

ARTICLE VII
PERFORMANCE STANDARDS AND ENVIRONMENTAL PROTECTION

700 Design of Commercial Establishments and Nonresidential Uses

It is the intent of this §700 to provide standards for the design of commercial establishments and nonresidential uses (referred to as *commercial establishments*) to assure the compatibility of the nonresidential development with the surrounding character of the Township. This shall be accomplished by:

- A. Siting buildings, parking areas and other facilities and improvements based upon the particular topography of development site;
- B. Providing safe and convenient access from the public right-of-way based on the existing area-wide traffic circulation pattern and the expected traffic generated by the proposed use;
- C. Designing parking areas to complement patterns of traffic and pedestrian flow and to provide adequate off-street parking for patrons;
- D. Maintaining to the greatest extent possible natural vegetation and provide landscaping as an integral part of the overall design of the proposed use and parking areas;
- E. Considering the impact of storm water, noise, traffic and lighting on surrounding land uses and providing buffers to minimize adverse impacts; and,

700.1 Land Development

Any proposed commercial establishment shall be considered a *land development* as defined by the Pennsylvania Municipalities Planning Code and the Subdivision and Land Development Ordinance and shall comply in all respects with all the requirements for plan submission and content for land developments contained therein, as well as the information which follows. The Township may also require any additional information, studies or reports as it deems necessary to meet the intent of this and other Township Ordinances.

- A. Location, widths, and names of all existing or prior platted streets and utility rights-of-way, parks, and other public open spaces, permanent buildings and structures, houses or permanent easements, and zoning and municipal boundary lines, within five hundred (500) feet of the tract;
- B. A traffic and pedestrian flow chart showing circulation patterns from the public right-of-way and within the confines of the shipping center.
- C. Location and dimensions of vehicular drives, entrances, exits, acceleration and deceleration lanes;
- D. Location, arrangement, and dimensions of automobile parking space, width of aisles, width of bays, angle of parking;
- E. Location, arrangement, and dimensions of truck loading and unloading spaces and docks;
- F. Location and dimensions of pedestrian entrances, exits, walks;
- G. Location, height, and materials of walls, fences, screen plantings, and other landscaped areas.
- H. Preliminary drawings for all buildings;
- I. Location, size, height, and orientation of all signs other than signs flat on building facades;

700.2 Site Design Process

The applicant shall demonstrate to the Township by the submission of the necessary land development site plans, that the commercial establishment has been designed as follows:

- A. Mapping of Primary and Secondary Conservation Areas (see §601.4,D,1) to identify all areas of the site which will remain undisturbed, along with noting site development practices which will be used to assure non-disturbance.
- B. Locating the building site.
- C. Locating required buffers.
- D. Laying out street access, parking/loading areas, and other required or proposed improvements.

700.3 Ownership

The site proposed for any multiple occupant commercial establishment shall be held in single ownership or in unified control; and the applicant shall provide to the Township evidence of said ownership and/or control.

701 Performance Standards Applicable to All Uses in All Districts

The intent of this §701 is to regulate the development and operation of all development in the Township and to protect the environment and the public health, safety and general welfare. No land or building shall be used or occupied in such manner which creates any dangerous, injurious, noxious, or otherwise objectionable condition in such amount to adversely affect the surrounding area, and any such activity is hereby declared to be a public nuisance. However, any use permitted by this Ordinance may be undertaken and maintained if it conforms to all applicable requirements of this Ordinance, including the standards in this §701 which are intended to limit nuisance elements. The following performance standards shall apply to all proposed new or expanded nonresidential uses, and residential uses explicitly referenced by a specific section. The standards in this §701 shall not apply to normal agricultural uses unless explicitly referenced by a specific section.

701.1 Yards Buffers and Screening

The standards of this §701.1 shall apply to all nonresidential uses, concentrated animal feeding operations and any agricultural use which is considered a land development under the Subdivision and Land Development Ordinance. Unless otherwise regulated by this Ordinance, where a commercial or manufacturing use is proposed contiguous to any existing residential use the minimum size of the abutting yard shall be increased by fifty (50) percent and a landscaped buffer not less than fifteen (15) feet in width shall be provided in accord with this §701.1. If larger setbacks and/or buffers are required by another provision of this Ordinance, the larger shall apply. Storage of equipment, supplies, products or any other materials shall not be permitted in any front yard or side yard.

In the case of conditional uses and special exceptions, landscaped buffers and screening may be required by the Township in any yard in order to assure the protection of adjoining uses by providing visual barriers that block the glare of lights; reduce noise; serve as a protective barrier by blocking physical passage to dangerous areas; and reduce air pollution, dust and litter; and, to otherwise maintain and protect the rural character of the District.

- A. In determining the type and extent of the buffer and screening required, the Township shall take into consideration the design of the project structure(s) and site, topographic features which may provide natural buffering, existing natural vegetation, and the relationship of the proposed project to adjoining areas.
- B. The width of the required buffer, as determined by the Township, shall not be less than fifteen (15) feet.
- C. A mix of ground cover and shrubbery vegetation and canopy trees, of such variety compatible with the local climate, may be required so that a dense screen not less than six (6) feet in height will be formed within three (3) years of planting.

- D. Berms and landscaped walls or fences, compatible with the principal building design, may be incorporated in the required buffer. Front yard buffers shall be provided in the same manner to a height of not less than four (4) feet; however, all clear sight triangles shall be maintained.
- E. In any case, special consideration shall be given to existing residential uses and sites where residential uses are likely to be developed. In cases where the adjoining use is a commercial use, or when two or more adjacent properties are developed under a common site plan, the width and density of the buffer may be reduced if the Township shall determine that the proposed use and adjoining use(s) are not incompatible.
- F. Design details of buffers shall be included on the site plan, and buffers shall be considered "improvements" for the purposes of guaranteeing installation in accord with the requirements for "land developments" in the Township Subdivision and Land Development Ordinance. It shall be the responsibility of the property owner to maintain all buffers in good condition and replace any dying or dead plants or deteriorating landscape material.

701.2 Landscaping

A landscaping plan for proposed projects shall be submitted by the developer for review and approval by the Township. Landscaping shall be considered an improvement for the purposes of regulation by the Subdivision and Land Development Ordinance. The landscaping plan shall include the overall design of the landscaping proposed, the type and size of vegetation to be utilized, and details of installation. Landscaping shall be installed to the following minimum standards.

- A. All disturbed areas of the site shall be included in the landscaping plan, and those areas immediately adjacent to buildings and walkways shall be given extra consideration.
- B. Adequate pedestrian walkways shall be provided for access from parking areas and to common use areas and shall be an integral part of the landscaping; and shall be consistent with the architectural type of the project and shall be a minimum of four (4) feet in width.
- C. Plants shall be species native to Pennsylvania and of a type which are proven successful in the Township's climate.
- D. Where landscaping is required to serve as a buffer (e.g., between the project and adjoining properties or between buildings and parking areas) the plants used shall be of the evergreen type and of adequate size to provide an effective buffer within five (5) years of project approval or in accord with the time frame as may be established as a condition of approval for conditional uses, special exceptions or variances.
- E. The variety of landscape materials shall be consistent with building architecture and the surrounding area and plant type shall be appropriate for the size and location of the space it is to occupy.
- F. All areas in and around parking areas shall be landscaped.
- G. Attractive natural features of the site, including mature trees, shall be preserved to the greatest extent possible.
- H. Artificial landscape materials shall not be used in place of live trees, shrubs and vegetative ground cover.
- I. All trees to be planted shall have a trunk diameter of at least one (1) inch as measured one (1) foot above the ground.
- J. Ground cover shall be spaced to allow for complete fill-in within one (1) year of the date of planting.
- K. Adequate soil preparation in accord with accepted landscape industry practices shall be required.

- L. All landscaping shall be maintained in good growing condition by the property owner and free of weeds, debris and brush.

701.3 Operations and Storage

- A. Unless approved as a conditional use, all facilities and operations of any principal use (with the exception of nurseries, agriculture and the display for sales purposes of new or used cars, motorcycles, trucks, trailers, vehicles, or farm equipment, in operative condition or other similar uses) including the storage of raw material, finished products, fuel, machinery and equipment and any other materials or supplies shall be enclosed and carried out within a building; or shall, as required by the Township for conditional uses and special exceptions, be provided with larger setbacks and/or buffers to afford protection to adjoining uses and any public road rights-of-way.
- B. Unenclosed uses and activities shall, in any case, be a minimum of fifty (50) feet from any existing residential structure unless a greater setback is required by the Township.
- C. Storage of equipment, supplies, products or any other materials shall not be permitted in any required setback areas.

701.4 Fire and Explosion Hazards

All activities involving any manufacturing, production, storage transfer or disposal of, inflammable and explosive materials shall be provided with adequate safety devices against the hazard of fire and explosion and adequate fire-fighting and fire suppression equipment and devices standard in the industry shall be required. Burning of waste materials in open fires is prohibited. The relevant provisions of Federal, State and local laws and regulations shall also apply. Details of the potential hazards and details of planned safety and accident response actions shall be provided by the developer for review by the local fire company(s). In the case of conditional uses and special exceptions, larger setbacks, additional buffer areas or fencing may be required by the Township if the nature of the proposed use as determined by the Township so requires.

701.5 Radioactivity or Electric Disturbance

No activities shall be permitted which emit dangerous radioactivity, electrical disturbance or electromagnetic radiation adversely affecting the operation of any person or any equipment other than that of the creator of such disturbance. All applicable Federal regulations shall apply.

701.6 Noise

The standards of this §701.6 shall apply to all nonresidential uses, concentrated animal feeding operations and any agricultural use which is considered a land development under the Subdivision and Land Development Ordinance. The outdoor day-night average sound level (DNL) in decibels at the property line shall not exceed sixty-five (65) decibels. The Zoning Officer in the investigation of a violation shall initially estimate DNL using the *Walk-away Test* as described in the U.S. Department of Housing and Urban Development's 1979 Noise Assessment Guidelines. Should the test indicate a DNL exceeding sixty-five (65) decibels the Officer shall notify the owner and any aggrieved party of his findings and the potential violation. He shall also recommend appropriate abatement measures. Should a subsequent investigation still indicate a problem the officer shall determine such average sound level by taking no less than three measurements with a decibel meter, all of which shall occur within seventy-two (72) hours but no less than fifteen (15) minutes apart.

701.7 Vibration

No vibration shall be permitted which is detectable without instruments at or beyond the property line; and no use shall generate any vibration which is capable of causing damage to buildings, structures, equipment alignment, or structural soundness. This requirement shall not apply to occasional blasting conducted in accord with applicable regulations that may be necessary during construction of streets, structure and utilities.

701.8 Lighting and Glare

The standards of this §701.8 shall apply to all nonresidential and residential uses, concentrated animal feeding operations and any agricultural use which is considered a land development under the Subdivision and Land Development Ordinance. Lighting shall be controlled in both height and intensity to maintain community character; and lighting design should be an inherent part of the project design. The standards of the Illuminating Engineering Society of North America shall be used as a guideline for the said design. The applicant shall provide the specifications of the proposed lighting and its arrangement on the site; and all required lighting shall be considered improvements for the purpose of regulation by the Township Subdivision and Land Development Ordinance.

- A. Exemption - This §7.108 shall not apply to street lighting that is owned, financed or maintained by the Township or State.
- B. Areas to be Lighted - All access ways, off-street parking areas and areas of intensive pedestrian use shall be adequately lighted for safety purposes. Appropriate lighting fixtures shall be provided for walkways and to identify steps, ramps, and directional signs.
- C. Shielding - No light source shall be exposed to the eye except those covered by globes or diffusers so that the lights are fully shielded to project the light below the horizontal plane of the lowest point of the fixture. Other lighting shall be indirect or surrounded by a shade to hide visibility of the light source.
- D. Glare - No direct or sky-reflected glare, whether from overhead lighting, floodlights or from high-temperature processes such as combustion or welding or otherwise, shall be permitted.
- E. Nuisances - The intensity, height and shielding of lighting shall provide for adequate and proper safety, and shall not be a nuisance or hazard to drivers and residents of the Township.
- F. Height - The maximum height of light standards shall not exceed the maximum building height of the district but in no case greater than thirty-five (35) feet. This limitation shall not apply to lights needed for air safety.
- G. Flashing - Flashing, flickering or strobe lights are prohibited, except for non-advertising seasonal lights between October 25th and January 10th.

701.9 Smoke

No emission of smoke shall be permitted from any chimney or otherwise except in full compliance with PA Department of Environmental Protection requirements.

701.10 Odors

The standards of this §701.10 shall apply to all nonresidential and residential uses, concentrated animal feeding operations and any agricultural use which is considered a land development under the Subdivision and Land Development Ordinance. No emission shall be permitted of odorous gases or other odorous matter except in full compliance with PA Department of Environmental Protection requirements. Because the Township is a rural/agricultural area with many farms, the spreading of manure, shall not be considered an offensive odor and shall be exempt from this §701.10; however, this exemption shall not apply to sewage sludge and concentrated animal feeding operations.

701.11 Other Forms of Air Pollution

No emission of fly ash, dust, fumes, vapors, gases and other forms of air pollution shall be permitted except in full compliance with PA Department of Environmental Protection requirements..

701.12 Surface and Ground Water Protection

All activities involving the possible contamination of surface or ground water shall be provided with adequate safety devices to prevent such contamination. In cases where any earth disturbance will result in the excavation of bedrock,

the Township may require the applicant to submit a report from a qualified engineer or geologist detailing the geologic structure of the area proposed to be disturbed and identifying the probable impacts on groundwater supply and quality. Details of the potential hazards (including the groundwater characteristics of the area in which the use is proposed) and details of planned safety devices and contamination response actions shall be provided by the developer. The Township may require a plan to be submitted for review and approval and may require security for insuring contamination response. Monitoring wells and water quality testing may also be required by the Township. The developer shall also provide details about the use of ground water and any processes that could result in the depletion of ground water supplies. No use shall be permitted which would result in the depletion of ground water supplies. In cases where the use is of such a nature that large volumes of ground water are required the developer shall provide appropriate hydro-geologic studies which clearly establish that the proposed use will not cause a reduction in the quantity or the quality of ground water supplies available to other properties located within one-thousand (1,000) feet of any portion of the property where the proposed use will be located.

701.13 Storm Water Management and Soil Erosion Control

The standards of this §701.13 shall apply to all nonresidential and residential uses, concentrated animal feeding operations and any agricultural use which is considered a land development under the Subdivision and Land Development Ordinance. A storm water management plan and soil erosion and sedimentation control plan shall be prepared and implemented pursuant to the standards contained in the Subdivision Ordinance, other applicable Township regulations, County Conservation District, and DEP standards, and shall be based on generally accepted engineering principles appropriate for the proposed use. Infiltration and the protection of the quality of ground water and surface water shall be an integral part of all proposed storm water management practices. The plan shall provide for the minimization of the discharge of "first flush" sediments off the project site or directly to infiltration structures. Containment of "first flush" sediments shall be accomplished by accepted and proven engineering design and practice, including but not limited to the use of grass buffer/filter strips, grass swales, detention basins, sediment traps, and special inlet devices. County Conservation District approval of the soil erosion and sedimentation control plan shall be required.

In any area of the Township where a storm water management plan has been prepared and adopted in accord with the Pennsylvania Storm Water Management Act, the provisions of any applicable storm water control ordinance shall apply.

701.14 Waste Materials

The standards of this §701.14 shall apply to all nonresidential uses, concentrated animal feeding operations and any agricultural use which is considered a land development under the Subdivision and Land Development Ordinance. No liquid, solid, toxic or hazardous waste shall be stored or disposed in any commercial area, either above or below ground level, except for the temporary storage thereof pending removal from the premises. Such temporary storage and handling of waste shall be in a designated area and shall be conducted in compliance with all applicable state and federal regulations in order to prevent any water, soil or air contamination and shall be screened from view of adjoining properties and any public road right-of-way by fencing or other buffers. In addition, no waste discharge is permitted into any reservoir, sewage or storm water disposal system, stream, open body of water or onto the ground. All waste materials shall be disposed of only in accord with all applicable state and federal regulations and applications for any use which results in waste materials regulated by the state or federal government shall include a list of all such wastes and the method of temporary storage, handling and disposal.

701.15 Handicapped Access

Access for handicapped persons to all uses shall be provided in accord with all applicable state and federal requirements.

701.16 Settling and/or Storage Ponds and Reservoirs

All ponds, reservoirs or other such storage facilities which are associated with any manufacturing or industrial process, or any sewage or waste disposal process shall be fenced or shall otherwise be physically controlled to prevent access by the public. Said fence shall be not less than four (4) feet high and of a design to restrict access to the area

to be controlled. Any such facility which contains any material which is poisonous, toxic or caustic, shall be considered a conditional use, and the Board of Supervisors shall, at a minimum, require that such structure be enclosed by a chain link fence not less than eight (8) feet high.

701.17 Reserved

701.18 Water Supply

All uses shall be provided with an adequate and safe water supply, as demonstrated by evidence to be provided by the applicant, documenting that the siting, density, and design of all proposed residential, commercial, industrial and other developments or uses will assure the availability of reliable, safe and adequate water supplies to support the proposed land use(s) within the capacity of available water resources.

701.19 Sewage Disposal

Sewage disposal shall be provided by a system meeting the needs of the proposed use and the requirements of the Township and the Pennsylvania Department of Environmental Protection. Discharge to such system shall be limited to normal, domestic and human bodily wastes unless the treatment system has been specifically designed to handle other wastes or the wastes are pre-treated in accord with Pennsylvania Department of Environmental Protection or local sewer authority requirements. No discharge of wastes, by-products or materials in any way associated with a production process, health care or veterinary facility medical wastes, funeral home wastes, or other commercial wastes shall be permitted to any subsurface, land application or other soil based sewage disposal system.

701.20 Other Regulations

The Zoning Officer, Planning Commission, Board of Supervisors or the Zoning Hearing Board, as the case may be may require documentation from the Applicant demonstrating that the project complies with all other applicable local, state and federal regulations, and said proposal has obtained all required permits, certifications and authorizations, including, but not limited to, the PA Department of Transportation, the PA Department of Environmental Protection the PA Department of Labor and Industry, the Federal Emergency Management Agency and the U.S. Environmental Protection Agency.

702 Placement and Screening of Waste Containers

702.1 Screening

All trash dumpsters shall be screened to a height of not less than eight (8) feet on all sides as needed to screen the dumpster from view from public streets or dwellings on abutting lots. A solid wooden fence, brick wall, evergreen plants or structure designed to be architecturally compatible with the principal building shall be used for such screening.

702.2 Setback from Dwellings

Any solid waste container with a capacity over fifteen (15) cubic feet shall be kept a minimum of fifteen (15) feet from any property line.

702.3 Food Sales

Any use that involves the sale of ready-to-eat food for consumption outside of a building shall provide at least one (1) outdoor solid waste receptacle for customer use at a convenient location outside of the main exit door of the property. The operator of such use shall be responsible for regular emptying and maintenance of such receptacle.

702.4 Enclosed Containers

Solid waste receptacles stored outdoors shall be adequately enclosed and covered to control the attraction of rodent and insects.

703 Environmental Assessment

The intent of this §703 is to provide the identification of environmental and community effects and means of

mitigation of effects of development projects in the Township, and to determine what conditions should be required to mitigate any adverse effects of the proposed use. The Board of Supervisors, Planning Commission, or Zoning Hearing Board, as the case may be, may, based upon the nature of a project and potential effects on the Township, require the developer to prepare and submit to the Township an environmental assessment (EA) for the types of developments and uses listed below. The requirements of this §703 may also be applied to any other proposed conditional use or special exception, which for reasons of location, design, existing traffic or other community or environmental considerations, as determined by the Township, warrants the application of the study required contained herein. The Board of Supervisors, Planning Commission, or Zoning Hearing Board, as the case may be, may waive certain components of the EA should such components be deemed unnecessary for certain uses.

1. Industrial parks
2. Light manufacturing or manufacturing or industrial uses
3. Junkyards
4. Mineral extraction
5. Mineral processing
6. Agricultural products processing
7. Solid waste facilities and staging areas
8. Warehouses and trucking terminals
9. Airports
10. Any use involving the initial or cumulative disturbance of 87,120 or more square feet of soil surface areas
11. Any use involving the initial or cumulative construction, installation and/or placement of 43,560 square feet or more of buildings, structures or other impervious surface areas
12. Any use involving development in any flood plain area

703.1 Purpose of EA

The purpose of this EA is to disclose the environmental consequences of a proposed action for consideration by the Township for the determination of approval or denial of the project, and, if the project is approved, for the establishment of conditions of approval. This requirement is made in order to protect the natural environment with respect to water quality, water supply, soil erosion, pollution of all kinds, flooding and waste disposal and to preserve trees and vegetation, to protect water courses, air resources and aquifers.

703.2 Contents of EA

An EA shall include a description of the proposed use including location relationship to other projects or proposals, with adequate data and detail for the Township to assess the environmental effect. The EA shall also include a comprehensive description of the existing environment and the probable future effects of the proposal. The description shall focus on the elements of the environment most likely to be affected as well as potential regional effects and ecological interrelationships.

At a minimum, the EA shall include an analysis of the items listed below regarding the effect of the proposed use and the mitigation of any such effects; and said proposal shall comply with all other standards included in this Ordinance and other Township Ordinances:

A. Soil Types

1. U.S.D.A. Soil Types (show on map)
2. Permeability of soil on the site.
3. Rate of percolation of water through the soil for each five acres.

B. Surface Waters

1. Distance of site from nearest surface water and head waters of streams.
2. Sources of runoff water.

3. Rate of runoff from the site.
4. Destination of runoff water and method of controlling down stream effects.
5. Chemical additives to runoff water on the site.
6. Submission of an erosion and sediment control plan meeting the requirements of the PA DEP and the County Conservation District.
7. Said information shall be set forth in a storm water management plan meeting the requirements of the Township Subdivision Ordinance.

C. Ground Cover Including Vegetation and Animal Life

1. Extent of existing impervious ground cover on the site.
2. Extent of proposed impervious ground cover on the site.
3. Type and extent of existing vegetative cover on the site.
4. Extent of proposed vegetative cover on the site.
5. Type of animal life and effect on habitat.

D. Topographic and Geologic

1. Maximum existing elevation of site.
2. Minimum existing elevation of site.
3. Maximum proposed elevation of site.
4. Minimum proposed elevation of site.
5. Description of the topography of the site and any special topographic features, and any proposed changes in topography.
6. Surface and subsurface geology

E. Ground Water

1. Average depth to seasonal high water table.
2. Minimum depth to water table on site.
3. Maximum depth to water table on site.
4. Quality

F. Water Supply

1. The source and adequacy of water to be provided to the site.
2. The expected water requirements (g.p.d.) for the site.
3. The uses to which water will be put.

G. Sewage Disposal

1. Sewage disposal system (description and location on the site, of system).
2. Expected content of the sewage effluent (human waste, pesticides, detergents, oils, heavy metals, other chemical).
3. Expected daily volumes of sewage.
4. Affected sewage treatment plant's present capacity and authorized capacity.

H. Solid Waste

1. Estimated quantity of solid waste to be developed on the site during and after construction.
2. Method of disposal solid waste during and after construction.
3. Plans for recycling of solid waste during and after construction.

I. Air Quality

1. Expected changes in air quality due to activities at the site during and after construction.
2. Plans for control of emissions affecting air quality.

J. Noise

1. Noise levels, above existing levels, expected to be generated at the site, (source and magnitude), during and after construction.
2. Proposed method for control of additional noise on site during and after construction.

K. Land Use

1. Past and present use of the site with particular attention to storage or disposal of toxic or hazardous waste.
2. Adjoining land uses and character of the area.

L. Critical Effect Areas - Any area, condition, or feature which is environmentally sensitive, or which if disturbed during construction would adversely affect the environment. Critical effect areas include, but are not limited to, stream corridors, streams, wetlands, slopes greater than 15%, highly acid or highly erodible soils, areas of high water table, and mature stands of native vegetation and aquifer recharge and discharge areas

M. Historic Resources - Identification of structures or sites of historic significance and probable effect of project.

N. Transportation Network - Existing network traffic volumes and capacities and need for improvements required by the project. In the case of PennDOT roads a copy of the traffic study required by PennDOT shall be submitted and in the case of Township roads, the study shall be conducted in accord with PennDOT requirements.

O. Law Enforcement - Existing law enforcement capabilities of the Township and State; and assess the effect of the proposed development on said law enforcement agencies along with actions proposed to mitigate any burdens created by the development.

P. Community Facilities and Services - Existing community facilities and services and how the proposed use will effect those facilities and services, including projected needs for additional facilities and services.

Q. Additional Requirements - In addition to the above requirements the Planning Commission and/or Township Board of Supervisors or the Zoning Hearing Board may require such other information as may be reasonably necessary for the Township to evaluate the proposed use for its effect on the community.

703.3 Additional Considerations

The following shall also be addressed:

- A. A description of alternatives to the proposed use.
- B. A statement of any adverse effects which cannot be avoided.
- C. Environmental protection measures, procedures and schedules to minimize damage to critical effect areas during and after construction.
- D. A list of all licenses, permits and other approvals required by municipal, county or state law and the status of each.

- E. A listing of steps proposed to minimize environmental damage to the site and region during and after construction.

703.4 Qualifications

The EA shall be prepared by a professional architect, landscape architect, planner, engineer or other qualified individual whose qualifications have been previously approved by the Board of Supervisors or the Zoning Hearing Board as the case may be.

703.5 Procedures for Evaluating the EA Shall be as Follows

- A. Upon receipt of the application the Township shall forward the EA to the Township Engineer and any other Agency or firm which the Township may desire for consultation.
- B. The above mentioned Agencies shall review the applicant's EA and shall report its comments to the Planning Commission and Board of Supervisors or Zoning Hearing Board.
- C. The Planning Commission and/or Board of Supervisors or Zoning Hearing Board may require the opinion of experts in their review of the EA.
- D. Fees for the costs of such consultation as described in §§A and §§C above shall be paid by the applicant.
- E. Copies of the EA shall be on file and available for inspection in the Township office.
- F. The Planning Commission shall evaluate the proposed project and the EA and recommend action on same to the Board of Supervisors or Zoning Hearing Board.

704 Special Conservation Standards

All uses permitted by this Ordinance shall be subject to the following special conservation performance standards. The procedures and standards are as follows:

704.1 Steep Slope Areas

Steep slopes shall be defined as slopes in excess of twenty-five (25) percent. Slope shall be measured at the points where any earth will be disturbed or where structures or other improvements are proposed and the applicant shall provide documentation of slope to the satisfaction of the Township. Any use or development of such steep slope areas shall be considered a conditional use, and in reviewing applications for use of sites partially or wholly included within an area identified as steep-sloped, the Board of Supervisors and Planning Commission shall be satisfied that the following performance standards have been or will be met:

- A. An accurate map prepared by a Registered Surveyor in the Commonwealth of Pennsylvania has been submitted showing property boundaries, building and drive locations, contours at two (2) foot intervals and any areas to be graded. The proposed location of other factors shall also be shown including streams, wetlands, areas subject to landslides and extent of vegetative cover.
- B. A grading and drainage plan has been prepared showing existing and proposed ground surfaces, plans for drainage devices, plans for walls or cribbing, etc., map of the drainage area affected, computation of the amount of runoff expected, an erosion control plan and schedule for completion of work.
- C. The total amount of impervious surface that may be installed or maintained on steep slopes shall not exceed fifty (50) percent of the maximum amount of impervious surface permitted for such use on any lot in the underlying zoning district. Provision shall be made and approved by the Township Engineer for control of runoff from impervious surfaces to prevent erosion and stormwater damage to downstream properties.

- D. No finished grade where fill is used shall exceed a fifty (50) percent slope.
- E. Where fill is used to later support structures, a minimum compaction of ninety (90) percent of maximum density shall be achieved.
- F. At least fifty (50) percent of the area to be used for any building or construction purposes shall be less than fifteen (15) percent slope.
- G. Soils listed by the Natural Resource Conservation Service as highly susceptible to erosion shall be avoided.
- H. Roads and utilities shall be installed along existing contours to the greatest extent possible.
- I. Any steep slope areas also characterized by seasonal high water tables shall be avoided.
- J. Removal of, or disturbance to, existing vegetation on the site shall be minimized. The proposed impacts on existing vegetation shall be evaluated in terms of the potentially detrimental effects on slope stability, erosion potential, transpiration and recharge of stormwater, aesthetic and traditional characteristics of the landscape, and existing drainage patterns. Mitigation measures may be required by the Board as it deems appropriate.
- K. In cases where structures are proposed, the applicant shall submit plans to the Zoning Officer detailing how the limitations of slope will be mitigated by the design of the structure(s).

704.2 Buffers for Wetlands

- A. If the Township determines that wetlands may be present or may be impacted by the proposed development, the Township may require wetlands, as defined and regulated by the Pennsylvania Department of Environmental Protection, the U.S. Army Corps of Engineers and the U.S. Fish and Wildlife Service, and vernal pools to be delineated on any application proposing a new use or expanded use of land. The Township may also require a jurisdictional determination by the U.S. Army Corps of Engineers.
- B. The applicant shall be responsible for said delineation and shall warrant that said wetlands have been properly delineated
- C. A buffer of fifty (50) feet in width shall be maintained for all wetlands of one-half (0.50) acre or more in size, and twenty-five (25) feet for wetlands less than one-half (0.50) acre in size. The buffer shall be measured perpendicular to and horizontally from the edge of the delineated wetland for the required distance.
 - 1. Unpaved trails and non-clear cut forestry enterprises (e.g., selective regeneration harvest) shall be permitted in accord with this Zoning Ordinance shall be permitted.
 - 2. Vegetation shall not otherwise be disturbed except for buffer maintenance and restoration, or the correction of hazardous conditions.
 - 3. No other earth disturbance, grading, filling, buildings, structures, new construction, or development shall be permitted.
- D. If no wetlands are present, the applicant shall provide a certified statement to that effect. No development shall be undertaken by the applicant except in accord with all State and Federal wetland regulations; and the applicant shall provide to the Township evidence of such compliance.
- E. No zoning approval granted by the Township shall in any manner be construed to be an approval of compliance by the applicant with any State or Federal wetland regulations; and the Township shall have no liability or

responsibility to the applicant or any other person for compliance with said regulations.

704.3 Buffers for Lakes and Ponds

A buffer of not less than fifty (50) feet in width, measured perpendicular to and horizontally from the edge of the water body, shall be maintained from the edge of all lakes and ponds one-half (0.5) acre or more in size. The buffer for lakes and ponds less than one-half (0.5) acre in size shall be not less than twenty-five (25) feet.

- A. Unpaved trails and stormwater conveyance facilities required by the Township shall be permitted.
- B. Vegetation shall not otherwise be disturbed except for buffer maintenance and restoration, or the correction of hazardous conditions.
- C. Accessory structures, boat docks and accesses, and tree trimming for lake front views shall be permitted provided that no more than thirty-five (35) percent of the buffer area is affected.
- D. No other earth disturbance, grading, filling, buildings, structures, new construction, or development shall be permitted.

704.4 Stream Buffer

A buffer of not less than fifty (50) feet in width shall be maintained along all streams unless a larger buffer is required by floodplain regulations. The buffer shall be measured perpendicular to and horizontally from the top of bank of the stream for a distance of fifty (50) feet.

- A. Encroachments and obstructions as defined and approved by DEP, stormwater conveyance facilities required by the Township, and unpaved trails shall be permitted.
- B. Vegetation shall not otherwise be disturbed except for buffer maintenance and restoration, or the correction of hazardous conditions.
- C. No other earth disturbance, grading, filling, buildings, structures, new construction, or development shall be permitted except as permitted by the Township Floodplain Ordinance.

704.5 Floodplain

Floodplain shall be governed by the floodplain regulations contained in the Township Floodplain Ordinance.

705 Reserved

706 Property Line Buffer Areas

It is the intent of this section to preserve the rural character of the Township by requiring the conservation of trees and other vegetation, especially during the land development process, and by requiring property line buffers. This effort will also minimize the detrimental effects of soil erosion and sedimentation and storm water run-off. The Township's agricultural and other open land are vital to the rural character of the Township, which is the keystone of the local economy, and the preservation of that character will protect and promote the public welfare. This section is not intended to prescribe specific cutting practices; or to prevent or hinder any landowner from realizing financial return from the sale of trees; or to prevent or hinder commercial tree harvesters from operating in the Township. (Note: This §706 shall not apply to agricultural uses and lands owned by the Commonwealth of Pennsylvania or the Pennsylvania Game Commission, or timber harvesting conducted in accord with an approved harvesting plan and soil erosion and sedimentation control plan.

706.1 Natural Vegetation

In order to minimize soil erosion and storm water run-off, and to preserve the rural character of the Township, natural vegetation shall be maintained to the greatest extent possible.

- A. Clearing of vegetation shall be limited to those areas of the site needed for proposed and required improvements.
- B. Any part of a site where existing vegetation has been disturbed and which is not used for buildings, structures, loading or parking spaces and aisles, sidewalks, designated storage areas or other improvements, shall be provided with an all-season ground cover and shall be landscaped.
- C. In the case of conditional uses and special exceptions, additional landscaping, screening and/or buffers may be required by the Township where the same are determined by the Township as necessary to protect adjoining uses.

706.2 Buffer Areas

In addition to the requirements of §706.1, the following requirements shall apply to all parcels:

- A. A buffer shall be maintained until such time as a zoning permit is approved for the parcel and buffers are provided in accord with this Zoning Ordinance. The buffer shall not be less than seventy-five (75) feet in width and shall be maintained along all property lines and any road right-of-way. Existing vegetation in this buffer area shall not be disturbed except that trees may be harvested to the extent that the basal area of trees in the seventy-five foot buffer area shall not be reduced below fifty (50) percent of the basal area present before cutting or below sixty-five (65) square feet per acre, whichever is higher. Basal area is the area in square feet per acre occupied by tree stems at four and one-half (4.5) feet above the ground, normally measured by a calibrated prism or angle gauge.
- B. Clearing of vegetation and landscaping for a development project shall be in accord with an overall plan to be submitted with the zoning and land development plan application. Such clearing shall not be initiated until the application is approved by the Township. For the purposes of installation, landscaping shall be considered an improvement in accord with the Township Subdivision and Land Development Ordinance. The clearing and landscaping plan shall show the type and extent of existing vegetation, the area proposed for clearing and proposed landscaping.

707 Reserved

708 Traffic Impact Study (TIS)

Traffic impact studies are required for certain activities to enable the Township to assess the effect on the transportation system in and around the Township and to:

- A. Ensure that proposed uses do not adversely affect the transportation network.
- B. Identify any traffic problems associated with site access.
- C. Determine traffic problems on private, Township, County or State roads in the project traffic study area.
- D. Assist in the protection of the safety of the motoring public, air quality, and energy conservation.

708.1 TIS Requirement.

- A. Thresholds - A TIS shall be required for all residential and nonresidential proposals that are projected to generate one hundred fifty (150) or more trip-ends per project peak hour or one thousand five hundred (1,500) trip-ends or more per day based on the latest edition of *Trip Generation* published by the Institute of Transportation Engineers. A TIS shall also be required for additions to a use, changes of use and replacements of nonconforming uses that increase the total traffic (i.e., existing plus new traffic) above the peak hour or daily thresholds.
- B. Other Projects - The Board of Supervisors, Planning Commission, or Zoning Hearing Board, as the case may be, may also, based upon the nature of a project and potential impacts on the Township, require the developer

to prepare and submit to the Township a TIS for the types of developments and uses listed below. The requirements of this §708 may be applied to any other proposed conditional use or special exception, which for reasons of location, design, existing traffic or other community or environmental considerations, as determined by the Township, warrants the application of the study required contained herein in order to determine what conditions should be required to mitigate any adverse effects of the proposed use. The Board of Supervisors, Planning Commission, or Zoning Hearing Board, as the case may be, may waive certain components of the TIS should such components be deemed unnecessary for certain uses.

1. Industrial parks
2. Light manufacturing or manufacturing or industrial uses
3. Junkyards
4. Mineral extraction
5. Mineral processing
6. Agricultural products processing
7. Solid waste facilities and staging areas
8. Warehouses and trucking terminals
9. Concentrated animal feeding operations
10. Any use involving the initial or cumulative disturbance of 87,120 or more square feet of soil surface areas
11. Any use involving the initial or cumulative construction, installation and/or placement of 43,560 square feet or more of buildings, structures or other impervious surface areas

708.2 Professional Requirements

The TIS shall be prepared by a registered professional traffic engineer or transportation planner with verifiable experience in preparing such studies.

708.3 Study Methodology and Area

- A. Methodology - The TIS shall be in accord with the Institute of Transportation Engineers recommended Methodology and Pennsylvania Department of Transportation Guidelines.
- B. Study Area - The study area for the traffic study shall be based on engineering criteria and an understanding of existing traffic conditions at the site. It shall represent that area likely to be affected by the development, where highway users are likely to experience a change in the existing level of service. The study limits shall be initially agreed upon by the developer, his engineer and the Township's Engineer. The study area shall be specifically subject to the approval of the Township with the advice of the Township Engineer and/or a qualified traffic engineer.

708.4 Study Contents

The TIS shall contain the following elements:

- A. The study area boundary and identification of the roadways included within the study area.
- B. A general site description, including:
 1. Size, location, existing and proposed land uses and dwelling types, construction staging, and completion date for the proposed project.
 2. Existing land uses, approved and recorded subdivision and land developments, and subdivisions and land developments proposed but not yet approved and recorded in the study area that are agreed upon by the developer, his traffic engineer, and the Township's Engineer, as having bearing on the development's likely impact.

3. Within the study area, a description of existing roadways and intersections (geometrics and traffic signal control) as well as improvements contemplated by government agencies or private parties.
- C. An analysis of existing conditions, including:
1. Daily and Peak Hour(s) Traffic Volumes - Schematic diagrams depicting daily and peak hour(s) traffic volumes shall be presented for roadways within the study area. Turning movement and mainline volumes shall be presented for the three (3) peak hour conditions (AM, PM and site generated). However, only mainline volumes are required to reflect daily traffic volumes. The source and/or method of computation for all traffic volumes shall be included.
 2. Level of Service at Critical Points - Levels of service (A through F) for each lane group (not overall average) shall be computed and presented along with a description of typical operating conditions at each level of service.
 3. Accident Locations - A tabulation of accident locations during the most recent three-year period.
- D. An analysis of future conditions without the proposed development. The future year(s) for which projections are made will be specified by the Township and will be dependent on the timing of the proposed development. The following information shall be included:
1. Daily and Peak Hour(s) Traffic Volumes - This section shall clearly indicate the method and assumptions used to forecast future traffic volumes. Regardless of the methods and other assumptions used, no TIS shall assume less than two (2) percent per year growth in traffic levels without the proposed development unless there are particular limitations applicable to a given highway that prevent such growth from being realized (e.g., a dead-end road with no room for further development). Schematic diagrams depicting projected future daily and peak hour(s) traffic volumes shall be presented for the roadways within the study area. Projected turning movement and mainline volumes shall be presented for the three (3) peak hour conditions (AM, PM and site generated). The source and/or method of computation for all projected traffic volumes shall be included.
 2. Levels of Service at Critical Points - Levels of service (A through F) for each lane group (not overall average) shall be computed and presented along with a description of typical operating conditions at each level of service.
- E. Trip Generation - The amount of traffic generated by the site shall be presented in this section for daily and the three (3) peak hour conditions (AM, PM and site generated). The trip generation rates used in this phase of the analysis shall be justified and documented to the satisfaction of the Township. Trip Generation (latest edition) published by the Institute of Transportation Engineers shall be used unless the Township approves other studies.
- F. Trip Distribution - The direction of approach for site generated traffic shall be presented in this section for the appropriate time periods. As with all technical analysis steps, the basic method and assumptions used in this work shall be clearly stated in order that the Township can replicate these results.
- G. Traffic Assignment - This section shall describe the utilization of study area roadways by site generated traffic. The proposed traffic volumes shall then be combined with the projected future traffic volumes without the project to describe mainline and turning movement volumes for future conditions with the site developed as the applicant proposed.
- H. Analysis of Future Conditions with Development - This section shall describe the adequacy of the roadway system to accommodate future traffic with development of the site. Any unique characteristics of the site or within the study (i.e., holiday shopping) affecting traffic shall be considered. If staging of the proposed

development is anticipated, analysis for each stage of completion shall be made. The following information shall be included:

1. Daily and Peak Hour(s) Traffic Volumes - Mainline and turning movement volumes shall be presented for the highway network in the study area as well as driveways for the appropriate time periods.
 2. Levels of Service at Critical Points - Levels of service (A through F) for each lane group (not overall average) shall be computed and presented along with a description of typical operating conditions at each level of service.
 3. Effect on Highway Structure - The probable effect on the structure of the highway network shall be presented, particularly any effects associated with heavy vehicles.
- I. Recommended Improvements - If the analysis indicates that unsatisfactory levels of service (levels of service D, E or F) as described in Highway Capacity Manual (Transportation Research Board *Special Report 209* - 2000 or latest edition) will occur on study area roadways, a description of proposed improvements to remedy deficiencies shall be included in this section. Such proposals shall not include committed projects by the Township and State that have been described and analyzed as required above. The following information shall be included:
1. Proposed Recommended Improvements - Describe the location, nature and extent of proposed improvements to ensure sufficient roadway capacity. Accompanying this list of improvements shall be preliminary cost estimates.
 2. Signs - Specific recommendations shall be included for the placement of traffic control signs (e.g., stop signs, speed limit signs, no parking signs, etc.) conforming to state and Township regulations.
 3. Levels of Service at Critical Points - Levels of service (A through F) for each lane group (not overall average) shall be computed and presented along with a description of typical operating conditions at each level of service for the highway system with improvements.
 4. Highway Structure Improvements - Describe the location, nature and extent of proposed improvements to ensure the structural integrity of the roadway. Accompanying this list of improvements shall be preliminary cost estimates.
- J. Conclusion - The last section of the report shall include a clear concise description of the study findings.
- K. Implementation - All traffic improvements or improved levels of service shall be incorporated into the subdivision plan and/or land development plan and implemented and installed at applicant's expense as permitted by law.