

**TOWNSHIP OF SALISBURY
LEHIGH COUNTY, PENNSYLVANIA**

Ordinance No. 06-2021-637

AN ORDINANCE

**OF THE BOARD OF COMMISSIONERS OF THE TOWNSHIP OF
SALISBURY, LEHIGH COUNTY, PENNSYLVANIA, AMENDING PART 10,
“DESIGN STANDARDS AND REQUIRED IMPROVEMENTS”, OF
CHAPTER 22 (SUBDIVISION AND LAND DEVELOPMENT ORDINANCE)
OF THE SALISBURY TOWNSHIP CODE OF ORDINANCES**

WHEREAS, the Township’s Department of Community Development has proposed changes to Part 10, “Design Standards and Required Improvements”, of the Township’s Subdivision and Land Development Ordinance; and

WHEREAS, the Planning Commission recommended approval of the proposed changes to Part 10, “Design Standards and Required Improvements” of the Subdivision and Land Development Ordinance at their meeting held on May 11, 2021; and

WHEREAS, a public hearing was held on June 24, 2021 for input from the public on the proposed changes to Part 10, “Design Standards and Required Improvements” of the Subdivision and Land Development Ordinance; and

WHEREAS, the Board of Commissioners has carefully reviewed and considered the proposed changes to Part 10, “Design Standards and Required Improvements”, of the Township’s Subdivision and Land Development Ordinance.

Now, THEREFORE, be it ORDAINED and ENACTED by the Board of Commissioners of the Township of Salisbury, Lehigh County, Pennsylvania, that Part 10, “Design Standards and Required Improvements” of Chapter 22 of the Salisbury Township Code of Ordinances shall be amended in its entirety as follows:

ARTICLE I.

Part 10, “Design Standards and Required Improvements” of Chapter 22 shall be amended, to read as follows:

Part 10
DESIGN STANDARDS AND REQUIRED IMPROVEMENTS

§22-1001 - Application

1. Evaluating Plans. The design standards and improvements required in this chapter shall be the minimum requirements applied by the Planning Commission and the Board of Commissioners in evaluating plans for any proposed subdivision or land development.
2. Additional Improvements. Additional or more stringent improvements may be required in specific cases where, in the determination of the Board of Commissioners, or the Planning Commission, as the case may be, they are reasonably related to and necessitated by the subdivision and land developed in order to protect the public health, safety and welfare.

§22-1002 - Required Improvements

The remainder of this Part sets forth the design and construction standards for required improvements. All improvements installed by the developer shall be constructed in accordance with the design specifications noted in this Chapter.

§22-1003 - Overall Requirements

1. Hazardous Conditions. Land subject to hazardous conditions including, but not limited to, open quarries, unconsolidated fill, floods, excessive erosion, sinkhole prone soils or unsafe water supply shall not be subdivided until the hazards have been eliminated or overcome by adequate safeguards provided by the developer and approved by the Township. Such hazards and methods to eliminate or overcome each hazard shall be regulated by the appropriate state or federal agency that oversees each situation.
2. Comprehensive Plan. The subdivision or land development shall generally be designed in accordance with the applicable provisions of the Township Comprehensive Plan.
3. Zoning. All aspects of a proposed subdivision or land development shall conform to the Township zoning ordinance and floodplain regulations and all other Township ordinances and specifications.
4. Nearby Development. A subdivision or land development design, including its street pattern, shall be coordinated with existing or approved nearby developments or neighborhoods so that

the area as a whole may be developed harmoniously and serious conflicts between neighboring developments may be prevented.

5. Safety. No subdivision or land development shall occur in such a way that would significantly threaten the public health and safety, including but not limited to, hazards of toxic substances, groundwater pollution, traffic hazards and explosive and fire hazards.
6. Erosion and Sedimentation Control. No earthmoving activity subject to the regulations of this Chapter shall take place prior to approval of an erosion and sedimentation control plan by the County Conservation District or the Salisbury Township Engineer, as applicable.
7. Agency Approvals. No construction activities shall take place that will affect any area of a subdivision or land development where state or federal agencies have jurisdiction and require permits for those activities until all necessary state and/or federal permits are received or evidence is provided demonstrating that no permit(s) is required.

§22-1004 - Streets

1. General Standards.
 - A. The location and width of all streets shall conform to the official plans, or to such parts thereof as may have been adopted by the Township.
 - B. The proposed street system shall extend existing or recorded streets at the same width, but in no case less than the required minimum width, unless modified by the Township.
 - C. Where, in the opinion of the Township, it is desirable to provide for street access to adjoining property, street stubs shall be physically extended and dedicated to the boundary of such property. Temporary turnarounds with adequate right-of-way may be required.
 - D. The developer shall give adequate consideration to the provision for the extension and continuation of arterial, collector, and local streets into and from adjoining properties.
 - E. Where a subdivision or land development abuts or contains an existing street of improper width or alignment, the Township may require the dedication of land

sufficient to widen the street or correct the alignment.

- 1) A deed description to convey land offered for dedication shall be provided along with an opinion of title from a title insurance company or an attorney which indicates that clear title exists for the land being dedicated are to be included with the final plan submission.
- F. Any street or streets adjacent to a subdivision or land development shall be improved to the width specified under the provisions of this Chapter as defined in §1003.4
- G. Where feasible and desirable from a safety or traffic flow standpoint, at least two accesses to existing streets shall be provided for a proposed subdivision or land development.
- H. Accessways, may be approved only if they are designed to meet minimum Township specifications for alleys and a permanent access easement is recorded at the Lehigh County Courthouse for each property in which the accessway serves.
1. Accessways serving only residential uses may terminate with a dead-end and are not required to provide a paved circular turnaround as required in §22-1004.10.D.
- I. Partially developed streets will not be permitted, except where essential for the reasonable development of a tract in conformance with the other requirements and standards of these regulations and where, in addition, satisfactory assurance for dedication of the remaining part of the street and the posting of acceptable financial security is provided.
- J. The Township may, when existing site conditions determine it necessary, require submission of a PennDOT approved traffic control plan appropriate to the conditions. The approved traffic control plan shall be utilized during construction operations.

2. Intersections.

- A. The center lines of streets, accessways, and/or driveways shall intersect at right angles unless existing conditions dictate otherwise. In such case, the intersection

shall be at right angles as nearly as possible, but in no case less than 75°.

B. Intersections of more than two streets, accessways, and/or driveways at one point shall be prohibited. Where streets intersect other streets, the intersecting street shall be aligned directly across from any street intersecting on the other side, or be offset by the minimum distance stated in this subsection. This minimum offset shall also be the minimum distance between center lines of streets intersecting a cross street on the same side, as follows:

- 1) One hundred fifty feet along a local street.
- 2) Four hundred feet along a collector street.
- 3) One thousand feet along an arterial street.

The distances of this subsection shall be measured between the intersections of the center lines of the legal rights-of-way of the streets.

C. Street curb intersections shall be rounded by a tangential arc with a minimum radius of:

1. Twenty feet for intersections involving only local streets.
2. Thirty feet for intersections involving a collector street.
3. Forty feet for intersections involving an arterial street.

D. Street right-of-way lines shall be concentric with curb arcs at intersections. Lot areas outside of this arc shall be marked to be dedicated as public right-of-way.

3. Arterial Street Frontage. Where a subdivision or land development abuts or contains an existing or proposed arterial street, the Township shall require one of the following methods of layout and site design to avoid increased traffic congestion and promote public safety:

A. The use of reverse frontage lots for access only onto collector or local streets, to collect traffic from numerous driveways and direct it to a select few number of entrances to the arterial street.

- B. The minimization of the number of driveway cuts or street intersections onto an arterial street, which may include requiring the use of accessways between adjacent uses or lots.
- C. The restriction of ingress and egress involving left-hand turns onto or off of the arterial street.
- D. If provided with no alternative, each driveway or accessway entering onto an arterial or collector street shall have adequate turn-around space provided within the lot so that vehicles must not back onto the street.

4. Street Design Standards.

- A. Minimum street right-of-way and cartway widths shall be as follows:

| <u>Street Type</u> | <u>Required Width (in feet)</u> |
|--------------------------|---------------------------------|
| <u>Arterial Streets</u> | |
| Right-of-way | 80 |
| Cartway | 48 |
| <u>Collector Streets</u> | |
| Right-of-way | 60 |
| Cartway | 36 |
| <u>Local Streets</u> | |
| Right-of-way | 50 |
| Cartway | See Section B |
| <u>Alleys</u> | |
| Right-of-way | 20 |

B. Local Street Cartway Width Options:

- 1) No parking, no curb required – 24-foot cartway plus 4-foot shoulder on each side
- 2) No parking, curb required – 26-foot cartway
- 3) Parking on one side, curb required – 34-foot cartway
- 4) Parking on both sides, curb required – 42-foot cartway with 60-foot right-of-way

C. On Street Parking Restrictions. On street parking is not permitted along arterial and collector streets as well as along alleys.

D. On Street Parking Sight Distances. On street parking shall be designed to meet the minimum sight distances required by Township Zoning Ordinance requirements. Proper signage and/or pavement markings must be installed to ensure that the required sight distances are met. Refer to §27-803, Subsection 1, of the Zoning Ordinance (Chapter 27) for sight distance restrictions.

E. On street parking shall be designed to allow for adequate access to existing and proposed driveways.

5. Street Grades. Proposed streets shall be adjusted to the contour of the land so as to produce usable lots and streets of reasonable gradient. The following regulations shall apply, unless PennDOT requirements supersede these regulations.

1. There shall be a minimum center-line grade of 1%.
2. Center-line grades shall not exceed the following:
 - 1) Local street: 10%.
 - 2) Collector street: 6%.
 - 3) Arterial street: 6%.

3. All street approaches to an intersection shall have a leveling area wherein the center line vertical slope is not greater than 4% grade for a distance of 25 feet measured from the right-of-way line of the intersecting street.
 4. The maximum grade across the pavement surface of the cul-de-sac bulb is 5%.
 5. To provide for adequate drainage, the minimum grade of any projected street gutter shall be not less than 2% across an intersection unless storm sewer inlets are provided to collect stormwater prior to its crossing the intersection.
6. Horizontal Curves.
- A. Whenever street lines are deflected, connection shall be made by horizontal curves.
 - B. To ensure adequate sight distance, minimum center-line radii for horizontal curves shall be as follows:
 - 1) Local streets: 150 feet.
 - 2) Collector streets: 300 feet.
 - 3) Arterial streets: 500 feet.
 - C. A tangent of at least 100 feet shall be introduced between all reverse horizontal curves.
 - D. To the greatest extent possible, combinations of the minimum radius and maximum grade shall be avoided.
 - E. Compound curves are prohibited.
7. Vertical Curves. Vertical curves shall be used at changes of center-line vertical grades exceeding 1%. The minimum length of the vertical curve shall be determined by multiplying the absolute difference in change of percent in grade by the following minimum factors, unless PennDOT requirements supersede these regulations:
- A. Arterial streets: 80 feet.

- B. Collector streets: 50 feet.
 - C. Local and marginal access streets: 30 feet.
 - D. Vertical curves should be designed to provide a maximum stopping sight distance of 200 feet for local streets and 300 feet for all other streets.
8. Sight Distance at Intersections.
- A. Refer to §27-803, Subsection 1, of the Zoning Ordinance (Chapter 27) for sight distance restrictions.
 - B. The sight distance triangle shall be shown on development plans submitted to the Township and be shown on any plan required to be recorded. Such triangle shall serve as a permanent setback line for all such visual obstructions and shall be binding upon present and future owners of the land.
 - C. For any existing residential driveway or accessway entrance to an arterial street that is proposed to be used for a new nonresidential principal use, the applicant shall prove to the satisfaction of the Township Engineer that such entrance will meet PennDOT sight distance requirements in both directions as would apply to a new driveway on such street. If such sight distance cannot be met, then the use shall be denied.
9. Streets With Only One Outlet.
- A. Dead-end streets, other than stub and cul-de-sac streets, shall be prohibited.
 - B. Stub Streets.
 - 1) All stub streets of abutting subdivisions shall be incorporated into the proposed street system of a subdivision or land development.
 - 2) Stub streets shall be less than 250 feet in length measured from the intersection of the center lines of the stub and intersecting streets to the termination of the stub street and shall be provided with a temporary turnaround to the standards required for cul-de-sacs. The use of such turnaround shall be guaranteed to the public and appropriate easements or

rights-of-way shall be provided and documented for the turnaround on the plan(s) to be recorded.

- 3) The turnaround right-of-way shall be placed immediately adjacent to the tract boundary.

C. Cul-de-sac Streets.

- 1) A cul-de-sac street must have a fully paved turnaround and a cartway radius of 50 feet to the outside of the curb. The radius of the right-of-way of the cul-de-sac bulb shall be 60 feet. The width between the edge of the cartway and the edge of the right-of-way along the stem of the street leading to the cul-de-sac bulb shall be maintained around the cul-de-sac bulb.
- 2) The paving of the cul-de-sac bulb shall join the approach road paving by an arc having a radius of not less than 25 feet.
- 3) If stormwater runoff on a cul-de-sac street is directed toward the cul-de-sac bulb, stormwater shall be conveyed via an underground storm sewer.
- 4) The gutter line slope around the cul-de-sac bulb shall be a minimum of 1%.
- 5) Cul-de-sac streets shall have a maximum length of 800 feet and furnish access to not more than 12 dwelling units.
- 6) The length of a cul-de-sac street shall be measured from the center of the cul-de-sac bulb to the point of center-line intersection of the cul-de-sac to an approved through street. For any cul-de-sac that ends in a loop rather than a bulb, the length of total roadway measured along its center line should not exceed the permitted cul-de-sac length.

10. Street Design and Construction Standards.

- A. General. Streets shall be graded, improved and surfaced to the grades and dimensions shown on the plans, profiles and cross sections submitted by the developer and approved by the Township.

B. Right-of-Way Grading.

- 1) The entire right-of-way width shall be graded to the approved cross-section. All obstructions including, but not limited to, trees, stumps and other material deemed unsuitable by the Township Engineer shall be removed. The excavation shall be backfilled and suitably compacted to the satisfaction of the Township Engineer.
- 2) The typical street section shall be crowned and shall be designed and constructed in accordance with the Salisbury Township Construction Code Standards.
- 3) Properly super-elevated curves (banked curves) shall be provided on arterial and collector streets and when required by the Township Engineer.

C. Grading Beyond Right-of-Way.

- 1) The subdivider or developer may be required to grade beyond the right-of-way line in order to provide continuous slope from the proposed right-of-way line elevation to the existing elevation of the abutting property.
- 2) Such grading beyond the right-of-way shall maintain the original drainage patterns except where stormwater runoff designs dictate or warrant improvement or alteration of the original slope and contours.
- 3) Approved plans, either preliminary or final, showing proposed grading, shall contain a note on the plan, which note shall state that the grading proposed on the plan shall be maintained, and that the note constitutes a covenant running with the land enforceable by the Township and binding upon the developer, his heirs, executors, administrators, successors-in-title, successors, and/or assigns, unless altered by written permission from the Township
- 4) In areas of earth excavation or earth fill, such grading shall be done to the maximum extent practical at a slope of three feet horizontal to one-foot vertical. Steeper slopes shall only be allowed after review and recommendation by the Township Engineer and permanent ground stabilization shall be accomplished with a maintenance free planting.

D. Drainage of Streets.

- 1) Parallel and cross drainage facilities shall be properly located, designed and

installed to maintain proper drainage of the completed streets.

- 2) Proper design may require the use of curb and gutter or paved drainage swales to prevent erosion. Drainage facilities shall be designed in accordance with requirements of §22-1010.
- 3) Open pipe ends must be fitted with concrete end walls or prefabricated end sections and with protective safety gratings.
- 4) No open pipes shall be allowed to end within the Township street right-of-way, except in cases where new or existing driveways must cross deep swales adjacent to new or existing Township roads. In the case of these exceptions to the standard, the pipe shall be located as far off the edge of pavement as possible, and at least 20 feet from the road center line.
- 5) Energy dissipaters shall be placed at the outlets of all pipes where flow velocities exceed the maximum permitted for the proposed channel lining. All pipe discharge facilities shall be designed in accordance with current Township Construction Code standards.
- 6) Consideration shall be given for subgrade drainage of those soils subject to frost heave. Design of the road bed in such locations may require parallel drainage facilities and/or underdrains to properly stabilize the subgrade. The Township may require that such drainage facilities be provided. The requirement and design of such subgrade drainage facilities shall be subject to the recommendation, review and approval of the Township Engineer.

11. Required Traffic Improvements.

- A. Purpose. In recognition of the provisions of the Article V-A and § 503(2)(ii) and 503(3) of the MPC, this section is primarily intended to ensure that streets bordering a subdivision or land development are coordinated and of such widths and grades and in such locations as deemed necessary to accommodate prospective traffic and to facilitate fire protection and to ensure that the access into and out of subdivisions and land developments is sufficiently safe.
- B. Process. Determinations under this Subsection 11 shall be made by the Township, after considering any recommendations of the Planning Commission, the Township Engineer, the applicant, the applicant's professional representatives,

any comments from PennDOT that may be provided regarding a state road and any professional traffic studies that may have been submitted.

- C. On-Site Traffic Improvements. An applicant for a subdivision or land development shall be required to pay for and install, at his own expense, all requested on-site improvements as defined in Article V-A, § 502-A of the MPC. On-site improvements may include, but are not limited to, a new traffic signal or traffic control devices, the improvement of an abutting roadway or intersection, realignment of a curve in an abutting roadway or the widening of an abutting cartway or right-of-way.
- D. Widening of Abutting Street. An applicant for any land development or subdivision shall be required to widen the cartway and any shoulders of abutting streets to Township standards (or other specifications approved by the Board of Commissioners or PennDOT) and to a width determined to be adequate by the Township as reasonably related to, and necessitated by, the land development or subdivision for the public health, safety, and welfare. The applicant shall only be responsible for improvements from the center line of the street right-of-way inward toward the project's lot lines, unless the Township determines that improvements on the other side of the center line are reasonably related to, and necessitated by the subdivision or land development for ingress and egress and are essential for public safety.

12. Maintenance of Accessways. Where accessways are permitted, the developer shall enter into a legally binding agreement (which agreement shall be recorded in the Office of the Recorder of Deeds of Lehigh County) specifying who shall be responsible for the improvement and perpetual maintenance of any accessway as a condition of final plan approval.

13. Street Names.

- A. A proposed street which is obviously in alignment with an existing named street shall bear the name of the existing street.
- B. In no case shall the name of a proposed street duplicate or be similar with an existing street name in the Township, except as required in §22-1004.13.A, irrespective of the use of the suffix street, road, avenue, boulevard, drive, way, place, court, lane, etc.
- C. All street names shall be subject to the approval of the Township.

§22-1005 - Blocks.

1. Layout. The length, width, and shape of blocks shall be determined with due regard to requirements for safe and convenient vehicular and pedestrian circulation, including the impact of intersections with streets.
2. Length.
 - A. For residential subdivisions located in zoning districts which require a minimum lot size of less than 43,560 square feet, the block length shall not exceed 1,000 feet.
 - B. For residential subdivisions located in zoning districts which require a minimum lot size of 43,560 square feet or more, the block length shall not exceed 1,500 feet in length.
 - C. Nonresidential blocks shall not be less than 800 feet in length.
 - D. Where practical, blocks along arterial streets shall not be less than 1,500 feet in length.
3. Depth. Residential blocks shall be sufficient depth to accommodate two tiers of lots, except where prevented by the size and topographical conditions of property, in which case the Township may approve a single tier of lots.
4. Crosswalks.
 - A. Crosswalks shall be required wherever necessary to facilitate pedestrian circulation, and to give access to community facilities. Crosswalks shall be required in all stop controlled intersections.
 - B. Such crosswalks shall meet PennDOT design requirements and Americans with Disabilities Act (ADA) standards.
5. Bus Stops
 - A. The developer of residential land developments or subdivisions that involve 15 or more dwelling units shall contact the school district to establish one or more

acceptable and safe locations for a school bus stop within the proposed development. The location, and subsequent relocation, of this bus stop shall be permitted with approval from the Salisbury Township Director of Community Development or his/her designee upon recommendation of the Salisbury Township School District.

- B. The developer of a major subdivision or land development may be required by the Township to contact the local public transportation agency to seek an appropriate location for a public bus stop within the proposed development.

§22-1006 - Lots and Parcels.

1. General Standards.

- A. Side lot lines shall be at right angles to straight street lines, or radial to curved street lines.
- B. Lot lines shall follow municipal boundaries rather than cross them in order to avoid jurisdictional problems.
- C. Except for single-family semi-detached and townhouse dwelling units, the depth of residential lots shall be not less than one nor more than 2 1/2 times their width.

2. Lot Frontage.

- A. All lots shall have frontage on a public street or, when approved, an accessway which has been improved to Township standards, or for which such improvements have been insured by the posting of an acceptable performance guarantee under this Chapter.

3. Through Lots and Reverse Frontage Lots.

- A. Through lots shall not be permitted for residential properties.
- B. Through lots for non-residential properties, ordinarily shall not be created except as needed to avoid direct vehicular access onto an arterial street by individual driveways.

C. Reverse Frontage Lots. On any reverse frontage lots, each lot shall include a fifteen-foot deep planting strip along one of the streets with access across this strip clearly prohibited by notes on any approved plan.

- 1) Any fencing in the rear of such lots shall be placed on the inner perimeter of such plantings.
- 2) This planting strip shall be placed along the street that the Township determines will eventually serve the most through-traffic. (For example, if a lot abuts a collector and a local street, the planting strip shall be placed along the collector street and the lot shall only have vehicular access onto the local street).

4. Flag Lots.

- A. Flag lots are permitted for single family detached uses only.
- B. A tract shall not include more than three flag lots.
- C. If two or more flag lots are adjacent, regardless off if they are on the same tract or some are existing, they shall share a common accessway instead of having individual driveways.
- D. The “pole” portion of the flag lot shall be a minimum of 25 feet in width and a maximum of 250 feet in length.
- E. The proposed accessway or driveway shall be designed to meet the slope requirements of this Ordinance and shall be designed to allow for satisfactory emergency services access.
- F. No structures shall be allowed in the “pole” portion of the flag lot.
- G. The area of the “pole” portion of the flag lot shall not be included in the total lot area required for the “Minimum Lot Area” for lot size in the Zoning requirements.

5. If remnants of land (other than rights-of-way and areas designated as common open space) exist after subdividing, they shall be incorporated in existing or proposed lots. No lot shall be created that would not be suitable for a use permitted in that zoning district and meet all

dimensional zoning requirements for that zoning district.

§22-1007 - Sanitary Sewage Disposal Systems.

1. The developer shall provide the most effective type of sanitary sewage disposal consistent with the natural features, location, and proposed development of the site. The following types of sanitary sewage disposal are accepted:
 - A. Connection to existing centralized sanitary sewage collection and treatment system.
 - B. Provision for a centralized sanitary sewage collection and treatment system by the developer to be in accordance with the requirements of the Pennsylvania Department of Environmental Protection.
 - C. Capped sewers with temporary, approved on-lot facilities.
 - D. On-lot sewage disposal systems.
2. Connection to an existing centralized sanitary sewerage system shall be required where such a system can feasibly be provided to the proposed subdivision or land development tract and where such a system can adequately fulfill the sewage disposal needs of the project.
3. Where connection to an existing centralized sanitary sewerage system is not feasible, a centralized system with a treatment plant shall be designed and constructed according to current Pennsylvania Department of Environmental Protection regulations and reviewed by the Township Engineer. All treatment plants shall have a tertiary level of treatment.
4. Where a centralized sanitary sewerage system is not yet accessible to the site, but is planned for extension to the subdivision within a ten-year period, the developer shall install sewer lines, including lateral connections as may be necessary to provide adequate service to each lot when connection with the sewerage system is made. The sewer lines shall be suitably capped at the street right-of-way line. When capped sewers are provided, on-lot disposal facilities shall also be provided. Design of the capped system shall be in accordance with the standards of the Pennsylvania Department of Environmental Protection and shall be subject to approval by the Township Board of Commissioners.
5. Where neither connection to an existing centralized system nor the construction of a

centralized system with a treatment plant is feasible, sewage disposal shall be provided on individual lots.

- A. The Township Sewage Enforcement Officer's site and soils investigation and favorable report are required prior to approval of the preliminary plan.
 - B. Any use with an on-lot sewage disposal system that does not have capped sewers shall include a tested and suitable land area set aside and kept undisturbed for a second system that could be used if the first system failed.
6. When required by PA DEP, a PA DEP sewage facilities planning module shall be submitted pursuant to Act 537. Planning module approval must be obtained prior to the initiation of any earthmoving activities.
7. All methods of wastewater disposal shall meet requirements of the Department of Environmental Protection, Township construction standards and the Official Township Sewage Facilities Plan, as amended, as applicable.
8. Recertification of On-Lot Systems. Any septic system is required to be reviewed and/or tested by the Sewage Enforcement Officer for adequacy if a change of use or expansion of use would cause an increase in sewage flows, or if there would be an increase in dwelling units.
9. Backup/Alternate Septic Drain Field. See the Township ordinance regulating individual and community sewage systems, which requires a lot served by an on-lot septic system to include an alternate drainfield location meeting Department of Environmental Protection requirements.
10. On-Lot Systems and Lot Area. A more-restrictive minimum lot area may be established by the Sewage Enforcement Officer based upon Department of Environmental Protection regulations.
11. Nonresidential Septic Systems. A nonresidential use served by an on-lot septic absorption field shall not generate more average wastewater flow into such system than would be equal in flow to an average of one equivalent dwelling unit per acre of lot area.
12. If impervious coverage is added to on a lot of less than one acre or on a lot with three or more dwelling units, see also §27-403.4.M(10) of the Salisbury Township Zoning Ordinance concerning the requirement for an alternative septic location.

§22-1008 - Water Supply, Distribution and Fire Protection.

1. Centralized Water System.

- A. Whenever an existing centralized water system is within 1/4 mile of the proposed lot, subdivision, or land development and geographically and economically accessible to a proposed subdivision or land development, a distribution system shall be designed with adequate main sizes to furnish an adequate supply of water to each lot and/or use and shall be connected to the existing system. Multiple connections shall be provided where feasible and when required by the Township Engineer.
- B. Where an existing system is not accessible, the average lot size is less than 30,000 square feet and more than 12 dwellings or one or more nonresidential buildings are proposed the applicant shall provide a centralized water supply and distribution system.
- C. All centralized systems shall be designed to meet the requirements of the Township, the Pennsylvania Department of Environmental Protection and other appropriate agencies. The minimum size of mains shall be eight inches, although six inches may be acceptable in a cul-de-sac when approved by the Township Engineer. The Township may, where necessary and appropriate, require larger mains to service the immediate subdivision or land development.
- D. Suitable agreements shall be executed for the design, specifications, construction, ownership and maintenance of such systems.
- E. Where a centralized water system is provided, the system shall also be designed with adequate capacity for firefighting purposes. Sufficient fire hydrants shall be installed so that all dwelling units and principal nonresidential buildings are no more than 300 feet from a fire hydrant.
- F. Fire hydrants shall deliver water at the minimum rates in the categories shown below.

| Type of Subdivision | Minimum Fire | Minimum Duration |
|-------------------------------|--------------------------|-------------------------|
| | Flow at 20 psi | of Sustained |
| | Residual Pressure | Minimum Flow |
| | (GPM) | Rate |
| Residential (Distance Between | | |

| Type of Subdivision | Minimum Fire Flow at 20 psi Residual Pressure (GPM) | Minimum Duration of Sustained Minimum Flow Rate |
|---|--|--|
| Units) | | |
| Over 100 | 500 | 2 |
| 31 to 100 | 750 | 2 |
| 11 to 30 | 1,000 | 2 |
| Less than 11 | 1,500 | 2 |
| Nonresidential and residential greater than two stories | 2,000 | 4 |

*Fire flow tests shall be conducted using the National Board of Fire Underwriters method of testing.

2. On-Lot Water System.

- A. Where individual on-site water supply system(s) are to be utilized, each lot so served shall be of a size and shape to allow the safe location of such a system.
- B. Where individual on-site water supply system(s) are to be utilized, it is required that the subdivider or land developer provide at least one test well for each 10 proposed dwelling units. Such wells shall be drilled, cased, and grout-sealed into bedrock at least 50 feet deep and shall have a production capacity of at least five gallons per minute (gpm) per proposed dwelling unit of safe, potable water meeting all maximum contaminant level (MCL) parameters of the PA DEP new source drinking water standards as certified by the PA DEP or a PA DEP approved laboratory. The well(s) and appurtenances shall be located, drilled and installed in accordance with all applicable requirements of the PA DEP. The contaminant, its test result, and its established MCL for a community water system as described by the PA DEP, shall be included on the recorded plan for any contaminant which exceeds the established MCL. The test well(s) should be located such that they are remote from each other, and such that they may be utilized as permanent wells by future lot owners. The proposed location(s) shall be subject to review by the Township Engineer. During the drilling operation, straw bales and filter fabric shall be provided, placed and properly anchored as necessary for temporary control of silt-laden runoff and soil erosion. The test

well(s) shall be subjected to drawdown tests (simultaneously if more than one test well) for a period of at least eight hours to confirm that the capacity is adequate and to determine the effects on existing wells adjacent to the land development. The pumping rate shall be constant throughout the duration of the test and shall be based on a minimum of five gpm per proposed dwelling unit, with the resultant total rate distributed approximately evenly over the total number of test wells. The test well(s), along with existing wells adjacent to the land development, shall be monitored for drawdown. The location(s) of the existing well(s) which are to be monitored shall be subject to review by the Township Engineer and shall depend on site-specific conditions such as topography, soils, types, geology, test well pumping rate, etc. The pumping rate and water level of each test well, and the water level of each monitor well, shall be logged according to the following schedule.

Well Test Logging Requirements

| Elapsed Time to Test | Recording Frequency |
|-------------------------------|----------------------------|
| First 10 minutes | One every minute |
| From 10 minutes to two hours | One every 10 minutes |
| From two hours to end of test | One every hour |

Recovery Logging Requirements

| Elapsed Time of Test | Recording Frequency |
|---|----------------------------|
| First 10 minutes | One every minute |
| From 10 minutes to two hours | One every 15 minutes |
| From two to four hours, or to 90% of the initial level, whichever occurs sooner | One every 30 minutes |

*After completion of the well testing, the developer shall install a watertight, overlapping locked cover on the top of the casing to prevent contamination of the test well(s).

§22-1009 - Utilities Other Than Water and Sewer.

1. All electric power, telephone, cable television and natural gas distribution lines shall be placed underground in accordance with the current standards of the utility serving the subdivision or land development except where the Board of Commissioners, or Planning Commission, as the case may be, determine such placement is not feasible. When notifying public utilities of the opportunity to serve any new subdivision or land development, the developer shall also notify all cable operators licensed to operate a cable system in Salisbury Township of the opportunity to install cable facilities to serve the subdivision or land

development. Each separate tract of land within a subdivision or land development shall have the opportunity to connect to any cable operator permitted in Salisbury Township. No public utility easements shall prevent any other cable operator authorized to operate in Salisbury Township, now or in the future, from using such easements to extend other and further lines to such subdivision or land development. Also refer to the Cable Television Franchise Ordinance [Chapter 13, Part 2] for further cable license agreement provisions. Also refer to §22-1015 for required easement width.

§22-1010 - Stormwater Drainage.

1. General Requirements.

- A. Stormwater projects proposing less than 10,000 s.f. of increased runoff producing surfaces, including but not limited to buildings and pavement and other impervious surfaces, compacted stone and paver surfaces, and change in ground cover due to tree removal, are required to provide a Drainage Plan and Narrative meeting these sections for Township review and approval.
- B. Stormwater projects proposing 10,000 s.f. or more of increased runoff producing surfaces, including but not limited to buildings and pavement and other impervious surfaces, compacted stone and paver surfaces, and change in ground cover due to tree removal, are required to provide a Drainage Plan and Narrative meeting these sections for Township and Lehigh Valley Planning Commission review and approval for Act 167 compliance.
- C. All development projects creating increased runoff producing surfaces in excess of 2,000 square feet shall be required to attenuate the increased runoff from the site for the 2 year return period storm and meet the discharge requirements of the Act 167 Plan for the 10 year, 25 year and 100 year storms.
- D. The Storm Drainage Plan and Narrative shall analyze the impact of any increased storm water runoff discharged from the site for each storm, both rate and volume, on downstream property owners using Township and County Conservation District approved criteria. If the Drainage Plan and Narrative indicates the proposed development will aggravate or worsen existing downstream conditions on downstream properties, the Developer shall either revise the Drainage Plan and Narrative with detention or infiltration facilities to attenuate the increased runoff or obtain written permission via a drainage easement approved by the Township to allow the additional runoff.

- E. Storm sewers shall tie into reasonably accessible existing storm sewers if required by the Township and if adequate capacity exists in the existing system. When the development project proposes connecting to any Township storm drainage system, the Storm Drainage Plan and Narrative shall analyze the existing storm drainage system to verify sufficient capacity in the existing system to handle the increased flow to the system.
- F. Storm drainage facilities shall be designed and provided to permit unimpeded flow of natural water courses and proposed stormwater improvements without damage to persons or property.
- G. Storm drainage facilities should be designed not only to handle the anticipated peak discharge from the property being subdivided or developed, but also to accommodate or receive the runoff that will occur from properties at higher elevations (i.e., which drain through the property being subdivided or developed).
- H. Storm sewers shall tie into reasonably accessible existing storm sewers if required by the Township and if adequate capacity exists in the existing system.
- I. All lots shall be laid out and graded to prevent cross lot drainage and to provide positive drainage away from proposed building areas and on-site sewage disposal facilities. A note to this effect shall be placed on all plans to be recorded.
- J. An adequate storm sewerage system consisting of inlets and other underground drainage structures with approved outlets shall be constructed where the proper collection of stormwater runoff and the prevention of erosion cannot be accomplished satisfactorily by surface drainage facilities.
- K. Outlets shall be approved by the Township:
 - 1) Natural drainage shall be maintained where reasonable.
 - 2) The existing points of natural drainage discharge onto adjacent property shall not be altered nor shall the rate or discharge characteristics (sheet flow, channelization, etc.) of runoff be altered or increased because of development without the written approval of all affected landowners.

- 3) No stormwater runoff or natural drainage water shall be so diverted as to overload drainage systems, or create flooding or the need for additional drainage structures on other private properties or public lands, without provisions deemed acceptable to the Township being made by the developer to satisfactorily handle such conditions.

L. Storm sewerage systems shall not be combined with sanitary sewerage systems.

M. Design of storm drainage collection systems shall be based at a minimum upon twenty-five-year return frequency storm flows and shall be prepared and sealed by a professional engineer licensed in the Commonwealth of Pennsylvania. Complete sealed calculations shall be submitted to the Township for review by the Township Engineer (see Appendix D). All designs must be approved by the Township Engineer.

2. Specific Requirements (refer to Appendix D for design criteria).

A. Collection Systems.

- 1) Stormwater runoff from streets shall not be permitted to flow across building lots but shall be collected with the street right-of-way and discharged in a controlled manner.
- 2) Inlets shall be placed at all low points, at points at points where the flow in gutters exceeds three inches, and at a distance appropriate to collect peak runoff expected from a twenty-five-year minimum return frequency storm. Inlets or manholes shall be placed, as appropriate, at points of change in the horizontal or vertical directions of the storm sewers. In streets, inlets shall normally be located along the curb line and at or beyond the curb radius points. For the purpose of inlet location at corners, the depth of flow shall be considered for each gutter. At intersections, flow across through streets shall be avoided but, if unavoidable, will not exceed one inch in depth. Pennsylvania Department of Transportation standard two-foot by four-foot Type C, M, S inlets or approved equivalents should be used. Inlets shall be depressed two inches below the grade of the gutter or ground surface. Manholes may be substituted for inlets at locations where inlets are not required to handle surface runoff.

- 3) Storm sewers shall have a minimum diameter of 15 inches and shall be

coated, corrugated metal pipe with paved inverts, reinforced concrete pipe, or HDPE (high density polyethylene) pipe. Concrete pipe shall be used within the street right-of-way and in other areas required by the Township Engineer. Minimum pipe slope shall be 1/2%.

- 4) Drainage structures that are located in state highway rights-of-way shall be approved by the PennDOT, and a letter from that office indicating such approval shall be directed to the Township before final plan approval or prior to the commencement of any earth-moving, grading or construction.
- 5) Vertical pipes, inlets, headwalls, endwalls, and other surface water receiving structures shall be installed with child-proof protection, bicycle safe grates, and trash racks where necessary.
- 6) Bridges and culverts shall be designed to support expected loads, to carry expected flows, and to be constructed to the full width of the right-of-way in accordance with Pennsylvania Department of Transportation Construction Standards. Hydraulic designs shall be based on criteria established by Pennsylvania Department of Environmental Protection and shall be designed and certified by a licensed Professional Engineer.
- 7) Minimum slopes of all turf swales shall be 0.01 foot per foot. Concrete low flow channels must be provided within all open channels with slopes less than 1%.
- 8) Headwalls shall be used where storm runoff enters the storm sewer horizontally from a natural or man-made channel. The capacity of such storm sewers shall be calculated for both inlet and outlet control. The lower value of the two shall be used to determine the capacity of the storm sewer.

B. Detention, Retention, and Infiltration Basins.

- 1) Detention or retention basins shall be provided if the post-development peak rate of runoff exceeds the predevelopment rate, unless determined unnecessary by the Township Engineer. Basin designs shall be in accordance with any Act 167 Watershed Plan adopted in the area of development.
- 2) Storage facilities shall, at a minimum, be designed to contain the one-hundred-year frequency design storm. Maximum allowable discharge from

the basin for the two-, ten-, twenty-five- and one-hundred-year storms shall be based upon the applicable Act 167 release rate criteria. If no Act 167 Watershed Act is adopted for the area of development the maximum allowable discharge shall not exceed the predevelopment rate for the respective storm events.

- 3) Retention basins shall only be allowed as infiltration basins.
- 4) Infiltration basins shall be designed in accordance with the current design requirements of the Act 167 Plan. Infiltration basins shall have a minimum infiltration rate of 0.5 inches per hour. (Note: This requirement supersedes the Act 167 requirements and shall govern.) All infiltration testing shall be performed in accordance with current Act 167 Plan testing requirements for surface stormwater infiltration. All infiltration testing shall be witnessed and approved by the Township Engineer.
- 5) Method of design.
 - a) A generally accepted basin design procedure such as SCS Method, Penn State Runoff Model, or the Storage Indication Method shall be used for basin design.
 - b) The Modified Rational Method may be used for basin design only if the tributary area is less than 750 acres in size.
- 6) Discharge from the basin shall reproduce the existing drainage patterns from the site as closely as possible.
- 7) Detention, retention, and infiltration basins shall be designed to drain completely after every storm. Basins in residential areas should, to the extent practical, have slopes less than four horizontal to one vertical both inside and outside of the basin.
- 8) Detention and infiltration basins shall be designed with an access path a minimum of 8 feet wide and with a maximum slope of 10%.
- 9) Fencing shall be required around detention, retention, and infiltration basins in the following cases:

- a) The maximum depth of water in the basin for a twenty-five-year design storm is greater than 30 inches.
 - b) The side slopes of the basin are steeper than four horizontal to one vertical.
 - c) The time to empty basin is longer than three hours.
 - d) The detention basin is to be dedicated to Salisbury Township, and fencing is requested by the Township.
 - e) The Board of Commissioners determines that the public safety would be endangered if the basin is not fenced.
- 10) If fencing is required around any detention pond, then a buffer yard shall be installed which meets the requirements of §27-803, Subsection 2D and E, of the Salisbury Township Zoning Ordinance [Chapter 27].
- 11) The minimum basin bottom slope for detention basins shall be 2%. A paved low flow channel is required in basins with bottom slopes less than 2%. Infiltration basins may have a flat (0%) bottom slope.
- 12) Detention basins shall be lined to restrict infiltration when proposed for construction in areas with sinkhole prone soils as determined by the Natural Resources Conservation Service. The liner must have a maximum permeability rate of five times 10 to the negative sixth power centimeters per second. Infiltration basins are not required to provide an infiltration restriction liner.
- 13) Stormwater recharge pits shall be provided where subsoil conditions allow. All stormwater recharge pit testing, design, construction, and maintenance shall be in accordance with current Township Act 167 requirements and current Township constructions standards and specifications.

C. Storm Water Injection Wells

- 1) Storm water injection wells shall be designed to meet the requirements of this Chapter and any requirements of the PA DEP and the US Army Corps of Engineers. Proof of permit approval from all State and Federal authorities

with jurisdiction in this matter shall be provided to the Township prior to obtaining any plan or construction approvals.

- 2) Storm water discharged to injection wells shall meet the PA DEP minimum storm water quality discharge requirements for stormwater discharged to waters of the Commonwealth. A report detailing the proposed stormwater quality discharge to the injection well is required. PA DEP review of the proposed surface water discharge to the stormwater injection well is required. No stormwater injection wells will be approved without PA DEP approval.
- 3) Aquifer testing shall be provided to the Township that verifies that the accepting aquifer is capable of accepting the proposed volume of stormwater discharged without negatively affecting the aquifer water quality and the high-water elevation. No increase in the aquifer high-water elevation will be approved without written approval from all affected property owners.
- 4) A best management practices operation and maintenance agreement with the Township is required to be recorded in the Lehigh County Courthouse for all stormwater injection wells.
- 5) The following note is required to be added to the recorded plans and recorded in the property deed for any project that proposes stormwater injection wells: “Stormwater injection wells are provided for this project. The US Army Corps of Engineers has reviewed and permitted this installation under permit number ##### (insert permit number). The property owner, and all heirs and assigns, accepts full operation and maintenance responsibilities for all aspects of the stormwater injection wells and agrees to hold Salisbury Township harmless for the stormwater injection wells and any associated aquifer water quality issues that may be caused by the stormwater injection well. This is a covenant that shall remain with the land in perpetuity or until the stormwater injection well is removed from service.”

C. Stormwater Quality Best Management Practices (BMPs)

- 1) For projects that disturb greater than one acre of land, or when determined necessary by the County Conservation District, a PA Department of Environmental Protection NPDES permit is required. The approved NPDES project number shall be listed on the recorded plan.

- 2) For projects less than one acre of land, or when a PA Department of Environmental Protection NPDES permit is not required, stormwater quality best management practice items, as required by the local Act 167 Stormwater Management Plan, shall be provided for all projects.
- 3) The following notes are required to be added to the recorded plan and recorded in the property deed for any project that requires water quality best management practices:
 - a) “Stormwater quality best management practices are provided for this project. The property owner, and all heirs and assigns, accepts full operation and maintenance responsibilities for all aspects of the stormwater quality best management practices and agrees to hold Salisbury Township harmless for the stormwater quality best management practices and any associated water quality issues that may be caused by the stormwater quality best management practices. This is a covenant that shall remain with the land in perpetuity or until the stormwater quality best management practice item is removed from service.”
 - b) “Stormwater quality best management practices shall not be removed or altered without prior notification and approval of the Township. Removal or alteration of any approved or existing stormwater quality best management practices is prohibited unless prior Township approval of replacement facilities is obtained.”
 - c) “A stormwater best management practices operation and maintenance agreement between the property owner and the Township is required to be recorded in the Lehigh County Courthouse for all developments that propose and construct stormwater quality facilities.”

§22-1011 - Driveways.

1. Access to all roads within the Township shall conform to the requirements set forth herein and any other applicable Township regulations. A PennDOT highway occupancy permit is required for each entrance of a driveway onto a legislative route.
2. Separation From Other Driveways, Accessways, or Street Intersections. Where an accessway enters onto a local road or collector street, the center line of the accessway shall be offset a minimum of 75 feet from the centerline of any other accessway, or street

intersection on either side of the road. Where an accessway enters onto an arterial road, the centerline of the driveway or accessway shall be offset a minimum of 150 feet from the centerline of any other accessway or street intersection on either side of the road. If the above separation distances cannot be achieved on the property (either as proposed within a subdivision or on an existing lot), the accessway shall be located the greatest possible distance from the centerline of the nearby accessway or street intersection, based upon the recommendation of the Township Engineer.

3. Separation Between Driveways and Accessways Within One Lot. At least 75 feet shall be provided between the center lines of any two accessways or driveways along one street within one lot.
4. The following minimum separations shall be provided between side or rear lot lines and the near edge of a driveway curbcut:
 - A. Residential, single-family detached dwellings – 6 feet.
 - B. Residential, twin and/or townhouse dwellings – 3 feet on detached side, 0 feet on attached side.
 - C. Residential, duplex and/or triplex dwellings – 10 feet.
 - D. Multi-family (Four or more dwelling units) and all nonresidential uses - 25 feet.

*If the above separation distances cannot be achieved on the property (either as proposed within a subdivision or on an existing lot), the driveway curbcuts shall be located the greatest possible distance from the side and rear lot lines based upon the recommendation of the Township Engineer.

5. Driveways and accessways shall intersect streets at right angles, where practicable, and in no case less than 75 degrees.
6. Nonresidential driveways shall provide adequate turnaround space so that cars will not be required to back out onto a street in order to leave a nonresidential lot.
7. Grades. Driveway center line vertical grades shall not exceed the following:
 - A. Seven percent when access is to an arterial or collector street.

- B. Ten percent when access is to a local street.
 - C. The grade of the initial 20 feet behind the curb or edge of roadway shall not exceed 4%.
8. Sight Lines at Intersections of Driveways with Streets. Refer to §27-803, Subsection 1, of the Zoning Ordinance [Chapter 27] for sight distance restrictions. No signs, except required traffic directional signs, shall be placed nor shall any vehicles be parked in such locations that would obstruct clear sight distance from any driveway.
9. Widths.
- A. See §27-603, Subsection 4.A, of the Salisbury Township Zoning Ordinance [Chapter 27] for required widths for access drives and driveways.
 - B. When curb returns are required to define the driveway, the maximum width between the ends of the returns at the curb line may be up to 50 feet greater than the maximum width at the street right-of-way line. The curb returns shall be rounded at the following minimum radii:
 - 1) Driveway and accessway entrances for multi-family residential developments, mobile home parks, and all nonresidential subdivisions shall be rounded at minimum radius of 25 feet.
 - 2) Driveway and accessway entrances for a single-family residential subdivision shall be rounded at a minimum radius of 15 feet.
10. Drainage.
- A. Provision shall be made to maintain uninterrupted parallel drainage along a street where it is intersected by an accessway or driveway.
 - B. Only reinforced concrete culvert pipe or HDPE pipe may be used for all storm sewer lines to be constructed within the street right-of-way. All such pipes shall be installed and maintained by the property owner.
 - C. The minimum diameter of any drainage pipe shall be 15 inches.

- D. The ends of all pipes shall be protected with a structure. At the minimum, pipe ends shall extend far enough from the driveway edge to produce a slope no steeper than two horizontal to one vertical from the edge of the driveway down to the top of the structure. All drainage pipes and structures shall be approved by the Township Engineer prior to plan approval or construction.
 - E. If the depth of the roadside swale or gutter does not warrant the installation of a pipe, the channel may be extended across the driveway provided the following conditions are met:
 - F. The top of the driveway is the same elevation as the invert of the swale.
 - G. The anticipated depth of flow in the swale for a twenty-five-year frequency storm does not exceed four inches.
 - H. The driveway channel shall be designed to meet Lehigh County Conservation District requirements for pipe capacity and design standards.
11. Construction Specifications. All driveways and accessways shall be graded, surfaced with the appropriate material approved by the Township, and drained to the extent necessary to prevent dust, erosion, or excessive water flow across streets or adjoining properties.

§22-1012 - Sidewalks and Curbs.

The following regulations shall only apply if the proposed project meets the definition of “Land Development”. However, if the proposed project does not meet the definition of “Land Development” the developer may install curbs and/or sidewalks following these regulations below.

1. Sidewalks shall be installed along any existing or proposed street or within any nonresidential subdivision or land development.
2. Curbs shall be installed along both sides of all streets. Adequate provisions shall be made for driveway entrances and shall include concrete driveway aprons across sidewalks.
3. Sidewalks shall be a minimum of five feet wide, and shall meet the current Salisbury Township requirements for sidewalk design as stated in Chapter 21. 4. All sidewalks and curbs at the intersection of two or more streets shall include a sloped curb cut and ramp

suitable for use by wheelchairs and designed and installed in accordance with ADA requirements.

§22-1013 - Monuments and Markers.

The following regulations shall only apply if the proposed project meets the definition of “Land Development”. However, if the proposed project does not meet the definition of “Land Development” the developer may install monuments and markers following the regulations stated below.

1. Permanent concrete monuments or iron pins shall be accurately placed at all points marking changes in the direction of external boundary lines of a property subdivided.
2. Concrete monuments shall be made of reinforced concrete with minimum dimensions of four inches at the top, six inches at the bottom and be 30 inches long. The monument should be tapered and have at least 1/2 inch diameter, thirty-inch long steel reinforcing rod inserted vertically in the monument and protruding 1/2 inch above the top of the monument.
3. All monuments and pins shall be placed by or under the direction of a professional land surveyor so that the center of the top of the monument or pin, shall coincide exactly with the point of intersection of the property lines being monumented.
4. Monuments and pins shall be set with their top level with the proposed finished grade of the surrounding ground, except:
 - A. Monuments and pins which are placed within the lines of existing or proposed sidewalks shall be so located (preferably beneath the sidewalks) that their tops will not be affected by lateral movement of the sidewalks.
 - B. Where sidewalks are existing, a stone point (a four-inch square chisel cut in the sidewalk with a drill hole in center) may be substituted for a monument or pin.
5. All streets shall be concrete monumented on the street right-of-way lines at the following locations:
 - A. At least two monuments at each street intersection.
 - B. At changes in direction of street right-of-way lines, including ends of radii at

street intersections.

- C. At intermediate points wherever topographical or other conditions make it impossible to sight directly between two otherwise required monuments.
- D. At such other places along the right-of-way lines of streets as may be determined by the Township Engineer to be necessary so that street rights-of-way will be readily defined.

§22-1014 - Street Lights and Parking Lot Illumination.

1. Street lights are required to be installed in all subdivisions and land developments in accordance with the conditions agreed upon by the developer, the Township and the Pennsylvania Power and Light Company as a condition of final plan approval.
2. All off-street parking areas and driveways, except a driveway and off-street parking area accessory to a single-family detached dwelling, a semidetached dwelling (twin) or a townhouse dwelling, which has individual rather than a shared or common parking area, shall be illuminated adequately during the hours between sunset and sunrise when the use is in operation. The lighting shall meet the requirements outlined in §27-511 of the Salisbury Township Zoning Ordinance [Chapter 27]. A street lighting and site lighting plan must be submitted with each major subdivision or land development plan.

§22-1015 - Easements.

1. Easements with a minimum width of 20 feet plus an additional five foot width for each additional utility shall be provided for poles, wires, conduits, storm drainage, sanitary sewers, water mains and/or other utility lines intended to service the abutting lots.
2. To the fullest extent possible, easements shall be centered on or be adjacent to front, side, and rear lot lines. In cases deemed necessary by the Township, easements shall be formally dedicated to the Township via a deed of dedication in a form satisfactory to the Township Solicitor for the perpetual maintenance of the facilities contained therein.
3. A drainage and flooding easement shall be provided along the banks of a stream, lake, pond, wetlands, or other watercourse. The easement shall extend 50 feet from the water's edge on

all sides.

4. There shall be a minimum distance of 50 feet, measured in the shortest distance, between any proposed dwelling unit and any petroleum, petroleum products, or natural gas transmission line which traverses the subdivision or land development, unless a greater distance is recommended by the transmission line company.

§22-1016 - Shade Trees and Landscaping.

1. Shade Trees. Shade trees of approved deciduous hardwood varieties shall be planted within the street right-of-way by the developer for all subdivisions and land developments. Tree species and spacing for planting shall follow the guidelines of this section.
 - A. The shade trees shall be planted at minimum intervals of between 30 feet and 40 feet, depending upon the type of tree.
 - B. Trees shall be of a nursery stock quality, grown under the same climatic conditions as at the location of the development.
 - C. All planting shall be performed in conformance with good and accepted nursery and landscape practices.
 - D. All trees shall be balled and burlapped unless this requirement is waived by Township for any specified variety.
 - E. The requirement for shade trees may, upon just cause shown, be waived by the Township. If there are existing trees along the street right-of-way which meet Township standards they may be considered in lieu of the required shade trees.
 - F. Shade trees shall be planted prior to the final inspection of public improvements for the subdivision or land development.
 - G. Trees permitted shall be of symmetrical growth, free of insect, pests and disease.
 - H. The size of the shade trees shall be three to 3 1/2 inches (caliper) measured six inches above the ground level. Trees shall have a minimum of a seven-foot single straight stem to the first lateral branches above ground level.

- I. In all subdivisions and land developments shade trees shall be planted midway between the curb and sidewalk, with a width in accordance with the following standards:
- 1) In a fifty-foot street right-of-way, with a ten-foot sidewalk area, the planting area is 3 1/2 feet.
 - 2) In a sixty-foot street right-of-way, with a twelve-foot sidewalk area, the planting area is 5 1/2 feet.
 - 3) In a situation where curbing and/or sidewalks are deferred or waived, the street trees shall still be planted in the same intervals as Subsections 3I(1) and (2) above, providing for the future installation of curb or sidewalk.
- J. The following is a list of trees recommended for planting as shade trees between the curb and sidewalk.

- 1) Trees recommended for planting strips at minimum spacing of 30 feet between trees. All trees should be of single stemmed treeform:

| <u>Common Name</u> | <u>Botanic Name</u> |
|--------------------------------|------------------------------------|
| Hedge maple | Acer campestre |
| Upright European hornbeam | Carpinus betulus fastigiata |
| Pyramidal singleseed hawthorn | Crataegus monogyna stricta |
| Crimson Cloud hawthorn | Crataegus osyacantha Crimson Cloud |
| Washington hawthorn | Crataegus phaenopyrum |
| Tschonoskii crabapple | Malus tschonoskii |
| Rancho Columnar Sargent Cherry | Prunus sargentii Rancho |
| Kwanzan cherry | Prunus serrulata Kwanzan |

- 2) Trees recommended for planting strips at a minimum spacing of 40 feet between trees:

| <u>Common Name</u> | <u>Botanic Name</u> |
|---------------------------|----------------------------|
| European hornbeam | Carpinus betulus |
| Katsura tree | Cercidiphyllum japonicum |
| Hop hornbeam | Ostrya virginiana |
| Bradford Callery pear | Pyrus calleryana Bradford |

| | |
|--------------------------------------|-------------------------------|
| Korean mountain-ash | Sorbus alnifolia |
| Sugar maple | Acer saccharum |
| Green Mt. sugar maple | Acer saccharum Green Mt. |
| Ginkgo | Ginkgo biloba (male only) |
| Shademaster Thornless | Gleditsia triacanthos inermis |
| honeylocust | Shademaster |
| Skyline locust | Gleditsia triacanthos inermis |
| | Skyline |
| Sawtooth oak | Quercus acutissima |
| | Quercus imbricaria |
| Littleleaf linden | Tilia cordata |
| Greenspire linden | Tilia cordata Greenspire |
| Norway maples | Acer platanoides |
| White ash | Fraxinus Americana |
| Pin Oak | Quercus palustris |
| American sycamore | platanus occidentalis |
| Red Maple | Acer Rubrum |
| Chinese Elm | |
| Green Ash (Marshall's seedless type) | |
| Fraxinus Pennsylvania lanceolata | |
| Scarlet oak | Quercus Coccinea |
| Sour gum (Black tupelo, Black gum) | Nussa Sylvatica |
| Red oak | Quercus rubra |
| Zelkova | Zelkova serrata |

- 3) Additional varieties not listed above may be utilized as shade trees if the applicant provides adequate reference material or a letter from a registered landscape architect to prove to the satisfaction of the Township that a substitute would be appropriate, but in no case shall the following species be utilized as street trees:

| <u>Common Name</u> | <u>Botanic Name</u> |
|---------------------------|----------------------------|
| Boxelder | Acer negundo |
| Norway Maple | Acer platanoides |
| Silver Maple | Acer saccharinum |

Common Name**Botanic Name**

| | |
|------------------------------------|-------------------------|
| Horsechestnut | Aesculus species |
| Tree of Heaven | Tilanthus |
| Silk Tree or Mimosa | Albizia julibrissin |
| Catalpa | Speciosa |
| Ginko (female) | Ginko biloba |
| Thorned Honeylocust | Gleditsia triacanthos |
| Black Walnut | Juglans nigra |
| Hopa, Eley and Almey and Crabapple | Malus Hopa, Eley, Almey |
| Mulberry | Morus species |
| Plane Tree or Sycamore | Plantanus species |
| Black Locust | Robinia pseudoacaia |
| Willows | Salix species |
| Regent Scholartree | Sophora japonica |
| European Mountain Ask | Sorbus aucuparia |
| American Elm | Ulnus americana |
| Birch | Betula species |
| Lussian Olive | Elaeagnus species |
| Osage Orange | Macluna pomifera |
| Apple | Malus pumila |
| Poplar, Aspen | Poplus species |
| Coniferous Order | Coniferates ord. |
| Fruit Trees | |
| Dogwood | |
| Thorned Trees | |

- K. After expiration of the 18-month maintenance period, all shade trees shall be regulated by the Salisbury Township Tree Maintenance, Removal, and Replacement Ordinance (Chapter 25)

§22-1017 - Open Space, Recreation Areas and Fees.

1. Salisbury Township adopts the Comprehensive Plan of Salisbury Township, Community Facilities Plan, Recreation and Open Space, adopted May 28, 1992, by the Board of

Commissioners as the Recreation Plan for Salisbury Township.

A. Purpose. To provide adequate open spaces, recreation lands and recreation facilities to serve new residents of new developments, for both active and passive recreation, and to recognize and work to carry out the Recreation Plan for Salisbury Township. This section shall apply to any major subdivision, minor subdivision or residential land development reviewed and approved by the Township, but shall not apply to any resubdivision or lot consolidation plan.

B. Limitations on Use of Fees.

- 1) Any fees collected under this section shall be accounted for separately from other Township funds.
- 2) To ensure that the lands and facilities are accessible to the residents and employees of the developments that paid fees towards their cost, the Township designates two Recreation Fee Districts. These districts are the Eastern Recreation Fee District and the Western Recreation Fee District. Any fees collected under this section shall only be expended within the same recreation fee district as the subdivision or land development that contributed the fees.
- 3) Such fees shall only be used for the following: acquisition of public open space, development and/or redevelopment of existing or proposed public recreational facilities, landscaping of public open space and closely related engineering and design work.

C. Land Dedication. Any subdivision or multi-family land development regulated under this section shall be required to dedicate the specified amount of common open space, unless the Township determines that such land in that location would not be desirable or efficient based upon the standards of this section, in which case recreation fees-in-lieu of land shall be required.

- 1) Generally, it is the intent of this section that development of 10 or fewer dwelling units that do not include land that is adjacent to existing publicly-owned land should be required to pay recreation fees in lieu of dedicating land.
- 2) The land and fee requirements of this section shall be based upon the number

of new dwelling units that would be permitted on the lots of a subdivision or land development after the plan is approved.

- 3) Prime Open Space. For the purposes of this section, the term Prime Open Space shall mean land proposed to be dedicated as common open space that would meet all of the following standards:
 - a) Less than 6% slope.
 - b) Not a wetland under federal and/or state regulations.
 - c) Be part of a contiguous tract of at least two acres (which may include pre-existing common open space that is adjacent).
 - d) Not be within the one-hundred-year floodplain, as defined by official floodplain maps of the Township.
- 4) Amount of Common Open Space. A subdivision or land development shall be required to dedicate the following amounts of common open space for each permitted new dwelling unit, unless the Board of Commissioners determines that recreation fees in lieu of the open space would be more in the public interest:

| Percentage of the Total Required Common Open Space that Would Meet the Definition of Prime Open Space | Minimum Required Common Open Space Per Permitted Dwelling Unit |
|--|---|
| 0% to 25.0% | 2,000 square feet |
| 25.1% to 75.0% | 1,500 square feet |
| 75.1% to 100% | 1,200 square feet |

- D. Fees for Residential Development. If the Board of Commissioners determines that a land dedication within a proposed subdivision or land development would not be in the public interest, the applicant shall be required to pay fees in lieu of dedicating open space. A notation stating that such fees are required shall be stated on the final record plan. This fee shall be established, per permitted dwelling unit, and is included in the Township Fee Schedule, which may be updated from time to time by resolution of the Board of Commissioners.

E. Decision on Land vs. Fees. The Township shall determine whether a land dedication or the payment of fees shall, or a combination of the two shall be required. This determination should, but is not required to, be made at the time of sketch plan review. The Township should, at a minimum, consider the following in reaching its decision:

- 1) Whether the land in that location would serve a valid public purpose and be suitable for active or passive recreation.
- 2) Whether there is potential to make a desirable addition to an existing public recreation area.
- 3) Whether the proposed land would meet the objectives and requirements of this section and any relevant policies of the Township Comprehensive Plan.
- 4) Whether the area surrounding the proposed development has sufficient existing recreation and open space land, and whether it is possible for pedestrians and bicyclists to reach those lands.
- 5) Any recommendations that may be received from the Planning Commission, Township Engineer, the Recreation Advisory Committee and other Township staff.
- 6) Whether the proposed open spaces would preserve important natural features (such as woodlands or creek valleys) that might otherwise be negatively affected.
- 7) Whether it could be possible to combine common open space on this tract with the additional open spaces on an adjacent tract, when the tract is developed in the future.

F. Common Open Space to be Dedicated.

- 1) Land required to be dedicated shall be suitable for its intended purpose. The applicant shall state what improvements, if any, he/she intends to make to the land to make it suitable for its intended purpose, such as rough grading, landscaping or development of trails. Such land shall be free of construction and other debris at the time of dedication.

- 2) Required common open space shall be dedicated to the Township, unless the Board of Commissioners agree to allow a dedication to any of the following: the Salisbury Township School District, the County, a homeowner association or an environmental organization acceptable to the Board of Commissioners. In the case of a rental development, the Township may permit the common open space to be retained by the owner of the rental development.
- 3) If required common open space is to be owned by a homeowner association, the developer shall establish such association in a form that requires all property owners within the development to annually contribute to the maintenance of the common open space. Provisions of any homeowner association agreements regarding required common open space shall be subject to acceptance by the Board of Commissioners, based upon review by the Township Solicitor. The provisions of § 705(f) of the MPC should serve as a model for such agreement.
- 4) Any required common open space dedication shall include deed restrictions to permanently prevent the development of buildings, except buildings for noncommercial recreation or to support maintenance of the land for recreation.
- 5) Priority shall be given to dedication of land in approximate locations identified by the Township Comprehensive Plan.
- 6) Areas intended for active recreation shall be well-drained, of less than 4% average slope and not require filling in of a wetland for use.
- 7) Land shall not be used to meet the minimum requirements for common open space if it has any of the following conditions:
 - a) Lacks adequate access for maintenance and for pedestrians.
 - b) Is not suitable for either active or passive recreation.
 - c) Is within a stormwater detention basin, unless the applicant proves to the satisfaction of the Board of Commissioners that such area would be designed so that it clearly would be usable on a regular basis for recreation.

- d) Is required to be provided under another section of this chapter or another Township Ordinance.
 - e) Is within 15 feet of any principal building.
 - f) Is within 15 feet of a parking area of more than six parking spaces (other than parking areas specifically developed to serve the open space).
 - g) Would result in a total contiguous tract of common open space of less than one acre.
 - h) Is within the right of way or easement of an overhead electric power line with a capacity of 35 KV or higher.
- 8) Residual Lands. If only a portion of a larger tract is currently proposed to be subdivided, or the applicant owns one or more adjacent tracts that are not currently proposed to be subdivided, the applicant shall provide a sketch of a possible future land dedication on these adjacent lands in case they would be developed in the future.
- 9) Coordination With Future Adjacent Dedication. The Board of Commissioners may require that a required land dedication within a property currently being subdivided be placed along an edge of the property so that it may, in the future, be combined with an open space dedication on the edge of an adjoining property when that adjoining property is subdivided or developed.
- G. Combination of Land and Fees. Upon approval, the Township may accept a combination of common open space and fees in lieu of land to meet the requirements of this section for a residential subdivision or land development. This combination shall be based upon the common open space requirement that applies to a certain number of dwelling units and the fee in lieu of land requirement that applies to the remaining number of dwelling units.
- H. Timing of Fees. Fees required under this section shall be paid prior to the recording of the final plan, except as follows:
- 1) If the Township agrees to provisions in a binding development improvement agreement to require the payment of all applicable recreation fees prior to the issuance of any building permits within each clearly defined phase of the

development, then the fees are not required to be paid prior to recording of the final plan but may instead be paid within the requirements of that development agreement.

- 2) If the applicant agrees to pay such fees in installments, then all such fees shall not be considered to be paid, for the purposes of any applicable time limitations for utilization under the MPC, until all such fees are paid in full, including all installments and phases.
- I. Facilities in Place of Land or Fees. An applicant may seek a modification from the recreation fee or open space requirements of this section under the procedures of §22-1202 of this Chapter by substituting for such fee the construction of permanent recreation facilities within the proposed subdivision or land development, on nearby public open space, and/or within existing nearby parks or Recreation areas. The applicant must demonstrate to the satisfaction of the Board of Commissioners that the value of the proposed permanent recreation facilities will be approximately equal or greater than the land or fees that would otherwise be required. Permanent recreation facilities may include any play equipment, courts, ballfields, picnic areas, pavilions, bike paths, parking areas or other facilities related or accessory to public recreation. The cost of improvements for any recreation facilities proposed under this section will be determined by the Township.

§22-1018 - Traffic Impact Studies and Traffic Improvements.

1. Purposes. To allow the Township to determine the safety and congestion impacts, and related costs, of proposed major traffic generating uses. To require that applicants respond with reasonable proposals to resolve the negative traffic impacts that their proposed uses will cause on the public. To recognize that sufficient federal, state, and Township funds are not available to resolve traffic problems caused by private development. To assist in carrying out §§ 502(2)(ii) and 503(3) of the Pennsylvania Municipalities Planning Code as amended. To ensure that streets bordering a subdivision or land development are coordinated and of such widths and grades and in such locations as deemed necessary to accommodate prospective traffic and to facilitate fire protection. To ensure that the access into and out of subdivisions and land developments is reasonably safe.
2. Administration.
 - A. The full cost of the traffic study shall be borne by the developer.

- B. The traffic study shall be reviewed by the Township Engineer or alternate Township Engineer, the cost of which shall be borne by the developer.
- C. The project manager for any traffic impact report shall be a registered professional traffic engineer.
- D. The Township shall require such on-site traffic improvements to be provided by the applicant, as deemed appropriate, in light of the traffic impact study as a specific condition of preliminary plan approval for all land developments, subdivisions, or conditional use applications for which a study has been required.
- E. Joint traffic studies between different developers are acceptable.

3. Contents of a Traffic Study.

A. Project information containing the following data:

- 1) Developer and project name.
- 2) Site size and location.
- 3) Identification of an appropriate transportation study area for the proposal.
(Prior to the start of a traffic study, the applicant's traffic engineer shall meet with the Township Engineer or alternate Township Engineer to establish the limits of the study area and the streets and intersections to be studied).
- 4) Identification of existing and proposed site use(s) and intensity of development (e.g., number and type of dwelling units, square footages, etc.).
- 5) Identification of current and proposed land uses within the identified study area.
- 6) Any staging of development and completion date.

B. Traffic Facilities Description. Existing traffic conditions shall be measured and documented for all streets and intersections in the identified study area. [See §22-1018, Subsection 3A(3).] Existing traffic volumes for average daily traffic, peak highway hour(s) traffic and peak development-generated hour(s) traffic shall be

recorded. Traffic counts at designated intersections in the study area shall be conducted, encompassing the peak highway and peak development generated hour(s), and documentation shall be included in the report. A volume/capacity analysis based upon existing volumes shall be performed during the peak highway hour(s) for all designated streets and intersections in the study area. Levels of service shall be determined for each roadway segment to be studied and including all turning movements. Detailed traffic counts of existing local streets are not required, unless recommended by the Township Engineer. A tabulation of specific accident data including locations and types of accidents for the most recent four-year period shall be included in the analysis. This analysis will determine the adequacy of the existing roadway system to serve the current traffic demand. Roadways and/or turning movements experiencing levels of Service D, E, or F, as described in TRB Special Report 209: Highway Capacity Manual, Third Edition (1994), shall be noted as congestion locations.

- C. An analysis of future traffic conditions without proposed development. The total future traffic demand shall be calculated and analyzed. This demand shall consist of a combination of the existing traffic expanded to the proposed project build-out year and the traffic generated by other anticipated development within the study area. This analysis shall be performed for the peak hour(s) for all roadways and designated intersections in the study area. Level of service (LOS) calculations shall be provided for all designated intersections within the study area. All access points shall be examined as to the necessity of installing traffic signals. This evaluation shall compare the projected traffic to PennDOT warrant regulations for traffic signal installation.
- D. Traffic Impact of the Development. Estimation of vehicular trips resulting from the proposed project shall be completed for the peak highway and peak development-generated hour(s). Vehicular trip generation rates to be used for this calculation shall be obtained from the most recent Trip Generation Manual, published by the Institute of Transportation Engineers. These development generated traffic volumes shall be provided for the inbound and outbound traffic movements as estimated, and the reference source(s) and methodology followed shall be documented. All turning movements shall be calculated. These generated volumes shall be distributed to the area and assigned to the existing streets and intersections throughout the study area. Documentation of all assumptions used in the distribution shall be provided. Traffic volumes shall be assigned to individual access points. Any characteristics of the site that will cause particular trip generation problems shall be noted. The impact of any diversion or rerouting of existing traffic by the proposal shall be analyzed. For retail sales uses, the

increased traffic during the Christmas season and during weekends shall be forecast and analyzed.

- E. An analysis of future traffic conditions with proposed development. The total future traffic demand shall be calculated and analyzed. This demand shall consist of a combination of the existing traffic expanded to the proposed project build-out year, the proposed development-generated traffic, and the traffic generated by other proposed development within the study area. This analysis shall be performed for the peak hour(s) for all designated roadways and intersections within the study area. All access points shall be examined as to the necessity of installing traffic signals. This evaluation shall compare the projected traffic to PennDOT warrant regulations for traffic signal installation.
 - F. Recommendations and Conclusions. Levels of service for all designated streets and intersections within the study area shall be listed. All streets and/or intersections showing a level of service below "C" shall be considered deficient and specific recommendations for the elimination of these problems shall be identified. This listing of recommended improvements shall include, but not be limited to, the following elements: internal circulation design, site access location and design, external roadway and intersection design and improvements, and traffic signal installation and operation including signal timing. All physical street improvements and existing traffic control devices shall be shown on plan drawings.
 - G. An estimate of the costs of the required improvements. Approximate costs for all required improvements within the study area shall be developed.
 - H. A statement about the financial responsibilities for the needed improvements. The applicant shall respond to the traffic impact report by stating what on-site improvements he/she proposes and to what degree he/she is willing to assist in funding any off-site improvements that are identified in the traffic study. The improvements financing must be consistent with the Pennsylvania Municipalities Planning Code, as amended, Article V-A, Municipal Capital Improvement.
 - I. An improvement construction schedule. Such schedule shall include priority listing of the needed improvements. The expected beginning and ending of construction for each improvement shall be identified.
4. Timing of Required Traffic Improvements. For developments not the subject of an

improvements agreement under this chapter, no occupancy permit shall be granted for a use or uses until such traffic improvements that have been required by PennDOT and the Township to serve the use are in place and operating, unless the Board of Commissioners require or allow funds for a required traffic improvement to be placed in a dedicated escrow account to be used when such improvements are warranted.

§22-1019 - Environmental Protection

1. If the Township has reason to believe that a portion of a site proposed to be altered may meet the state or federal definition of a wetland, the Township may require the applicant to provide an on-site study by a qualified professional delineating the locations of wetlands. However, the Township accepts no responsibility to identify all wetlands or to warn parties of such possibilities. The presence of hydric soils, hydric vegetation typically found in wetlands or other hydrological indicators may be indicators of an area needing more-detailed study. Sufficient information shall be provided to the Township for a thorough review.
2. Erosion. All Township permits are granted on the condition that state erosion and sedimentation regulations and any officially submitted erosion and sedimentation plan are in compliance. Failure to comply with such regulations or plan shall be cause for suspension of Township permits.
3. Steep Slopes. If slopes of greater than 15% are to be disturbed, the applicant shall submit to the Township and carry out an acceptable sedimentation and erosion control plan, regardless of the project size. The Township may require that such plan be submitted to and found acceptable by the Lehigh County Conservation District. The plans shall be in compliance with all state sedimentation and erosion control regulations that are in effect at the time of the approval of the erosion and sedimentation control plan, and compliance with such regulations shall be a condition of all permits issued under this Chapter. Exceptions to this requirement are:
 - A. Accessory Structures. The construction or placement of a customary accessory structure or use of up to 600 square feet of building coverage on a lot after the issuance of the original occupancy permit for a principal building or structure, provided that no earthmoving shall occur on areas of over 25% slope.
 - B. Man-Made Slopes. The alteration of slopes that were clearly lawfully man-made (such as walls of a detention basin or quarry or excavated banks along a street) shall be regulated by a reasonable estimate of the natural slope of such land and not by the degree of such man-made slope.

- C. Recreation. The development of noncommercial open space recreation uses by a governmental agency or an established nature conservation organization, including, but not limited to, parking to serve common open space or the development of public recreational facilities.
- 4. Earthmoving on Slopes. No earthmoving activities shall occur within a construction area or in preparation for or related to construction or development, on slopes of over 25% in any zoning district, except if the applicant proves to the satisfaction of the Township that all of the following conditions would be met:
 - A. That disturbance of such slopes is necessary to allow development of a single permitted principal use or single principal building on an undeveloped existing lot of record of at least six acres. This shall not permit disturbance of slopes of greater than 25% for expansion of an existing use or building.
 - B. That slopes of over 30% will not be altered or disturbed.
 - C. That there are no areas of less than 25% slope on the lot that are reasonably physically suitable for the construction area.
- 5. Increase of Slope.
 - A. If more than 5,000 square feet of land area is increased in slope so that the average resulting slope is greater than 15% and more than 6% above the pre-existing slope, the applicant must prove to the satisfaction of the Township Engineer that stormwater will be adequately managed to prevent increased flooding or erosion to other properties.
 - B. The maximum slope resulting from excavation or earth fill shall be three feet horizontal to one-foot vertical, unless the applicant provides professional engineering certification acceptable to the Township Engineer that the finished slopes will be safe and stable.
- 6. Drainage. The ground adjacent to a building shall be graded so that surface water will be drained away from such building.

7. No grading shall be completed in such a way that soil, rocks, or other debris is left in an unsightly fashion nor in a fashion that interferes with drainage, streets, or utilities.
8. Fill. Materials used for fill as a future base for construction shall be nonbiodegradable, well-compacted and provide a suitable and secure base. The Township may require that an applicant fund appropriate underground testing of a proposed building site if there is reasonable doubt, in the opinion of the Township Engineer, that the subsurface is suitable and secure for a proposed use.
9. Vegetation. Within a setback required under Subsection 3, the applicant shall describe natural vegetation and trees that will be removed or replaced. Where trees and natural vegetation are removed within such setback, the applicant shall plant new trees and other vegetation that will serve the same or better environmental effect to avoid erosion and to filter pollutants from runoff.

10. High Water Table Soils.

- A. At the time of review of a proposed subdivision or land development, the Township may require that an on-site investigation be conducted for the purpose of determining the location of a high-water table if any of the following conditions exist:
 - 1) Soil mapping of the United States Natural Resources Conservation Service or a more-reliable source indicates that the area includes soils with a seasonal depth to water table of less than three feet below the surface;
 - 2) Wetlands are present on the property; or
 - 3) There are other visual indicators of the presence of a high-water table.
- B. The Township may require that test excavations be subject to observation by a representative from the Township. The determination of areas with high water table shall be made by a qualified soil scientist or other professional who is acceptable to the Township.
- C. Areas that are to be permanently restricted against use for any buildings or parking through an easement or deed restriction are not required to be tested.

- D. The lowest enclosed floor of a new principal building, including any basement, shall be built a minimum of twenty-four (24) inches above the seasonal high-water table elevation. Any new principal building shall be constructed to limit the need for groundwater pumping.

ARTICLE II.

This Ordinance shall be effective immediately.

DULY ORDAINED and ENACTED by the Board of Commissioners of the Township of Salisbury, Lehigh County, Pennsylvania this 24th day of June, 2021, in lawful session duly assembled.

Attested:

TOWNSHIP OF SALISBURY
(Lehigh County, Pennsylvania)

Cathy Bonaskiewich
Township Secretary

By: _____
Debra Brinton
President, Board of Commissioners