
ARTICLE 1343
Design Standards

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1343.01 Land Suitability

Land subject to flooding and land deemed as subject to hazards to life, health, or property, such as quarry land, open ditches, etc., shall not be subdivided for residential uses until all such hazards have been eliminated or unless adequate safeguards against such hazards are provided by the subdivision plan, or such land is set aside for such other uses as are appropriate to the existing conditions.

1343.02 General Requirements in Relation to Designated Flood Plain Districts

a.) Where not prohibited by this or any other laws or ordinances, land located in any designated flood plain district may be planned for development with the provision that the developer construct all buildings and structures to preclude flood damage in accordance with this or any other laws and ordinances regulating such development.

b.) No subdivision and/or land development, or part thereof, shall be approved if the proposed development and/or improvements will individually or collectively increase the one hundred (100) year flood elevation more than one and one-half (1-1/2) foot at any point.

c.) Building sites for residences or any other type of dwelling or accommodation shall not be permitted in any floodway area. If fill is used to raise the elevation of the site, the fill area shall extend out laterally for a distance of at least fifteen (15) feet beyond the limits of the proposed structures.

d.) Building sites for structures or buildings other than for residential uses shall also not be permitted in any floodway area. Also, such sites for structures or buildings outside the floodway shall be protected as provided in (c) above. However, the governing body may allow the subdivision and/or development of areas or sites for commercial and industrial uses at an elevation below the Regulatory Flood Elevation if the developer otherwise protects the area to that height or assures that the buildings or structures will be flood proofed at least up to that height.

e.) If the Franklin Planning and Zoning Commission determines that only a part of the proposed plan can be safely developed, it shall limit development to that part and shall require that development proceed consistent with this determination.

f.) When a developer does not intend to develop the plan himself and the Franklin Planning and Zoning Commission determines that additional controls are required to insure safe development, it may require the developer to impose appropriate deed restrictions on the land. Such deed restrictions shall be inserted in every deed and noted on every recorded plan.

1343.03 Street System

a.) Conformity with Official Maps and Plans - The arrangement, type, extent, width, grade, and location of all streets shall conform with the Official Map of the City, the Comprehensive General Plan, any Neighborhood Plan, and any other official City, Regional, County, or State Plan which has been prepared, adopted, and/or filed as prescribed by law.

b.) Continuance of Streets - Provisions shall be made for continuing or extending any existing streets of adjoining subdivisions or land where such extensions may be necessary for public service or convenience and opportunities shall be provided for extending streets beyond the boundaries of any subdivision where such extension may be required for public service or convenience.

c.) Relation to Topography and Proposed Use - Streets shall be logically related to the topography so as to produce usable lots and reasonable grades and shall be in appropriate relation to the proposed uses of the land to be served by such streets.

d.) Minor Street Location - Minor streets shall be laid out so that their use by through traffic shall be discouraged, but provisions for street connections into and from adjacent areas will generally be required.

e.) Subdivision Abuts an Arterial Street - Where a subdivision abuts or contains an existing or proposed arterial street, there may be required marginal access streets, deep lots with rear service minor streets, reversed frontage lots with screen planting contained in a nonaccessible reservation along the rear lot line, or such other treatment as shall provide protection for abutting lots, reduction in the number of intersections with arterial streets, and separation of local and through traffic.

f.) Half or Partial Streets - New half or partial streets shall not be permitted,

except where essential to the reasonable subdivision of a tract and where satisfactory assurance for dedication of the remaining part of the street can be secured. Wherever a tract to be subdivided borders an existing half or partial street, the other part of the street shall be planned with such tract.

g.) Dead-End Streets - A dead-end street shall be prohibited, except as a stub to permit future street extension into adjoining tracts or when designed as a cul-de-sac. Dead-end streets, designed to be so permanently, shall not be longer than 400 feet and shall be provided at the closed end with a turn-around or cul-de-sac having no unpaved island thereon, having an outside roadway diameter of at least 100 feet and a street lot line diameter of at least 120 feet. Dead-end streets, designed to be so temporarily, shall not be longer than one lot depth.

h.) Subdivision Borders on a Railroad or Limited Access Highway - Where a subdivision borders on or contains a railroad right-of-way or limited access highway right-of-way, there may be required a street approximately parallel to and on each side of such right-of-way, at a distance suitable for the appropriate use of the intervening land, as for park purposes in residential districts, and for business or industrial purposes in appropriate districts. Such districts shall also be determined with due regard for the requirements of approach grades and future grade separations. All railroad crossings shall be subject to approval by the Public Utility Commission.

1343.04 Street Widths

a.) Minimum street right-of-way and roadway (cartway) widths shall be shown on any Official Plans or Maps and where not shown shall not be less than as follows:

- 1.) Arterial Streets - 80 foot right-of-way and 2-24 foot roadways and 16 foot dividing strip (if a state or federal highway as determined by the State Department of Highways).
- 2.) Collector Streets - 60 foot right-of-way and 36 foot roadway.
- 3.) Minor Street - Other than One Family detached Dwelling Development - 60 foot right-of-way and 36 foot roadway.
- 4.) Minor Street - One Family detached Dwelling Development - 50 foot right-of-way and 30 foot roadway.
- 5.) Marginal Access Street - Two Way - 40 foot right-of-way and 26 foot roadway.
- 6.) Marginal Access Street - One Way - 40 foot right-of-way and 18 foot roadway.

b.) Insufficient Right-of-Way Widths - Where a subdivision abuts or contains an existing street of insufficient right-of-way width as required above, additional right-of-

way width in conformance with the above standards shall be required.

1343.05 Street Alignment

a.) Deflection - Whenever street lines are deflected in excess of 10 degrees, connection shall be made by horizontal curves, provided, however that a log radius curve shall be used rather than a series of curves connected by short tangents. Minimum radius curves at the end of long tangents shall not be approved.

b.) Adequate Sight Distances - To ensure adequate sight distance, minimum center line radii for horizontal curves shall be as follows:

- 1.) Arterial Streets - 500 feet.
- 2.) Collector Streets - 300 feet.
- 3.) Minor Streets - 150 feet.

c.) Tangents on Reversed Curves - A tangent shall be required between reversed curves on arterial and collector streets of at least 100 feet.

1343.06 Street Grades

a.) Minimum Grade - Center line grade shall not be less than one (1) percent.

b.) Maximum Grade - Center line grades shall not exceed the following with due allowance for reasonable vertical curves:

- 1.) Arterial or Collector Streets - Seven (7) percent.
- 2.) Minor Streets - Ten (10) percent.

1343.07 Street Intersections

a.) Range of Intersection Angle - Streets shall be laid out to intersect as nearly as possible at right angles. No street shall intersect another at an angle of less than sixty (60) degrees.

b.) Street Jogs - Streets entering opposite sides of another street shall be laid out either directly opposite one another or with a minimum offset of 125 feet between their center lines.

c.) Curb Radii - Minimum curb radii at street intersections shall be fifteen (15) feet for intersections involving only minor streets, twenty-five (25) feet for intersections including other types of streets, or such greater radii as are deemed necessary by the City Engineer.

1343.08 Excavation, Grading, and Storm Drainage

Where any excavation or grading is proposed or where any existing trees, shrubs, or other vegetative cover will be removed, the developer shall consult the U.S. Department of Agriculture Natural Resources Conservation Service District Representative concerning plans for erosion and sediment control. The developer will obtain also a report on the soil characteristics of the site so that a determination can be made as to the type and degree of development the site may accommodate.

Except as otherwise approved by the City Engineer, lots shall be laid out and graded so that runoff from roofs, driveways, and other impervious surfaces shall be towards the street, shall be collected either in storm sewers or in the ditches and/or gutters along the street in short runs (400 feet or less) and shall be diverted from the street surface into storm sewers or natural watercourses. Streets shall be located away from watercourses unless storm sewers are to be installed.

Developers are responsible for the correction of damages caused by flood or erosion to all properties lying downstream for three (3) years after the completion of the development.

1343.09 Stormwater Drainage

a.) In addition to the requirements of this Ordinance, all subdivision and land development activity shall comply with the Pennsylvania Stormwater Management Act, Act 167 of 1978, as amended.

b.) No person, corporation, or their entity shall commit any act which will affect normal or flood flow in any communal street or watercourse without having obtained prior approval from the City Engineer.

c.) Where a subdivision or land development is traversed by a natural watercourse, there may be provided a drainage easement conforming substantially with the line of such water course and of such width as will be adequate to preserve natural drainage.

d.) The subdivider or developer, and each person, corporation, or other entity which makes any surface changes shall be required to:

- 1.) Design all storm drainage facilities and plans to be in conformance with the Pennsylvania Storm Water Management Act.
- 2.) Collect on-site surface runoff and dispose of it to the point of discharge

into the common natural watercourse of the drainage area or storm sewer.

- 3.) Design drainage facilities to handle runoff from contributory upstream areas, assuming full development of those areas, based upon the Comprehensive Plan for the City, if applicable.
- 4.) Design, construct, and/or install such drainage structures and facilities as may be necessary to prevent erosion damage to the subdivision or land development, adjacent property and downstream property. Such structures and facilities shall satisfactorily convey surface waters to the nearest storm sewer, detention pond, or natural watercourse.

e.) Storm sewers, culverts, and related installations shall be provided to permit unimpeded flow of natural water courses, to drain all low points along streets, and to intercept stormwater runoff along streets at intervals reasonable related to the extent and grade of the area drained.

f.) Storm sewers, as required, shall be placed in front of the curb or curb line when located in a street right-of-way. When located in undedicated land, they shall be placed within an easement not less than twenty (20) feet wide, as approved by the City Engineer, who may require additional width of easement if circumstances warrant.

g.) Street drainage will not be permitted to cross intersections or the crown of the road.

- 1.) Maximum spacing of street inlets shall not exceed three hundred (300) feet.
- 2.) All street inlets shall be PADOT Type C or M. Inlet tops shall be cast in place reinforced concrete or precast concrete.
- 3.) Grates shall be bicycle proof.
- 4.) All culvert ends shall be provided with either reinforced concrete headwalls or pipe end sections.
- 5.) Minimum pipe size shall be fifteen (15) inch diameter.
- 6.) When material for storm drain systems is not specified, current PADOT specifications will govern.

h.) All spring and sump pump discharges shall be collected to prevent flow onto the streets.

i.) Stormwater roof drains shall not discharge water directly over a sidewalk or onto street or be routed to the sanitary sewer.

j.) Stabilized outlets shall be provided for foundation (footing) drains, floor drains, and downspouts.

k.) For the purpose of computing peak flow rates and runoff hydrographs from development sites, calculations shall be performed using one of the following, as applicable: SCS publications, Technical Release (TR) 55 or 20, HEC I or Penn State Runoff Model (PSRM) or Modified Rational Method. Under special circumstances other computational methods may be used subject to the approval of the City Engineer.

l.) For the purposes of designing storm sewers, open swales, and other stormwater runoff collection and conveyance facilities, the Rational Method or other method as approved by the City Engineer may be applied. Rainfall intensities for design should be obtained from the PADOT rainfall charts.

m.) Where the estimated runoff based upon any of the above methods is doubtful, an alternate method should be studied and compared.

n.) Stormwater management facilities on all development sites shall control the peak stormwater discharge for the 2-, 10-, and 25-year storm frequencies. The Soil Conservation Service (SCS) 24-hour, Type II Rainfall Distribution shall be used for analyzing stormwater runoff.

o.) The post-development release rate for each frequency shall not exceed pre-development runoff, except in the Chubb Run and Monkey Run watersheds where the release rates will not exceed sixty (60) percent of the predevelopment rates.

p.) Runoff calculations must include complete hydrologic and hydraulic design and hydraulic and structural analysis of all control facilities.

q.) Control Facilities:

- 1.) Permanent control measures/facilities shall be designed in accordance with the appropriate stormwater management plan, if any, adopted by the County of Venango for the watershed on which the subdivision or land development is located.
- 2.) Temporary Control facilities shall be designed to meet, as a minimum, the design standards and specifications of the most current version of the DEP "Erosion and Sedimentation Pollution Control Program Manual".
3. A maintenance program for control facilities must be included as part of the Storm Water Management Plan prepared for the development site.

(a) Maintenance during development activities of a project shall be the mutual responsibility of the contractor, developer, and owner.

(b) Arrangement for maintenance of permanent control facilities after completion of development activities shall be made before approval of final plans.

1343.10 Sanitary Sewerage

a.) All sanitary sewerage systems located in any designated flood plain district, whether public or private, shall be flood proofed up to the Regulatory Flood Elevation.

b.) The Franklin Planning and Zoning Commission shall prohibit installation of sewage disposal facilities requiring soil absorption systems.

c.) The Franklin Planning and Zoning Commission shall require the developer to provide sewage conveyance facilities to connect to the existing sewer system.

d.) Sanitary sewerage systems shall be designed in accordance with DEP "Sewerage Manual", current edition.

e.) In any instance, the sewerage systems shall be reviewed and approved by the City Engineer.

1343.11 Water System

a.) Water supply systems shall be designed in accordance with all applicable parts of the PADEP Public Water Supply Manual with particular emphasis on Part II "Community System Design Standards".

b.) Fire protection aspects including size of watermains, location of hydrants, storage facilities, and all appurtenances shall follow recommendations of the Insurance Services Organization (ISO).

c.) Plans for proposed water and sanitary sewerage systems shall be additionally approved by the General Authority of the City of Franklin.

1343.12 Other Public Facilities

All other public and/or private utilities and facilities, including gas and electric, shall be elevated and floodproofed up to the Regulatory Flood Elevation.

1343.13 Blocks

a.) Maximum and Minimum Lengths - Blocks shall have a maximum length of 1600 feet and, so far as practicable, a minimum length of 500 feet.

b.) Required Depth - Residential blocks shall be of sufficient depth to accommodate two tiers of lots, except where reversed frontage lots bordering an arterial street are used.

1343.14 Lots

a.) Conformity with the Zoning Code - Lot dimensions and sizes shall not be less than specified by provisions of the Zoning Code.

b.) Setback Building Lines - The minimum setback building lines (restrictive lines) shall be controlled by the provisions of the Zoning Code. Should the Zoning Code not cover a specific situation, there shall be a minimum setback of twenty-five (25) feet on minor streets, thirty-five (35) feet on collector streets, and fifty (50) feet on arterial streets for lots used for residential purposes and fifty (50) feet for lots to be used for business or industrial purposes.

c.) Side Lot Lines - Side lot lines shall be approximately at right angles or radial to the street line on which the lot faces.

d.) Access to Public Streets - Every lot shall abut on a public street, other than an alley, or an officially approved public cul-de-sac.

e.) Lot Design to be Avoided - Through (double frontage), reversed frontage and reversed corner lots shall be avoided, except where deemed essential to provide separation of residential development through arterial streets or to overcome specific disadvantages of topography and orientation.

f.) Corner Lots - Corner lots for residential use shall be increased in size whenever necessary so as to provide that any building thereon shall conform to the setback building line as required for each street.

1343.15 Sidewalks

All sidewalks where provided in any residential development shall be at least four (4) feet wide; in any other development, over four (4) feet wide as dictated by the specific design criteria and at least one (1) foot from the lot line.

1343.16 Alleys

Alleys shall be prohibited in residential developments. They may be provided in business or industrial districts to provide access to off-street parking, loading, and unloading facilities. An alley terminating in a permanent barrier shall not be approved unless a turning area having a minimum radius of fifty (50) feet at the right-of-way at the dead end shall be provided.

1343.17 Easements

a.) Where a subdivision is traversed by a watercourse, drainage way, or channel, or stream, a drainage easement may be required that conforms substantially with the water line of such watercourse, drainage way, channel, or stream and of such width as

will be adequate to preserve the unimpeded flow of improving or protecting such drainage facilities.

b.) Where desirable or necessary, adequate easements or dedications for public service utilities shall be provided for sewer, water, electric power, gas lines, storm drainage, and similar services; and no structure or obstruction of any kind shall be placed where it will interfere in any way with such easements.

c.) Utility easements, where required, shall have a minimum width of ten (10) feet and be placed at the side or rear of lots whenever possible.

d.) Aerial easements, if required, shall commence at a point fifteen (15) feet or more above ground.

1343.18 Community Facilities

Due consideration should be given to the allocation of suitable areas for schools, churches, parks, playgrounds, and other community facilities to be dedicated for public use or reserved for the common use of all property owners within the proposed subdivision by covenants in the deeds. In the interest of the public welfare, at least five (5) percent of the area of every subdivision, exclusive of streets, should be set aside for recreational purposes. Where the tract contains less than four (4) acres, such reservation of open space shall be combined, wherever possible, with similar reservations in adjoining tracts. Such recreation areas and facilities shall be located in a manner to best serve the public likely to use the same and to utilize, to the greatest degree, any topographical features.

1343.19 Public Recreation and Open Space Areas, Planting, and Beautification

a.) In order to promote the highest environmental quality possible, the degree to which the applicant of a subdivision or land development plan has preserved existing salient natural features and land forms intrinsic to the site shall be assessed. Terms of approval of a plan may be subject to the manner in which the layout or design of the plan has preserved existing natural features, including, but not limited to, such features as wooded area, watercourses, and escarpments.

b.) Public Recreation and Open Space Areas - Where the applicant is offering for dedication to establish a reservation of property for public recreation or open space, or preserve an area of scenic or historic importance, a "limit of work" which will confine excavation, earth moving procedures and other changes to the landscape, may be required to ensure preservation and prevent despoliation of the character of the area in open space. The location of public recreation and open space areas shall link, where possible, with other such areas to allow for a corridor of open space.

c.) Tree Preservation - Whenever possible, trees shall not be removed unless they are located within the proposed street cartway, the proposed building area, water well area, sewage facility area, or within utility locations and equipment access areas. In areas where trees are retained, the original grade level shall be maintained, if

possible.

d.) Topsoil Preservation - all of the topsoil from areas where cuts and fills have been made should be stockpiled and redistributed uniformly after grading. All areas of the site shall be stabilized by grass seeding on slopes of less than ten percent (10%); by sodding on slopes of ten percent (10%) to twenty percent (20%); and by ground cover planting on slopes of twenty percent (20%) or greater.

e.) Landscaping - All subdivisions and land developments, with the exception of minor subdivisions and replots, shall require a landscaping plan which shall be prepared and submitted for approval by the City Engineer. The landscaping plan shall include plantings such as planting strips, screening, formal gardens, shade trees, and natural barriers.

f.) Buffer Requirements - Screen plantings are required by the City Zoning Ordinance when any non-residential development abuts residential property.

g.) Preserved Landscaping - When there is a conscientious effort to preserve the existing natural integrity and character of a site and where such preservation maintains areas of woodland and trees comparable to required planting improvements (i.e., landscaping and buffer screening), the plan may be received in lieu of additional landscaping requirements.