

IOSCO TOWNSHIP ZONING
ARTICLE 6
ENVIRONMENTAL PROVISIONS

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ARTICLE 6

ENVIRONMENTAL PROVISIONS

Section 6.1 Purpose and Intent.

Environmental standards are established in order to preserve the short and long-term environmental health, safety, and quality of the Township. No parcel, lot, building or structure in any district shall be used or occupied in any manner so as to create any dangerous, injurious, noxious or otherwise objectionable element or condition so as to adversely affect the surrounding area or adjoining premises. Any use permitted by this Ordinance may be undertaken and maintained if acceptable measures and safeguards are employed to limit dangerous and objectionable elements to acceptable limits as established by the following performance standards.

Section 6.2 Landscaping, Greenbelts and Buffers, and Screening

- 6.2.1. **Intent.** The intent of this section is to promote the public health, safety, and welfare and improve the visual appearance of the Township by requiring landscaping for each development for which a site plan review is required.

It is further the intent of this section to achieve the following:

- A) Minimize noise, air, and visual pollution.
- B) Improve the overall aesthetics and appearance, divide the expanse of pavement, and define parking areas and vehicular circulation within off-street parking lots and other vehicular use areas.
- C) Require buffering of residential areas from more intense land uses and public road rights-of-way.
- D) Prevent soil erosion and soil depletion and promote sub-surface water retention.
- E) Encourage an appropriate mixture of plant material, such as evergreen and deciduous trees and shrubs, to protect against insect and disease infestation and produce a more aesthetic and cohesive design.
- F) Encourage the integration of existing woodlands in landscape plans.

G) Protect and preserve the appearance, character, and value of the community.

6.2.2. **Application of Requirements.** These requirements shall apply to all uses for which site plan review is required under Article 9.0 of this Ordinance.

No site plan, site condominium plan, or subdivision plat shall be approved unless a landscape plan is provided which meets the requirements set forth herein.

6.2.3. **Landscape Plan Requirements.** A separate detailed landscape plan shall be required to be submitted to the as part of the Township site plan review process. The landscape plan shall demonstrate that all requirements of this Section are met and shall include, but not necessarily be limited to, the following items:

- A) Location, spacing, size, and root type bare root (BR) or balled and burlapped (BB) and descriptions for each plant type proposed for use within the required landscape area.
- B) Minimum scale: 1" = 50' for property less than twenty (20) acres or 1" = 100' for property twenty (20) acres or more.
- C) On parcels of more than one (1) acre, existing and proposed contours on-site and 50 feet beyond the site at intervals not to exceed two (2) feet.
- D) Typical straight cross section including slope, height, and width of berms and type of ground cover, or height and type of construction of wall, including footings.
- E) Significant construction details to resolve specific site conditions, such as tree wells to preserve existing trees or culverts to maintain natural drainage patterns.
- F) Details in either text or drawing form to ensure proper installation and establishment of proposed plant materials.
- G) Identification of existing trees and vegetative cover to be preserved.
- H) Identification of grass and other ground cover and method of planting.
- I) Identification of landscape maintenance program including statement that all diseased, damaged, or dead materials shall be replaced in accordance with standards of this Ordinance.

- J) The Township may require a contract for maintenance of all landscape areas.

6.2.4. Landscape Standards.

A) **Installation.** All landscaping shall be installed in a manner consistent with accepted planting procedures and the approved landscape development plan. This shall include quantity, size, type and location of plantings proposed. In general, major deviations as to quality, type, size and location of plant materials from the original approved landscape development plan shall require submission and approval in the same manner as provided in this article for the original submission.

B) **Material.**

i) All plant material shall:

- a. Conform to size and description set forth in the current edition of "American Standard for Nursery Stock" sponsored by the American Association of Nurseryman, Inc., and approved by the American National Standards Institute, Inc.
- b. Be typical of their species or variety, have normal habit of growth, well branched and densely foliated when in leaf.
- c. Be of sound health and vigorous in appearance, free from disease, insect pests, eggs or larvae and shall have healthy, well developed root systems.
- d. Be chosen according to soil and environmental factors for the proposed development.

ii) Trees shall have straight trunks with leaders intact, undamaged and uncut.

iii) Lawn areas shall be planted in species of grass normally grown as permanent lawns in southeast Michigan. Grass may be sodded or seeded and mulched, except that solid sod shall be used in swales or other areas subject to erosion. Sod or seed shall be clean, free of weeds and noxious pests or disease.

iv) Ground covers used in lieu of grass in whole or part shall be planted in such a manner as to present a finished appearance and reasonably complete after one complete growing season.

- v) Hedges, where provided, shall be planted and maintained so as to form a continuous, unbroken, solid, visual screen within one full planting season. Where plants are to be used as a hedge for screening purposes, the maximum spacing will have to be determined by the plant proposed.
 - vi) Minimum sizes of plant material:
 - a. Deciduous shade trees - Deciduous trees shall have a minimum caliper of two and one-half (2.5) inches diameter at the time of planting.
 - b. Deciduous small ornamental trees - Small ornamental trees shall be a minimum of seven (7) feet in height at time of planting.
 - c. Evergreen trees - Evergreen trees shall be a minimum of six (6) feet in height at time of planting.
 - d. Shrubs - shrubs shall be a minimum of two (2) feet in height at the time of planting or two (2) feet in spread if plants are low spreading evergreens.
 - e. Vines - Vines shall be a minimum of thirty (30) inches in length after one growing season and may be used in conjunction with fences, screens, or walls to meet buffer requirements.
 - vii) Artificial plant material shall be prohibited.
 - viii) The developer, at the time of submission of the Final Site Plan Approval, shall demonstrate to the Planning Commission that adequate provisions have been made to supply water to all landscape areas. This may be accomplished by installation of an irrigation system or outside hose bibs of sufficient quantity and location to provide water for the landscape areas where specified.
- C) **Maintenance.** The owner of the property shall be responsible for all maintenance thereon. Landscaping shall be kept in neat and orderly manner, free from debris and refuse. All dead plant material shall be removed and replaced within one year after it dies.

D) **Conformance to Plan.** The approved landscape development plan shall be considered a permanent record and integral part of the Site Plan Approval. Unless otherwise approved in accordance with the aforementioned procedures, any revisions to, or removal of, plant materials will place the parcel in non-conformity with the originally approved landscape development plan and shall be viewed as a violation of this Ordinance and the agreed upon terms of the Final Site Plan Approval.

6.2.5. **Screening Between Land Uses**

For those use districts and uses listed below there shall be provided and maintained on those sides abutting or adjacent to a parcel that is in residential use, or a zoning district that permits residential uses, an obscuring wall, screening fence or landscape barrier, at the discretion of the Planning Commission, having a minimum height, as required below:

USE	REQUIREMENTS (MIN. VERTICAL HEIGHT)
OSC District or commercial use adjacent to the RC, AR, RR and PUD districts, or any parcel in residential use.	6 feet
Other institutional, non-residential, park, school, library, municipal facility, or utility buildings, sub-stations and the like adjacent to the RC, AR, and PUD district, or any parcel in residential use.	6 feet

In addition, all shall meet the following requirements:

- A) **Location.** Required walls, fence or landscape screen barrier shall be located on the lot line except where underground utilities interfere.
- B) **Opacity.** Such walls, fence or landscape barrier shall have no openings for vehicular traffic or other purposes, except as otherwise provided in this Ordinance and except such openings as may be approved by the Planning Commission. Landscape barriers shall maintain a minimum opacity of at least eighty (80) percent year round. Opacity shall be measured by observation of any two (2) square yard area of landscape screen between one (1) foot above established grade of the area to be concealed and the top or the highest point of the required screen. Opacity shall be achieved within three (3) years of the time of planting. The applicant shall agree in writing to install additional plantings after the expiration of three (3) years, in the event that the landscaping has not screened the view of areas required. This shall be determined by the zoning administrator and/or a township representative.

C) **Construction.** All walls and screen barriers herein required shall be constructed in one of the following manners, however the Planning Commission will determine when, in its opinion, a wall, screening fence, planting strip, and/or landscape berm as distinct from a wall will be required.

i) A solid wall shall be constructed of brick or poured concrete panels using a brick pattern form. The solid wall shall be located at the property line with a planting strip six (6) to eight (8) feet wide abutting the base and on the interior side of the wall. The planting strip shall have a minimum of 2.5 inches caliper deciduous shade trees planted thirty-five (35) feet on center.

ii) A screening mound or berm shall consist of the minimum specified height with a side slope no steeper than 3:1 (three (3) foot horizontal to one (1) foot vertical). The top of all berms shall have a level horizontal area of at least three (3) feet in width.

The mound or berm shall be graded in a manner that will blend with existing topography, shall be graded smooth, and shall be appropriately sodded, seeded, and mulched, or planted. Included, as part of the mound or berm shall be deciduous shade trees, small deciduous ornamental trees and/or evergreen trees planted along the berm area.

iii) Evergreen screens shall consist of six (6) foot spruce, fir or pine trees planted 10 to 15 feet on center in two staggered rows ten (10) feet apart. Arborvitae shall be planted no more than five (5) feet apart in staggered rows.

Other evergreen plant material may be considered providing that it will provide, in the opinion of the Planning Commission, the same screening effect.

D) **Deviations.** The Planning Commission may waive or modify the foregoing requirements where cause can be shown that no good purpose would be served and that the waiver or modification would neither be injurious to the surrounding neighborhood nor contrary to the spirit and purpose of this section.

6.2.6. **Parking Lot Landscaping Requirements**

- A) **Required Landscaping Within Parking Lots.** Separate landscape areas shall be provided within parking lots in accordance with the following requirement. There shall be a minimum of one (1) tree for every eight (8) parking spaces. Required trees shall be planted no further than 20 feet, but no closer than 5 feet from the parking lots edge/surface.
- B) **Required Landscaping at the Perimeter of Parking Lots.** Separate landscape areas shall be provided at the perimeter of parking lots in accordance with the following requirements:
 - i) Parking lots that are considered to be a conflicting land use with the surrounding properties shall meet the screening requirements set forth in Section 6.2.4 and 6.2.5.
 - ii) Parking lots shall be screened from view with a solid wall at least four (4) feet in height along the perimeter of those sides that are visible from a public road. The Planning Commission, at its discretion, may approve alternative landscape plantings in lieu of a wall.

6.2.7. **Greenbelts.**

A greenbelt shall be provided, and is an area established at a depth of the required front yard setback, within a zoning district and landscaped in accordance with the following requirements:

- A) The greenbelt shall be landscaped with a minimum of one (1) tree for every thirty (30) lineal feet, or fraction thereof, of frontage abutting a public road right-of-way. Non-ornamental deciduous shade trees within a greenbelt shall be a minimum caliper of two and one-half (2.5) inches or greater. Evergreen trees (spruce, fir, and pine) within a greenbelt shall be a minimum height of six (6) feet.
- B) If ornamental deciduous trees are substituted for either non-ornamental deciduous trees or evergreen trees, they shall be provided at a minimum of one (1) tree for every twenty (20) lineal feet, or fraction thereof, of frontage abutting a public road right-of-way. Ornamental deciduous trees within a greenbelt shall be a minimum caliper of two and one-half (2.5) inches or greater.
- C) In addition to the required trees within the greenbelt, the remainder of the greenbelt shall be landscaped in grass, ground cover, shrubs and other natural landscape materials.
- D) Access drives from public rights-of-way through required greenbelts shall be permitted, but such drives shall not be subtracted from the lineal dimension used to determine the minimum number of trees required.

6.2.8. Site Landscaping.

In addition to any landscape greenbelt and/or parking lot landscaping required by this section, ten (10) percent of the site area, excluding existing public rights-of-way, shall be landscaped. Such site area landscaping may include a combination of the preservation of existing tree cover, habitates, planting of new trees and plant material, grass areas and building foundation planting beds. Site area landscaping shall be provided to screen potentially objectionable site features such as, but not limited to, retention/detention ponds, transformer pads, air-conditioning units, and loading areas.

6.2.9. Subdivision and Site Condominium Landscaping. Landscaping for single-family residential subdivisions and site condominiums shall be provided in accordance with the following requirements:

- A) **Street Trees.** The frontage of all internal public or private streets shall be landscaped with a minimum of two (2) trees for every subdivision lot or condominium unit (lot) at a maximum distance of 60 feet. Such street trees shall meet the minimum size and spacing requirements set forth in Section 6.2.4.
- B) **Other Site Improvements.** A landscape plan for a subdivision or site condominium development shall also include landscaping details of the entrance to the development, storm water retention and/or detention areas, community buildings and other recreational areas, and any other site improvement which would be enhanced through the addition of landscaping.

6.2.10. Screening Storage of Trash/Materials.

The following provisions shall apply:

- A) The location or storage of materials not customarily associated with uses permitted in the district or of abandoned, discarded, unused, unusable or inoperative appliances, furniture, equipment, materials, or inoperative vehicles shall be regulated as follows:
 - i) On any lot or parcel in any agricultural, resource conservation, residential, or commercial district, the owner or tenant shall locate and store such materials within a completely enclosed building. Such storage shall not be for the purpose of hire or sale.
 - ii) This provision shall not apply to that material or equipment which the owner or tenant utilizes as a part of an agricultural activity on the lot or parcel in an agricultural district.
- B) Garbage, trash and similar refuse to be stored outside a building in all Commercial Districts shall be stored within containers which shall

themselves be stored within a screened enclosure. The enclosure shall be constructed of an opaque material, such as wood, concrete blocks, or bricks and shall be enclosed on at least three (3) sides. The fourth side may be open for access or one or more gates may provide access. The storage area shall have a concrete floor at least four (4) inches thick.

- C) Containers shall be consolidated to minimize the number of collection sites, and located so as to reasonably equalize the distance from the building they serve.
- D) Containers and enclosures shall be located away from public view insofar as possible. Permanent structures must be located at or behind the front line of the principle structure.
- E) Containers and enclosures shall be situated so that they do not cause excessive nuisance or offense to occupants of nearby buildings.
- F) Concrete pads of appropriate size and construction shall be provided for containers or groups of containers having a capacity of six 30-gallon cans or more. Aprons shall be provided for loading of bins with a capacity of 1.5 cubic yards or more.
- G) For storage of recyclable materials, the enclosure area and pad size shall be increased to amply accommodate the extra materials and their containers.
- H) Screening and gates shall be of a durable construction.

Section 6.3 Airborne Emissions.

6.3.1. **Smoke and Air Contaminants.** It shall be unlawful for any person, firm, or corporation to permit the emission of any smoke or air contaminant from any source whatsoever to a density greater than that permitted by Federal Clean Air Standards and those standards promulgated by the Michigan Department of Environmental Quality according to Act 348 of 1965, either of which act may be amended or superseded from time to time. There shall not be discharged from any source whatsoever such quantities of air contaminants or other material which cause injury, detriment or nuisance to the public or which endanger comfort, repose, health, or safety of persons or which cause injury or damage to business or property.

6.3.2. **Odors.** Any condition or operation which results in the creation of odors of such intensity and character as to be detrimental to the health and welfare of the public or which interferes unreasonably with the comfort of the public shall be removed, stopped, or so modified as to remove the odor. Certain agricultural operations may be regulated under the State of Michigan, Department of Agriculture's Generally Accepted Agricultural Management Practices (GAAMPS) .

- 6.3.3. **Gases.** The escape or emission of any gas which is injurious or destructive, harmful to person or property, or explosive shall be unlawful and shall be abated.

Section 6.4 Use, Storage and Handling of Hazardous Substance; Storage and Disposal of Solid, Liquid, and Sanitary Wastes.

- 6.4.1. It shall be unlawful for any person, firm, corporation or other legal entity to pollute, impair or destroy the air, water, soils or other natural resources within the Township through the use, storage and handling of hazardous substances and/or wastes or the storage and disposal of solid, liquid, gaseous and/or sanitary wastes.
- 6.4.2. Any person, firm, corporation or other legal entity operating a non-agriculturally related business or conducting an activity which uses, stores or generates hazardous substances shall obtain the appropriate permits and approval from the Michigan Department of Environmental Quality, Michigan Fire Marshal Division, Livingston County, Iosco Township or other designated enforcing agencies.
- 6.4.3. Any person, firm, corporation or other legal entity operating a non-agriculturally related business or conducting an activity which uses, stores or generates hazardous substances shall complete and file a Hazardous Chemicals Survey on a form supplied by the Township in conjunction with the following: HAZARDOUS SUBSTANCE REPORTING FORM or MATERIAL SAFETY DATA SHEET (MSDS).
- A) Upon submission of a site plan.
 - B) Upon any change of use or occupancy of a structure or premise.
 - C) Upon any change of the manner in which such substances are handled, and/or in the event of a change in the type of substances to be handled.
- 6.4.4. All business and facilities which use, store, or generate hazardous substances in quantities greater than 100 kilograms per month (equal to or greater than 25 gallons or 220 pounds) shall comply with the following standards:
- A) **Above-Ground Storage and Use Areas for Hazardous Substances.**
 - i) Secondary containment of hazardous substances and polluting materials shall be provided. Secondary containment shall be sufficiently impervious to contain the substance for the maximum anticipated period of time necessary for the recovery of any released substance.
 - ii) Outdoor storage of hazardous substances and polluting materials shall be prohibited except in product-tight containers which are protected from weather, leakage, accidental damage and vandalism.

- iii) Secondary containment structures such as out buildings, storage rooms, sheds and pole barns shall not have floor drains.
- iv) Areas and facilities for loading/unloading of hazardous substances and polluting materials, as well as areas where such materials are handled and used, shall be designed and constructed to prevent discharge or runoff.

B) Underground Storage Tanks.

- i) Existing and new underground storage tanks shall be registered with the authorized state agency in accordance with requirements of the U.S. Environmental Protection Agency, the State Police Fire Marshal Division, and/or any other Federal, State or local authority having jurisdiction.
- ii) Installation, operation, maintenance, closure, and removal of underground storage tanks shall be in accordance with requirements of the State Police, Fire Marshal Division and Iosco Township. Leak detection, corrosion protection, spill prevention and overflow protection requirements shall be met. Records of monthly monitoring or inventory control must be retained and available for review by state or local officials.
- iii) Out-of-service abandoned underground tanks shall be emptied and removed from the ground in accordance with the requirements of the State Police Fire Marshal Division, the Michigan Department of Environmental Quality, Iosco Township, and/or any other Federal, State or local authority having jurisdiction.

- C) Loading and Unloading Areas.** Areas used for the loading and unloading of hazardous substances shall be designed and constructed to prevent the harmful release to the environment of hazardous materials which may be spilled or leaked.

6.4.5. All site plans for business or facilities which use, store or generate hazardous substances shall be reviewed by the local Fire Chief, Township Engineer and any other appropriate experts determined necessary by the Planning Commission or Township Board prior to approval by the Township Board.

Section 6.5 Electrical Disturbance, Electromagnetic, or Radio Frequency Interference.

No use shall:

- A) Create any electrical disturbance that adversely affects any operations or equipment other than those of the creator of such disturbance.

- B) Cause, create, or contribute to the interference with electronic signals (including television and radio broadcasting transmission) to the extent that the operation of any equipment not owned by the creator of such disturbance is adversely affected.

Section 6.6 Artificial Lighting, Exterior Lighting, Glare

- 6.6.1. Glare from any process (such as or similar to arc welding or acetylene torch cutting) which emits harmful ultraviolet rays shall be performed in such a manner as not to be seen from any point beyond the property line, and as not to create a public nuisance or hazard along lot lines.
- 6.6.2. The design and/or screening of the development shall insure that glare from automobile and commercial or industrial vehicle headlights shall not be directed into any adjacent property, particularly residential property.
- 6.6.3. Exterior lighting shall be of the type designed with a shielded/downwardly directed light source, and located and maintained to prevent the reflection and glare of light in a manner which creates a nuisance or safety hazard to operators of motor vehicles, pedestrians, and neighboring land uses. This provision is not intended to apply to public street lighting.
- 6.6.4. Any operation which produces intense glare or heat shall be conducted within an enclosure so as to completely obscure and shield such operation from direct view from any point along the lot lines. If heat is a result of an industrial operation, it shall be so insulated as to not raise the temperature at any property line at any time.
- 6.6.5. Exterior doors shall be located, operated, and maintained so as to prevent any glare and light from creating a nuisance or safety hazard to operators of motor vehicles, pedestrians, and neighboring land uses.

6.6.6. On-site lighting, i.e. parking, building lights, etc. shall conform to the following regulations:

- A) It is the goal of the Township to minimize lighting levels to reduce off-site impacts, prevent the reflection and glare of light in a manner which creates a nuisance or safety hazard to operators of motor vehicles, pedestrians, and neighboring land uses, and to promote "dark skies" in keeping with the rural character of Iosco Township.
- B) When site plan review is required, all lighting, including signage and ornamental lighting, shall be shown on site plans in sufficient detail with appropriate photometric studies to allow determination of the effects of such lighting upon adjacent properties, traffic safety, and overhead sky glow. The objectives of these specific actions are to minimize undesirable on-site and off-site effects.
- C) Only non-glare, color-corrected lighting shall be permitted. For all non-residential uses, full cutoff shades are required for light sources so as to direct the light onto the site and away from adjoining properties. The light source shall be recessed into the fixture so as not to be visible from off site. Building and pole mounted fixtures shall be parallel to the ground. Wall-Pack type lighting shall be prohibited.
- D) Lighting for uses adjacent to residentially zoned or property used for residential purposes, shall be designed and maintained such that illumination levels do not exceed 0.1 foot-candles along property lines. Lighting for uses adjacent to non-residential properties shall be designed and maintained such that illumination levels do not exceed 0.3 foot-candles along property lines.
- E) Where lighting is required, maximum light levels shall not exceed 25 foot-candles directly beneath a light fixture. Lighting levels shall not exceed 3 foot-candles as measured directly between two fixtures. The Township Board, after receiving a recommendation from the Planning Commission may allow for an increased level of lighting above maximum permissible levels when the Board determines that the applicant has demonstrated that such lighting is necessary for safety and security purposes.
- F) For the purposes of this ordinance, all lighting measurements shall be taken at ground level.
- G) For parking lots of less than 100 parking spaces lighting fixtures shall not exceed a height of sixteen (16) feet measured from the ground level to the centerline of the light source. For parking lots of more than 100 spaces lighting fixtures shall not exceed a height of eighteen (18) feet measured from the ground level to the centerline of the light source.

- H) Signs shall be illuminated only in accordance with the regulations set forth in Iosco Township Zoning Article 11 - Signs. In addition, signs within residential districts shall not be illuminated between the hours of 10:00 P.M. and 6:00 A.M.
- I) Building or roof mounted lighting intended to attract attention to the building and/or use and not strictly designed for security purposes shall not be permitted.
- J) Subdivision or site condominium street lighting is not permitted. The Township Board, after receiving a recommendation from the Planning Commission may allow for street lighting when the Board determines that the applicant has demonstrated a need for such lighting.

Section 6.7 Fire Hazard.

Any activity involving the use or storage of flammable or explosive materials shall be protected by adequate fire-fighting and fire suppression equipment and such safety devices as are normally used in the handling of any such material. Such hazards shall be kept removed from adjacent activities to a distance which is compatible with the potential danger involved.

Section 6.8 Safety.

Existing hazards or potential hazards and nuisances, such as construction sites, junk yards, land fills, sanitary land fills, demolition sites, unused basements, abandoned wells or cisterns and sand, gravel, and stone pits or piles are to be enclosed by suitable fencing or barriers so as not to endanger public health, safety and welfare.

Section 6.9 Stormwater Management.

All developments that require a site plan and earth changes subject to review under the requirements of this Ordinance shall be designed, constructed, and maintained to prevent flooding and protect water quality. The particular facilities and measures required on-site shall reflect the natural features, wetlands, and watercourses on the site; the potential for on-site and off-site flooding, water pollution, and erosion; and the size of the site.

6.10.1. Stormwater Management shall comply with the following standards:

- A) The design of storm sewers, detention facilities, and other stormwater management facilities shall comply with the standards of the Livingston County Drain Commissioner's Office.
- B) The use of swales and vegetated buffer strips is encouraged in cases where the Livingston County Drain Commissioner's Office deems it to be safe and otherwise appropriate as a method of stormwater conveyance so as to decrease runoff velocity, allow for natural infiltration, allow suspended sediment particles to settle, and to remove pollutants.
- C) Alterations to natural drainage patterns shall not create flooding or water pollution for adjacent or downstream property owners.

6.10.2. **On-Site Storm Water Detention.** For the purpose of controlling drainage to off-site properties and drainage ways, all properties which are developed under this zoning ordinance, whether new or improved shall provide for on-site detention storage of storm water in accordance with the current Livingston County Drain Commissioner's standards.

Section 6.11 Floodplains

6.11.1. **Development Prohibited.** Any development requiring site plan review under any section of this Ordinance shall be prohibited within the 100 year floodplain of any existing watercourse and/or wetland.

6.11.2. **Delineation of Floodplain.** It shall be the petitioner's responsibility to delineate the 100-year floodplain boundaries on any required site plan. The flood plain area is established by the Federal Emergency Management Agency(F.E.M.A.) Where there is any uncertainty, contradiction or conflict as to the location of the floodplain boundaries, the final determination of the boundaries shall be made by the Township's Engineering Consultant

6.11.3. If the petitioner disagrees with the F.E.M.A. Flood Plain Map, the petitioner is responsible for pursuing any modification by F.E.M.A.

Section 6.12 Building Grades.

Any building requiring yard space shall be located at such an elevation that a finished grade shall be maintained to cause the flow of surface water to run away from the walls of the building. All grades shall be established and maintained so that surface water run-off damage does not occur to adjoining properties prior to, during, and after construction.

Section 6.13 Residential Trash Containment

6.13.1. Screening of Trash Containers.

- A) Trash containers stored outdoors, other than for pick up within 24hrs, shall be screened on all sides with an opaque fence, wall, or gate at least as high as the container.
- B) Containers and enclosures shall be located away from public view insofar as possible. Permanent structures must be located at or behind the front line of the principle structure.
- C) Containers and enclosures shall be situated so that they do not cause excessive nuisance or offense to occupants of nearby buildings.
- D) Screening and gates shall be of a durable construction.

Section 6.14 Protection of Groundwater.

Since there is no public water supply in the Township, the residents in this area must rely on groundwater as the source for their water. Therefore, it is of utmost concern that the quality of this water be maintained. The following provisions are intended to protect the groundwater from pollution by residential wastes and to avoid the nuisance and dangers which could result from construction of a basement in the groundwater table.

- A) Any sanitary drain field must be a height above the highest groundwater level that would be expected in a three-year period and in accordance with Livingston County Health Department standards.
- B) All basements must be at least three (3) feet above the highest groundwater level that would be expected in a 3 year period.
- C) The Zoning Administrator may require the owner of a sanitary drain field or a basement to give any information which he possesses which will enable the Zoning Administrator to determine whether the provisions of this Section are being complied with.