to any permitted use shall be permitted in the district provided they are clearly subordinate to the principal use

## 16.4 DENSITY, HEIGHT, WIDTH, BULK, AND FENCE REQUIREMENTS

|  | STANDARD   | INDUSTRIAL<br>SUBDIVISION  |
|--|--|--|
| Gross <i>density</i> (dwelling units/ acre)  | 0.05 (1/20) <sup>1</sup>   | <sup>2</sup>   |
| Maximum residential <i>lot size</i>          | 2 acre   | 2 acre   |
| Minimum <i>frontage</i>                      | 75 feet  | 2  |
| Minimum <i>yard</i>                          |  |  |
| - <i>Front</i>                               |  |  |
| - Existing <i>Primary road</i>               | 100 feet <sup>3</sup>  | 100 feet <sup>3</sup>  |
| - <i>Other roads</i>                         | <sup>2</sup>   | <sup>2</sup>   |
| - <i>Side and Rear</i>                       |  |  |
| - Adjacent to EC, I, ICA-LDA, ICA            | 15 feet  | 2  |
| - Adjacent to AZD, RCD, CC, C, CCA, M        | 40 feet <sup>4</sup>   | 2  |
| - Adjacent to RC, RR, CAR, CR, V, IV, & IVCA | 100 feet <sup>4</sup>  | 2  |
| - Adjacent to public road                    | 100 feet <sup>3</sup>  | 100 feet <sup>3</sup>  |
| - Waterfront                                 | Minimum 100 ft. <i>buffer</i> or <i>modified buffer</i> <sup>5</sup> | Minimum 100 ft. <i>buffer</i> or <i>modified buffer</i> <sup>5</sup> |
| - <i>Shoreline cliff</i>                     | 1.5 x <i>cliff height</i> + 20 ft.                                   | 1.5 x <i>cliff height</i> +20 ft.                                    |
| Height <sup>6</sup>                          |  |  |
| - Industrial <i>structure</i>                | 45 feet  | 45 feet  |
| - Residential <i>structure</i>               | 38 feet  | 38 feet  |
| - Towers, silos, etc.                        | 150 feet   | 150 feet   |
| - Fence <sup>7</sup>                         |  |  |
| - Security                                   | 8 feet   | 8 feet   |
| - Ornamental                                 |  |  |
| <i>Front and Side</i>                        | 4 feet   | 4 feet   |
| <i>Rear</i>                                  | 8 feet   | 8 feet   |
| Maximum building footprint                   |  |  |
| - Distribution Center                        | 75,000 sq. ft.   | 75,000 sq. ft.   |
| - Other industrial <i>buildings</i>          | 250,000 sq. ft.  | 250,000 sq. ft.  |

<sup>1</sup> *Intrafamily transfers* only.

<sup>2</sup> As approved during *subdivision* review.

<sup>3</sup> May be reduced or increased during *site* plan review.

<sup>4</sup> When a side or rear lot line coincides with a side or rear lot line of a property located in a non-industrial zone, the required yard shall be landscaped and screened and shall be unoccupied by buildings, *structures*, or parking area.

<sup>5</sup> *Buffers* in designated areas may be modified according to the standards found in Article V, Section 16.7.B.4.

<sup>6</sup> Additional height restrictions apply to properties in the *Airport Safety Zone*.

<sup>7</sup> Fences do not need to meet the yard requirements.

## 16.5 INDUSTRIAL - CRITICAL AREA - LDA PERFORMANCE STANDARDS

Any industrial use established after August 1, 1989 shall be operated so as to meet the performance standards established hereinafter. Any use already established on August 1, 1989 shall be permitted to continue provided that no *alteration*, expansion, enlargement, or modification shall be permitted which effectively increases the degree of nonconformity which existed prior to any *alteration*, expansion, enlargement, or modification. An application to alter, expand, enlarge, or modify an existing use which does not meet the performance standards shall include a statement identifying measures proposed to bring the use into conformity with the performance standards.

Points of measurement to determine compliance with the performance standards shall be the property *lot line* or zoning line nearest the source that is the subject of measurement.

1. NOISE - All sources of noise (except those not under direct control of occupant of use, such as vehicles), must not create sound or impact noise levels in excess of the values specified below when measured at the points indicated. In addition, between 7:00 P.M. and 7:00 A.M., the permissible sound levels at a residential district boundary where adjoining Industrial Districts, shall be reduced by five decibels in each octave band and in the overall band for impact noises.

### Method of Measurement and Meaning of Terms:

Noise shall be measured by means of a sound level meter and octave band analyzer, calibrated in decibels (re 0.0002 microbar) and shall be measured at the nearest *lot line* from which the noise level radiates. Impact noises shall be measured by means of an impact noise analyzer. Impact noises are those whose peak values fluctuate more than six decibels from the steady values indicated on the sound level meter set at fast response.

Decibel - A measurement of the intensity (volume) of a sound.

Octave band - A prescribed interval of sound frequencies which classifies sound according to its pitch.

Preferred frequency octave bands - A stigmatized series of octave bands prescribed by the American Standards Association in Sel. 6-1970 Preferred Frequencies for Acoustical Measurements.

Sound level meter - An electronic instrument which includes a microphone, an amplifier, and an output meter which measures noise and sound pressure levels in a specified manner. It may be used with the octave band analyzer that permits measuring the sound pressure level in discrete octave bands.

MAXIMUM PERMITTED SOUND LEVELS (Decibels)

| Octave band,<br>cycles/second | At residential<br>boundaries | At other <i>lot</i><br><i>lines</i> |
|-------------------------------|------------------------------|-------------------------------------|
| 31.5                          | 64                           | 72                                  |
| 63                            | 64                           | 74                                  |
| 125                           | 60                           | 70                                  |
| 250                           | 54                           | 65                                  |
| 500                           | 48                           | 59                                  |
| 1,000                         | 42                           | 55                                  |
| 2,000                         | 38                           | 51                                  |
| 4,000                         | 34                           | 47                                  |
| 8,000                         | 30                           | 44                                  |
| Overall                       | 80                           | 90                                  |

- VIBRATION - The product of displacement in inches times the frequency in cycles per second of earthborn vibrations from any activity shall not exceed the values specified below when measured at the points indicated.

Method of Measurement and Meaning of Terms:

Earthborn vibrations shall be measured by means of a three component recording system, capable of measuring vibration in three mutually perpendicular directions. The displacement shall be the maximum instantaneous vector sum of the amplitude in the three directions.

Vibrations - The periodic displacement of oscillation of the earth.

MAXIMUM PERMITTED VIBRATIONS (INCHES PER SECOND)  
AREA OF MEASUREMENT

| Type of Vibrations                 | At Residential<br>Boundaries | At other <i>Lot lines</i> |
|------------------------------------|------------------------------|---------------------------|
| Continuous                         | 0.003                        | 0.015                     |
| Impulsive - 100/min or<br>less     | 0.006                        | 0.030                     |
| Less than 8 pulses per 24<br>hours | 0.015                        | 0.075                     |

- GLARE - No direct or sky reflected glare, whether from flood lights or from high temperature processes such as combustion, welding or otherwise, is to be visible beyond the *lot line*, except for *signs*, parking lot lighting and other lighting permitted by this Ordinance or required by any other applicable regulation, ordinance or law.
- AIR POLLUTION - The rules and *regulations* of the State of Maryland shall apply.
- WATER POLLUTION - The rules and *regulations* of the State of Maryland shall apply.
- RADIOACTIVITY - There shall be no radioactive emission which would be dangerous to the health and safety of persons on or beyond the *premises* where such radioactive material is used. Determination of existence of such danger and the handling of radioactive materials, the discharge of such materials into the atmosphere and streams or other water, and the disposal of

radioactive wastes shall be by reference to and in accordance with applicable current *regulations* of the governments of the United States and Maryland.

7. ELECTRICAL INTERFERENCE - There shall be no electrical disturbance emanating from any *lot* which would adversely affect the operation of any equipment on any other *lot* or *premises*.
8. SMOKE AND PARTICULATE MATTER LIMITATIONS -
  - a. General Limitations - In addition to the performance standard specified hereinafter, the emission of smoke or particulate matter in such manner or quantity as to be detrimental to or endanger the public health, safety, comfort, or welfare is hereby declared to be a public nuisance and shall henceforth be unlawful.

Particulate matter emission caused by the wind from open storage areas, *yards*, *roads*, etc., within *lot lines* shall be kept to a minimum by appropriate landscaping, paving, wetting, or other means.

For the purposes of determining the density or equivalent opacity of smoke, the Ringelmann Chart as adopted and published by the United States Bureau of Mines in Circular No. 8333 (7718) shall be employed.
  - b. Permitted Smoke Emission - Within 1,000 feet of a residence or commercial zoning district boundary line, the emission of visible smoke from any vent, stack, chimney, or combustion process, darker than Ringelmann No.2 for a period or periods aggregating more than 4 minutes in any 60 minute period shall not be permitted.
9. TOXIC MATTER LIMITATIONS - In any Industrial District, toxic materials which are released shall not exceed 10% of the maximum permissible airborne concentration allowed an industrial worker when measured at any point beyond the *lot line*, either at ground level or habitable elevation, whichever is more restrictive. When maximum permissible airborne concentrations of toxic materials allowed an industrial worker are not contained in the most recent list of Threshold Limit Values published by the American Conference of Governmental Industrial Hygienists, the applicant shall satisfy the County *Health Officer* that proposed levels will be safe to the general population.
10. ODOROUS MATTER LIMITATIONS - The release of odorous matter from any Industrial District across residential or commercial district boundary lines shall be so controlled that at ground level or at habitable elevations the concentration shall not exceed the odor threshold lines. Further, the release of odorous matter across *lot lines* shall not become a nuisance or source of discomfort to neighboring uses. As a guide in determining qualities of offensive odors, Table III (Odor Thresholds), Chapter 5, "Air Pollution Abatement Manual", by Manufacturing Chemists Association, Inc. (as amended) may be used.
11. CERTIFIED *ENGINEER'S* REPORT SUBMITTAL - The applicant for a *grading* permit, *sediment control permit*, or building permit for uses in an Industrial District, or applicants for *variances* to the district shall be required to submit proof that the uses proposed will not cause violations of Federal, State or County laws or *regulations*. For industrial uses which will produce emissions of pollutants to the waters or air of the County, this proof shall include measurements of the ambient water and air quality as well as documentation in the form of figures that the additional planned and proposed industrial use will not cause the violation of either ambient or source standards outlined by the laws and *regulations* of the Federal, State, or County governments.

Each future occupant of an industrial character shall submit to the County as a part of final *site development* plan approval, a certified *engineer's* report describing: the proposed operation, all

machines, processes, products and by-products, stating the nature and expected levels of emission or discharge to land, air, water or liquid, solid, or gaseous effluent and electrical impulses, vibrations and noise under normal operations and the specifications or treatment methods and mechanisms to be used to control such emission or discharge.

Existing industrial uses shall be permitted to continue and to expand, enlarge or modify provided that the industry continues to comply with the performance standards. Existing industrial uses that do not conform to the performance standards shall be permitted to expand, modify, or enlarge provided the expansion, modification, or enlargement does not increase the degree of nonconformance and that the applicant submits a statement that identifies measures to bring the industry into compliance. When the *Planning Commission* finds that an existing industry is not making a good faith effort to comply with the performance standards, the *Planning Commission* may deny an application for expansion, modification, or enlargement and may initiate an enforcement action.

#### 16.6 INDUSTRIAL - CRITICAL AREA - LDA GENERAL STANDARDS

1. As a part of the *site plan* review, the applicant shall submit a statement that includes an explanation of the following:
  - a. The type of raw materials, waste products, and other byproducts associated with the process.
  - b. The identity of all chemicals and solids to be discharged into the sewage system.
  - c. The type and amount of traffic expected to be generated by the operation.
  - d. The proposed hours of operation.
  - e. The proposed architectural design (graphic or narrative) of all *structures*.
2. The *Planning Commission*, or where applicable the Planning Director, may require additional standards and requirements to those stated in this Article as are necessary for the protection of the environment and the health, and safety of the citizens of the County.
3. The use established shall not create or be a continuation of highway “strip” *development* with multiple access points creating highway hazards and visual clutter in so far as practical. A highway strip is two or more access points or “curb cuts” off of an existing State or County Road within 3,000 feet of each other. Any use in an industrial district shall have access at least 3,000 feet from any highway strip, in so far as possible. The *Planning Commission* may waive this requirement when the commission finds all of the following:
  - a. The proposal complies with the spirit and intent of the Land Use Ordinance and the *Comprehensive Plan*.
  - b. That the waiver will not cause a substantial detriment to adjacent or neighboring property
  - c. That the waiver will not create a safety hazard or increase traffic congestion
  - d. The waiver is the minimum necessary to relieve a practical difficulty and is not sought for reasons of convenience, profit, or caprice.
4. Central water and sewer systems may be required by the *Planning Commission* in an Industrial District. If a public system is available, use of such system shall be mandatory.
5. *Signs* in industrial area shall be permitted in accordance with the *regulations* contained in Article VI, Section 2 of this Ordinance.
6. Minimum *off-street parking* and *loading spaces* shall be required of each use in an Industrial District in accordance with the *regulations* contained in Article VI, Section 1 of this Ordinance.

7. In so far as possible, all uses shall be conducted within a completely enclosed *structure* or be completely screened. Finished or semi-finished products manufactured on the *premises* may be stored in the open if screened from the *street* and adjacent uses.
8. The Department of Planning and Zoning shall approve *street* names. A name may not be approved if it duplicates or is too similar to the name of another road in the county or incorporated towns.

#### 16.7 INDUSTRIAL - CRITICAL AREA - LDA ENVIRONMENTAL STANDARDS

The purpose of these standards is to provide for the proper stewardship of the County's natural resources. Specifically it is the overall goal of the county to maintain the quality of the County's *ecosystem* in the face of continuing activity, growth and change.

##### A. INDUSTRIAL - CRITICAL AREA - LDA GENERAL ENVIRONMENTAL STANDARDS

1. *Development* shall minimize *adverse impacts* to *non-tidal* or *tidal wetlands*, estuaries, the Chesapeake Bay, *tributary streams*, and the natural and *riparian habitat* of these streams, habitat protection areas, or other significant habitat identified by the Department of Planning and Zoning.
2. *Development* shall minimize the removal of *natural vegetation*. Protection of remaining vegetation and replacement of removed vegetation shall be required.
3. *Development* shall minimize the effects of runoff on the existing volume of water and quality of any water body. *Urban best management practices* shall be used.
4. Whenever possible, land subject to periodic flooding, shall not be developed for any use that might involve danger to health, life, or property or aggravate floods.
5. If practicable, permeable areas shall be established in vegetation.

##### B. INDUSTRIAL - CRITICAL AREA - LDA SPECIFIC ENVIRONMENTAL STANDARDS

1. *Agriculture*  
No new agricultural land shall be created by:
  - a. Draining, filling, or diking any *palustrine wetlands* which have a *seasonally flooded* or *wetter water regime* unless the impact is mitigated.
  - b. *Clearing* of an area of *forest* or woodland greater than 40,000 square feet in a one-year period without filing a *Forest Conservation Plan*. An agricultural *Declaration of Intent* shall be filed with the Kent County Department of Planning and Zoning.
  - c. *Clearing* of existing *natural vegetation* within the *stream protection corridor*.
2. *Anadromous fish*
  - a. Concrete riprap or other artificial surface shall not be installed on the bottom of natural streams unless it can be demonstrated that water quality and fishery habitat will be improved.
  - b. Physical alteration of a stream, including but not limited to channelization, that interferes with the movement of fish shall be prohibited
  - c. The construction or placement of dams or other structures that would interfere with or prevent the movement of spawning fish or larval forms in streams shall be prohibited. Where practical, the removal of existing barriers is encouraged.

- d. Construction, repair or maintenance activities associated with bridges or other stream crossings or with utilities and roads which require disturbance to the *buffer*, or which occur in stream shall be prohibited between March 1 and May 15.
3. *Buffer*
- a. *Development in the Buffer:*
    - i. New *development activities*, including *structures*, *roads*, parking areas, and other *impervious surfaces*, mining, and related activities, or septic systems shall not be permitted within the minimum 100-foot *buffer*. This restriction does not apply to water-dependent facilities that meet the criteria set forth below.
    - ii. New or expanded *development activities* may be permitted in the minimum 100-foot *buffer*, provided
      - a) The use is water dependent; and
      - b) The project meets a recognized private right or public need;
      - c) Adverse effects on water quality and fish, plant, and *wildlife habitat* are minimized; and
      - d) In so far as possible, non-water dependent *structures* or operations associated with water-dependent projects or activities are located outside the minimum 100-foot *buffer*.
    - iii. Where agricultural uses of lands within the buffer cease and the lands are proposed to be converted to other uses, the buffer shall be established. In establishing the buffer, management measures shall be undertaken to provide forest vegetation that achieves the buffer functions as defined in Article XI of this Ordinance.
    - iv. Water-dependent research facilities or activities operated by State, Federal, local agencies or education facilities may be permitted in the *buffer* if non-water dependent *structures* or facilities associated with these projects are located outside the *buffer*.
    - v. Commercial water-dependent fisheries facilities including, but not limited to, *structures* for crab shedding, fish off-loading docks, shellfish culture operations, and shore based facilities for *aquaculture* operations, and *fisheries activities* may be permitted in the *buffer*.
  - b. Vegetation protection within the *Buffer* -
    - i. *Natural vegetation* within the *buffer* shall be preserved and protected unless one of the following apply:
      - a) An approved *forest* harvesting plan is followed;
      - b) Individual trees may be cut for personal use provided this cutting does not impair the water quality or existing habitat value or other functions of the *buffer*. Trees shall be replaced on an equal basis for each *tree* cut.
      - c) Trees which are leaning over the water may be cut, but their stumps and roots shall not be disturbed;
      - d) The disturbance provides access for water-dependent facilities or shore *erosion* protection *structures*;
      - e) Landowners may treat trees and shrubs to maintain or improve their health.
    - ii. Vegetation in the *buffer* removed for the reasons listed above shall be reestablished over the entire disturbed area during the next planting season. These plantings shall be approved by the Department of Planning and Zoning. In addition, Article VI, Section 9 of this Ordinance shall be followed exactly.
    - iii. *Natural vegetation* removed for an approved purpose shall be in accordance with an approved *buffer* management plan.

- c. Stream Protection
 

*Development activities* that must cross or affect streams shall be designed to:

    - i. Reduce increases in flood frequency and severity that are attributable to development.
    - ii. Retain tree canopy so as to maintain stream water temperature within normal variation.
    - iii. Provide a natural substrate for stream beds.
    - iv. Minimize adverse water quality and quantity impacts of stormwater.
4. *Modified Buffer*
- a. *Development in the Modified Buffer*
    - i. No new *development* shall encroach within 25 feet of mean high tide or 25 feet of the edge of a *tidal wetland*. Expansion to the side or rear but not closer to the water may be permitted as long as the expansion is designed and located to maximize the distance from the shoreline or to enhance or protect the environmentally sensitive features on the *site*.
    - ii. An area of existing *impervious surface on-site* equal to or greater than the area of new *development* shall be removed and revegetated, or
    - iii. A *forest buffer* will be planted *on-site* equal to three times the amount of newly developed *impervious surface* within the minimum 100-foot *buffer* (equal areas to be planted for other disturbance outside of the minimum 100-foot *buffer*); if there is not enough available space on the *lot* to create a *buffer*, the property owner must plant the required amounts *on-site* outside the *buffer*, *off-site*, or must pay a fee-in-lieu.
  - b. Vegetative Protection within the *Modified Buffer*

*Natural vegetation* within the *modified buffer* shall be preserved and protected unless one of the following apply:

    - i. An approved *forest* harvesting plan is followed;
    - ii. Individual trees may be cut for personal use provided this cutting does not impair the water quality or existing habitat value or other functions of the *buffer*. Trees shall be replaced on an equal basis for each *tree* cut;
    - iii. Trees which are leaning over the water may be cut, but their stumps and roots shall not be disturbed;
    - iv. The disturbance provides access for water-dependent facilities or shore *erosion* protection *structures*;
    - v. Landowners may treat trees and shrubs to maintain or improve their health.
5. *Forest*
- a. A forestry management plan prepared by a registered forester and approved by the Maryland Department of Natural Resources shall be required when developing forested lands.
  - b. *Forest* shall be replaced on an acre by acre basis, but no more than 20% of any *forest* or *developed woodlands* shall be removed unless by prior agreement with the *Planning Commission*, the *developer* agrees to afforest on the following basis: a *developer* may clear or develop more *forest* that otherwise may be permitted if the total *forest* removed is not increased by more than 50% of the area permitted to be disturbed provided that the afforested area consists of 1.5 times the total surface acreage of the disturbed *forest* or *developed woodlands* or both. For example, in a 100-acre woodland, up to 30 acres may be cleared if the *developer* agrees to afforest (not necessarily on his own property) 45 acres of currently unforested land.

- c. Replacement trees shall be of a species similar to that which was removed or a species appropriate to the replanting *site*.
  - d. *Forest* or *developed woodlands* that remain after an approved removal shall be maintained through recorded restrictive covenants, *easements*, or similar instruments.
  - e. *Forest* cleared prior to obtaining a *grading* permit or that exceeds the maximum area allowed shall be replanted at three times the acreage of the cleared *forest*.
  - f. If the acreage of the *site* limits the application of *reforestation* requirements *forest* may be created on other lands in the *Critical Area* including County lands, or a fee in an amount determined by the Maryland Department of Natural Resources to be the equivalent to the value of the required *forest* may be paid to the County Commissioners of Kent County. These funds shall be placed in a dedicated fund used to ensure the restoration or establishment of an equivalent *forest* area, in the *Critical Area* or riparian areas.
  - g. After *development*, the *site* shall be planted to provide a *forest* or *developed woodlands* cover of at least 15%.
6. *Forest Interior Dwelling Birds*
- a. Existing riparian *forest* of 300 x 300 feet or more and *forest* areas used by *forest interior dwelling birds* and other wildlife species shall be managed according to the guidelines developed by the Maryland Department of Natural Resources and the Chesapeake Bay Critical Area Commission.
  - b. A *site* survey for *forest interior dwelling birds* shall be conducted prior to any *development* or agricultural expansion on deciduous *forest* of at least 50 acres or 300 x 300 foot riparian deciduous *forest*. The Planning Director may waive a *site* survey for *forest interior dwelling birds* provided the *forest* is managed for all *forest interior dwelling bird* species. Cutting and building shall be restricted to safe times (not during nesting - see Article VI, Section 3.9 of this Ordinance).
7. *Habitat*
- a. All *roads*, bridges and utilities that must cross a Habitat Protection Area shall be located, designed, constructed, and maintained so as to provide maximum *erosion* protection and minimize negative impacts to wildlife, aquatic life and their habitats and maintain hydrologic processes and water quality. *Roads*, bridges, or utilities shall not be located in any Habitat Protection Area unless no feasible alternative exists.
  - b. During and after *development* in forested areas, corridors of existing *forest* or woodland vegetation shall be maintained to provide effective connections between *wildlife habitat* areas.
  - c. New water-dependent facilities shall be located so as to prevent disturbance to *sites* of significance to wildlife such as historic aquatic staging and concentration areas for *waterfowl*, shellfish beds, finfish nursery areas, and submerged aquatic vegetation beds.
8. *Impervious Surfaces*
- Man caused impervious surfaces shall not exceed 15% of the site except at otherwise stated below.
- a. Man caused *impervious surfaces* on parcels greater than 36,301 square feet shall be limited to 15% of the property. This section does not apply to *mobile home parks* in residential use on or before December 1, 1985.
  - b. Man caused *impervious surfaces* on parcels that are 21,781 to 36,300 square feet and existed on or before December 1, 1985 shall be limited to 5,445 square feet provided:
    - i. New *impervious surfaces* on the property have been minimized.
    - ii. Water quality impacts associated with runoff from new *impervious surfaces* have been minimized through *site* design or use of *best management practices*.

- iii. The property owner performs *on-site* mitigation as may be required by the Planning Director or designated representative to offset potential adverse water quality impacts from the new *impervious surfaces* or the property owner pays a fee in lieu of performing the mitigation.
  - c. Man caused *impervious surfaces* on parcels that are 8,001 to 21,780 square feet and existed on or before December 1, 1985 shall be limited to 31.25% of the property provided:
    - i. New *impervious surfaces* on the property have been minimized.
    - ii. Water quality impacts associated with runoff from new *impervious surfaces* have been minimized through *site* design or use of *best management practices*.
    - iii. The property owner performs *on-site* mitigation as may be required by the Planning Director or designated representative to offset potential adverse water quality impacts from the new *impervious surfaces* or the property owner pays a fee in lieu of performing the mitigation.
  - d. Man caused *impervious surfaces* on parcels that are less than 8,000 square feet and existed on or before December 1, 1985 shall be limited to 25% of the property plus 500 square feet provided:
    - i. New *impervious surfaces* on the property have been minimized.
    - ii. Water quality impacts associated with runoff from new *impervious surfaces* have been minimized through *site* design or use of *best management practices*.
    - iii. The property owner performs *on-site* mitigation as may be required by the Planning Director or designated representative to offset potential adverse water quality impacts from the new *impervious surfaces* or the property owner pays a fee in lieu of performing the mitigation.
  - e. Man caused *impervious surfaces* shall not exceed 25% of an individual *lot* of one acre or less which is part of a *subdivision* approved after December 1, 1985. However, the total of the *impervious surfaces* over the entire *subdivision* shall not exceed 15%.
- 9. *Natural heritage areas* and locations considered for Areas of Critical State Concern  
These areas of local significance shall be preserved whenever possible in accordance with the recommendations of the Department of Natural Resources. These areas are identified in Article VI, Section 3.8 of this Ordinance.
- 10. *Non-tidal wetlands*  
*Non-tidal wetlands* shall be protected according to the *regulations* of the State of Maryland, Army Corps of Engineers, United States Fish and Wildlife Service, Environmental Protection Agency and all other applicable State and Federal *regulations*.
- 11. *Slopes*  
*Development* on *slopes* greater than 15%, as measured before development, shall be prohibited unless the project is the only effective way to maintain or improve the stability of the land.
- 12. *Stormwater Management*  
No *person* shall develop any land for residential, commercial, industrial, or institutional uses or redevelop land without having provided for appropriate *stormwater management* measures that control or manage runoff from such developments except as provided in Article VI, Section 10 of this Ordinance. *Stormwater Management* shall be accomplished for all new *development* or *redevelopment* in accordance with the provisions of Article VI, Section 10 of this Ordinance.

13. Threatened and Endangered Species and Species in Need of Conservation
  - a. Any *development* shall include a statement on the type and location of any threatened or *endangered species* or *species in need of conservation* on the property, and any recommendation for maintaining and protecting that habitat from the Department of Natural Resources.
  - b. Threatened or *endangered species* and *species in need of conservation* shall be checked and noted by the *developer* before any approvals can be granted by the Planning Director, *Planning Commission*, or Zoning Administrator.
  - c. The Federal or State guidelines (which ever is stricter) for habitat protection shall be followed during *development*. Plans shall include provisions for the continuance of the habitat protection after *development*. This can include *conservation easements*, cooperative agreements, special provisions in *forest management* and *soil conservation* plans, and donation to a third party.
  
14. Timber Harvest
  - a. *Forest management plans* shall be required for all timber harvest occurring within any one-year interval and which affect one or more acres in *forest* or *developed woodlands* in the *Critical Area*. The plans shall be prepared by a registered professional forester and be reviewed and approved by the Maryland Forest, Park, and Wildlife Service through the District Forestry Boards and the project forester. Plans shall be filed with the Kent County Planning Commission. Plans shall include measures to protect surface and ground water quality and identify whether the activities will disturb or affect Habitat Protection Areas as set forth in the Land Use Ordinance or identified on the Habitat Protection Areas Map.
  - b. Plans shall include protective measures for Habitat Protection Areas and shall provide for the continuity of habitat. The plans shall address mitigation through *forest management* techniques which include scheduling size, timing, and intensity of harvest cuts, *afforestation* and *reforestation*.
  - c. The cutting and *clearing* of trees within the minimum 100-foot *buffer* is permitted provided:
    - i. Existing riparian *forest* of 300 x 300 feet or more and *forest* areas used by *forest interior dwelling birds* and other wildlife species shall be managed according to the guidelines in Article VI, Section 3.
    - ii. When timber harvesting is being considered, a *site* survey for *forest interior dwelling birds* shall be done. Cutting and building shall be restricted to safe times (not during nesting – See Article VI, Section 3.9 of this Ordinance).
    - iii. During timber harvest in corridors of existing *forest* or woodlands, vegetation shall be maintained to provide effective connections between *wildlife habitat* area.
    - iv. Commercial harvesting by *selection* or by *clear-cutting* of Loblolly Pine and Tulip Poplar may be permitted to within 50 feet of the landward edge of the *mean high water line* of tidal water and *perennial streams* or the edge of *tidal wetlands* provided that the cutting does not occur in the Habitat Protection Areas and the cutting is conducted pursuant to the requirements of Article VI, Section 9 and the *non-tidal wetlands* requirements of this Ordinance, and in conformance with a *buffer* management plan prepared by a registered professional forester and approved by the Department of Natural Resources. The plan shall be required for all commercial harvest within the minimum 100-foot *buffer* regardless of the size of the area to be cut and shall contain the following minimum requirements:
      - a) That disturbance to stream banks and shorelines shall be avoided.

- b) That the area to be disturbed or cut shall be replanted or allowed to regenerate in a manner that assures the availability of cover and breeding *sites* for wildlife and reestablishes the *wildlife corridor* function of the *buffer*.
- c) That the cutting does not involve the creation of logging *roads* and skid trails within the minimum 100-foot *buffer*.

Commercial harvesting of trees by any method may be permitted to the edge of the *intermittent streams* if the cutting and removal is done in accordance with a *Buffer Management Plan* approved by the Department of Natural Resources, Bay Watershed Forester.

15. Water Quality

All new *development* or *redevelopment* shall reduce pollutant loading from the *site* and shall comply with the *stormwater management* qualitative control measures found in Article VI, Section 10 of this Ordinance.

16. Wildlife Corridors

Developments shall incorporate a wildlife corridor system that connects the largest undeveloped or most vegetated tracts of land within and adjacent to the site in order to provide continuity of existing wildlife and plant habitats with offsite habitats. Plans shall include provisions for the continuance and maintenance of the wildlife corridors. This can include conservation easements, cooperative agreements, special provisions in forest management and soil conservation plans, and donation to a third party.

16.8 INDUSTRIAL CRITICAL AREA - LDA DISTRICT DESIGN STANDARDS

The purpose of these standards is to give a sense of the physical aspects of the County’s environment to those contemplating new *development* in the community. Pertinent to this physical appearance is the design of the *site*, *buildings* and *structures*, plantings, *signs*, *street* hardware, and miscellaneous other objects that the public observes.

These standards are not intended to restrict imagination, innovation, or variety, but rather assist in focusing on design principals which can produce creative solutions that will develop a satisfactory visual appearance within the County, preserve taxable values, and promote the public health, safety, and welfare.

A. INDUSTRIAL CRITICAL AREA - LDA GENERAL DESIGN STANDARDS

- 1. The landscape shall be preserved in its natural state, in so far as possible, by leaving the most sensitive area of the *site* intact and by minimizing *tree* and *soil* removal. Any grade changes shall be in keeping with the general appearance of the neighboring developed areas. Whenever possible, *development* shall be located outside the *floodplain*.
- 2. Each unit of *development*, as well as the total *development*, shall create an environment of desirability and stability. Every *structure*, when completed and in place, shall have a finished appearance.

B. INDUSTRIAL CRITICAL AREA - LDA SPECIFIC DESIGN STANDARDS

1. *Site Access*

*Site* access shall be subject to the following *regulations* to help ensure safety and alleviate traffic congestion:

- a. Where property abuts a *primary, secondary, or a collector road*, access to the property shall be by way of the *secondary or collector road*. Exceptions to this rule shall be instances where the *Planning Commission*, or where applicable the Planning Director, determines that direct access onto the *primary road* would promote traffic safety.
- b. Where one or more contiguous parcels abutting a *primary road* are under single ownership and any one of the parcels abuts a *secondary or collector road*, access to the property shall be by of the *secondary road*. Exceptions to this rule shall be instances where the *Planning Commission*, or where applicable the Planning Director, determines that direct access onto the *primary road* would promote traffic safety.
- c. Only one direct approach onto a *primary road* from an individual parcel of record as of August 1, 1989 shall be permitted unless the *Planning Commission*, or where applicable the Planning Director finds one of the following:
  - i. An additional entrance is significantly beneficial to the safety and operation of the highway.
  - ii. One entrance is a safety hazard or will increase traffic congestion.
  - iii. The property is bisected by *steep slopes*, bodies of water, or other topographic features so as to render some portion of the property inaccessible without additional road access.
- d. Where a proposed road is designated on an approved County or Town map, *site plans* for *development* adjacent to the designated *roadway* shall include provisions for future access to the *roadway*.
- e. Existing, planned, or platted *streets* on adjacent properties shall be continued when the *Planning Commission*, or where applicable the Planning Director, determines that the continuation is necessary for safe and reasonable circulation between the properties.
- f. When deemed necessary by the *Planning Commission*, or where applicable the Planning Director, developments shall provide access to adjacent tracts not presently developed.
- g. Access shall be consolidated whenever possible.
- h. Whenever possible, *roads* shall be constructed above the elevation of the *100-year floodplain*.
- i. The applicant shall demonstrate that access to the project is adequate and the roads which will be impacted have the capacity to handle the traffic generated by the proposed project and will not endanger the safety of the general public.\*

2. *On-site Circulation*

- a. *Sites* shall be designed to prevent awkward or dangerous vehicular flow.
- b. *Loading and unloading spaces* shall not block the passage of other vehicles on the service drive or major pedestrian ways or create blind spots when trucks are loading or unloading.
- c. *Sites* shall be designed to discourage pedestrians and vehicles from sharing the same pathways.
- d. Safe, convenient, and centralized handicap parking shall be provided.
- e. Trash boxes must be accessible to collection trucks when all vehicle parking spaces are filled.
- f. Parking shall not be permitted in the required *front yard*.

3. *Floodplain*
  - a. In order to prevent excessive *flood* damage and to allow for the protection of the natural and beneficial *floodplain* functions, all *development*, *new construction*, and *substantial improvements* to existing *structures* in all *floodplain* zones shall comply with the requirements of Article VI, Section 7 of this Ordinance, including but not limited to the following:
    - i. Elevation of all new or substantially improved *structures*;
    - ii. Compliance with venting and other construction standards; and
    - iii. Submission and recordation, where applicable, of *Elevation Certificates*, *Non-conversion Agreements*, deed restrictions, and venting affidavits.
  - b. Placement of *buildings* and materials. In general, *buildings* and *accessory structures* should be located entirely out of the *floodplain*, out of the *flood* protection setback, or on land that is least susceptible to flooding. All *structures* permitted in the *floodplain* shall be oriented so as to offer the least resistance to the flow of floodwaters.
  - c. General *development* shall not occur in the *floodplain* where alternative locations exist. Before a permit is issued, the applicant shall demonstrate that new *structures* cannot be located out of the *floodplain* and that encroachments onto the *floodplain* are minimized.
4. General Landscape Requirements
  - a. The *front yard* shall be landscaped and shall be maintained in a neat and attractive condition.
  - b. *Sites* shall be permanently maintained in good condition with at least the same quality and quantity of landscaping as originally proposed.
  - c. The *landscape plan* shall be prepared by a registered professional forester, landscape architect, or other professional with equivalent experience and qualifications.
  - d. The *Planning Commission*, or where applicable the Planning Director, may waive the landscape requirements when it is demonstrated that the spirit and intent of the requirement is accomplished through other means or the nature of the change is one that does not require additional landscaping.
5. Screening
  - a. Screening is required to protect adjoining properties and *roadways* from noise, glare, and uses which are visually incompatible with neighboring land uses. Screening is required:
    - i. On *sites* which involve loading or unloading (including the storage of vehicles and boats), trash, or disposal areas and where accessory *buildings* and *structures* are adjacent to residential properties.
    - ii. Where exterior storage areas are visible from *roadways*, sidewalks, or nearby residential properties
    - iii. When noise not typically occurring in residential areas is expected to project onto nearby properties.
    - iv. To *screen* parking areas from motorists, pedestrians, and adjoining residential properties.
    - v. Where the industrial district abuts a residential district or a *primary* or *secondary road*.
    - vi. Where the *Planning Commission* determines that additional screening is necessary to protect properties in the area.
  - b. Landscaped screens shall be designed to complement other landscaping occurring naturally on the *site*, planted previously, or approved as a part of a *site plan* review. Whenever possible, existing vegetation and landform shall be used to create screens.
  - c. The *screen* shall be capable of providing year round screening.

- d. When noise is likely to be a factor, the *screen* shall be of sufficient construction to be an effective noise buffer.
  - e. Screening shall consist of trees and plants and may include masonry, or wooden fencing used with or without *berms*. Screening shall consist of a functional and well-designed combination of the following:
    - i. Vegetative ground cover
    - ii. Coniferous and deciduous shrubs
      - a) Specimens of which will reach and maintain a minimum height of 5 feet of full vegetative growth.
      - b) Plants which measure a minimum of 3 feet in height at the time of planting and are expected to attain a 5-foot height within 3 years.
    - iii. Coniferous and deciduous trees  
Species and sizes of which will be chosen to best accomplish an adequate *screen* (i.e., evergreens used for visual screening, deciduous trees for seasonal screening)
  - f. Natural *slopes* and existing vegetation may be substituted for some or all of the requirements above, provided that these features serve to *screen* the area from adjoining properties and *roadways*. The *Planning Commission* or where applicable the Planning Director shall determine the acceptability of using existing *slopes* and vegetation for this purpose. The *Planning Commission*, or where applicable the Planning Director, may waive screening where it is physically impossible to accomplish.
  - g. Screening and fencing shall be maintained in at least the same quality and quantity as initially approved.
6. Lighting
- a. Lighting on the *site* shall be designed to avoid glare onto adjacent properties.
  - b. Lighting on the *site* shall be sufficient to provide for the safety and security of the business, its employees, and its customers.
7. *Site Planning*
- External Relationship: *Site* planning within the District shall provide protection of individual lots from adverse surrounding influences and for protection of surrounding areas from adverse influences existing within the District. In particular:
- a. Principal vehicular access points shall be designed to encourage smooth traffic flow with controlled turning movements and minimum hazards to vehicular or pedestrian traffic. Storage, turn lanes, or traffic dividers may be required by the *Planning Commission* where existing or anticipated heavy flows indicate need. In general, *streets* shall not be connected with *streets* outside the District in such a way as to encourage the use of such *streets* by substantial amounts of through traffic.
  - b. *Yards*, fences, walls, or vegetative screening shall be provided where needed to protect residential districts or public *streets* from undesirable views, lighting, noise, or other *off-site* influences. In particular, outdoor storage, extensive *off-street parking* areas, and service areas for loading and unloading vehicles, and for storage and collection of refuse and garbage shall be effectively screened.
8. *Subdivision*
- a. All reasonable efforts should be made to protect adjacent residential areas from potential nuisances from the industrial *subdivision* by providing extra depth in parcels adjacent to existing or residential *development*.
  - b. Proposed *street* layout, blocks, and parcels shall be suitable in area and dimension for the type of *development* anticipated.

- c. The total area shall be sufficient to provide adequate space for *off-street parking*, loading, landscaping, and other facilities.
- d. The *lot* arrangement, design, and orientation shall be such that all lots will provide satisfactory building *sites*, properly related to *topography* and the character of surrounding *development*.
- e. Every *lot* shall abut upon and have access to a public road or approved *private road*.
- f. Lots adjoining *major thoroughfares* and railroad lines should be designed with extra depth and provision for an appropriate means of buffer or deeper building setbacks.
- g. Where land in a *subdivision* adjoins a railroad line, the *street* layout shall make allowance for future grade separated railroad crossings at appropriate locations by providing extra *street right of way* widths for such crossings and by restricting intersecting *streets* at locations where they would cause interference with necessary approaches to such crossings.
- h. Proposed *streets* in the *subdivision* shall provide for the continuation of existing, planned, or platted *streets* on adjacent tracts, unless such continuation shall be prevented by *topography* or other physical feature or unless such extension is found by the *Planning Commission* to be unnecessary for the coordination of *development* between the *subdivision* and such adjacent *tract*.
- i. Where the *Planning Commission* deems it desirable or necessary to provide access to adjacent tracts not presently subdivided, proposed *streets* in the *subdivision* shall be extended to the boundary lines with such tracts.
- j. Where the *subdivision* adjoins or embraces any part of a *major thoroughfare* as designated on the Kent County Major Thoroughfare Map, the layout of such *subdivision* shall provide for the platting and dedication of such part of the *major thoroughfare* in the location and at the width indicated on the *major thoroughfare* plan, except that the *subdivider* shall not be required to dedicate that part of such *major thoroughfare* that is in excess of eighty (80) feet in width.
- k. Where deemed desirable to the layout of the *subdivision* and adjoining area, the *Planning Commission* may require the platting and dedication of one or more *collector streets* or parts thereof, to serve the *subdivision*.
- l. Subdivisions shall be in full compliance with the provisions of this Ordinance.
- m. *Private roads* are permitted in minor subdivisions and are subject to the following conditions:
  - i. Each road shall serve no more than five parcels. In the event that a sixth parcel is created, the sixth parcel and all further divisions of land shall front on a public road.
  - ii. The *subdivision* shall provide a 50-foot *right of way* for each *private road*.
  - iii. The construction of all lanes and *private roads* shall adhere to the requirements established by the Kent County Department of Public Works and sediment control and *stormwater management regulations*.
  - iv. The deed and contract of sale of all lots in the *subdivision* shall state: "The road is private and not the responsibility of Kent County."
  - v. The plat shall identify all *private roads* and shall state: "The road is private and not the responsibility of Kent County."

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## SECTION 17 INDUSTRIAL DISTRICT - CRITICAL AREA

### 17.1 STATEMENT OF INTENT

This district is intended to provide for a range of industrial uses which are environmentally sound, sustainable, and compatible with adjacent uses. Furthermore, the district is limited to light manufacturing and support businesses. Light industries include those which manufacture, process, store, package or distribute goods and materials and are, in general, dependent on raw materials refined elsewhere. The Industrial District – Critical Area is intended to:

- Improve the quality of runoff from developed areas that enters the Chesapeake Bay or its tributary streams.
- Accommodate additional mixed-use development provided that water quality is not impaired.
- Minimize the expansion of intensely developed areas into portions of the Critical Area designated as habitat protection areas and resource conservation areas.
- Conserve and enhance fish, wildlife, and plant habitats to the extent possible within intensely developed areas.
- Encourage the use of retrofitting measures to address existing stormwater management problems.

### 17.2 PERMITTED PRINCIPAL USES AND STRUCTURES

For every industrial *structure* and use erected, reconstructed, altered, or enlarged after the effective date of this Ordinance, a *site plan* shall be filed. No building permit shall be issued until said *site plan* is approved by the *Planning Commission*, or where applicable the Planning Director.

1. Manufacture, processing, fabrication, and assembly of products. These uses include but are not limited to scientific and precision instruments, photographic equipment, communications equipment, computation equipment, drugs, medicines, pharmaceuticals, household appliances, toys, sporting and athletic goods, glass products made of purchased glass, electric lighting and wiring equipment, service industry machines, lithographic and printing processes, industrial controls, radio and TV receiving sets, watches and clocks, bags and containers, sanitary paper products, optical goods, electrical machinery, prefabricated and modular housing and components, dairy product feed and grain, baked and confectioners' goods, farm machinery, frozen food processing, packing plants, animal and seafood processing, fruit and vegetable processing, canning and storage.
2. Businesses and industries, including research and development companies, of a similar nature to those listed in Article V Section 16.2.1 may also be permitted by the Zoning Administrator. The Zoning Administrator shall consider the following:
  - a. The impact of the proposed business or industry on existing or planned public facilities.
  - b. The impact of the operation of the facility on the surrounding area.
  - c. The health, safety, and welfare of employees and residents of the neighborhood.
3. Distribution centers and warehousing including motor freight terminals, provided that a single building footprint does not exceed 75,000 square feet in size. In reviewing the *site plan* the *Planning Commission* shall consider the following:
  - a. The impact of the proposed business or industry on existing or planned public facilities.
  - b. The impact of the operation of the facility on the surrounding area.
  - c. The health, safety, and welfare of employees and residents of the neighborhood.

4. *Agriculture*, excluding *feedlots* and poultry houses
5. Manufacture of concrete and ceramics provided such use shall be located at least 400 feet from any residential district boundary. Outdoor storage of materials is prohibited unless otherwise permitted by the *Planning Commission* and subject to such conditions as may be determined by the *Planning Commission*.
6. *Personal wireless facilities* collocated on existing towers, water towers, electrical transmission towers, fire towers, silos, *grain dryers*, or other *structures* provided the height of the existing *structure* is not above that permitted by this Ordinance.
7. Public utility buildings, structures, water treatment plants, and transmission lines, except:
  - a. Transportation facilities and utility transmission facilities, except those necessary to serve permitted uses, or where regional or interstate facilities must cross tidal waters (utility transmission facilities do not include power plant); or
  - b. Permanent sludge handling, storage, and disposal facilities, other than those associated with wastewater treatment facilities. However, agricultural or horticultural use of sludge under appropriate approvals when applied by an approved method at approved application rates may be permitted in the Critical Area, except in the 100 foot buffer.
8. Blacksmith, welding and machine shops.
9. Contractors' yard
10. Vocational and trade schools including training facilities
11. *Airports*, landing fields, helistop, or heliports
12. Governmental public works and utility *buildings* or *structures*
13. *Single family dwelling*, one per existing property, subject to the *yard* requirements found in the Agricultural Zoning District, provided however, that bona fide *intrafamily transfers* may be permitted in the industrial district [thus exceeding the one *single family dwelling* per existing property requirement] under the following conditions:
  - a. The owner of the parcel or the proposed parcel shall attest, in writing, to the bona fide family relationship and that the intent of the *subdivision*/use is not for ultimate transfer to a third party.
  - b. Any deed for a *lot* that is created by a bona fide *intrafamily transfer* shall contain the covenant stating that the *lot* is created subject to the provisions of this section and that the provisions of this section shall control as long as the property continues to be zoned industrial.
  - c. A *lot* created by a bona fide *intrafamily transfer* may not be conveyed subsequently to any *person* other than a member of the owners immediate family except under the following procedures:  
 The Kent County Planning Commission must determine that:
    - i. The *lot* was created as a part of bona fide *intrafamily transfer* and not with the intent of subdividing the original parcel of land for purposes of ultimate transfer to a third party; and
    - ii. The owner of the transferred property dies; or

- iii. A change of circumstances has occurred since the original transfer was made that is consistent with the intent of this ordinance.
  - d. This subsection shall not prevent the conveyance of such a *lot* to a third party as security for a mortgage or deed of trust or subsequent conveyances resulting from a foreclosure.
  - e. The maximum *lot* size shall be two acres;
  - f. Any deed or *subdivision* plat for a *lot* created by a bona fide *intrafamily transfer* shall contain a statement that the adjacent property is zoned industrial;
  - g. The parcel is created for the construction of a primary residence only; and
  - h. These provisions apply to those individuals owning industrial zoned land prior to July 7, 1994. Subsequent owners of industrial zoned land shall be limited to a one *single family dwelling*.
- 14. Boat building and boat repair
- 15. Storage and office trailers, temporary during construction

### 17.3 PERMITTED ACCESSORY USES

The following *accessory uses* are permitted in the Industrial District. A *site plan* shall be required.

- 1. *Day care group*
- 2. Dwellings, limited to two (2) for persons permanently employed on the *premises*
- 3. Offices
- 4. Out of water boat storage
- 5. *Restaurants* without drive through facilities
- 6. Retail sales of products produced *on-site*
- 7. Uses and *structures* which are customarily accessory and incidental to any permitted use shall be permitted in the district provided they are clearly subordinate to the principal use

|  | STANDARD   | INDUSTRIAL<br>SUBDIVISION  |
|--|--|--|
| Gross <i>density</i> (dwelling units/ acre)  | 0.05 (1/20) <sup>1</sup>   | <sup>2</sup>   |
| Maximum residential <i>lot size</i>          | 2 acre   | <sup>2</sup> 2 acre  |
| Minimum <i>frontage</i>                      | 75 feet  | <sup>2</sup>   |
| Minimum <i>yard</i>                          |  |  |
| - <i>Front</i>                               |  |  |
| - Existing <i>Primary road</i>               | 100 feet <sup>3</sup>  | 100 feet <sup>3</sup>  |
| - <i>Other roads</i>                         | <sup>2</sup>   | <sup>2</sup>   |
| - <i>Side and Rear</i>                       |  |  |
| - Adjacent to EC, I, ICA-LDA, & ICA          | 15 feet  | <sup>2</sup>   |
| - Adjacent to AZD, RCD, CC, C, CCA, & M      | 40 feet <sup>4</sup>   | <sup>2</sup>   |
| - Adjacent to RC, RR, CAR, CR, V, IV, & IVCA | 100 feet <sup>4</sup>  | <sup>2</sup>   |
| - Adjacent to public road                    | 100 feet <sup>3</sup>  | 100 feet <sup>3</sup>  |
| - Waterfront                                 | Minimum 100 ft. <i>buffer</i> or <i>modified buffer</i> <sup>5</sup> | Minimum 100 ft. <i>buffer</i> or <i>modified buffer</i> <sup>5</sup> |
| - <i>Shoreline cliff</i>                     | 1.5 x <i>cliff height</i> +20 ft.                                    | 1.5 x <i>cliff height</i> +20 ft.                                    |
| Height <sup>6</sup>                          |  |  |
| - Industrial <i>structure</i>                | 45 feet  | 45 feet  |
| - Residential <i>structure</i>               | 35 feet  | 35 feet  |
| - Fence <sup>7</sup>                         |  |  |
| - Security                                   | 8 feet   | 8 feet   |
| - Ornamental                                 |  |  |
| <i>Front and Side</i>                        | 4 feet   | 4 feet   |
| <i>Rear</i>                                  | 8 feet   | 8 feet   |
| Maximum building footprint                   |  |  |
| - Distribution Center                        | 75,000 sq. ft.   | 75,000 sq. ft.   |
| - Other industrial <i>buildings</i>          | 250,000 sq. ft.  | 250,000 sq. ft.  |

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<sup>1</sup> *Intrafamily transfers* only.

<sup>2</sup> As approved during *subdivision* review.

<sup>3</sup> May be reduced or increased during *site* plan review.

<sup>4</sup> When a side or rear lot line coincides with a side or rear lot line of a property located in a non-industrial zone, the required yard shall be landscaped and screened and shall be unoccupied by buildings, *structures*, or parking area.

<sup>5</sup> *Buffers* in designated areas may be modified according to the standards found in Article V, Section 17.7.B.4

<sup>6</sup> Additional height restrictions apply to properties in the *Airport Safety Zone*.

<sup>7</sup> Fences do not need to meet yard requirements.

## 17.5 INDUSTRIAL - CRITICAL AREA PERFORMANCE STANDARDS

Any industrial use established after August 1, 1989 shall be operated so as to meet the performance standards established hereinafter. Any use already established on August 1, 1989 shall be permitted to continue provided that no *alteration*, expansion, enlargement, or modification shall be permitted which effectively increases the degree of nonconformity which existed prior to any *alteration*, expansion, enlargement, or modification. An application to alter, expand, enlarge, or modify an existing use which does not meet the performance standards shall include a statement identifying measures proposed to bring the use into conformity with the performance standards.

Points of measurement to determine compliance with the performance standards shall be the property *lot line* or zoning line nearest the source that is the subject of measurement.

1. NOISE - All sources of noise (except those not under direct control of occupant of use, such as vehicles), must not create sound or impact noise levels in excess of the values specified below when measured at the points indicated. In addition, between 7:00 P.M. and 7:00 A.M., the permissible sound levels at a residential district boundary where adjoining Industrial Districts, shall be reduced by five decibels in each octave band and in the overall band for impact noises.

### Method of Measurement and Meaning of Terms:

Noise shall be measured by means of a sound level meter and octave band analyzer, calibrated in decibels (re 0.0002 microbar) and shall be measured at the nearest *lot line* from which the noise level radiates. Impact noises shall be measured by means of an impact noise analyzer. Impact noises are those whose peak values fluctuate more than six decibels from the steady values indicated on the sound level meter set at fast response.

Decibel - A measurement of the intensity (volume) of a sound.

Octave band - A prescribed interval of sound frequencies which classifies sound according to its pitch.

Preferred frequency octave bands - A stigmatized series of octave bands prescribed by the American Standards Association in Sel. 6-1970 Preferred Frequencies for Acoustical Measurements.

Sound level meter - An electronic instrument which includes a microphone, an amplifier, and an output meter which measures noise and sound pressure levels in a specified manner. It may be used with the octave band analyzer that permits measuring the sound pressure level in discrete octave bands.

MAXIMUM PERMITTED SOUND LEVELS (Decibels)

| Octave band,<br>cycles/second | At residential<br>boundaries | At other <i>lot</i><br><i>lines</i> |
|-------------------------------|------------------------------|-------------------------------------|
| 31.5                          | 64                           | 72                                  |
| 63                            | 64                           | 74                                  |
| 125                           | 60                           | 70                                  |
| 250                           | 54                           | 65                                  |
| 500                           | 48                           | 59                                  |
| 1,000                         | 42                           | 55                                  |
| 2,000                         | 38                           | 51                                  |
| 4,000                         | 34                           | 47                                  |
| 8,000                         | 30                           | 44                                  |
| Overall                       | 80                           | 90                                  |

2. **VIBRATION** - The product of displacement in inches times the frequency in cycles per second of earthborn vibrations from any activity shall not exceed the values specified below when measured at the points indicated.

Method of Measurement and Meaning of Terms:

Earthborn vibrations shall be measured by means of a three component recording system, capable of measuring vibration in three mutually perpendicular directions. The displacement shall be the maximum instantaneous vector sum of the amplitude in the three directions.

Vibrations - The periodic displacement of oscillation of the earth.

MAXIMUM PERMITTED VIBRATIONS (INCHES PER SECOND)  
AREA OF MEASUREMENT

| Type of Vibrations                 | At Residential<br>Boundaries | At other <i>Lot lines</i> |
|------------------------------------|------------------------------|---------------------------|
| Continuous                         | 0.003                        | 0.015                     |
| Impulsive - 100/min or<br>less     | 0.006                        | 0.030                     |
| Less than 8 pulses per 24<br>hours | 0.015                        | 0.075                     |

3. **GLARE** - No direct or sky reflected glare, whether from flood lights or from high temperature processes such as combustion, welding or otherwise, is to be visible beyond the *lot line*, except for *signs*, parking lot lighting and other lighting permitted by this Ordinance or required by any other applicable regulation, ordinance or law.
4. **AIR POLLUTION** - The rules and *regulations* of the State of Maryland shall apply.
5. **WATER POLLUTION** - The rules and *regulations* of the State of Maryland shall apply.
6. **RADIOACTIVITY** - There shall be no radioactive emission which would be dangerous to the health and safety of persons on or beyond the *premises* where such radioactive material is used. Determination of existence of such danger and the handling of radioactive materials, the discharge of such materials into the atmosphere and streams or other water, and the disposal of

radioactive wastes shall be by reference to and in accordance with applicable current *regulations* of the governments of the United States and Maryland.

7. ELECTRICAL INTERFERENCE - There shall be no electrical disturbance emanating from any *lot* which would adversely affect the operation of any equipment on any other *lot* or *premises*.
8. SMOKE AND PARTICULATE MATTER LIMITATIONS -
  - a. General Limitations - In addition to the performance standard specified hereinafter, the emission of smoke or particulate matter in such manner or quantity as to be detrimental to or endanger the public health, safety, comfort, or welfare is hereby declared to be a public nuisance and shall henceforth be unlawful.

Particulate matter emission caused by the wind from open storage areas, *yards*, *roads*, etc., within *lot lines* shall be kept to a minimum by appropriate landscaping, paving, wetting, or other means.

For the purposes of determining the density or equivalent opacity of smoke, the Ringelmann Chart as adopted and published by the United States Bureau of Mines in Circular No. 8333 (7718) shall be employed.
  - b. Permitted Smoke Emission - Within 1,000 feet of a residence or commercial zoning district boundary line, the emission of visible smoke from any vent, stack, chimney, or combustion process, darker than Ringelmann No.2 for a period or periods aggregating more than 4 minutes in any 60 minute period shall not be permitted.
9. TOXIC MATTER LIMITATIONS - In any Industrial District, toxic materials which are released shall not exceed 10% of the maximum permissible airborne concentration allowed an industrial worker when measured at any point beyond the *lot line*, either at ground level or habitable elevation, whichever is more restrictive. When maximum permissible airborne concentrations of toxic materials allowed an industrial worker are not contained in the most recent list of Threshold Limit Values published by the American Conference of Governmental Industrial Hygienists, the applicant shall satisfy the County *Health Officer* that proposed levels will be safe to the general population.
10. ODOROUS MATTER LIMITATIONS - The release of odorous matter from any Industrial District across residential or commercial district boundary lines shall be so controlled that at ground level or at habitable elevations the concentration shall not exceed the odor threshold lines. Further, the release of odorous matter across *lot lines* shall not become a nuisance or source of discomfort to neighboring uses. As a guide in determining qualities of offensive odors, Table III (Odor Thresholds), Chapter 5, "Air Pollution Abatement Manual," by Manufacturing Chemists Association, Inc. (as amended) may be used.
11. CERTIFIED *ENGINEER'S* REPORT SUBMITTAL - The applicant for a *grading* permit, *sediment control permit*, or building permit for uses in an Industrial District, or applicants for *variances* to the district shall be required to submit proof that the uses proposed will not cause violations of Federal, State or County laws or *regulations*. For industrial uses which will produce emissions of pollutants to the waters or air of the County, this proof shall include measurements of the ambient water and air quality as well as documentation in the form of figures that the additional planned and proposed industrial use will not cause the violation of either ambient or source standards outlined by the laws and *regulations* of the Federal, State, or County governments.

Each future occupant of an industrial character shall submit to the County as a part of final *site development* plan approval, a certified *engineer's* report describing: the proposed operation, all

machines, processes, products and by-products, stating the nature and expected levels of emission or discharge to land, air, water or liquid, solid, or gaseous effluent and electrical impulses, vibrations and noise under normal operations and the specifications or treatment methods and mechanisms to be used to control such emission or discharge.

Existing industrial uses shall be permitted to continue and to expand, enlarge or modify provided that the industry continues to comply with the performance standards. Existing industrial uses that do not conform to the performance standards shall be permitted to expand, modify, or enlarge provided the expansion, modification, or enlargement does not increase the degree of nonconformance and that the applicant submits a statement that identifies measures to bring the industry into compliance. When the *Planning Commission* finds that an existing industry is not making a good faith effort to comply with the performance standards, the *Planning Commission* may deny an application for expansion, modification, or enlargement and may initiate an enforcement action.

#### 17.6 INDUSTRIAL - CRITICAL AREA GENERAL STANDARDS

1. As a part of the *site plan* review, the applicant shall submit a statement that includes an explanation of the following:
  - a. The type of raw materials, waste products, and other byproducts associated with the process.
  - b. The identity of all chemicals and solids to be discharged into the sewage system.
  - c. The type and amount of traffic expected to be generated by the operation.
  - d. The proposed hours of operation.
  - e. The proposed architectural design (graphic or narrative) of all *structures*.
2. The *Planning Commission*, or where applicable the Planning Director, may require additional standards and requirements to those stated in this Article as are necessary for the protection of the environment and the health, and safety of the citizens of the County.
3. The use established shall not create or be a continuation of highway “strip” *development* with multiple access points creating highway hazards and visual clutter in so far as practical. A highway strip is two or more access points or “curb cuts” off of an existing State or County Road within 3,000 feet of each other. Any use in an industrial district shall have access at least 3,000 feet from any highway strip, in so far as possible. The *Planning Commission* may waive this requirement when the commission finds all of the following:
  - a. The proposal complies with the spirit and intent of the Land Use Ordinance and the *Comprehensive Plan*.
  - b. That the waiver will not cause a substantial detriment to adjacent or neighboring property
  - c. That the waiver will not create a safety hazard or increase traffic congestion
  - d. The waiver is the minimum necessary to relieve a practical difficulty and is not sought for reasons of convenience, profit, or caprice.
4. Central water and sewer systems may be required by the *Planning Commission* in an Industrial District. If a public system is available, use of such system shall be mandatory.
5. *Signs* in industrial area shall be permitted in accordance with the *regulations* contained in Article VI, Section 2 of this Ordinance.
6. Minimum *off-street parking* and *loading spaces* shall be required of each use in an Industrial District in accordance with the *regulations* contained in Article VI, Section 1 of this Ordinance.

7. In so far as possible, all uses shall be conducted within a completely enclosed *structure* or be completely screened. Finished or semi-finished products manufactured on the *premises* may be stored in the open if screened from the *street* and adjacent uses.
8. The Department of Planning and Zoning shall approve *street* names. A name may not be approved if it duplicates or is too similar to the name of another road in the county or incorporated towns.

#### 17.7 INDUSTRIAL - CRITICAL AREA ENVIRONMENTAL STANDARDS

The purpose of these standards is to provide for the proper stewardship of the County's natural resources. Specifically it is the overall goal of the county to maintain the quality of the County's *ecosystem* in the face of continuing activity, growth, and change.

##### A. INDUSTRIAL - CRITICAL AREA GENERAL ENVIRONMENTAL STANDARDS

1. *Development* shall minimize *adverse impacts* to *non-tidal* or *tidal wetlands*, estuaries, the Chesapeake Bay, *tributary streams*, and the natural and *riparian habitat* of these streams, habitat protection areas, or other significant habitat identified by the Department of Planning and Zoning.
2. *Development* shall minimize the removal of *natural vegetation*. Protection of remaining vegetation and replacement of removed vegetation shall be required.
3. *Development* shall minimize the effects of runoff on the existing volume of water and quality of any water body. Urban *best management practices* shall be used.
4. Whenever possible, land subject to periodic flooding, shall not be developed for any use that might involve danger to health, life, or property or aggravate floods.
5. If practicable, permeable areas shall be established in vegetation.

##### B. INDUSTRIAL - CRITICAL AREA SPECIFIC ENVIRONMENTAL STANDARDS

1. *Agriculture*  
No new agricultural land shall be created by:
  - a. Draining, filling, or diking, any *palustrine wetlands* which have a *seasonally flooded or wetter water regime* unless the impact is mitigated.
  - b. *Clearing of forest* or woodland on *soils* with a *slope* greater than 15% or on *soils* with a *K Value* greater than 0.35 and *slope* greater than 5%.
  - c. *Clearing of existing natural vegetation* within the *buffer*.
  - d. *Clearing of forest* if the *clearing* will affect water quality or habitat protection areas as designated in Article VI, Section 3.8.
2. *Anadromous fish*
  - a. Concrete riprap or other artificial surface shall not be installed on the bottom of natural streams unless it can be demonstrated that water quality and fishery habitat will be improved.
  - b. Physical alteration of a stream, including but not limited to channelization, that interferes with the movement of fish shall be prohibited

- c. The construction or placement of dams or other structures that would interfere with or prevent the movement of spawning fish or larval forms in streams shall be prohibited. Where practical, the removal of existing barriers is encouraged.
- d. Construction, repair or maintenance activities associated with bridges or other stream crossings or with utilities and roads which require disturbance to the *buffer*, or which occur in stream shall be prohibited between March 1 and May 15.

3. *Buffer*

a. *Development in the Buffer:*

- i. New *development activities*, including *structures*, *roads*, parking areas, and other *impervious surfaces*, mining, and related activities, or septic systems shall not be permitted within the minimum 100-foot *buffer*. This restriction does not apply to water-dependent facilities that meet the criteria set forth below.
- ii. New or expanded *development activities* may be permitted in the minimum 100-foot *buffer*, provided
  - a) The use is water dependent;
  - b) The project meets a recognized private right or public need;
  - c) Adverse effects on water quality and fish, plant, and *wildlife habitat* are minimized;
  - d) In so far as possible, non-water dependent *structures* or operations associated with water-dependent projects or activities are located outside the minimum 100-foot *buffer*.
- iii. Water-dependent research facilities or activities operated by State, Federal, local agencies or education facilities may be permitted in the *buffer* if non-water dependent *structures* or facilities associated with these projects are located outside the *buffer*.
- iv. Commercial water-dependent fisheries facilities including, but not limited to, *structures* for crab shedding, fish off-loading docks, shellfish culture operations, and shore based facilities for *aquaculture* operations, and *fisheries activities* may be permitted in the *buffer*.

b. Vegetation protection within the *Buffer* -

- i. *Natural vegetation* within the *buffer* shall be preserved and protected unless one of the following apply:
  - a) An approved *forest* harvesting plan is followed.
  - b) Individual trees may be cut for personal use provided this cutting does not impair the water quality or existing habitat value or other functions of the *buffer*. Trees shall be replaced on an equal basis for each *tree* cut.
  - c) Trees which are leaning over the water may be cut, but their stumps and roots shall not be disturbed.
  - d) The disturbance provides access for water-dependent facilities or shore *erosion* protection *structures*.
  - e) Landowners may treat trees and shrubs to maintain or improve their health.
- ii. Vegetation in the *buffer* removed for the reasons listed above shall be reestablished over the entire disturbed area during the next planting season. These plantings shall be approved by the Department of Planning and Zoning. In addition, Article VI, Section 9 of this Ordinance shall be followed exactly.
- iii. *Natural vegetation* removed for an approved purpose shall be in accord with an approved *buffer* management plan.

- c. Stream Protection
 

*Development activities* that must cross or affect streams shall be designed to:

    - i. Reduce increases in flood frequency and severity that are attributable to development.
    - ii. Retain tree canopy so as to maintain stream water temperature within normal variation.
    - iii. Provide a natural substrate for stream beds.
    - iv. Minimize adverse water quality and quantity impacts of stormwater.
4. *Modified Buffer*
- a. *Development in the Modified Buffer*
    - i. No new *development* shall encroach within 25 feet of mean high tide or 25 feet of the edge of a *tidal wetland*. Expansion to the side or rear but not to closer to the water may be permitted as long as the expansion is designed and located to maximize the distance from the shoreline or to enhance or protect the environmentally sensitive features on the *site*.
    - ii. An area of existing *impervious surface on-site* equal to or greater than the area of new *development* shall be removed and revegetated, or
    - iii. A *forest buffer* will be planted *on-site* equal to three times the amount of newly developed *impervious surface* within the minimum 100-foot *buffer* (equal areas to be planted for other disturbance outside of the minimum 100-foot *buffer*); if there is not enough available space on the *lot* to create a *buffer*, the property owner must plant the required amounts *on-site* outside the *buffer*, *off-site*, or must pay a fee-in-lieu.
  - b. Vegetative Protection within the *Modified Buffer*

*Natural vegetation* within the *modified buffer* shall be preserved and protected unless one of the following apply:

    - i. Individual trees may be cut for personal use provided this cutting does not impair the water quality or existing habitat value or other functions of the *buffer*. Trees shall be replaced on an equal basis for each *tree* cut.
    - ii. Trees which are leaning over the water may be cut, but their stumps and roots shall not be disturbed.
    - iii. The disturbance provides access for water-dependent facilities or shore *erosion* protection *structures*.
    - iv. Landowners may treat trees and shrubs to maintain or improve their health.
5. *Forest*
- a. A forestry management plan prepared by a registered forester and approved by the Maryland Department of Natural Resources shall be required when developing forested lands.
  - b. *Forest* shall be replaced on an acre by acre basis, but no more than 20% of any *forest* or *developed woodlands* shall be removed unless by prior agreement with the *Planning Commission*, the *developer* agrees to afforest on the following basis: a *developer* may clear or develop more *forest* that otherwise may be permitted if the total *forest* removed is not increased by more than 50% of the area permitted to be disturbed provided that the afforested area consists of 1.5 times the total surface acreage of the disturbed *forest* or *developed woodlands* or both. For example, in a 100-acre woodland, up to 30 acres may be cleared if the *developer* agrees to afforest (not necessarily on his own property) 45 acres of currently unforested land.
  - c. Replacement trees shall be of a species similar to that which was removed or a species appropriate to the replanting *site*.

- d. *Forest or developed woodlands* that remain after an approved removal shall be maintained through recorded restrictive covenants, *easements*, or similar instruments.
  - e. *Forest* cleared prior to obtaining a *grading* permit or that exceeds the maximum area allowed shall be replanted at three times the acreage of the cleared *forest*.
  - f. If the acreage of the *site* limits the application of *reforestation* requirements *forest* may be created on other lands in the *Critical Area* including County lands, or a fee in an amount determined by the Maryland Department of Natural Resources to be the equivalent to the value of the required *forest* may be paid to the County Commissioners of Kent County. These funds shall be placed in a dedicated fund used to ensure the restoration or establishment of an equivalent *forest* area, in the *Critical Area* or riparian areas.
  - g. After *development*, the *site* shall be planted to provide a *forest or developed woodlands* cover of at least 15%.
6. *Forest Interior Dwelling Birds*
- a. Existing riparian *forest* of 300 x 300 feet or more and *forest* areas used by *forest interior dwelling birds* and other wildlife species shall be managed according to the guidelines developed by the Maryland Department of Natural Resources and the Chesapeake Bay Critical Area Commission.
  - b. A *site* survey for *forest interior dwelling birds* shall be conducted prior to any *development* or agricultural expansion on deciduous *forest* of at least 100 acres or 300 x 300 foot riparian deciduous *forest*. The Planning Director may waive a *site* survey for *forest interior dwelling birds* provided the *forest* is managed for all *forest interior dwelling bird* species. Cutting and building shall be restricted to safe times (not during nesting - see Article VI, Section 3.9 of this Ordinance).
7. *Habitat*
- a. All *roads*, bridges and utilities that must cross a Habitat Protection Area shall be located, designed, constructed, and maintained so as to provide maximum *erosion* protection and minimize negative impacts to wildlife, aquatic life and their habitats and maintain hydrologic processes and water quality. *Roads*, bridges, or utilities shall not be located in any Habitat Protection Area unless no feasible alternative exists.
  - b. During and after *development* in forested areas, corridors of existing *forest* or woodland vegetation shall be maintained to provide effective connections between *wildlife habitat* areas.
  - c. New water-dependent facilities shall be located so as to prevent disturbance to *sites* of significance to wildlife such as historic aquatic staging and concentration areas for *waterfowl*, shellfish beds, finfish nursery areas, and submerged aquatic vegetation beds.
8. *Natural heritage areas* and locations considered for Areas of Critical State Concern  
These areas of local significance shall be preserved whenever possible in accordance with the recommendations of the Department of Natural Resources. These areas are identified in Article VI, Section 3.8 of this Ordinance.
9. *Non-tidal wetlands*  
*Non-tidal wetlands* shall be protected according to the *regulations* of the State of Maryland, Army Corps of Engineers, United States Fish and Wildlife Service, Environmental Protection Agency and all other applicable State and Federal *regulations*.
10. *Slopes*  
*Development* on *slopes* greater than 15%, as measured before development, shall be prohibited unless the project is the only effective way to maintain or improve the stability of the land.

11. *Stormwater Management*

No person shall develop any land for residential, commercial, industrial, or institutional uses or redevelop land without having provided for appropriate *stormwater management* measures that control or manage runoff from such developments except as provided in Article VI, Section 10 of this Ordinance. *Stormwater Management* shall be accomplished for all new *development* or *redevelopment* in accordance with the provisions of Article VI, Section 10 of this Ordinance.
12. Threatened and Endangered Species and Species in Need of Conservation
  - a. Any *development* shall include a statement on the type and location of any threatened or *endangered species* or *species in need of conservation* on the property, and any recommendation for maintaining and protecting that habitat from the Department of Natural Resources.
  - b. Threatened or *endangered species* and *species in need of conservation* shall be checked and noted by the *developer* before any approvals can be granted by the Planning Director, *Planning Commission*, or Zoning Administrator.
  - c. The Federal or State guidelines (which ever is stricter) for habitat protection shall be followed during *development*. Plans shall include provisions for the continuance of the habitat protection after *development*. This can include *conservation easements*, cooperative agreements, special provisions in *forest management* and *soil* conservation plans, and donation to a third party.
13. Timber Harvest
  - a. *Forest management plans* shall be required for all timber harvest occurring within any one-year interval and which affect one or more acres in *forest* or *developed woodlands* in the *Critical Area*. The plans shall be prepared by a registered professional forester and be reviewed and approved by the Maryland Forest, Park, and Wildlife Service through the District Forestry Boards and the project forester. Plans shall be filed with the department of Planning and Zoning. Plans shall include measures to protect surface and ground water quality and identify whether the activities will disturb or affect Habitat Protection Areas as set forth in the Land Use Ordinance or identified on the Habitat Protection Areas Map.
  - b. Plans shall include protective measures for Habitat Protection Areas and shall provide for the continuity of habitat. The plans shall address mitigation through *forest management* techniques which include scheduling size, timing, and intensity of harvest cuts, *afforestation* and *reforestation*.
  - c. The cutting and *clearing* of trees within the minimum 100-foot *buffer* is permitted provided:
    - i. Existing riparian *forest* of 300 x 300 feet or more and *forest* areas used by *forest interior dwelling birds* and other wildlife species shall be managed according to the guidelines in Article VI, Section 3.
    - ii. When timber harvesting is being considered, a *site* survey for *forest interior dwelling birds* shall be done. Cutting and building shall be restricted to safe times (not during nesting – See Article VI, Section 3.9 of this Ordinance).
    - iii. During timber harvest in corridors of existing *forest* or woodlands, vegetation shall be maintained to provide effective connections between *wildlife habitat* area.
    - iv. Commercial harvesting by *selection* or by *clear-cutting* of Loblolly Pine and Tulip Popular may be permitted to within 50 feet of the landward edge of the *mean high water line* of tidal water and *perennial streams* or the edge of *tidal wetlands* provided that the cutting does not occur in the Habitat Protection Areas

and the cutting is conducted pursuant to the requirements of the Kent County Grading and Sediment Control Ordinance and the *non-tidal wetlands* requirements of this Ordinance, and in conformance with a *buffer* management plan prepared by a registered professional forester and approved by the Department of Natural Resources. The plan shall be required for all commercial harvest within the minimum 100-foot *buffer* regardless of the size of the area to be cut and shall contain the following minimum requirements:

- a) That disturbance to stream banks and shorelines shall be avoided;
- b) That the area to be disturbed or cut shall be replanted or allowed to regenerate in a manner that assures the availability of cover and breeding *sites* for wildlife and reestablishes the *wildlife corridor* function of the *buffer*.
- c) That the cutting does not involve the creation of logging *roads* and skid trails within the minimum 100-foot *buffer*.

Commercial harvesting of trees by any method may be permitted to the edge of the *intermittent streams* if the cutting and removal is done in accordance with a *Buffer Management Plan* approved by the Department of Natural Resources, Bay Watershed Forester.

14. Water Quality

New *development* and *redevelopment* shall reduce pollutant loadings coming off the *site* by at least 10%. Pollutant loads shall be calculated in the manner developed by the Metropolitan Washington Council of Governments using phosphorous as the keystone element. All *sites* shall comply with the *stormwater management* qualitative control measures found in Article VI, Section 10 of this Ordinance.

15. Wildlife Corridors

Developments shall incorporate a wildlife corridor system that connects the largest undeveloped or most vegetated tracts of land within and adjacent to the site in order to provide continuity of existing wildlife and plant habitats with offsite habitats. Plans shall include provisions for the continuance and maintenance of the wildlife corridors. This can include conservation easements, cooperative agreements, special provisions in forest management and soil conservation plans, and donation to a third party.

17.8 INDUSTRIAL CRITICAL AREA DISTRICT DESIGN STANDARDS

The purpose of these standards is to give a sense of the physical aspects of the County's environment to those contemplating new *development* in the community. Pertinent to this physical appearance is the design of the *site*, *buildings* and *structures*, plantings, *signs*, *street* hardware, and miscellaneous other objects that the public observes.

These standards are not intended to restrict imagination, innovation, or variety, but rather assist in focusing on design principals which can produce creative solutions that will develop a satisfactory visual appearance within the County, preserve taxable values, and promote the public health, safety, and welfare.

A. INDUSTRIAL CRITICAL AREA GENERAL DESIGN STANDARDS

1. The landscape shall be preserved in its natural state, in so far as possible, by leaving the most sensitive area of the *site* intact and by minimizing *tree* and *soil* removal. Any grade changes shall be in keeping with the general appearance of the neighboring developed areas. Whenever possible, *development* shall be located outside the *floodplain*.
2. Each unit of *development*, as well as the total *development*, shall create an environment of desirability and stability. Every *structure*, when completed and in place, shall have a finished appearance.

B. INDUSTRIAL CRITICAL AREA SPECIFIC DESIGN STANDARDS

1. *Site Access*

*Site* access shall be subject to the following *regulations* to help ensure safety and alleviate traffic congestion:

- a. Where property abuts a *primary*, *secondary*, or a *collector road*, access to the property shall be by way of the *secondary* or *collector road*. Exceptions to this rule shall be instances where the *Planning Commission*, or where applicable the Planning Director, determines that direct access onto the *primary road* would promote traffic safety.
- b. Where one or more contiguous parcels abutting a *primary road* are under single ownership and any one of the parcels abuts a *secondary* or *collector road*, access to the property shall be by of the *secondary road*. Exceptions to this rule shall be instances where the *Planning Commission*, or where applicable the Planning Director, determines that direct access onto the *primary road* would promote traffic safety.
- c. Only one direct approach onto a *primary road* from an individual parcel of record as of August 1, 1989 shall be permitted unless the *Planning Commission*, or where applicable the Planning Director, finds one of the following:
  - i. An additional entrance is significantly beneficial to the safety and operation of the highway.
  - ii. One entrance is a safety hazard or will increase traffic congestion.
  - iii. The property is bisected by *steep slopes*, bodies of water, or other topographic feature so as to render some portion of the property inaccessible without additional road access.
- d. Where a proposed road is designated on an approved County or Town map, *site plans* for *development* adjacent to the designated *roadway* shall include provisions for future access to the *roadway*.
- e. Existing, planned, or platted *streets* on adjacent properties shall be continued when the *Planning Commission*, or where applicable the Planning Director determines that the continuation is necessary for safe and reasonable circulation between the properties.
- f. When deemed necessary by the *Planning Commission*, or where applicable the Planning Director, developments shall provide access to adjacent tracts not presently developed.
- g. Access shall be consolidated whenever possible.
- h. Whenever possible, *roads* shall be constructed above the elevation of the *100-year floodplain*.
- i. The applicant shall demonstrate that access to the project is adequate and the roads which will be impacted have the capacity to handle the traffic generated by the proposed project and will not endanger the safety of the general public.\*

2. *On-site Circulation*
  - a. *Sites* shall be designed to prevent awkward or dangerous vehicular flow.
  - b. *Loading* and *unloading spaces* shall not block the passage of other vehicles on the service drive or major pedestrian ways or create blind spots when trucks are loading or unloading.
  - c. *Sites* shall be designed to discourage pedestrians and vehicles from sharing the same pathways.
  - d. Safe, convenient, and centralized handicap parking shall be provided.
  - e. Trash boxes must be accessible to collection trucks when all vehicle parking spaces are filled.
  - f. Parking shall not be permitted in the required *front yard*.
  
3. *Floodplain*
  - a. In order to prevent excessive *flood* damage and to allow for the protection of the natural and beneficial *floodplain* functions, all *development*, *new construction*, and *substantial improvements* to existing *structures* in all *floodplain* zones shall comply with the requirements of Article VI, Section 7 of this Ordinance, including but not limited to the following:
    - i. Elevation of all new or substantially improved *structures*;
    - ii. Compliance with venting and other construction standards; and
    - iii. Submission and recordation, where applicable, of *Elevation Certificates*, *Non-conversion Agreements*, deed restrictions, and venting affidavits.
  - b. Placement of *buildings* and materials. In general, *buildings* and *accessory structures* should be located entirely out of the *floodplain*, out of the *flood* protection setback, or on land that is least susceptible to flooding. All *structures* permitted in the *floodplain* shall be oriented so as to offer the least resistance to the flow of floodwaters.
  - c. General *development* shall not occur in the *floodplain* where alternative locations exist. Before a permit is issued, the applicant shall demonstrate that new *structures* cannot be located out of the *floodplain* and that encroachments onto the *floodplain* are minimized.
  
4. *General Landscape Requirements*
  - a. The *front yard* shall be landscaped and shall be maintained in a neat and attractive condition.
  - b. *Sites* shall be permanently maintained in good condition with at least the same quality and quantity of landscaping as originally proposed.
  - c. The *landscape plan* shall be prepared by a registered professional forester, landscape architect, or other professional with equivalent experience and qualifications.
  - d. The *Planning Commission*, or where applicable the Planning Director, may waive the landscape requirements when it is demonstrated that the spirit and intent of the requirement is accomplished through other means or the nature of the change is one that does not require additional landscaping.
  
5. *Screening*
  - a. Screening is required to protect adjoining properties and *roadways* from noise, glare, and uses which are visually incompatible with neighboring land uses. Screening is required:
    - i. On *sites* which involve loading or unloading (including the storage of vehicles and boats), trash, or disposal areas and where accessory *buildings* and *structures* are adjacent to residential properties.
    - ii. Where exterior storage areas are visible from *roadways*, sidewalks, or nearby residential properties

- iii. When noise not typically occurring in residential areas is expected to project onto nearby properties.
- iv. To *screen* parking areas from motorists, pedestrians, and adjoining residential properties.
- v. Where the industrial district abuts a residential district or a *primary* or *secondary road*.
- vi. Where the *Planning Commission* determines that additional screening is necessary to protect properties in the area.
- b. Landscaped screens shall be designed to complement other landscaping occurring naturally on the *site*, planted previously, or approved as a part of a *site plan* review. Whenever possible, existing vegetation and landform shall be used to create screens.
- c. The *screen* shall be capable of providing year round screening.
- d. When noise is likely to be a factor, the *screen* shall be of sufficient construction to be an effective noise buffer.
- e. Screening shall consist of trees and plants and may include masonry, or wooden fencing used with or without *berms*. Screening shall consist of a functional and well-designed combination of the following:
  - i. Vegetative ground cover
  - ii. Coniferous and deciduous shrubs
    - a) Specimens of which will reach and maintain a minimum height of 5 feet of full vegetative growth
    - b) Plants which measure a minimum of 3 feet in height at the time of planting and are expected to attain a 5-foot height within 3 years.
  - iii. Coniferous and deciduous trees
 

Species and sizes of which will be chosen to best accomplish an adequate *screen* (i.e., evergreens used for visual screening, deciduous trees for seasonal screening)
- f. Natural *slopes* and existing vegetation may be substituted for some or all of the requirements above, provided that these features serve to *screen* the area from adjoining properties and *roadways*. The *Planning Commission*, or where applicable the Planning Director, shall determine the acceptability of using existing *slopes* and vegetation for this purpose. The *Planning Commission*, or where applicable the Planning Director, may waive screening where it is physically impossible to accomplish.
- g. Screening and fencing shall be maintained in at least the same quality and quantity as initially approved.

6. Lighting

- a. Lighting on the *site* shall be designed to avoid glare onto adjacent properties.
- b. Lighting on the *site* shall be sufficient to provide for the safety and security of the business, its employees, and its customers.

7. *Site Planning*

External Relationship: *Site* planning within the District shall provide protection of individual lots from adverse surrounding influences and for protection of surrounding areas from adverse influences existing within the District. In particular:

- a. Principal vehicular access points shall be designed to encourage smooth traffic flow with controlled turning movements and minimum hazards to vehicular or pedestrian traffic. Storage, turn lanes, or traffic dividers may be required by the *Planning Commission* where existing or anticipated heavy flows indicate need. In general, *streets* shall not be connected with *streets* outside the District in such a way as to encourage the use of such *streets* by substantial amounts of through traffic.

- b. *Yards, fences, walls, or vegetative screening shall be provided where needed to protect residential districts or public streets from undesirable views, lighting, noise, or other off-site influences. In particular, outdoor storage, extensive off-street parking areas, and service areas for loading and unloading vehicles, and for storage and collection of refuse and garbage shall be effectively screened.*

8. *Subdivision*

- a. *All reasonable efforts should be made to protect adjacent residential areas from potential nuisances from the industrial subdivision by providing extra depth in parcels adjacent to existing or residential development.*
- b. *Proposed street layout, blocks, and parcels shall be suitable in area and dimension for the type of development anticipated.*
- c. *The total area shall be sufficient to provide adequate space for off-street parking, loading, landscaping, and other facilities.*
- d. *The lot arrangement, design, and orientation shall be such that all lots will provide satisfactory building sites, properly related to topography and the character of surrounding development.*
- e. *Every lot shall abut upon and have access to a public road or approved private road.*
- f. *Lots adjoining major thoroughfares and railroad lines should be designed with extra depth and provision for an appropriate means of buffer or deeper building setbacks.*
- g. *Where land in a subdivision adjoins a railroad line, the street layout shall make allowance for future grade separated railroad crossings at appropriate locations by providing extra street right of way widths for such crossings and by restricting intersecting streets at locations where they would cause interference with necessary approaches to such crossings.*
- h. *Proposed streets in the subdivision shall provide for the continuation of existing, planned, or platted streets on adjacent tracts, unless such continuation shall be prevented by topography or other physical feature or unless such extension is found by the Planning Commission to be unnecessary for the coordination of development between the subdivision and such adjacent tract.*
- i. *Where the Planning Commission deems it desirable or necessary to provide access to adjacent tracts not presently subdivided, proposed streets in the subdivision shall be extended to the boundary lines with such tracts.*
- j. *Where the subdivision adjoins or embraces any part of a major thoroughfare as designated on the Kent County Major Thoroughfare Map, the layout of such subdivision shall provide for the platting and dedication of such part of the major thoroughfare in the location and at the width indicated on the major thoroughfare plan, except that the subdivider shall not be required to dedicate that part of such major thoroughfare that is in excess of eighty (80) feet in width.*
- k. *Where deemed desirable to the layout of the subdivision and adjoining area, the Planning Commission may require the platting and dedication of one or more collector streets or parts thereof, to serve the subdivision.*
- l. *Subdivisions shall be in full compliance with the provisions of this Ordinance.*
- m. *Private roads are permitted in minor subdivisions and are subject to the following conditions:*
  - i. *Each road shall serve no more than five parcels. In the event that a sixth parcel is created, the sixth parcel and all further divisions of land shall front on a public road.*
  - ii. *The subdivision shall provide a 50-foot right of way for each private road.*

- iii. The construction of all lanes and *private roads* shall adhere to the requirements established by the Kent County Department of Public Works and sediment control and *stormwater management regulations*.
- iv. The deed and contract of sale of all lots in the *subdivision* shall state: “The road is private and not the responsibility of Kent County.”
- v. The plat shall identify all *private roads* and shall state: “The road is private and not the responsibility of Kent County.”

9. Kent County *Airport* Safety Requirements

This section applies to properties that fall within the Kent County *Airport* Safety Zone as designated on the Kent County *Airport* Safety Zone Map. The Kent County *Airport* Safety Zone Map is incorporated into and made a part of this Ordinance. It is the purpose of this section to promote the public safety of the residents and visitors of Kent County by prohibiting to the extent possible, the creation or establishment of obstructions that are a hazard to air navigation.

- a. No ponds shall be constructed within 5,000 feet of the runway.
- b. No solid waste disposal *sites* shall be permitted within 5,000 feet of any publicly licensed *airport*; within the limits of the *airport* safety zone if determined to be a hazard by the FAA
- c. Developments which produce lights, illumination, or other visual hazards or which produce electronic interference with *airport*/airplane navigation signals are subject to the standards specifies in the FAA procedure manual 7400-2C.
- d. Except as otherwise provided in this Ordinance, no *structure* shall be erected, altered, or maintained and no *tree* or other vegetation shall be allowed to grow in excess of the height limitations as designated on the Kent County *Airport* Safety Zone Map.

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