

**ARTICLE 5**  
**DESIGN STANDARDS**

**§180-501. Intent**

The design standards established in this ordinance are intended to be fundamental requirements to be applied with professional skill in the subdividing and planning of land so as to produce attractive and harmonious neighborhoods, convenient and safe streets, and economical layouts of residential and other land development. The design standards are further intended to encourage and promote flexibility and ingenuity in the layout and design of subdivisions and land developments, in accordance with modern and evolving principles of site planning and development.

**§ 180-502. Application**

The following principles, standards, and requirements will be applied by the Board of Supervisors and Planning Commission in their review and evaluation of all subdivision and land development plan applications:

- A. The standards and requirements contained herein shall be considered the minimum for the promotion of the public health, safety, convenience, and general welfare.
- B. Where literal compliance with the standards and requirements contained herein is clearly impractical, the Board of Supervisors may modify or waive such standards through the modification of requirements process set forth in this Ordinance.
- C. Subdivision and land development plans shall be given due consideration to "Official Plans" of the Township, Dauphin County region, or to such parts thereof as may be adopted pursuant to statute. The Township Greenway Plan shall also be considered in the design and dedication of open space and recreation areas.
- D. Proposed land uses shall conform to the Lower Paxton Township Zoning Ordinance, as amended.
- E. Land subject to hazards to life, health, or property, such as may arise from fire, flood, disease, or other causes, shall not be planned for development purposes unless such hazards have been eliminated or unless the plan shall show adequate safeguards against them, which shall be approved by the Township and/or appropriate regulatory agencies.
- F. Whenever a subdivision or land development plat or plan is submitted which sets forth new streets or other ways of ingress and egress other than a single cul-de-sac street, two separate points of ingress to and egress from the land affected, or any significant portion thereof, must be designated thereon. Such points of ingress and egress must be designed and built to conform to the design and construction requirements of Lower Paxton Township for public streets. An Applicant may request a modification of this requirement and shall in support thereof, present evidence that due to topography, site distance, wetlands, environmental constraints, configuration of land, distance between intersections or other unique factors not created by the Applicant, it is impractical to have a second way of ingress and egress. Upon due consideration of these factors, the Board of Supervisors, at their sole discretion, may grant the request for said modification.

**§ 180-503. Streets**

A. General Standards.

1. Proposed streets shall be properly related to such street plans or parts thereof as have been officially adopted by Lower Paxton Township and shall be coordinated with existing or proposed streets in adjoining subdivisions or land developments. Further, proposed streets shall be properly related to county, regional or State transportation plans as have been prepared and adopted as prescribed by law.
2. Streets shall be laid out to preserve the integrity of their design. Local access streets shall be laid out to discourage their use by through traffic and, where possible, collector and arterial streets shall be designed for use by through traffic.
3. Streets shall be related to the topography so as to establish usable and desirable lots and satisfactory street grades.
4. Proposed street arrangements shall make provisions for continuation of existing streets in adjoining areas; the proper projection of streets into adjoining undeveloped or unplanned areas; and the continuation of proposed streets to the boundaries of the tract being subdivided.
5. New half or partial streets shall be prohibited except where essential to the reasonable subdivision 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 can be obtained; a cul-de-sac shall be constructed at the end of such half street which shall be of a permanent nature, unless a temporary cul-de-sac is approved.
6. Names of new streets shall not duplicate or conflict with existing or planned street names, or approximate such names by the use of suffixes. Cognizance should be given to existing or planned street names within the postal delivery district served by the local post office. New streets shall bear the same name or number of any continuation of alignment with an existing or planned street.
7. Proposed private streets (streets not offered for dedication to the Township) are prohibited, unless they meet the design standards of these regulations.
8. Streets in and bordering a subdivision and or land development plan shall be coordinated with, and be of such widths and grades and at such locations so as to accommodate prospective traffic and facilitate fire and police protection.
9. Whenever a subdivision or land development abuts a street which does not meet Township design criteria, the street shall be widened to meet such criteria and provided with additional right-of-way. The roadway shall also be provided with curbing, sidewalks, and drainage facilities as prescribed herein.
10. Where a lot has more than one side of street frontage and there is a driveway on one side, if it is necessary to determine which side of the lot fronts for purposes of this Ordinance, the lot shall be considered to front on the street on which the driveway exists. In all other cases, the lot shall be considered to front on the street which the lot has the greatest frontage. If

the lot frontage and driveway are not determinative, the lot shall be considered to front on the predominant street bordering the lot.

#### Street Classification.

Six (6) functional classifications of streets and roadways are defined by the Lower Paxton Township Comprehensive Plan to include Interstate, Freeway, Principal and Minor Arterials, Collectors and Local streets. Of these classifications, Freeways do not exist in the Township and Interstates are not addressed by this Article given that these roadways are under the jurisdiction of the Pennsylvania Department of Transportation and do not typically involve design activities associated with subdivision and land development applications. Also, for purposes of this Ordinance, Local streets shall also be referred to as Minor streets.

The following classifications represent roadways within the Township that are regulated by the provisions of this Ordinance:

1. Arterial. This classification includes highways which provide intra-county or inter-municipal traffic with volumes greater than 5,000 vehicles per day. Generally, these highways should accommodate design speeds of fifty-five (55) miles per hour. The following is a list of those streets and roadways, which for the purposes of this Ordinance, are classified as Arterial streets. Newly planned streets meeting this classification shall be designed to meet Arterial street design criteria.

- U.S. Route 22 (SR 0022)
- Linglestown Road (SR 0039)
- North Mountain Road (SR 3019)
- Union Deposit Road (SR 3020)
- Colonial Road (SR 3017)
- Locust Lane (SR 3024)
- Rutherford Road (SR 3017)
- Nyes Road (SR 2019)

2. Collector. This classification is intended to include those highways which connect minor streets to arterial highways and serve as traffic corridors connecting residential areas with commercial, industrial, shopping and other services. They may also penetrate residential areas. Generally, these highways experience traffic volumes between 1,000 to 5,000 vehicles per day and shall be designed to accommodate design speeds of thirty-five (35) miles per hour. The following is a list of those streets and roadways, for purposes of this Ordinance that are classified as Collector streets. Newly planned streets meeting this classification shall be designed to meet Collector street design criteria.

- |                             |                         |
|-----------------------------|-------------------------|
| Balthaser Street            | Londonderry Road        |
| Blue Mountain Parkway       | Lyters Lane             |
| Blue Ribbon Avenue          | Mcintosh Road           |
| Blue Ridge Avenue (SR 2029) | North Lockwillow Avenue |
| Crums Mill Road             | Jonestown Road          |
| Dartmouth Street            | Parkway East            |
| Devonshire Heights Road     | Parkway West            |
| Devonshire Road             | Prince Street           |
| Earl Drive                  | South Arlington Avenue  |
| East Park Drive             | South Houcks Road       |
| Fairmont Drive              | Valley Road             |
| Goose Valley Road           | Wenrich Street          |
| Grove Road                  | Continental Drive       |

3. Minor. This classification is intended to include streets and roads that provide direct access to abutting land and connections to higher classes of roadways. Traffic volumes are less than 1,000 vehicles per day and travel distance is generally short. These streets and roads shall be designed for

speeds of twenty-five (25) miles per hour. For purposes of this Ordinance, all roadways not classified as Collector, Arterial or above are classified as Minor streets. Newly planned streets meeting this classification shall be designed to meet Minor street design criteria.

4. A map of the Township road network is enclosed in Exhibit 9.

**Street Width.**

1. Minimum street right-of-way and cartway widths shall be required as presented in Table 503.1. Alternate street design types may be entertained at the sole discretion of the Township under the Modification of Requirements procedure based upon the type and intensity of the development proposed, the merits of the proposed alternative and a complete technical evaluation of all relevant information.
2. Provisions for additional street width (cartway and right-of-way) including for private streets may be required when determined to be necessary by the Board of Supervisors in specific cases for:
  - a. Public safety and convenience.
  - b. Parking in commercial and industrial areas and in areas of high-density development.

**TABLE 503.1 - Street Widths & Materials**

Street Classification	Cartway Width		Material Specifications	
	ROW Width	With Curbing	Base Material	Surface Material
Arterial Streets	As determined by the Board of Supervisors after consultation with the Township Engineer and the Pennsylvania Department of Transportation (PENNDOT).			
Collector Streets	60'	36'	SAMD HMA Base Course, PG 64-22, 0.3 to < 3 million ESALS, 25.0 mm Mix, 5" depth -AND- Base (No. 2A Crushed Aggregate), 6" depth	SAMD HMA Wearing Course, PG 64-22, 0.3 to < 3 million ESALS, 9.5mm Mix, 1-1/2" depth, SRL* -AND- SAMD HMA Binder Course, PG 64-22, 0.3 to < 3 million ESALS, 19.0 mm Mix, 2" depth
Minor Streets (Industrial/ Commercial Use)	60'	34'	Same as Collector Streets	Same as Collector Streets
Minor Streets (Residential Use)	50'	32'	SAMD HMA Base Course, PG 64-22, 0 to < 0.3 million ESALS, 25.0 mm Mix, 3" depth -AND- Base (No. 2A Crushed Aggregate), 6" depth	SAMD HMA Wearing Course, PG 64-22, 0.3 to < 3 million ESALS, 9.5mm Mix, 1-1/2" depth, SRL* -AND- SAMD HMA Binder Course, PG 64-22, 0.3 to < 3 million ESALS, 19.0 mm Mix, 2" depth
Turn Around of Cul-de-sac (diameter)	120'	100'	Same as Street Classification	Same as Street Classification
<b>*Skid Resistance Level (SRL) Determination</b>				
Average Daily Traffic			SRL	Alternates
20,000 and Above			E	None
5,000 to 20,000			H	E, H, Blend of E/M, Blend of E/G
3,000 to 5,000			G	E, H, G Blend of H/L, Blend of E/L
1,000 to 3,000			M	E, H, G, M, Blend of H/L, Blend of G/L, Blend of E/L
1,000 and Below			L	Any
Note: All blends are 50% by weight and shall be accomplished by an approved method.				
S AMD HMA - Superpave Asphalt Mix Design, Hot Mix Asphalt				

### Street Pavement Construction and Drainage.

1. All streets shall be designed and constructed in accordance with the latest edition of PENNDOT Publication 408, Specifications and PENNDOT Publication 72M, Standards for Roadway Construction. Reference is made to Article 8 - Improvement and Construction Requirements of this Ordinance for additional requirements.
2. All street pavement structures shall be constructed using Superpave Asphalt Mix Design (SAMD), Hot Mix Asphalt (HMA) paving materials to the minimum thicknesses and proportions as referenced herein, subject however to the provisions contained in Section 180-503 D(3) below. Applicants shall be required to submit estimates of average daily traffic (ADT) volumes for both site generated traffic and for estimated pass-through traffic from adjacent developed and undeveloped land in order to determine the roadway classification and SRL designation. Alternate pavement types such as concrete, brick pavers and the like may be approved by the Township under the Modification of Requirements process, either in part or in its entirety, based upon a thorough technical review of the proposed alternative as submitted by the Applicant.
3. A pavement design, in accordance with the current edition of PENNDOT Publication 242, Pavement Policy Manual, shall be required for all new and improved roadways that will accommodate a total of one hundred (100) or more Equivalent 18-kip Single Axle Loads (ESALS) in a given weekday in all directions. The pavement design parameters will be determined by the Applicant's consultant and approved by the Township Engineer and shall take into account the supporting road networks' capacity to handle additional heavy vehicle loading. No proposed pavement section determined by the pavement design may be less than the minimum requirements contained in Table 503.1 of this Article.
4. If poor subgrade soils are present, the Township may require that the Applicant conduct a subgrade soils evaluation for new, reconstructed and widened streets. This evaluation shall include, at a minimum:
  - a. Gradation test to determine the percent of given particle sizes of the different soil types of the project. Gradation test results shall be used to determine the Unified Soils Classification for the subgrade material.
  - b. In-place moisture content and optimum moisture content.
  - c. In-place density and dry mass density.
  - d. California Bearing Ratio (CBR).

These tests shall be performed on the existing subgrade material (in-situ soils) upon which the proposed streets will be built. Select borrow materials placed as part of the street construction must also be tested prior to the placement of the pavement. Stabilization measures will be required as part of the project if the tested CBR values are equal to or less than five (5). Under no circumstances will in-situ subgrade soils or select borrow materials with a CBR equal to or less than three (3) to be used for street construction.

The exact number of tests required will be determined at the discretion of the Township Engineer, given the size of the proposed project, the location of the

proposed street system and existing soil conditions. At a minimum three (3) representative tests will be required. All test locations must be approved by the Township Engineer and must be documented by the Applicant.

Where a new subdivision or land development proposes a street system that ties into an existing street with a substandard pavement section, cross slope or exhibits rutting, cracking, base failure or other poor qualities, the Township may require the Applicant to apply remedial measures to the streets within and bordering the subject property in order to provide proper access to the site and to accommodate prospective traffic. Required remedial measures may include, but shall not be limited to, milling and overlaying, placement of HMA scratch or leveling courses, crack sealing or crack repair, select base repair, sawcutting and pavement replacement or even pavement reconstruction. At the time of filing the preliminary plan, or in the absence of a preliminary plan, then the final plan, the Applicant shall evaluate the condition of the existing pavement and the Township shall determine the need for any remedial work.

All streets shall be provided with a complete storm sewer collection and conveyance system designed in accordance with the provisions of Chapter 170, Storm water Management, Drainage and Erosion Control.

Pavement base drains shall be designed and installed on all new, reconstructed, and widened streets to drain subsurface water beneath the pavement structure. Pavement base drains shall comply with the construction requirements as contained in Article 8 of this Ordinance. Combination Storm Sewer/underdrain may be used in lieu of base drain wherever a conflict exist between the proposed base drain and proposed storm sewer system.

Off-street Parking.

1. Private parking lots and associated access drives for commercial, institutional, and industrial uses and for multi-family residential facilities shall be paved in accordance with the following minimum standard:

1" depth, SAMD HMA Wearing Course  
T" depth, SAMD HMA Binder Course  
6" depth, PENNDOT No. 2A Crushed Aggregate Base Course

Engineering judgment shall be applied in all instances in determining the required pavement thickness based upon traffic volumes, vehicle loadings, and soil conditions specific to the site being developed.

2. Alternate designs with an equal or greater structural number will be considered by the Township.
3. Any and all portions of driveways within the public right-of-way accessing parking areas shall conform to the construction standards listed herein.

Cul-de~Sac or Dead End Streets.

1. Dead-end streets are prohibited unless designed as cul-de-sac streets or for future access to adjoining properties.
2. Any dead-end street, for access to any adjoining property or because of an authorized phased development, shall be provided with a temporary cul-de-sac, within the subdivision or land development; and shall be provided with a temporary easement guaranteed for public use until such time as the street

is extended and dedicated to the Township for public use. Temporary cul-de-sacs shall be paved with a minimum of six (6) inches of PENNDOT No. 2A subbase material and two (2) inches of either HMA binder or wearing course. The minimum diameter of temporary cul-de-sacs shall be eighty (80) feet.

3. The maximum length of a dead end street or cul-de-sac shall be no more than six hundred (600) feet and shall not furnish access to more than twenty (20) residential dwelling units.
4. The minimum length of a cul-de-sac street shall be two hundred and fifty (250) feet
5. The length of a cul-de-sac shall be measured from the face of the curb of the nearest intersecting street at the open end of the cul-de-sac street to the center point of the bulb of the cul-de-sac.
6. Cul-de-sacs shall be fully paved to Township standards for the respective street classification.
  - I. "Eyebrow" protrusions and "hammerhead" type turnarounds are prohibited on all streets as a type of cul-de-sac.
8. A second cul-de-sac shall not branch off of or intersect from a cul-de-sac street.
9. Unless future extension is clearly impractical or undesirable, the turnaround right-of-way shall be placed adjacent to the tract boundary with sufficient additional width provided along the boundary line to permit extension of the street at full width.
10. A minimum of two (2) locations, evenly spaced around the cul-de-sac-bulb shall be signed as no parking areas to allow for snow storage. The restricted areas shall be a minimum of thirty (30) feet in length and generally opposite from the entrance portion of the cul-de-sac and shall extend from the curb line of the cul-de-sac to the right-of-way line. The areas shall be kept free of driveways, mailboxes, landscaping, light standards, fire hydrants and other features that would be adversely impacted by the plowing and accumulation of snow and ice. Said restriction areas shall be clearly labeled and noted on the plan.
- II. Drainage of cul-de-sac streets shall preferably be towards the open end. If drainage is toward the closed end it shall be collected and piped away in an underground storm sewer system. Provision shall also be made for the overland conveyance of storm water from storm events of greater frequency for that which the storm sewer system has been designed.
12. The centerline grade on a cul-de-sac street shall not exceed ten (10) percent and the grade of the diameter of the turnaround portion of the cul-de-sac shall not exceed five (5.0) percent. The minimum grade of the cul-de-sac bulb shall be one (1.0) percent along both the centerline and curb line.
13. Cul-de-sac streets serving commercial and/or industrial uses shall be adequate for the type of use to be serviced as approved by the Township Engineer but, in no case, shall exceed eight hundred (800) feet in length.
14. Interior planting islands within the cul-de-sac turnaround area are required; however, a perpetual maintenance agreement is required and shall be

G. Alleyways,

1. Alleyways shall not be permitted as an acceptable form of street within the Township unless specifically authorized by the Board of Supervisors in conjunction with the design and approval of a Traditional Neighborhood Development (TND) in accordance with the provisions of the Lower Paxton Township Zoning Ordinance. If authorized, alleyways shall be privately owned and maintained; be located within an easement or right-of-way having a minimum width of twenty (20) feet; have a minimum cartway width of fifteen (15) feet; meet the paving standards for Minor Streets as contained herein; and be reviewed and approved by the Township Engineer regarding all other design aspects.

H. Street Alignment.

1. Streets shall be logically related to the terrain and topography so as to produce usable roads with reasonable alignments and grades.
2. Horizontal street alignments shall be measured along the centerline. Horizontal circular curves shall be used for all changes in direction and shall have minimum centerline radii as shown in the following table for each street classification:

<u>Street Classification</u>	<u>Minimum Horizontal Centerline Radius</u>
Arterial	As required by PENNDOT Design Standards
Collector	350 Feet
Minor or Private Street	150 Feet

3. Straight portions of the street must be tangent to the beginning or ending of curves and there must be a tangent length of at least fifty (50) feet at all intersections unless the street is superelevated then sufficient separation must be provided for proper superelevation transition. For curves on arterials and collector streets, proper superelevation must be provided as required by the Township and the Pennsylvania Department of Transportation. Broken-back and compound curves shall be prohibited.
4. Proper stopping sight distance must be provided with respect to horizontal and vertical alignment, measured along the centerline, from the height of the driver's eye (3.5 feet above grade) to the height of an object on the roadway (2.0 feet). See the following table for the minimum stopping

sight distances which must be maintained along a roadway alignment:

Design Speed (Miles Per Hour)	Minimum Stopping Sight Distance
60	570 Feet
55	495 Feet
50	425 Feet
45	360 Feet
40	305 Feet
35	250 Feet
30	200 Feet
25	155 Feet

I. Driveways.

1. Private driveways on corner lots shall be located at least forty (40) feet from the nearest edge of the driveway to the point of intersection of the nearest edge of pavement or cartway.
2. Driveways shall intersect streets only at right angles.
3. Driveways shall not be located closer than five (5) feet from an inlet or fire hydrant.
4. Where driveways access a curbed street, the driveway opening shall contain a depressed curb with a minimum of one and one-half (1 1/2) inch curb reveal across the required width of the driveway. At each end of the driveway opening a two (2) foot curb transition to full height curbing shall be provided.
5. All driveways shall be located, designed and constructed in such a manner as not to interfere or be inconsistent with the design, maintenance and drainage of streets or the safe and convenient passage of traffic. The number of driveways shall be kept to a minimum necessary to serve the intended use. Multiple driveways for one lot shall be prohibited unless it can be demonstrated that such arrangement is necessary for safe and efficient traffic flow, capacity or unless multiple driveways are necessary to comply with other provisions of this Ordinance.
6. No single private driveway shall serve more than six (6) single-family residential units. A parking lot may serve more than six (6) residential units; however, any parking lot that serves more than twenty-four (24) residential units shall have a minimum of two (2) points of access to a public street. The two (2) points of access must, at a minimum, be constructed to a width of twenty-four (24) feet with radii designed to accommodate the largest anticipated vehicles.
7. No shared driveways shall be approved except where governed by a recorded easement agreement at a minimum setting forth maintenance requirements, cross access provisions, cost sharing, and the like. Said easements must also be reflected graphically on an approved subdivision or land development plan. Shared driveways shall have a minimum width of fifteen (15) feet and a maximum width of twenty-four (24) feet.

8. All new private driveways must be paved for a minimum distance of fifty (50) feet from the street right-of-way line with a bituminous surface material, concrete, brick pavers or other material acceptable to the Township. Stone, gravel, sand, dirt or other similar type driveways shall be prohibited. The minimum paving standard for bituminous driveways shall be six (6) inches of PENNDOT No. 2A subbase material and two and one-half (2 1/2) inches of HMA wearing course. The minimum paving standard for concrete driveways shall be six (6) inches of PENNDOT No. 2A subbase material and six (6) inches of concrete. Brick pavers shall be designed for a single axle truck wheel load condition. Driveways within the right-of-way area must be paved to meet Township street paving requirements for the adjoining street classification.
9. Residential driveways shall not be less than twelve (12) feet in width or more than twenty-four (24) feet in width within fifteen (15) feet of the street right-of-way line except however; for single-family residential structures having three (3) car garages then the maximum width may be increased to thirty (30) feet provided however that no more than thirty (30) percent of the development shall contain driveways wider than twenty-four (24) feet.
10. Driveways shall not exceed a slope of twenty (20) percent and shall have a leveling area adjacent to the street sufficient to accommodate the change of grade. Driveways that serve properties which are lower than the adjacent roadway must be provided with a vertical alignment that prohibits the collection of storm water from the street into the driveway and property area.
11. Where driveways enter a property through an embankment condition, a retaining wall of adequate design shall be provided, or in lieu thereof, the side slopes of the cut slope shall be graded to no more than one (1) foot vertical to two (2) feet horizontal. Grading in the vicinity of the adjacent street shall be such that required sight distance is provided. Lot and driveway grading shall be conducted such that storm drainage and soil erosion do not adversely impact adjacent streets.

J. Street Intersections.

1. Streets shall be laid out to intersect at right angles.
2. Intersections involving the junction of more than two (2) streets are prohibited.
3. Boulevard type streets or intersections having a center landscaped island, traffic separators, traffic calming devices or other style medians shall be prohibited unless a perpetual maintenance agreement is provided and implemented which shall, to the satisfaction of the Township, provide a guarantee for maintenance and replacement of all such areas,
4. Streets intersecting another street shall either intersect directly opposite to each other, or shall be separated by the following distances as measured along the centerline of the street being intersected.

<u>Intersecting Street</u>	<u>Minimum Separation Distance</u>
Arterial	800 Feet
Collector	600 Feet

Minor or Private Street                      300 Feet

5. Intersections shall be approached on all sides by a straight leveling area, the grade of which shall not exceed four (4 ) percent within sixty (60) feet of the intersection of the nearest street right-of-way line.
6. Unless required to accommodate larger vehicles, the curb or edge of pavement radii at the intersections of streets shall not be less than the following:

<u>Intersection</u>	<u>Minimum Simple Curve Radii</u>
Collector with Collector Street	Thirty-five (35) feet
Collector with Minor Street	Twenty-five (25) feet
Minor Street with Minor Street	Twenty (20) feet

Radius corners must be provided on the property lines substantially concentric with the curb radius.

7. Where required to accommodate turning movements for larger vehicles, three centered compound curves along curb lines shall be permitted upon review and approval of the Township Engineer. In the design of compound curves, the ratio of the flatter radius to the sharper radius should not exceed 1.50. Sudden changes between curves of widely different radii shall be prohibited.
8. Curb cuts and sidewalk ramps must be provided at all corners of intersections, access to building sites and at other locations deemed appropriate by the Township in order to provide accessibility in accordance with the latest requirements of the American Disabilities Act (ADA).
9. Where required by the Township, the Applicant may be required to provide a turning analysis, turning templates or other similar efforts to demonstrate that street and driveway intersections have been properly designed to accommodate larger and/or emergency vehicles.

**Intersection Sight Distance and Clear Sight Triangles.**

1. Adequate intersection stopping sight distance shall be provided at all intersections of streets, and for driveways intersecting a street. All intersections shall be designed to provide required sight distance with regard to both horizontal and vertical alignment in accordance with A Policy on Geometric Design of Highways and Streets, American Association of State Highway and Transportation Officials (AASHTO), current edition. Applicants shall provide field measured available sight distances at all proposed intersections onto existing roadways for all turning movements and provide a report documenting the method of computation and the available and required sight distance at all locations. Said analysis and report must be certified by a Professional Engineer. For purposes of analysis and design, the posted speed limit of the intersecting street shall be used in the computation of required sight distance unless operating speeds exceed posted speeds by greater than ten (10) miles per hour at which time the operating speed (85th percentile speed) shall be used. Based upon traffic patterns and roadway operations, the Township may require the Applicant to conduct a speed study to document the 85th percentile speed if in the opinion of the Township a study is required. Exhibit 8 depicts required intersection sight distances for a typical two lane minor road, stop condition with three (3) percent grades or less. Other conditions must be computed in accordance with the above requirements.

2. If the minimum required intersection sight distance cannot be achieved, the Applicant shall be responsible for either relocating the site's access point to provide adequate sight distance, restricting turning movements, if applicable, or by making improvements such as regrading, roadway reconstruction or similar measures in order to provide adequate sight distance in order to meet the requirements of this Ordinance.
3. Adequate clear sight triangles (areas of unobstructed view) shall be provided at all intersections of streets, and for driveways (except single-family residential driveways) intersecting a street. The sight triangle shall be formed by measuring along the centerline of the cartway or driveway, from the point of intersection of the two streets, a distance as shown in the following table for the respective classification of the street, forming each leg of the triangle. The sight triangle is then formed by connecting the endpoints. Structures, vegetation, grading and other obstructions in excess of twenty-four (24) inches in height shall be prohibited within the clear sight triangle. Clear sight triangles shall be depicted on all subdivision and land development plans for all street and driveway intersections. Exhibit 8 depicts the typical configuration of clear sight triangles.

Intersecting Street Classification	Clear Sight Triangle Leg
Arterial or Collector	150 Feet
Minor, Private or Driveway	75 Feet

4. If the minimum sight distance can only be achieved by a line of sight across lands which are not public street right-of-way, a clear sight easement shall be established on the plan and/or recorded on each deed for all affected properties. The easement shall prohibit the placement or existence of structures, vegetation or change of grade, in excess of twenty-four (24) inches in height within the clear sight zone. The easement shall establish the right of the Township to enter onto the property to clear obstructions, to trim or otherwise restore the area to meet the required sight distance at the property owner's expense if after being notified by the Township to remove obstructions, the property owner has failed to respond in a timely fashion.

**Street Grades.**

- 1, The centerline grades of streets shall not be less than the minimum or more than the maximum requirements listed below:
  - a. The minimum centerline grade or longitudinal slope at the curb line shall be one (1) percent.
  - b. Centerline grades shall not exceed the following:

<b>Street Classification</b>	<b>Maximum Centerline Grade</b>
Arterial	Six Percent (6%)
Collector	Eight Percent (8 %)
Minor or Private Street	Ten Percent (10%)

Vertical curves shall be provided at all changes in grade and shall be designed in relation to the extent of the grade change and to provide the proper minimum stopping sight distance with respect to vertical alignment by using the following minimum K values as shown in the table below. The minimum length of the vertical curve shall be determined by multiplying the algebraic difference in grades by the appropriate K value, with an absolute minimum length of vertical curve of 50 feet.

Design Speed	K Value (a)	
	Crest	Sag
60	151	136
55	114	115
50	84	96
45	61	79
40	44	64
35	29	49
30	19	37
25	12	26

(a) Values based on sight distance measured along the centerline, from the height of the driver's eye (3.5 feet) to the height of an object on the roadway (2.0 feet).

3. On minor or private streets, continuous grades of ten (10) percent shall not be more than four hundred (400) feet in length.
4. Cross slope: The cross slope or the crown on streets shall be at least one-quarter (1/4) inch per foot but not more than three-eighths (3/8) inch per foot as directed by the Township Engineer. This applies only to straight or tangent sections of the roadway. Where a horizontal curve is required to be superelevated to reduce lateral vehicular acceleration as required by the design speed of the roadway, the crown requirement shall be eliminated and the roadway provided with a superelevation design acceptable to the Township Engineer.

#### Street Right-of-Way Grades.

1. Streets shall have a planting strip located between the curb and the sidewalk.
2. Street right-of-way areas, which are not part of the paved cartway, shall be graded to have a slope of two (2) percent from the top of the curb upward to a point two (2) feet beyond the right-of-way line.
3. The portion of the right-of-way which is not provided with paving, curbing or sidewalks shall be provided with a minimum of four (4) inches of topsoil and seeded with PENNDOT Formula B seed mixture to establish a good stand of lawn type grass or be sodded with a similar turf mixture.
  - a. Slopes of Banks along Streets. The slope of banks along streets measured perpendicular to the street centerline shall be no steeper than the following:
    - i. One (1) foot of vertical measurement for three (3) feet of horizontal measurement for fills. Fill slopes shall begin a minimum distance of two (2) feet behind the right-of-way line to allow for the proper placement of the sidewalk and for rounding of the slope.
    - ii. One (1) foot of vertical measurement for two (2) feet of horizontal measurement for cuts. Cut slopes shall begin a minimum distance of two (2) feet behind the right-of-way line to allow for the proper placement of the sidewalk and for rounding of the slope. Where site drainage conditions dictate, additional area behind the right-of-way line shall be provided to accommodate the placement of drainage facilities (inlets, swales, etc.) as may be required to prevent excessive amounts of site runoff from draining across the verge area.

N. Traditional Neighborhood Development (TND) Design Standards.

- 1, Where a subdivision or land development application proposes the design of a community meeting the requirements of a Traditional Neighborhood Development (TND), the Township may grant a modification of certain street design standards contained herein to allow for alternate designs consistent with TND principles. For consideration of a modification of street design standards, the Applicant shall provide a design for the Township Engineer's review and approval generally meeting the design guidelines as contained in the current edition of the Institute of Transportation Engineer's (ITE), Traditional Neighborhood Development Street Design Guidelines, ITE Transportation Planning Council Committee 5 P-8.

**§ 180-504. Easements**

Easements shall be provided for storm drainage facilities, storm water management areas, Best Management Practice (BMP) areas, sanitary sewer facilities, natural features areas, access ways, overhead or underground public or private utility facilities, and other special purpose easements in consultation with the Township Engineer, the Lower Paxton Township Authority, and the various utility companies. All easements must connect to a public street in order to provide access to said easement area.

- A. The minimum width of such drainage easements shall be twenty (20) feet and shall be centered over the drainage or storm sewer facilities. Additional width may be required by the Township depending on the location, purpose, depth of facilities and use of the easement. Easement areas shall be graded to allow for traversable and unobstructed access by maintenance vehicles and equipment.
- B. Easements for storm water management facilities, BMP areas and similar structures shall encompass the formal facility to a point ten (10) feet beyond the high water elevation, toe of slope, or other logical line of demarcation to allow proper operation and maintenance of the facility.
- C. Sanitary sewer easements shall have a minimum width of thirty (30) feet unless otherwise approved by the Lower Paxton Township Authority.
- D. Easements for the preservation of natural features areas as required herein shall be of a sufficient size to encompass the areas to provide for the long term protection of said natural features. This requirement shall also include features which are dedicated or designed in conjunction with the Greenway Plan.
- E. Access easements shall have a minimum width of twenty (20) feet and shall be designed to accommodate the ingress, egress, and regress for the intended purpose.
- F. Utility easements shall be provided as prescribed by the individual utility company depending upon the purpose and use of the easement. Where an existing utility easement exists within a subdivision or land development and construction activity is proposed within said easement, the Applicant shall obtain written approval from the utility owner authorizing the construction activity as proposed.
- G. Wherever possible such utility and drainage easements shall be centered on the side or rear lot lines of properties.

- H. No buildings or other structures, fences, landscaping, walls or obstructions shall be permitted within easement areas. Additionally, no change of grade beyond that approved by the Township shall occur within the easement area.
- I. Where a subdivision and/or land development is traversed by a water course, drainageway, channel or stream, there shall be provided a drainage easement, to a width to be approved by the Township Engineer, conforming substantially with the line of such water course, for the purpose of maintaining the unimpeded natural flow, widening, deepening, relocating, improving or protecting such drainage facilities or for the purpose of installing drainage facilities. Under no circumstances shall the easement be less than twenty-five (25) feet in width and shall extend outward a minimum of ten (10) feet from the top of each bank.
- J. All easements shall be graphically depicted on the subdivision or land development plans and shall clearly indicate the location, width, purpose and beneficiary of the proposed easement. Easements that will be conveyed to the Township shall be provided with metes and bounds descriptions tied to the property lines of the property which is encumbered by said easement.
- K. Where drainage easements are depicted on private property for the benefit of Lower Paxton Township, it shall be construed to mean that said easement is for access to and maintenance of said facility only in the event that the landowner fails to maintain said easement and the operation of the facility contained within

said easement area is malfunctioning, is adversely effecting adjacent or downstream properties or is crucial for the overall public safety and welfare of the residents of the Township. The Township will not own or maintain storm water or other facilities unless otherwise specifically governed by operation of an agreement.

**Blocks**

The length, width, shape, and design of blocks shall be determined with due regard to the provision of adequate sites for buildings of the type proposed, to the land use and/or zoning requirements of the Township, the topography of the land being subdivided or developed, and the requirements for safe and convenient vehicular and pedestrian circulation.

Blocks shall not exceed sixteen hundred (1,600) feet in length, nor be less than three-hundred (300) feet in length as measured between the centerlines of the intersecting streets.

Residential blocks shall generally be of sufficient depth to accommodate two (2) tiers of lots, except where reverse frontage lots bordering an arterial or collector street are used or, where due to the contour of the land or the necessary layout of the subdivision, there is insufficient depth between intersecting streets for such two (2) tier design.

Blocks for commercial and industrial areas may vary from the elements of design contained in this Section if the nature of the use requires other treatment. In such cases, off-street parking for employees and customers shall be provided along with safe and convenient limited access to the street system. Space for off-street loading shall also be provided with limited access to the street system. Extension of streets, railroad access rights-of-way, and utilities shall be provided as necessary.

**Building Lots**

General Standards,

1. The size, depth, width and orientation of lots shall conform to applicable zoning regulations of Lower Paxton Township.
2. Side lot lines shall, in so far as practical, run perpendicular or radial from the street right-of-way line.
3. Where feasible, lot lines should follow municipal boundaries rather than cross them, in order to avoid jurisdictional problems.
  4. All lots shall be provided with sewer and water service either public or private in accordance with Township zoning requirements for the applicable zoning district and for lot size requirements.
  5. If, after subdividing, remnants of land exist, they shall be either:
    - a. Incorporated in existing or proposed lots; or
    - b. Legally dedicated to public use, if acceptable to the Township, or dedicated to a homeowner's association or similar entity.

B. Lot Frontage,

1. All building lots shall abut an existing or proposed public street. Flag lots shall not be permitted as a form of lot layout within the Township.
2. Double or reverse frontage lots shall be prohibited except where required to provide separation of residential development from collector or arterial streets or to overcome specific disadvantages of topography or orientation.
3. No residential lots shall be created which front upon a limited access highway. Furthermore, no major subdivision and/or land developments shall be created which front upon an arterial street.

**§ 180-507.**

**Site Lighting**

A.

General.

- 1, Adequate site lighting as described herein shall be required in all subdivisions and land developments. These lighting requirements provide appropriate standards to ensure adequate nighttime safety and security while minimizing the spillover of light and glare on operators of motor vehicles, pedestrians, adjacent properties and other land uses

near the light source.

2. General Requirements, Exterior lighting shall be provided along public and private streets, in parking areas, pedestrian sidewalks and walkways and nonresidential driveway intersections in accordance with the standards contained herein and in Zoning Ordinance Article 5, § 507. Lighting used for security purposes shall also conform to the same standards.

3. Applicability. Outdoor lighting shall be required for safety and personal security in areas of public assembly and traverse; including but not limited to, single-family and multi-family dwelling unit developments, commercial, industrial, public recreational and institutional uses. In addition to the minimum placement requirements, the Board of Supervisors may require lighting to be incorporated for other uses or locations as they deem necessary. The glare control requirements contained herein and in Zoning Ordinance Article 5, § 507 apply to all lighting installations, including residential applications.

**B. Definitions.**

1. High Activity: Examples include major athletic events, major cultural or civic events, regional shopping centers, and related uses.
2. Medium Activity: Examples include libraries, hospitals, restaurants, banks, community recreation centers, large apartment buildings, industrial buildings, office parks, or neighborhood retail stores.
3. Low Activity: Examples include small neighborhood shops, industrial employee parking, educational facility parking, church parking, and residential parking.

**C. Illumination Levels.**

**SITE LIGHTING**

Application	Maintained Footcandles	Uniformity Ratio - Avs./Min.
Roadways, residential	0.4 Avg.	6:1
Roadways, commercial / industrial	0.9 Avg.	6:1
<b>Parking, residential</b>		
Vehicular traffic	0.5 Avg.	4:1
Pedestrian safety, security & orientation	0.2 Avg.	4:1
<b>Parking, commercial</b>		
Vehicular traffic, low activity lots	0.50 Avg.	3:1
Vehicular traffic, medium activity lots	1.0 Avg.	3:1
Vehicular traffic, high activity lots	2.0-4.0 Avg.	3:1
<b>Pedestrian safety, security &amp; orientation</b>		
Low activity lots	0.2 Avg.	3:1

1. Illumination, where required by this Ordinance, shall have intensities and uniformity ratios in accordance with the current recommended practices of the Illuminating Engineering Society of North America (IESNA), as amended. The following table outlines the design requirements for site lighting:

High activity lots	0.9 Avg.	3:1
Walkways and Bikeways	0.5 Avg.	5:1
Building entrances	5.0 Avg.	
Service Station Islands - Avg. / Max.	20/30	4:1
Car Dealerships - Front Row / Other	20/10 Max.	5:1 (Max./Min.)

Note: All roadway fixtures shall be equipped with High Pressure Sodium lighting (HPS). D.

#### Fixture Design.

1. Fixtures shall be of a type and design appropriate to the lighting application, and aesthetically acceptable to the Township.
2. For areas, such as parking lots, full cutoff type fixtures shall be used.
3. Fixtures shall be equipped with or be capable of being back fitted with light directing devices such as shields, visors or hoods when necessary to redirect offending light distribution.

#### E. Control of Nuisance and Disabling Glare.

1. All outdoor lighting, whether or not required by this Ordinance; on private, residential, commercial, industrial, municipal, recreational or institutional property; shall be aimed, located, designed, fitted and maintained so as not to present a disabling glare hazard to drivers or pedestrians, or a nuisance glare concern to neighboring properties.
2. Directional fixtures such as flood lights, spot lights and sign lights shall be installed or aimed so that they do not shine directly into the window of a neighboring residence, directly into a roadway, or skyward.
3. Flickering, flashing or strobe type lights shall not be permitted.
4. Light sources or luminaries shall not be located within buffer yard areas except for lighting pedestrian walkways.
5. Unless otherwise permitted by the Board of Supervisors, lighting shall be controlled by automatic switching devices such as timers, motion detectors and/or photocells, to extinguish offending sources between 11:00 p.m. and dawn, to mitigate glare and sky-lighting consequences.
6. Vegetation screens shall not be employed to serve as the primary means for controlling glare. Rather, such control shall be achieved primarily through the use of full cut-off fixtures, the appropriate application of

mounting height, wattage, aiming angle, fixture placement and fixture design, etc. and the additions of shields and baffles as necessary.

7. The amount of illumination projected onto another property shall not exceed 0.10 horizontal foot candles at the property line for adjacent residential uses and 0.50 horizontal foot candles at the property line for adjacent commercial and industrial uses.
8. Externally illuminated signs shall be lighted by fixtures mounted at the top of the sign and aimed down rather than by fixtures mounted at the bottom of the sign and aimed up.

#### Installation.

1. Lighting fixtures shall not be mounted in excess of twenty (20) feet above the adjacent grade for residential projects, thirty-five (35) feet above the adjacent grade for commercial projects; and forty (40) feet above the adjacent grade for industrial projects.
2. Electrical feeds to lighting standards shall run underground, not overhead.
3. Lighting standards in public parking areas shall be placed a minimum of three (3) feet outside the paved area; or three (3) feet behind curb lines or tire stop locations; or on reinforced concrete pedestals a minimum of eighteen (18) inches in diameter and at least thirty (30) inches high above the pavement grade, or by other acceptable protective means approved by the Township Engineer.

#### Ownership and Maintenance.

1. Lighting fixtures on private property shall be owned and maintained by the property owner so as to always meet the requirements of this Ordinance. Once approved and installed, no changes to fixture type, wattage, illumination angle or other modifications shall be permitted that violate the provisions of this Ordinance.
2. Generally, street lights located within the public street right-of-way shall be owned and maintained by the local utility company having jurisdiction. Where applicable, the Township may require the Applicant to enter into an agreement with said utility company regarding the payment of all costs and fees for the installation of street lighting facilities.
3. If specifically approved by the Township under a development agreement with the Applicant, the Township may, under special circumstances, allow privately owned and maintained street lighting facilities within the street right-of-way line.

Lighting plans submitted to the municipality for review and approval shall include a layout of the proposed fixture locations; isofotocandle plots that demonstrate adequate intensities and uniformity; and manufacturers catalog cuts that present a description of the equipment, including glare reduction devices, lamps, switching devices, mounting heights and mounting methods proposed. All proposed development plans shall, at the time of preliminary plan submittal, include lighting plans indicating proposed placement of all lighting fixtures incorporated with the above referenced specifications. The lighting plans shall also provide an engineering detail of standards, foundations, fixtures as well as information on the manufacturer, model, and installation techniques.

Fixture Location/Placement. The following are minimum requirements for placement of street and/or site lighting fixtures within or adjacent to new subdivisions or land developments:

- a. All intersections involving existing or proposed collector public streets within or adjacent to the proposed development.
- b. Along all existing or proposed collector streets within or adjacent to the proposed development at intervals sufficient to provide the desired lighting levels referenced herein.
- c. All terminal ends of center median islands having concrete curbing, trees, and/or other fixed objects not having a breakaway design for speeds of twenty (25) miles per hour or greater.
- d. Any/all defined pedestrian crossings shown on the approved plans (or required by the Township) located within the development or along existing roads abutting the development with said crossing located in areas other than lighted intersections.
- e. Any signalized intersection abutting the proposed development.
- f. Any new traffic signal installation required by the proposed development.
- g. Within private parking lots and along aisleways and access drives to provide the required lighting levels referenced herein.
- h. Building access points.

Compliance Monitoring.

1. If the Township judges that a lighting installation creates a safety or personal security hazard, the person(s) responsible for the lighting shall be notified and requested to take timely remedial action.
2. Measurement. For all measurements regarding compliance, lighting levels shall be measured in footcandles. Measurement shall be

3. Method. Readings shall be taken by qualified personnel so that the light-reading meter has been exposed long enough to provide a constant reading. Measurements shall be made after dark with the light sources in question on, then with the same sources off. The difference between the two readings shall be compared to the maximum permitted illumination at the property line at ground level. This procedure eliminates the effects of moonlight and other ambient light.

#### Nuisance Glare and Inadequate Illumination Levels.

1. When the Township judges that an installation produces unacceptable levels of nuisance glare or skyward light or that illumination levels are insufficient or not being maintained in accordance with this Ordinance, the Township shall cause notification of the person(s) responsible for the lighting and require remedial action.
2. Nonconforming Lighting. Any lighting fixture, including the bulb(s), existing as of the effective date of this Ordinance which does not conform with the requirements of this Ordinance shall be considered a lawful, nonconforming lighting fixture. A nonconforming lighting fixture shall be made to comply with the requirements of this Ordinance when such fixture is replaced, relocated or repaired.

#### Exemption for specified uses.

1. Because of their unique requirements for nighttime visibility and their limited hours of operation, public and private recreational uses such as ball diamonds, playing fields, tennis courts and volleyball courts are exempt from the above requirements.
2. Outdoor public and private recreational uses specified above shall not exceed a maximum permitted post height of one hundred (100) feet above the adjacent ground surface.
3. Outdoor public and private recreational uses may exceed a total cutoff angle of 90°, provided that the luminaire is shielded to prevent light and glare spillover to adjacent residential uses as described herein.

### **§ 180-508. Sidewalks & Pedestrian Pathways**

- A. Requirements.

1. Sidewalks must be installed along both sides of all new interior streets in all residential, commercial and industrial subdivisions and land developments within the Township unless otherwise waived by the Township. Sidewalks must also be constructed along the side of all exterior streets upon which the subdivision or land development fronts. Where sidewalks are required to be installed, curbing, street widening and drainage improvements must also be provided.
2. Sidewalks shall not be waived where, in the Township's opinion, it is desirable to link sidewalks in existing, adjoining or proposed developments or where it would be desirable to continue sidewalks that are existing to provide access to community facilities such as schools, bus stops, shopping areas, and recreation areas.
3. The Township may, in its sole discretion, waive the requirements for sidewalks on one (1) or both sides of the street where alternative, private pedestrian interior pathways located off of the street right-of-way are planned and provided or where, in the judgment of the Township, there are unique circumstances, other hardships or where the absence of sidewalks better serves the particular needs of the subdivision or land development,

B. Placement.

1. All sidewalks must be constructed no closer than four (4) inches to the street right-of-way line and extend toward the curb line. A grass planting strip shall be provided between the curb and the sidewalk.
2. Refer to Article 8 - Improvement and Construction Requirements for sidewalk construction specifications.
3. Maintenance of sidewalks within the street right-of-way shall be the responsibility of the property owner whose property abuts the sidewalk.

C. Pedestrian Pathways and Greenways

If sidewalks are waived in favor of private pedestrian pathways considered more efficient and desirable to provide circulation or access within the development, and to schools, playgrounds, shopping centers, transportation, open spaces and other facilities then the Applicant must provide a plan, accompanying the waiver request, indicating the layout and arrangement of the proposed pathways. This provision shall not be construed as a mechanism for developers to merely parallel street right-of-way lines with pedestrian pathways, but shall be applied where, owing to unique physical constraints, development theme or building placement, an on-site pathway is more advantageous to the Township than a formal sidewalk system. If authorized, the alternative pedestrian pathway must meet the following general criteria:

1. Pathways must be located within a minimum ten (10) foot wide access easement for the benefit of the general public. Access to the public street system must be provided at regular intervals throughout the development not exceeding 800 feet.

2. Pathways must be a minimum width of six (6) feet wide and have a paved travel surface. The material requirements of the travel surface for pedestrian paths shall be a minimum of six (6) inches of PENNDOT No. 2 A subbase material and 2 ~~1~~ inches of bituminous wearing surface or an equivalent design approved at the discretion of the Township Engineer. The surface must be graded to provide positive drainage at a maximum cross slope of two (2) percent. Longitudinal slopes shall be designed in accordance with good engineering practice such that acceptable access by pedestrians of all types can easily traverse the pathway.
3. Pathways must be privately owned and maintained under a reliable arrangement acceptable to the Township, including routine maintenance, trimming, mowing, snow and ice removal, overlayment or reconstruction as required.
4. Pathways must be designed to provide the required handicapped accessibility along the pathway and at all points of intersection with public streets.
5. These features shall be designed in conjunction with the Township Greenway plan.

**§180-509. Curbing**

- A. Curbing must be installed along both sides of all new interior streets to the proper street width in all residential, commercial and industrial subdivisions and land developments within the Township. Curbing, including pavement widening and drainage improvements must also be constructed along all exterior streets upon which the property fronts.
- B. The Township may waive the requirements for curbing and widening along frontage roadways either in part or in full where, in the judgment of the Township, there are unique circumstances or other physical hardships where the absence of curbing and widening better serves the particular needs of the subdivision or land development.
- C. Where curbing and sidewalk is required at intersections, curb cut ramps shall be installed to provide access to building sites and at other locations deemed appropriate by the Township accessibility in accordance with current ADA requirements.
- D. Refer to Article 8 - Improvement and Construction Requirements for curb construction specifications.
- E. In areas where curbing is not required to be constructed, suitable shoulders, gutters, swales or ditches must be installed to avoid erosion and must be of sufficient cross-section to permit the proper flow of storm water.

**§180-510. Site Excavation & Grading**

- A. All proposed site excavation and grading for subdivision and land development projects shall be clearly depicted on the preliminary and final plan when filed with the Township for review. Grading associated with site development activities or areas

to be graded outside of street right-of-way lines shall be clearly depicted by proposed contour lines and spot elevations as required in this Ordinance and shall not exceed a ratio of 2:1 (horizontal to vertical) for cut slopes and 3:1 (horizontal to vertical) for fill slopes. All excavation and grading shall be governed by the requirements as contained in PENNDOT Publication 408, Specifications, current edition, regarding suitable soil materials, lift thickness, compaction criteria, soil testing and related matters. It shall be the responsibility of the Applicant to fully document compliance with these specifications and to demonstrate the same to the Township upon request.

**§ 180-511. Sewage Facilities**

A. Each new subdivision or land development shall be provided with adequate means for sewage disposal and the sewage disposal system shall be either public, community, or individual on-lot systems owned, maintained and operated by the owners of each lot. Community sewage facilities may be located within undivided open space, with appropriate easements, at the discretion of the Township.

B. As applicable, all preliminary or preliminary/final plan submissions shall include a completed Pennsylvania Department of Environmental Protection (DEP) Sewage Facilities Planning Module for Land Development on forms provided by DEP, The plan review process shall not commence until a completed Planning Module or module exemption, if applicable, has been submitted, including soil test pits (probes) and soil percolation (perc) test information for each proposed lot when on-site systems are proposed. The commencement of the preliminary plan or preliminary/final plan review process shall thus coincide with the commencement of the Planning Module review process as outlined below:

1. Planning Module review shall be in accordance with the Pennsylvania Sewage Facilities Act of 1965, P.L. 1535, No. 537, as amended; DEP's Chapter 71 regulations, Administration of Sewage Facilities; the Township's current Act 537 Plan; provisions for processing planning modules as outlined in Article 3, § 180-303.E.; and this and other Township ordinances and regulations.
2. The developer shall provide the most advanced and highest type of sanitary sewage disposal facility available consistent with existing physical, geographical and geological conditions of the site, and in conformance with all applicable Township, State, County, and Federal ordinances and/or regulations.
3. Based upon the results of the Planning Module, public, community or individual on-lot sewage service facilities must be provided.

C. Individual On-Lot Sewage Disposal Systems.

1. Where public sanitary sewers are not planned, readily available or the Applicant is not required to extend an existing public sanitary sewage system to the subject site based upon the criteria outlined in Section 180-511 D (1) below, the use of individual on-lot sewage disposal systems shall be permitted. The use of such on-lot systems is governed by regulations of the DEP and enforced by the Township Sewage Enforcement Officer (SEO).
2. Prior to the approval of any plan proposing individual on-lot sewage disposal systems, the Applicant shall have conducted proper perc and probe testing

performed on each lot in accordance with DEP and Township requirements to determine the suitability for such systems, and shall have secured the approval of the Township SEO and/or DEP through the use of a Planning Module for Land Development. Each on-lot sewage disposal system must be reviewed, inspected and approved by the Township SEO prior to the issuance of a Certificate of Occupancy for the structure,

3. An individual on-lot sewage disposal system shall be located on the lot for which it provides service.

D. Public Sanitary Sewage Systems.

1. Any subdivision or land development plan that is located within the ultimate public sewer service area designated within the Township's approved Act 537 Plan and the project's boundary is located within 1000 feet of a public sewer system shall connect to the public sanitary sewer system.
2. If such a system is not available but will, in the opinion of the Township become available within a reasonable amount of time, then the Applicant shall install a complete sanitary sewerage system ("dry system") including collection mains installed in the street bed or approved right-of-way; service laterals installed to the rights-of-way lines of streets, lot or parcel property lines or sewer easements or rights-of-way lines, whichever pertains to individual situations. All termini shall be capped in a manner that will insure that all collector mains, laterals and house connections shall be water tight pending connections with a public sanitary sewerage system. Building laterals shall also be extended to the building unit or structure and the internal plumbing system for said structures shall be constructed to accommodate them as well as any individual on-lot septic system required.
3. The preliminary and final plans shall contain the complete design of the sanitary sewer system in accordance with current Lower Paxton Township Sewer Authority (Authority) Policies, Procedures, Rules and Regulations and Construction and Material Specifications including the design of all main collection lines, manholes, laterals, pump stations, and all other appurtenances. The design of sewage facilities shall include profiles and details to allow for the review of the complete system. Simultaneously with the review of the subdivision or land development plan, the Authority shall review and, if acceptable, indicate in writing their approval of all aspects of the sanitary sewer system design.
4. Fees for the review and approval of design; supervision and inspection for services rendered by the Authority Engineer in connection with the design and construction of the project's sanitary sewer system shall be paid by the Applicant in accordance with the fee schedule adopted annually by the Board of Supervisors for the Authority Engineer,
5. The Applicant shall be responsible for obtaining all permits and approvals necessary for the construction of the complete sanitary sewer system as well as any easements or rights-of-way, in a form prescribed by the Authority, necessary to construct facilities on property not controlled by the Applicant.

6. Approval of the proposed sanitary sewer system by the Authority shall be required prior to, or as a condition of, plan approval by the Township.  
The system must also be bonded or otherwise secured with the Authority prior to, or as a condition of, final plan approval.
7. Construction of the system shall be at the Applicant's own expense and shall not commence until application has been made to, and written authorization to proceed with such construction has been obtained from the Authority. The plan for the installation of a sanitary sewer system must be prepared for the development and approved by the Authority and the DEP, when applicable. All construction shall be in conformance with such approved plans and specifications.
8. Sanitary sewers and sewage disposal systems shall not be combined with storm sewers, and shall not be constructed to receive effluents from any stormwater collection system.
9. Sanitary sewage facilities located within proposed street rights-of-way shall be constructed, inspected and tested prior to commencement of construction of the street.

#### Community Sewage Systems.

1. Community sewage systems shall be permitted if it can be shown that such an approach would provide more reliable and effective treatment of wastewater than individual on-lot systems.
2. Community sewage systems may be installed only in subdivisions of ten (10) lots or more. The maximum permitted building density, as required by provisions of the Township Zoning Ordinance, shall not be permitted to be altered by the installation of a community sewage system.
3. Systems shall be designed by the Applicant and approved by DEP, the Township and the Authority and permission to construct said facility shall be received from DEP prior to plan approval and construction. The systems shall be compliant with the Township's Act 537 Plan and any rules and regulations of the Authority.
4. The community sewage system shall be located on a separate lot under the ownership of an organizational structure approved by the Township. The lot shall be used solely for the community sewage system and for no other purposes except passive or active recreation, silviculture, horticulture and similar uses. The area of the lot shall be of sufficient size to accommodate the system, the required area for a complete alternate or replacement system, and all required setbacks.
5. All sewage facilities shall be set back a minimum of one hundred (100) feet from the property lines of the tract, private lots or from buildings.  
The limits of spray fields of a spray irrigation system shall be set back a minimum of two hundred (200) feet from property lines of the tract, private lots or from buildings, or the requirements of DEP, whichever is more restrictive.
6. A planting screen shall be provided to fully screen the facility from private lots, roadways and adjacent tracts in accordance with Township landscaping requirements.

7. Ownership, operation and maintenance of all systems and property shall be the responsibility of an organization legally formed for said purpose. The organizational documents governing the ownership, maintenance and operation of the system shall be provided to the Township and the Authority for review and comment prior to any plan approval. Under no circumstances will the Township or the Authority have any ownership, operation, maintenance or financial responsibility for any system,
8. The Township shall have the right to professionally inspect and test community sewage systems at any time. The Township may require the owner to provide the results of regular professional testing of the system as the Township deems necessary. The costs of inspections and testing shall be the responsibility of the system owner.

**§180-512. Water Supply Facilities**

All subdivisions and land developments shall be provided with adequate water supply facilities as part of the subdivision or land development plan approval process.

A. On-Lot Water Supply.

Where there is no readily available public water supply system or the Applicant is not required to extend an existing public water supply system to the subject site based upon the criteria outlined in Section 180-512 B (1) below, each lot in the development must be provided with an adequate individual on-lot water supply system in accordance with minimum standards approved by the Pennsylvania Department of Environmental Protection (DEP). The Board of Supervisors shall approve the use of individual on-lot water supply systems (wells) when the following criterion has been satisfied:

1. Information submitted by the Applicant indicates that justification of the project necessitates the use of this type of water supply system.
2. The Hydrogeologic Analysis and Water Quality Testing as required in Article 7 of this Ordinance, as applicable, demonstrates that an adequate supply of potable groundwater can be provided to meet the expected demands for the type of development proposed.
3. The installation of such on-lot systems will not endanger or significantly decrease or adversely affect the groundwater supplies to adjacent properties.
4. That any permit or approval required from any regulatory agency or other governmental body having jurisdiction for withdrawing groundwater has been issued for the proposed use.

Public Water Supply,

1. Where there is an existing public water supply system located within the distances outlined below from the boundary of the subdivision or land development, a complete water supply system connected to the existing public water supply system shall be provided. Fire hydrants must also be installed in accordance with the requirements of Section 180-513.
  - a. For purposes of this section, the term "equivalent residential consumption" (hereinafter "ERC") shall mean the amount of water typically used by a residential unit during a one (1) day period.

Each ERC shall constitute up to 160 gallons of water use per day. Each residential or non-residential use shall have a minimum of one ERC.

- b. Depending on the number of ERCs, residential and non-residential development shall be required to connect to an existing public water supply system, if the system is available within the following distances:

<b><u>Number of ERCs</u></b>	0'
1ERC	600'
2 ERCs	800'
3 ERCs	1,000'
4 ERCs	1,000' plus 50 additional
5 ERCs	feet for each ERC over 5
6 or more ERCs	
<b><u>Distance</u></b>	
2	
0	
0	
,	
4	
0	

The above-referenced distances shall be measured from the nearest existing public water supply system along a State, Township, or public water utility right-of-way to which the parcel has access, to the nearest point of the boundary of the subdivision or land development.

2. • Where plans approved by a public water supplier provide for the installation of such public water supply facilities within one (1) year, the Applicant shall provide a complete water supply system ready to be connected to the proposed water main supply system in accordance with the requirements of the public utility.
3. Where connection to a public water supply is required, the plan for the installation of such water supply system must be prepared for the development with cooperation of the appropriate water utility company and approved by the Township Engineer. The entire water system proposed must be depicted on the preliminary and final plan prior to approval. The layout must indicate the approximate size and location of all water mains, hydrants, service laterals, meter pits, storage tanks, booster pump stations, and other appurtenances. The Applicant shall be responsible for obtaining all permits and approvals associated with the design and construction of the water main extension.
4. The design of the water system shall follow the current edition of the Ten States Standards regarding the horizontal and vertical separation of water lines and sanitary sewer lines. Water mains shall generally be located within the street cartway five (5) feet from the curb line.

**Private Centralized Community Water Supply.**

1. Where the Applicant is not required to extend an existing public water supply system to the subject site based upon the requirements of Section 180-512 B(1) above and where the Applicant proposes to utilize a private

centralized community water supply for the subdivision or land development, the design and installation of the system shall be subject to the approval of the Township and of the Pennsylvania Department of Environmental Protection (DEP), and such system shall be further subject to satisfactory provisions for its long term ownership, operation and maintenance. Standards and materials for the construction of any central community water supply system shall meet or exceed those requirements described in the Public Water Supply Manual of the Pennsylvania Department of Environmental Protection and shall be subject to the approval of the Township Engineer. The entire water system proposed must be depicted on the preliminary and final plan prior to approval. The layout must indicate the type, size and location of all water mains, hydrants, service laterals, meter pits, storage tanks, wells, treatment facilities, booster stations, and other appurtenances. The Applicant shall be responsible for obtaining all permits and approvals associated with the design and construction of the water main extension. Where a permit is required by DEP for said system, it shall be presented as evidence of such review and approval prior to or as a condition of any plan approval.

2. Ownership and maintenance of a centralized community water supply and distribution system shall be the responsibility of an organization legally formed and operated for such purpose. The organizational documents governing the ownership, maintenance and operation of the system as a utility shall be provided to the Township for review prior to any plan approval. If required, the Applicant shall file and obtain any approvals by the Pennsylvania Public Utility Commission (PUC) associated with the operation of the water system.
3. Wherever a central community water supply system is proposed for a development, a distribution system shall be designed to furnish an adequate supply of water (domestic and fire protection) to each lot based upon the intended use, with adequate water main sizes and fire hydrant locations to meet the current specifications of the Township and the International Fire Code (IFC) requirements.
4. The Applicant shall be required to show proof through a water supply feasibility analysis that the private centralized community water system will have an adequate supply of potable water for domestic or other proposed use and that each unit or building will have an adequate supply for purposes of fire protection and that such system meets the minimum standards controlling water storage and production capabilities for domestic and fire use. A technical study shall be submitted for Township, Township Engineer and Township Fire Marshal review which shall include all information as described in the Public Water Supply Manual of the Pennsylvania Department of Environmental Protection (DEP) as well as other information as may be required by the Township or DEP.

**§ 180-513. Fire Hydrants**

- A. Wherever a centralized community or public water supply system is provided for a subdivision or land development, fire hydrants suitable for the coupling of equipment used by fire companies serving the Township shall be installed in accordance with the utility company's and/or Township's specifications. The type and location of hydrants shall be approved by the Township upon review and recommendation by the Township Fire Marshall or Public Safety Committee. Fire hydrants shall meet the following general requirements.

1. All fire hydrants shall be located on a main water supply line having a minimum diameter of eight (8) inches. The minimum size of the hydrant tee connection shall be six (6) inches.
2. Hydrants shall be placed with the steamer nozzle facing towards the vehicular travel lane and shall be located so that they are accessible within five (5) feet by fire apparatus. Fire hydrants shall be placed behind the curb line of streets or within landscaped islands for private land developments. Landscaping or other obstructions shall not be placed in front of fire hydrants and a clear space of three (3) feet shall be provided around all fire hydrants.
3. Fire hydrants shall be spaced in a subdivision or land development so that all proposed buildings will be no farther than five-hundred (500) feet from the hydrant measured along vehicular travel ways. Also, a fire hydrant shall be provided at the closed end of all cul-de-sac streets.
4. Hydrants shall provide two (2), 1 7/32" I.D. port outlets and one (1), 4 1/4" I.D. steamer outlet complying with National Standard Thread (NST) requirements and in accordance with the construction and installation specifications of the water utility company,
5. The water system supplying the hydrants must be capable of meeting maximum domestic consumption at all times plus a minimum fire flow of five hundred (500) gallons per minute (GPM) for residential developments and one thousand (1000) GPM for commercial and industrial developments at a minimum residual pressure of twenty (20) pounds per square inch (psi) for a minimum continuous duration of two (2) hours,
6. Fire hydrants shall be installed and be fully operational prior to the issuance of a Certificate of Occupancy for any building or dwelling represented on the subdivision or land development plan.
7. The placement and design of all fire hydrants shall comply with all provisions of the International Fire Code (IFC), current edition.

**§180-514. Design Standards in Floodplains**

A. General Standards.

1. Where not prohibited by this or any other laws or ordinances, land located in any identified floodplain area or district may be planned for development with the provision that the developer construct all buildings and structures to preclude flood damage in accordance with this and any other laws and ordinances regulating such development. Reference is made to Article 5 - Environmental Protection, Section 504 of the Lower Paxton Township Zoning Ordinance for Floodplain District Regulations.
2. Building sites for residences or any other type of dwellings or accommodations shall not be permitted in any floodplain area where the elevation of the structure is located below one and one half (1 1/2) feet above the Regulatory Flood Elevation. Where no floodway has been identified, the structure shall not be located within fifty (50) feet from the top of bank of any stream or water course unless a detailed hydrologic and hydraulic analysis is provided by the Applicant and approved by the Township which

demonstrates that the floodway is of a lesser width. If fill is used to raise the elevation of a site, the fill area shall extend out laterally for a distance of at least fifteen (15) feet beyond the limits of any proposed structures.

3. All proposed subdivisions and land developments shall provide the location of all regulatory floodplain areas clearly delineated on the plan. Subdivision plans and other land development plans proposing fifty (50) or more lots or dwelling units or containing greater than twenty (20) acres, whichever is lesser, shall include actual 100-year base flood elevation data, in an acceptable engineering form comparable to U.S. Army Corps of Engineers, HEC-RAS, which shall be certified as accurate by a Professional Engineer. The hydrologic and hydraulic analysis shall include the entire property from the upstream to downstream limits of all major waterways.
4. No new construction or development shall be permitted within a designated floodway of a stream or waterway. When the Applicant is proposing encroachments into floodplain areas associated with a subdivision or land development application said encroachment shall only be permitted when in compliance with this and other ordinances and approved by the Pennsylvania Department of Environmental Protection (DEP). Where the Applicant is proposing to modify an existing floodplain as defined by a Federal Emergency Management Agency (FEMA) Flood Insurance Study, the Applicant shall be responsible for performing all studies, data collection, analysis and preparing applications for the Township's review and approval in order to secure a Letter of Map Revision (LOMR) for the designated waterway. The limits of the study shall be determined in consultation with the Township and FEMA.
5. Buildings sites for structures or buildings other than for residential uses shall not be permitted in any identified floodway area or district. Also, such sites for structures or buildings outside the floodway shall be protected as provided for in Section 180-514 A(2) above. However, the Board of Supervisors may allow the subdivision and/or land development of areas or sites for commercial and industrial uses at an elevation below the Regulatory Flood Elevation if the Applicant otherwise protects the area to that height or assures that the buildings or structures will be flood proofed at least up to that height.
6. When an Applicant does not intend to develop the plan himself and the Township determines that additional controls are required to insure safe development, it may require the Applicant to impose appropriate plan and deed restrictions on the land. Such deed restrictions shall be inserted in every deed and noted on every recorded plan.
7. Where any excavation or grading is proposed or where any existing trees, shrubs or other vegetative cover will be removed, the developer shall  
consult the Dauphin County Conservation District representative concerning plans for erosion and sedimentation control and to also obtain a report on the soil characteristics of the site so that a determination can be made as to the type and degree of development the site may accommodate. Before undertaking any excavation or grading, the Applicant shall obtain all necessary permits and approvals from the Township.

8. **Drainage Facilities:** Storm drainage facilities shall be designed to convey the flow of stormwater runoff in a safe and efficient manner. The system shall insure proper drainage along streets, and provide positive drainage away from buildings. Storm water conveyance facilities may be located within floodplain areas however; stormwater management facilities and other Best Management Practice (BMP) areas shall not be located within any floodplain areas of the Township. Plans shall be subject to the approval of the Township.
9. The Township may require a primarily underground storm system to accommodate frequent floods and secondary surface system to accommodate larger, less frequent floods. Drainage plans shall be consistent with local and County drainage plans. The facilities shall be designed to prevent the discharge of excess, runoff onto adjacent properties.
10. **Street and Driveways:** The finished elevation of proposed streets and driveways shall not be more than one (1) foot below the Regulatory Flood Elevation. The Township may require profiles and elevations of streets to determine compliance with the requirements. Drainage openings shall be sufficient to discharge flood flows without unduly increasing flood heights or damaging the roadway.
11. **Sanitary Sewer Facilities:** All sanitary sewer systems located in any designated floodplain district, whether public or private, shall be flood proofed to not less than one and one half (1-1/2) feet above the Regulatory Flood Elevation.
12. **Water Facilities:** All water systems located in any designated floodplain district, whether public or private, shall be flood proofed to not less than one and one half (1-1/2) feet above the Regulatory Flood Elevation.
13. **Other Utilities and Facilities:** All other public and private utilities including gas and electric shall be elevated or flood proofed to not less than one and one-half (1-1/2) feet above the Regulatory Flood Elevation.

**§ 180-515. Landscaping Design Standards**

A. General.

1. The landscaping design requirements contained within this Section shall be applicable to all subdivision and land development applications that require buffer yards and screen plantings pursuant to the Lower Paxton Township Zoning Ordinance; require street trees related to the construction of new streets within subdivisions; propose new parking facilities associated with new land development activity; and new multi-family, commercial and industrial buildings associated with new land development activity.

Design Standards for Screening in Required Buffer Yards.

1. No plant material within buffer yards will be permitted in situations where it may inhibit sight distance, conflict with the circulation and safety of pedestrians, conflict with utility or stormwater facilities, or create potential maintenance problems.
2. Screen plantings shall not consist of evergreen plant species only. A collective landscape design approach must be used to mix and combine a variety of deciduous shade and ornamental trees and deciduous and evergreen shrubs and groundcover. Vegetation must

be distributed throughout the entire planting buffer to achieve a complete coverage of the buffer.

3. Buffers on manmade slopes shall have a maximum slope of twenty-five (25) percent.
4. One (1) tree shall be provided for every five hundred (500) square feet of required landscape buffer area. Trees shall be mixed evergreen and deciduous species with no more than thirty (30) percent of the screen being composed of deciduous trees. Trees shall have a minimum height of twenty (20) feet at maturity.
5. Shrubs within buffer areas must be planted such that one (1) shrub is provided for each two hundred fifty (250) square feet of buffer area. Plantings must be staggered and arranged in combination with the required trees to achieve a natural and pleasing appearance at maturity. Shrubs shall be of a species as to provide screening from the ground to a height of six (6) feet at maturity. The ground area within the buffer area shall be covered with grass, groundcover or mulch.
6. Buffers and screening shall be continuous and no parking facilities or structures of any sort shall be permitted within the landscape buffer areas. Buffers may be penetrated with driveways and walkways provided that said penetrations are perpendicular to the buffer and are minimized.
  7. All landscaped buffer areas shall be kept clean of all debris, litter, weeds, and tall grasses, and shall otherwise be maintained in good form by the landowner or other entity in accordance with the approved plan.
  8. Existing wooded areas may meet the criteria of the requirements of a buffer yard with the following conditions:
    - a. The existing wooded area encompasses the entire required width of the buffer yard and no change of grade is proposed within the buffer area.
    - b. The existing wooded area is primarily comprised of acceptable native woody plant species as described in the Native Plant List published by the Pennsylvania Department of Conservation and Natural Resources (PA DCNR).
    - c. The existing wooded areas consist of a dense, healthy stand of trees and other desirable vegetative materials and will provide a buffer equal to or better than the required buffer when mature,
    - d. Supplemental planting may be required to provide the required number, species mix and visual screening required by this Section.
    - e. All invasive and noxious weeds and trees shall be deadened and removed from the buffer area.
  9. Decorative fencing, walls and earthen berms of adequate height and slope are encouraged and may be substituted for a portion of the required landscaping at the sole discretion of the Board of Supervisors. Fences and walls shall be of a solid design nature and consist of low maintenance materials which are aesthetically pleasing for use in a landscaped buffer. Any walls or fencing shall be constructed to a minimum height of six (6) feet.

C. Design Standards for Parking Lots and Perimeters.

1. In any parking lot containing thirty (30) or more parking spaces (excluding a parking garage), five (5) percent of the total area of the parking lot shall be devoted to interior landscaping. Such interior landscaping shall be used at the end of parking space rows to break up rows of parking spaces and to help visually define travel lanes within the parking lot. No more than twenty (20) parking spaces shall be placed in a row without the use of a landscaped island.
2. Landscaping areas situated outside of the physical confines of the parking lot, such as peripheral areas and areas around buildings, shall not constitute interior landscaping. For purposes of computing the total area of any parking lot, all areas within the perimeter of the parking lot shall be counted, including all parking and loading and unloading spaces, fire lanes, access and drive aisles, islands, and curbed areas.
3. Perimeter plantings around parking lots shall also be provided. Perimeter landscaped areas shall be a minimum of five (5) feet in width. A minimum of one (1) deciduous or coniferous tree and two (2) shrubs shall be provided for each fifty (50) feet of parking lot perimeter provided. The balance of the perimeter shall be composed of groundcover, grass, perennials, and the like. Earthen berms and mounds are encouraged to screen the parking area from public streets or adjacent properties.
4. Ground cover alone is not sufficient to meet the parking lot landscaping requirements. A mixed planting design of deciduous trees, shrubs, and ground cover shall be provided within the landscaped islands.
5. The following design requirements shall be adhered to for all interior landscaping within parking lots:
  - a. Landscaping shall be provided within curbed islands having a minimum width of six (6) feet and a minimum area of one hundred (100) square feet for single depth islands and a minimum width of six (6) feet and a minimum area of two hundred (200) square feet for islands with a depth equal to two (2) parking spaces.
  - b. Each landscaping island must be provided with a minimum of one (1) deciduous tree plus one (1) shrub per each one hundred (100) square feet of island area with the balance being composed of groundcover and perennials.
  - c. Island plantings must be coordinated with the location and height of light standards and utility lines such that conflicts do not exist.
  - d. Landscaping materials shall be protected from intrusion by cars by the use of curbing, bollards, wheel stops or similar devices.
  - e. Plantings within landscaped islands shall be designed to provide adequate vehicular sight distance within the parking lot and for any access thereto.

#### D. Design Standards for Site Area Landscaping.

1. All multi-family, commercial and industrial developments shall be provided with site landscaping amenities in addition to any required landscaping for screens, buffer yards, parking lots, parking lot perimeters,

or street trees. Site landscaping shall be provided for the following general conditions and shall be depicted on the Landscaping Plan referenced herein;

- a. Building foundations and building entrance points
  - b. Front and side yard areas of buildings
  - c. Areas along access drives to adjacent streets
  - d. Areas around entrance or development signs
2. All required areas shall be landscaped to the satisfaction of the Township with a combination of trees, shrubs, groundcover, planting beds, annuals and perennials and other landscape features in order to compliment the building and provide for a suitable site design. Grass cover alone will not be sufficient to meet landscaping requirements of this Section.
  3. Service loading and unloading areas shall be landscaped to screen the view from adjacent streets and properties.
  4. Where the external storage of materials is permitted on the property, said areas shall be landscaped to screen the view from adjacent streets and properties.
  5. Trash disposal areas such as dumpsters or compactors shall be screened so as not to be visible from parking areas, adjacent streets and properties. Such areas shall be screened with a combination of architectural masonry or fencing and landscaped with coniferous shrubs with a height of at least six (6) feet.
  6. Sewage pumping stations, treatment facilities, utility substations and similar utility structures shall be landscaped to screen the view from surrounding areas.

#### Design Standards for Street Trees.

1. Street trees shall be required in all subdivisions and land developments based on the following:
  - a. For existing and new arterial, collector and minor streets as defined herein a quantity of one (1) street tree for every fifty (50) linear feet of street frontage shall be provided.
2. Design Requirements. The following design guidelines shall be met unless otherwise stipulated in this Ordinance.
  - a. Street trees shall be planted no closer than thirty (30) feet on center or farther than seventy-five (75) feet on center along each side of the street.
  - b. All street trees shall be located within the street verge area and be centered between the back edge of curb and the front face of the sidewalk unless otherwise approved by the Township.
  - c. No more than twenty-five (25) percent of one species of tree shall be planted as street trees within a development.

- d. If sidewalks are not required, street trees shall be planted four feet (4) from the back edge of the curb.
- e. The location of street trees shall not be planted within required clear sight triangles of intersections.
- f. The placement of street trees shall not conflict with the placement of underground utilities, storm sewer systems, or other public infrastructure.
- g. Street trees shall not be planted within ten (10) feet from any storm drain inlet, fire hydrant, accessible manhole or utility pole or structure.
- h. Street trees shall be consistent with the procedures and requirements of the Lower Paxton Township Zoning Ordinance.
- i. The selection of street tree species shall be approved only after review by the Township Shade Tree Commission. Applicants are encouraged to meet with the Shade Tree Commission or a representative thereto during the design process in order to solicit input on approved species, planting location and other landscaping design elements.

Credit for Preservation of Existing Trees in Required Buffer Yards.

- 1. A landscape credit can be applied toward the required buffer yard plant material for the preservation of existing trees provided said existing trees are of a quality native species and are in a condition that is acceptable to the Township and are worthy of saving and included within the required buffer area.
- 2. A credit of two (2) shade trees can be applied to the required landscaping for each existing tree that is at least six (6) inches in diameter measured at breast height and is within the required buffer yard.
- 3. All existing trees must be healthy, vigorous, in good form and preserved within the site's immediate developable area. Remote stands of trees which have no buffer value will not be eligible for consideration.
- 4. The existing trees must also be able to tolerate any induced stresses and changes caused by the proposed development for a one-year period after construction is completed.
- 5. Existing trees with a six (6) inch or greater diameter considered for preservation shall be measured at breast height above the existing grade. Trees targeted by the Applicant to be preserved shall be field surveyed, identified and shown on the subdivision or land development plan at the time of submission to the Township.
- 6. Existing trees considered for preservation shall be field marked by the Applicant and protected from construction activities in an acceptable and appropriate manner. No changes in grade shall be permitted adjacent to those trees being preserved.

7. Existing trees considered for preservation within the developable area shall remain undisturbed and shall be protected and encircled with an acceptable fence for protection.
8. The diameter of the undisturbed area shall extend to the drip line of the tree or by one (1) foot of undisturbed area per inch of tree diameter measured at breast height from the existing grade whichever is greater. The tree can be preserved if at least two-thirds (2/3) of designated area can remain undisturbed.
9. Impervious or construction material shall not be placed under the drip line or within the designated tree protection fenced area.
10. If existing trees that meet the preservation criteria but cannot be saved successfully and die within a one-year period after completion of the project, the Applicant shall be responsible to fully remove and replace the existing tree with the required landscaping materials.

#### Landscaping Plan Requirements.

1. For all subdivision and land development plans requiring landscaping design, and at the time of initial submission to the Township, the Applicant shall include a separate landscaping plan designed by a Registered Landscape Architect in the Commonwealth of Pennsylvania. Said plan shall bear the seal and signature of the Registered Landscape Architect and be certified that the plan meets all of the requirements of this Ordinance. The landscaping plan shall contain the layout, size and identification of all required plant materials including construction details, specifications, notes and other information required for construction and maintenance. The plan shall be designed to accommodate the location of all other planned site improvements, utilities, and site grading such that conflicts do not occur either at the time of planting or at maturity.

#### Landscape Material and Planting Specifications.

1. Installation and minimum size requirements for all planting materials shall be performed in conformance with good nursery and landscaping practice. All plant material must comply and conform to the code of standards set forth and cited in the latest edition by the American Standard Nursery Stock, ANSI Z60.1, as amended, and meet the following requirements:
2. Minimum plant sizes for all landscape materials shall be as follows:
  - a. Deciduous Trees: 1 ~~v2~~<sup>9</sup>- 2" caliper at 6" above grade or 8' - 10\* height
  - b. Evergreen Trees: 6' minimum height
  - c. Deciduous Shrubs: 18"-24" height
  - d. Evergreen Shrubs: 24"- 30" height
3. Requirements for measurements, branching, grading, quality, balling and burlapping shall follow the code of standards recommended by the American Association of Nurseryman, Inc. in the American Standard for Nursery Stock, ANSI Z60.1, current edition as amended.

4. The plant materials shall be grown in a climate similar to that of the locality of the project and shall be appropriate for Hardiness Zone 6 planting per U.S.D.A. requirements. All plant materials shall have a normal habit of growth and shall be sound, healthy, and vigorous and they shall be free from disease, insects, insect eggs, and larvae.
  5. All trees and shrubs shall be balled and burlapped or be containerized. Bare root planting shall not be permitted. Trees and shrubs shall be planted in excavations a minimum of one and one-half (1-1/2) times larger than the root ball per ANSI standards and planted in good soil conditions including the addition of peat moss, fertilizer, and other customary soil supplements.
  6. All trees shall be guyed or staked for one (1) year following planting. All guys or stakes shall be removed one (1) year from installation.
- I. Landscape Surety.
1. When landscaping improvements are required by this Ordinance, the estimated cost of the installation of said landscaping improvements shall be included with the project's financial security as described herein to guarantee the required plant materials, landscaping, and all related appurtenances are correctly provided and installed according to the approved plan.
  2. No financial security will be required for the preservation of existing trees that are credited towards the required landscaping.
- J. Maintenance of Landscaping.
1. The Applicant shall be responsible for maintenance of the required landscaping during all construction activity of the subdivision or land development project and, for publicly dedicated facilities until such time as the Township accepts ownership of said materials. For required landscaping on private property, the landowner shall own and maintain all materials and said landscape materials shall not be removed or substantially altered without approval by the Township. The Township may require landscaping easements or other controls to assure the long term viability of landscaping improvements.
  2. The required landscape maintenance responsibilities of the Applicant shall include but not be limited to watering, mowing, pruning, weeding, mulching, fertilizing and other maintenance techniques necessary to ensure the health and long term survival of the plant materials. The required landscaping shall be maintained and, if need be, replaced with original plant species or an acceptable equivalent, in order to remain in compliance with current landscape regulations and the terms and conditions of the subdivision or land development plan approval.

**§ 180-516. Street Signs & Traffic Control Devices**

- A. General.
1. All subdivision or land developments shall be provided with stop signs, street name signs, speed limit signs, no parking signs (if applicable), and other regulatory and /or advisory signs as may be required by the Township.
  2. Street name and other traffic control signs located within public rights-of-way shall be owned and maintained by Lower Paxton Township. Signs located on private

property shall be owned and maintained in good operating condition by the landowner.

3. Signs and other traffic control devices within proposed public street rights-of-way will be provided and installed by the Township and paid for by the Applicant. The estimated cost of the signs shall be required to be included in the financial security for the project as described in this Ordinance.
4. All required street and other traffic control signs shall be erected prior to any street being passable and opened for vehicular use.
5. All street signs shall be placed and constructed in accordance with the Manual of Uniform Traffic Control Devices (MUTCD), U.S. Department of Transportation, Federal Highway Administration, latest edition and the most current requirements of the Pennsylvania Department of Transportation (PENNDOT).

B. Street Name Signs.

1. The subdivision or land development shall be provided with street name signs at all intersections of public streets within the development. Street names shall be selected in accordance with prescribed Township, U.S. Postal Service, or other regulatory agency procedures and shall not conflict with existing street names or create confusion to the traveling public. The Township shall review and, if acceptable, approve all street names as proposed by the Applicant.

C. Stop, Speed Limit, No Parking, and other Regulatory Signs.

1. Stop signs, speed limit signs, no parking signs and other regulatory and/or advisory signs shall be placed within the subdivision or land development as required by the Township. The location of all required signs shall be depicted on the approved subdivision or land development plan.

D. Traffic Signalization.

- I. Where a subdivision or land development requires the modification of an existing traffic signal or the installation of a new traffic signal and related appurtenances to control the flow of traffic, the Applicant shall prepare all required traffic studies and analyses, traffic signal warrant reports, traffic signal permit and construction plans and traffic signal permit applications for review and approval by the Township. All traffic signal design and construction shall be in accordance with the current requirements of PENNDOT Publication 149 - Traffic Signal Design Handbook and

Publication 148 - Traffic Standards - Signals; TC - 7800. Additionally, the design and construction requirements as contained in Article 8 of this Ordinance shall be adhered to for the design and/or modification of all traffic signal facilities.

E. Pavement Markings.

1. Where pavement markings are required for the proper channelization, control and proper operation of traffic, the Applicant shall provide pavement markings on the plan for review and approval by the Township. Pavement markings shall include, but not be limited to, center and edge lines, stop bars, pedestrian cross walks, through and turn arrows, and the like. Pavement markings for stop bars, crosswalks and directional arrows shall be thermoplastic. All pavement markings shall conform to the latest requirements of PENNDOT and the Township.

**§180-517. Utility Construction**

A. **Underground Wiring.**

1. All electric, telephone, cable television, and other communication facilities, both main and service lines servicing new subdivisions or land developments, shall be provided by underground wiring within utility easements or within dedicated public rights-of-way unless special conditions require otherwise. Utilities shall be installed in accordance with the prevailing standards and practices of the utility or other companies providing such services.
  2. Lots which abut existing easements or public rights-of-way where overhead electric or telephone distribution supply lines and service connections have been previously installed may be supplied with electric and telephone service from those overhead lines, but any new service connections from the overhead utility lines shall be installed underground. In the case of existing overhead utilities, should an extension of service, or other such condition occur as a result of the subdivision and necessitate the replacement or relocation of such utilities, such replacement or relocation shall be underground where practicable.
  3. Where overhead lines are permitted as the exception, the placement and alignment of poles shall be designed to lessen the visual impact of overhead lines as follows: Alignments and pole locations shall be carefully routed to avoid locations along horizons; clearing swaths through tree areas shall be avoided by selective cutting and a staggered alignment; trees shall be planted in open areas and at key locations to minimize the view of the poles and the alignments; and alignments shall follow rear lot lines and the rear of buildings and other similar alignments where possible.
4. Where such utilities lie under the proposed right-of-way or cartway, said utilities, or provisions for accommodating said utilities (i.e., conduits, duct banks, manholes, junction boxes, etc.) shall be installed prior to construction of the roadway. Utility systems must also be operational before any person is permitted to occupy any building to be served by such utility.

**Underground Utility Notifications.**

1. In accordance with the provisions of PA Act 38, as amended, all Applicants proposing construction activities shall contact all applicable utilities and accurately determine by field surveying means the location, type, size and approximate depths of all existing

underground utilities within and adjacent to the tract proposed for development and in the vicinity of any proposed off-site improvement. A list of the applicable utilities, their telephone numbers, and the PA One Call Serial Number shall appear on the subdivision or land development plans submitted for review.

### **Regulatory Wetlands**

For all subdivisions and land developments, the Applicant must determine if regulatory wetlands exist on the property containing the proposed subdivision or land development. The Applicant must also determine if any wetlands will be impacted off-site from the property if off-site construction activities are proposed. This determination shall be made in accordance with the current requirements of the Department of Environmental Protection (DEP) and the U.S. Army Corps of Engineers (USACOE) as outlined in the "Wetlands Delineation Manual", U.S. Army Corps of Engineers, 1987, or as amended.

All wetlands investigations must be performed by an environmental professional with the education and experience necessary to perform said investigations and studies.

If after an absence/presence site investigation, it is determined that there are no wetlands on the subject property and no wetlands will be impacted off-site, then the following certification note must be placed on the plan:

*I, (Name of environmental consultant), hereby certify that I have conducted a wetlands investigation on (date) in accordance with the requirements of this ordinance and have determined that there are no regulatory wetlands on the subject property; that the proposed project will not impact any off-site wetlands and that no wetland permits are required from any State or Federal governmental agency having jurisdiction.*

*Signature & date*

- D. If there are regulatory wetlands found on the property and/or wetlands will be impacted off-site, then a wetland delineation report must be submitted to the Township as part of the required plan submission materials prepared in accordance with the requirements listed above and generally including the information required by the USACOE as part of a Jurisdiction Determination (JD) review. All regulatory wetlands must be clearly delineated on the subdivision or land development plan. If wetlands are proposed to be impacted by project activities, required wetland mitigation areas and construction details must also be included with the plan set.
- E. A copy of completed permit applications such as a Water Obstruction and Encroachment Permit or General Permit from DEP and a Section 404 Permit from the USACOE shall be provided to the Township for review.
- F. If necessary, the wetlands may be verified by the Township, Township Engineer, or their consultants through a site visit.
- G. If there are wetlands located on the property the following certification note shall be placed on the subdivision or land development plan:

*/, (Name of environmental consultant), hereby certify that I have conducted a wetlands delineation study on (date) in accordance with the requirements of this*

*ordinance and have determined that regulatory wetlands exist on the subject site and this plan accurately depicts the extent of all wetlands.*

*Signature & date*

- H. Any approval by the Township shall be conditioned upon full compliance with any requirements of any regulatory agency, and no action by the Township shall be relied on in lieu of a permit issued by the appropriate agency.

**§180-519. Site Retaining Walls**

- A. When retaining walls are required to accommodate grade changes as part of a subdivision or land development plan, said plan shall contain details relating to the design and construction of the proposed site retaining walls. Details shall include, but not be limited to, a layout and grading plan and a site adapted typical design section or sections showing all construction requirements.
- B. Design calculations must be provided for all design conditions and such wall design shall be prepared and certified by a Professional Engineer in the Commonwealth of Pennsylvania experienced in structural design and geotechnical engineering principles. Design calculations must include existing soils information; lateral soil pressure and all loading conditions; an analysis for overturning, sliding, and foundation bearing pressure; global stability analysis; and the design of all structural components including the use of appropriate factors of safety. An exemption from this requirement shall include small landscaping, garden, or similar type walls less than four (4) feet in height and which do not support buildings, parking facilities, or other structurally significant site features.

Retaining walls near or adjacent to street right-of-way lines shall be placed a minimum distance from the right-of-way line that would allow the angle of repose of the retained soil material to not encroach on the right-of-way and affect the roadway, right-of-way, or public infrastructure contained therein if the retaining wall should fail or be removed for any reason. No portion of any wall such as foundations, reinforcing materials, railing, and the like shall be located in any public right-of way to be owned or maintained by the Township.

Retaining walls attached to and substantially part of buildings shall be reviewed by the Township as part of the building permit application review process.

Any retaining wall greater than four (4) feet in height and subject to pedestrian traffic in the vicinity of the top of the wall shall be provided with fencing, railing or other protective measures to the satisfaction of the Township and in accordance with any applicable building codes.

Plans containing retaining walls located on or affecting multiple properties must provide adequate provisions for private access, maintenance and repair.

**Monuments & Markers**

Monuments and markers shall be set at all points, as required herein, for all new subdivision and land development plans approved by the Township. Monuments and markers shall be set by a Professional Land Surveyor licensed in the Commonwealth of Pennsylvania. All monuments and markers shall be secured as part of the project's financial security requirements as required under

this Ordinance. Once installed, all monuments and markers shall be flagged and visible at the time of inspection. The installation requirements for monuments and markers are as follows:

Monuments must be set as follows:

1. One (1) monument at each intersection of all public street right-of-way lines.
2. The intersections of lines forming angles or changes in direction along the boundary of the perimeter of the parent tract of land comprising the subdivision or land development unless said points are already marked by  
monuments recognized as established survey corners or are impractical to set due to streams, topographic conditions or other similar constraints.  
  
Such other intermediate points as may be required by the Township Engineer.

Markers must be set:

1. At all comers except those required to be monumented.
  2. Prior to the construction of any building or residential unit on the property.
- D. Monuments and markers shall be the following sizes and made of the following materials:
1. Monuments shall be four (4) inches square, octagonal or round and shall be thirty (30) inches long. Monuments shall be made of precast concrete, stone or by setting a four (4) inch diameter metal pipe filled with concrete.
  2. Markers shall be three quarters (3/4) of an inch square or three quarters (3/4) of an inch in diameter and thirty (30) inches long. Markers shall be made of iron pipes or iron or steel reinforcing bars.
- E. Monuments and markers must be placed so that the scored or marked point coincides exactly with the point of intersection of the lines being monumented. They must be set so that the top of the monument or marker is level with or within one (1) inch above the finished grade of the surrounding ground. Monuments must be marked on top with a copper or brass plate or dowel set in the concrete.
- F. Removal - Any monuments or markers that are removed must be replaced by a Professional Land Surveyor at the expense of the person requiring the removal and replacement of said monument or marker.

**§ 180-521. Natural Features Preservation**

- All subdivision and land development plans shall be planned and designed without impact to and destruction of significant natural features located on the property.
- A. Significant natural features shall not be physically disturbed or used for any other uses other than public or private conservation areas and uses for the conservation of open space, water, soil and wildlife resources; educational facilities of an

environmental nature, and private,

passive recreation except to the extent that it is necessary to provide ingress and egress to a property or the extension of required utilities into the property where no other feasible alternative exists. Where access is required through significant natural features, it shall only be permitted where it can be demonstrated by the Applicant that the design is the least intrusive to the natural features in question.

Significant natural features shall consist of the following elements:

1. Land areas having a slope equal to or in excess of twenty-five (25) percent which are not the result of manmade changes to the natural terrain. Excluded from this classification are slopes that are small, isolated or otherwise occurring as knolls, localized depressions, and the like which are not environmentally significant.
2. Regulatory wetland areas as defined in Section 180-518.
3. Areas comprised of rivers, creeks, streams, lakes, dams, ponds, and other bodies of water or defined watercourses and all land areas within twenty-five (25) feet of such features.

The requirements of this Section shall not be construed to further restrict any development activity currently permitted by the Township relating to the use of floodways, flood fringe areas, or approximated floodplain areas.

Slope areas shall be based upon a two (2) foot contour interval topographic survey and evaluation of all critical slope areas on the property. The average natural slope of an area shall be determined by dividing the horizontal run of the slope into the vertical rise of the same slope and converting the resulting figure into a percentage value. All slope areas shall be measured at right angles to the natural contour.

Where a subdivision or land development plan contains significant natural features, conservation easements shall be provided for the purpose of protecting the natural features from any further development or destruction.

### **Dedication of Recreation Land & Fee Requirements**

Applicability and Intent - All residential subdivision and/or land development applications submitted to the Township under this Ordinance shall provide for suitable and adequate recreation space in order to:

1. Ensure recreation areas and facilities are adequate to serve the residents of the Township.
2. Maintain consistency with the conclusions and recommendations in the Township's Recreation Plan, the Township's Greenway Plan and consistency with the Township's Comprehensive Plan regarding recreation.
3. Ensure that all residents have the opportunity to engage in varied recreation activities which includes passive and active forms of recreation.
4. Reduce the increasing user pressure on existing recreation areas and facilities.
5. Reduce the possibility of overburdening the Township with the development and maintenance of many small, randomly placed recreation areas.

3.

6. Ensure parks and open spaces are designed to conserve sensitive natural features and are properly integrated into the community.

Land Dedication versus Fee in Lieu - The Planning Commission and the Parks and Recreation Board shall recommend to the Board of Supervisors whether a land dedication or the payment of fees in lieu thereof is recommended. This recommendation shall be made at the time of the preliminary plan review or, in the case of no preliminary plan, at the final plan review by the Planning Commission and the Parks and Recreation Board; however, under no circumstances would a park land dedication or fee in lieu payment be accepted to reduce the percentage of open space otherwise required under provisions of the Township Zoning Ordinance.

The Planning Commission shall, at a minimum, consider the following points in reaching their recommendation:

1. Whether the land proposed to be dedicated would serve a valid public purpose and meet the design requirements of usable recreation space.
2. Whether the land proposed to be dedicated meets the standards of the adopted Lower Paxton Township Recreation Plan.
3. Recommendations received from the Parks and Recreation Board.

Residential subdivision and/or land developments of fifty (50) lots/units or less -In order to encourage the acquisition of larger parcels for parks, recreation and open space, the Township shall encourage a fee in lieu of land dedication for subdivisions or land developments which contains fifty (50) lots/units, or less. In such instances, the Applicant shall pay a fee as set forth herein at the time of the recording of the final plan or each phase thereof. Unless the subject property is adjacent to existing park land.

Land Dedication Procedures and Requirements - For all residential subdivision and land development plans, the amount of land required to be dedicated to the Township for public recreational purposes shall be as follows:

1. Residential Subdivision and/or Land Development Requirements. A minimum area of one thousand eight hundred and forty-one (1,841) square feet (.0423 acres) per dwelling unit shall be provided as a contiguous, usable area.
2. Time Requirements. Land to be dedicated to the Township must be dedicated for public use immediately after the recording of the final plan phase upon which the dedicated parcel is located. The proposed deed of dedication shall include a legal description and plat of the area and shall be submitted with the final plan for approval by the Township Solicitor. Title to land to be dedicated shall be good and marketable and free and clear of all liens and encumbrances or other defects as demonstrated by a current title report or a legal opinion of title provided by the Applicant.
3. As part of the plan submission process, the Applicant shall state what improvements, if any, that the Applicant intends to make to the land to make it suitable for intended purposes, such as grading or landscaping. The land shall be stabilized and free of construction debris at the time of dedication. The site shall not contain above ground or open storm water management facilities or be comprised of land that otherwise would not be

developed due to physical, environmental or other developmental limitations.

Design Requirements for Lands to be Dedicated - The following criteria shall be considered in determining whether to approve the proposed location of and improvements to recreation areas.

1. The site shall have a minimum of one hundred fifty (150) feet of frontage on a public street and be easily accessible from all areas of the neighborhood / subdivision or land development.
2. The recreation area shall consist of one (1) contiguous tract of land and of usable proportions in terms of tract width and depth. At least seventy-five (75) percent of the tract shall have a slope of six (6) percent or less, with soil conditions suitable for establishment of proper vegetative cover (see Township Zoning Ordinance § 310 — Steep Slopes).
3. The site shall not contain utility easements or rights-of-way that would adversely affect the site, storm water management facilities, BMPs, wetlands, steep slopes (>15%), floodplain areas, or be comprised of lands that otherwise could not be developed due to physical, environmental or other limitations.
4. Whenever possible, the site shall be adjacent to other existing recreational lands to create a comprehensive recreation area.
5. The size and shape of the site should be suitable for development as a particular type of recreation area as categorized by the Township in its Recreation Plan.
6. Lands to be dedicated should be at least two (2) acres in area.
7. The site shall be located and designed to conveniently access public utilities which may be extended by the Applicant including sanitary sewer, water and electric service to be utilized by the property. If the land to be dedicated is proposed to have recreational facilities constructed by the Applicant, sufficient parking shall be constructed by the Applicant to support these facilities.
8. If the site has been disturbed or altered prior to dedication, the Applicant shall improve it as near as possible to a condition acceptable to the Township including, but not limited to, grading, topsoiling and seeding, and construction of buffering acceptable to the Township. Slopes of a 3:1 ratio or higher shall be seeded with ground cover vegetation.
9. If the subdivision site has been identified on the Township Greenway Plan, or is otherwise appropriate for construction of a greenway, the value of the greenway shall be considered as an alternative to traditional park land and/or fee-in-lieu payments. In most circumstances, the greenway shall be placed within an easement or a publicly dedicated right-of-way. Greenway development shall be in accordance with the Township Greenway Plan.

3.

10. The proposed final condition of the tract to be dedicated shall be fully depicted on the subdivision or land development plan.

F. Fee in Lieu of Land Dedication Requirements - Where the Board of Supervisors determines that the land does not meet the requirements of Section 180-522 E, the Board of Supervisors may accept a payment of a fee in lieu of such land dedication which shall be payable to the Township as a condition of approval of the final plan by the Board of Supervisors. The amount of such fee shall be calculated using the following formula based upon the required dedicated acreage (0.423 acres/dwelling unit) multiplied by a recent average of lot prices as determined by Lower Paxton Township multiplied by the development cost factor (.75). The formula can also be described as a mathematical equation as follows:

$$\frac{\text{Recreation area required}}{43,560 \text{ square feet}} \times \text{Average Lot Price} \times \text{Development Cost Factor} = \text{Fee-in-Lieu Payment}$$

G. Limitations on Uses of Fees - A fee authorized under this Section shall, upon its receipt by the Township, be deposited in an interest-bearing account. Interest earned on such an account shall become funds in that account. Funds from such accounts shall be expended only to acquire lands and to design and construct new recreation facilities within the Township.

H. Private Dedication of Land - The Board of Supervisors may accept the private reservation of the required percentage of land in lieu of public dedication. The land set aside shall be suitable in size, dimensions and topography in relationship to the proposed use; shall be convenient to the residents of the development to be served; and shall be accessible for maintenance of such recreation areas by maintaining ownership or by providing for and establishing an organization for the ownership and maintenance of the private recreation area. When a recreation area is dedicated to a private organization, the area may remain available for general public use without fees or charges except in specific cases of prior reservation of facilities. When the general public is allowed free and unrestricted use of the private recreation area, no fee-in-lieu payment is necessary. If use of the private recreation area is restricted to only residents of the development, 50% of fee-in-lieu funds shall be payable to the Township as a condition of

approval of  
the final plan or each phase thereof.

I. Optional Recreation Procedure - Upon agreement by the Applicant, the Township may accept the construction of recreational facilities; the donation of recreation equipment or facilities; the payment of fees in lieu of dedication; the use of easements to accommodate greenways; the private reservation of land for recreation purposes; the dedication of land located in other areas of the Township, or a combination of the above in order to satisfy the recreation requirements of a particular subdivision or land development.

J. Timing for Contributions/Dedication - The dedication of land shall occur by transferable deed immediately following the recording of the final subdivision or land development plan for the phase in which the dedication is required. Where a payment of a fee in lieu of dedication is approved, the payment shall be made as a condition of approval of the final plan and shall be payable, in full, prior to recording of a final plan. Where recreation land or facility to be dedicated or privately developed recreation land or facility is to be developed in a later phase, the Township may require bonding in an amount to be determined by the Township Engineer to be one hundred ten (110) percent of the value of the privately owned recreation land or facility to be set aside in a later phase.

K. Procedure - The Township Community Development Staff, upon receipt of a preliminary plan submission, shall distribute one (1) copy to the Parks and Recreation Department for review and recommendation. The review and recommendation by the Parks and Recreation Board shall include the following:

1. The amount of land required, or that a fee shall be charged in lieu of land, or that land and a fee shall be required, and/or that a stated amount of credit shall be given for Greenways, private recreation facilities or unique natural and special features.
2. The location of the land to be dedicated, and/or Greenway locations.

A copy of the Township Parks and Recreation Board's review and recommendation shall be forwarded to the Township Planning Commission and the Township Board of Supervisors. The Applicant shall dedicate the land and/or pay the fee-in-lieu as determined by the Township Board of Supervisors before the recording of the final plan or each phase thereof.