

**Subdivision and Land Development Ordinance
Washington Township
Northampton County, Pennsylvania**

Revised By:
Ott Consulting, Inc.
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Original Prepared By:
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Washington Township Officials

Supervisors

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David Hess
Carl Tolino
Gail Putvinski, Secretary-Treasurer

Planning Commission

Charles Dertinger, Chair
Michael Mazzella, Vice-Chair
Carol Rice
Carl Palmeri
John Buck

Zoning Hearing Board

James Mamana
Andrew Bisher
Craig Messinger

Interim Zoning Officer

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Article 1

General Provisions

1.1 Title

An Ordinance providing for the regulation and control of the subdivision of lots and the development of land; the approval of plans, plots, or replots of land laid out in building lots; standards for the design of streets, lots, easements, blocks and other improvements; certain minimum improvements and construction standards on all streets and required dedications; the administration of this Ordinance by the Washington Township Planning Commission and the Washington Township Board of Supervisors; and penalties for the violation of this Ordinance.

1.2 Short Title

This Ordinance shall be known and may be cited as The Washington Township Subdivision and Land Development Ordinance.

1.3 Purpose

The purpose of these regulations is to create conditions favorable to the health, safety, morals, and general welfare of the citizens by:

- A. Assisting in the orderly and efficient integration of subdivisions within the Township;
- B. Ensuring conformance of subdivision plans with the public improvement plans of the Township;
- C. Ensuring sites suitable for building purposes and human habitation;
- D. Facilitating the efficient movement of traffic;
- E. Securing equitable handling of all subdivision plans by providing uniform procedures and standards;
- F. Improving land records by establishing standards for surveys and plans;
- G. Safeguarding the interests of the public, the homeowner, the Subdivider and all municipalities; and
- H. Preserving natural and historic features.

1.4 Application

- A. No subdivision or land development of any lot, tract, or parcel of land shall be made, and no street, sanitary sewer, water main, gas, oil, or electric transmission line, or other improvements in connection therewith shall be laid out, constructed, opened, or dedicated for public use or travel or for the common use of occupants of buildings abutting thereon, except in accordance with this ordinance.
- B. No lot in a proposed subdivision or land development may be sold and no final permit to erect any building upon land in a subdivision or land development may be issued unless and/or until:

1. A Final Plan has been approved and recorded and;
 2. Either
 - a. The Township has been assured by means of a Development Agreement acceptable to the Board of Supervisors that the improvements will subsequently be installed or
 - b. The required improvements in connection therewith have been constructed.
- C. The regulations of this Ordinance shall apply to any subdivision or land development.
- D. From the enactment date of this Ordinance, a subdivision of any tract which, henceforth, has been involved in three (3) successive minor subdivisions shall comply with the requirements for a major subdivision.

1.5 Exemptions

- A. Agriculture. The subdivision by lease of land for agricultural purposes into parcels of more than ten (10) acres, not involving any new street or easement of access or residential dwelling shall be exempted from review.
- B. Approved Subdivisions
1. From the time an application for approval of a plat, whether preliminary or final, has been approved or approved subject to conditions acceptable to the Applicant, no subsequent change or amendment in the zoning, subdivision or other governing ordinance or plan shall be applied to adversely affect the right of the Applicant, to commence and to complete any aspect of the approved development in accordance with the terms of such approval within five (5) years from such approval.
 2. If final plan approval is preceded by preliminary plan approval, the five (5) year period shall be counted from the date of the preliminary plan approval.

1.6 Interpretation

- A. Standards
1. The provisions of this Ordinance shall be interpreted and applied as minimum requirements for the promotion of the public health, safety, convenience and general welfare.
 2. Where provisions, standards, and specifications of this Ordinance conflict with those of any State statute, other ordinance or regulations, the greater restriction shall be controlling regardless of its source, unless specified to the contrary.
- B. Illustrations. The illustrations in this Ordinance are not a part of the Ordinance, but are included for purposes of explanation and clarification.

1.7 Modifications

- A. The governing body may grant a modification of the requirements of one or more provisions if the literal enforcement will exact undue hardship because of peculiar conditions pertaining to the land in question, provided such modification will not be contrary to the public interest and that the purpose and intent of the ordinance is observed.
- B. All requests for a modification shall be in writing and shall accompany and be a part of the application for development. The request shall state in full the grounds and facts of unreasonableness or hardship on which the request is based, the provision or provisions of the ordinance involved and the minimum modification necessary.
- C. The governing body shall refer the request for modification to the planning agency for advisory comments.
- D. The governing body shall keep a written record of all action on all requests for modifications.
- E. All waivers, deferrals or modifications granted by the governing body shall be listed on the plan(s) with the SALDO section number, description of requirement, description of relief granted and date of action by the governing body.

1.8 Fees

- A. The Board of Supervisors may adopt and periodically amend by resolution a schedule of fees and a collection procedure for all applications and other matters pertaining to this ordinance. The current fee schedule is attached hereto as Appendix G which is to take effect as of the date of this Ordinance and is incorporated as part of this Ordinance.
- B. The applicant, if required, shall also submit a fee to the county Planning Commission to cover the entire review process as outlined in any County Fee Schedule.
- C. The Administrator shall not accept any sketch, preliminary (for Township consideration) or final plan for filing until all fees are paid and the applications are properly signed. Any subdivision or land development fees paid by the applicant are not refundable due to disapproval or other reasons.

1.9 Revised Plans, Alternate Plans, and Resubdivisions

- A. Revised Plans
 - 1. Until a submission is approved or rejected by the Board of Supervisors, the applicant may withdraw the submission (or a part thereof) and submit a

Revised Plan following the submission and review procedures which apply to that plan,

2. No submission fee shall be charged for the first Revised plan, provided, however, that the revision generally follows the scheme and layout of the original submission. But a second Revised Plan (and any subsequent revised plan) shall be considered a new submission for which a new subdivision fee shall be required.
- B. Alternate Plan. If (before a submission is approved or rejected by the Planning Commission or the Board of Supervisors) the applicant submits a new plan submission for the subdivision or development of the same lands as the pending submission and does not withdraw the pending submission, the new plan shall be considered an Alternate Plan for which a new submission fee shall be required.
- C. Resubdivisions
1. A revision or resubdivision of a recorded plan or a Final plan approved by the Board of Supervisors shall be considered as a new subdivision and shall come under the jurisdiction of this Ordinance.
 2. Due to a mutual mistake of the developer and the Township, a submission to correct erroneous data or omissions on recorded plans shall not be considered to be a revision or resubdivision.

1.10 Township Records

- A. Planning Commission
1. The Planning Commission shall keep a record of the findings, decisions, and recommendations relative to all subdivision or land development plans filed for action by the Planning Commission.
 2. Such records shall be open to the public for review.
- B. Board of Supervisors
1. The secretary of the Board of Supervisors shall keep a record of the findings, decisions and recommendations relative to all subdivision or land development plans filed for action by the Board of Supervisors.
 2. Such records shall be open to the public for review.

1.11 Amendments

- A. The regulations set forth in this Ordinance may, from time to time, be amended by the Board of Supervisors.
- B. A public hearing held pursuant to public notice, as defined herein, on the proposed amendment shall be held by the Board of Supervisors.
- C. The Board of Supervisors shall submit each proposed amendment (other than an amendment prepared by the Planning Commission) to the Commission for

recommendations at least thirty (30) days prior to the date set for the public hearing on such proposed amendment.

- D. The Board of Supervisors may, at their discretion, submit any proposed amendment to the County Planning Commission. If submitted, the proposed action shall not be taken until the County Planning Commission recommendation is made or until thirty (30) days have passed.

1.12 Appeals to Courts

Decisions of the Board of Supervisors may be appealed in accordance with the Pennsylvania Municipalities Planning Code.

1.13 Enforcement

- A. The Board of Supervisors shall direct the Township Engineer to make inspections to enforce the provisions of this Ordinance and the accompanying design standards and improvement specifications.
- B. Inspection of actual construction under any approved subdivision or land development plan shall be the sole responsibility of the Township, which shall undertake reasonable measures to provide an adequate inspection of all projects.
- C. Any action inconsistent with the provisions of this Ordinance shall be subject to a cease and desist order, and other appropriate measures by the Board of Supervisors. The Pennsylvania Municipalities Planning Code defines the enforcement remedies available to the Township.

1.14 Violations and Preventative Remedies

- A. Violations
 - 1. Any person (being the owner or agent of any lot, tract, or parcel of land) who
 - a. Lays out, constructs, opens, or dedicates any street, sanitary or storm sewer, water main, or other improvement for public use, travel, or other purposes or for the common use of occupants of building abutting thereon,
 - b. Sells, transfers, or agrees or enters into an agreement to sell any land in a subdivision or land development (whether by reference to or by other use of a plat of such subdivision or land development), or
 - c. Erects any building thereon until a final plat has been prepared and recorded in full compliance with the provisions of this ordinance shall be guilty of a misdemeanor.
 - 2. The description by metes and bounds in the instrument of transfer or other document used in the process of selling or transferring shall not exempt the seller or transferor from such penalties or from the remedies herein provided.

3. Each day of violation may be considered as a separate violation and shall subject the violator to the penalties listed in section 1.14B and the remedies listed in Section 1.13C.
4. Actions to enforce this ordinance shall be brought by the Board of Supervisors.

B. Preventive Remedies

1. In addition to other remedies, the Township may institute and maintain appropriate actions by law or in equity to restrain, correct or abate violations, to prevent unlawful construction, to recover damages and to prevent illegal occupancy of a building, structure or premises. The description by metes and bounds in the instrument of transfer or other documents used in the process of selling or transferring shall not exempt the seller or transferor from such penalties or from the remedies herein provided.
2. The Township may refuse to issue any permit or grant any approval necessary to further improve or develop any real property which has been developed or which has resulted from a subdivision or real property in violation of any ordinance adopted pursuant to this Ordinance. This authority to deny such a permit or approval shall apply to any of the following applicants:
 - a. The owner of record at the time of such violation
 - b. The vendee or lessee of the owner of record at the time of such violation without regard as to whether such vendee or lessee had actual or constructive knowledge of the violation.
 - c. The current owner of record who acquired the property subsequent to the time of violation without regard as to whether such current owner had actual or constructive knowledge of the violation.
 - d. The vendee or lessee of the current owner of record who acquired the property subsequent to the time of violation without regard as to whether such vendee or lessee had actual or constructive knowledge of the violation.

As an additional condition for issuance of a permit or the granting of an approval to any such owner, current owner, vendee or lessee for the development of any such real property, the Township may require compliance with the conditions that would have been applicable to the property at the time the applicant acquired an interest in such real property.

1.15 Penalties

1. Upon conviction of a violation of this ordinance, any person responsible for such a violation shall pay a fine not exceeding one thousand (\$1,000) dollars per lot, parcel, or dwelling within each lot or parcel.
2. All fines collected for such violations shall be paid over to the Township.

1.16 Severability

It is hereby declared to be the legislative intent that:

- A. If a court of competent jurisdiction declares any provisions of this Ordinance to be invalid or ineffective in whole or in part, the effect of such decision shall be limited to those provisions which are expressly stated in the decision to be invalid or ineffective, and all other provisions of this Ordinance shall continue to be separately and fully effective.
- B. If a court of competent jurisdiction finds the application of any provision or provisions of this ordinance to any lot, building, structure, or tract of land to be invalid or ineffective in whole or in part, the effect of such decision shall be limited to the person, property, or situation immediately involved in the controversy, and the application of any such provision to other persons, property, or situations shall not be effective.
- C. The Board of Supervisors hereby declares that it would have passed this Ordinance and each section or part thereof irrespective of the fact that any one or more sections of parts thereof be declared invalid.

1.17 Repealer

All other Township ordinances or parts thereof that were adopted prior to this Ordinance and are in conflict with this Ordinance are hereby repealed.

1.18 Effective Date

This Ordinance shall become effective five (5) days after adoption of the Board of Supervisors.

1.19 Enactment

Enacted and ordained into an Ordinance this Ninth (9th) day of September, 2020.

Article 2

Definitions

2.1 Definitions

- A. General Interpretation. For the purposes of this Ordinance, words and terms used herein shall be interpreted as follows:
1. Words in the present tense shall include the future tense.
 2. The singular shall include the plural, and the plural shall include the singular.
 3. The masculine gender shall include the feminine and the neuter and vice-versa.
 4. The word "shall" is always mandatory, and the word "may" or "should" is always permissive.
 5. Any word or term not defined in this Article shall be used with a meaning of standard usage.
- B. Definitions. When used in this Ordinance, the following words, terms and phrases shall have the following meanings, unless expressly stated otherwise or unless the context clearly indicates otherwise:
1. Abut - Next to or adjacent to, and includes the words "directly across from streets, natural features, and rights-of-way"
 2. Access Drive – A privately owned, constructed, and maintained vehicular access from a public or private street to four (4) or more off-street parking spaces or to at least one (1) loading space.
 3. Adjacent - A state of being side by side, next to, adjoining, contiguous, or abutting one to another.
 4. Administrator – The person designated by the Board of Supervisors who receives subdivision or land development plans or otherwise acts in a clerical capacity for and on behalf of the Township Planning Commission.
 5. Applicant – A landowner or developer who has filed an application for a subdivision or land development, including his heirs, successors and assigns.
 6. Block – Property bounded on one side by a street, and on the other three (3) sides by a street, railroad right-of-way, public park, waterway, Township line, tract of land held in separate ownership, or any combination thereof.
 7. Block Frontage – That part of a block which fronts on a single street.
 8. Board of Supervisors – The Board of Supervisors of Washington Township, Northampton County, Pennsylvania.

9. Buffer Yard – A strip of land at least twenty (20') feet in width which may be a part of the minimum setback distance and which is free of any principal or accessory building, parking, outdoor storage or any other use than open space.
10. Building – Any structure having a roof supported by columns or walls, used for the shelter, housing or enclosure of persons, animals or property. "Building" is interpreted as including "or part thereof".
11. Cartway - The paved portion of a street or highway designed for vehicular traffic.
12. Commission - The Planning Commission of Washington Township, Northampton County, Pennsylvania.
13. Comprehensive Plan – The document titled Comprehensive Development Plan for Washington Township, or any part thereof, adopted by the Board of Supervisors.
14. Condominium – Real estate, portions of which are designated for separate ownership and the remainder of which is designated for common ownership solely by the owners of those portions, created under either the Pennsylvania Unit Property Act of July 3, 1963, or the Pennsylvania Uniform Condominium Act.
15. Construction – Includes the placing of construction materials in permanent position and fastening in a temporary or permanent position; and the demolition of pre-existing building, provided that further construction is diligently carried on.
16. County – The County of Northampton, Commonwealth of Pennsylvania.
17. County Planning Commission – The Lehigh Valley Planning Commission.
18. Crosswalk or Walkway – A strip of land including a right-of-way dedicated to public use in order to facilitate pedestrian access through or onto a block.
19. Developer – Any landowner, agent of such landowner or tenant with permission from a landowner, who makes or causes to be made a subdivision or land development.
20. Development Agreement – An agreement (in a form and manner acceptable to the Township) requiring a developer to install the improvements required by this ordinance and any improvements or amenities which appear on the plan in accordance with the requirements of this Ordinance.
21. Driveway – A privately owned, constructed, and maintained vehicular access from a street or access drive to three (3) or less off-street parking spaces.
22. Dwelling (Residence, Residential Structure) - A building containing one (1) or more dwelling units. The term "Dwelling" shall not be deemed to include automobile court, rooming house, tourist home, hotel, motel, hospital, nursing home, dormitory, fraternity, sorority house, or other group residence.

- a. Single Family Detached Dwelling - A detached building containing only one (1) dwelling unit. The term, "Single Family Detached Dwelling" shall be deemed to include a "Modular Home", but shall not be deemed to include a "Mobile Home".
 - 1) Modular Home – A single family detached dwelling designed for transportation after fabrication in one or more units and constructed so that it must be assembled on a permanent foundation and connected to utilities. The term "Modular Home" shall not be deemed to include a "Mobile Home".
 - 2) Mobile Home – A transportable, single family dwelling designed so that it can be:
 - (a) Transported on a highway
 - (b) Used for permanent occupancy, office or place of assembly contained in one unit or in two units designed to be joined into one integral unit capable of again being separated for repeated towing, which arrives at a site complete and ready for occupancy except for minor and incidental unpacking and assembly operations, and
 - (c) Constructed so that it may be used without a permanent foundation.

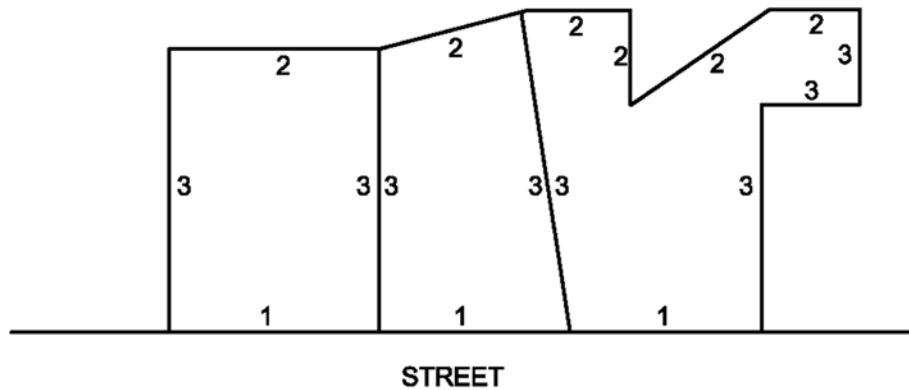
The term "Mobile Home" shall not be deemed to include "Recreation Vehicle" nor "Modular Home".

- b. Two Family Dwelling - A detached building containing two (2) dwelling units which are entirely separated by vertical walls or horizontal floors, unpierced except for access to the outside or to a common cellar. Each dwelling unit may be separately owned, provided that the area formed by the combined lots of both dwelling units shall comply with all requirements for a two-family dwelling in that district.
- c. Multiple Family Dwelling – A building containing three (3) or more dwelling units. Each dwelling unit may be separately owned, provided that the area formed by the combined lots of all dwelling units in a multiple family dwelling shall comply with all of the requirements for that type of multiple family dwelling in that district.
 - 1) Low Rise Multiple Family Building - A Multiple Family Dwelling which does not exceed three (3) stories in height and in which each dwelling unit has an independent outside access.
 - (a) Garden Apartment - A Low Rise Multiple Family building that does not contain more than twelve (12) dwelling units, in which individual dwelling units are entirely separated by vertical walls or horizontal floors, unpierced except for access to a common cellar.

- (b) Townhouse - A Low Rise Multiple Family building that does not contain more than eight (8) dwelling units, in which each dwelling unit extends from ground to roof and contains two (2) points of independent outside access.
- 2) Low Rise Apartment - A Multiple Family Dwelling not exceeding three (3) stories in height, in which each dwelling unit shares a common outside access with at least one (1) other dwelling unit.
23. Dwelling Unit (Housing unit) - one or more rooms intended to be occupied by one (1) family as separate living quarters, containing sanitary facilities, kitchen facilities, and having outside access directly from the dwelling unit or through a common hall.
24. Easement - A grant by the property owner to the public, a corporation, a person, or group of persons for use of land for specified purposes.
25. Engineer - The registered professional engineer designated by the Board of Supervisors to perform all duties required of the Engineer by the provisions of this Ordinance.
26. Family - One (1) or more persons (whether or not they are related by blood, marriage, or adoption) living together in a single dwelling and maintaining a common household. The term "Family" shall be deemed to include any domestic employees or gratuitous guests, but shall not include any roomer, boarder, or lodger.
27. Grade – The elevation of finished ground or paving.
28. Kitchen Facilities – Shall consist of all of the following: sink with piped water, a permanent cook stove and a refrigerator.
29. Land Development – Land Development shall include any of the following activities, unless such definition is revised by a later amendment of the Pennsylvania Municipalities Planning Code:
- a. Any of the following activities:
 - 1) The improvement of one (1) lot or two (2) or more contiguous lots, tracts or parcels of land for any purpose involving any of the following:
 - (a) a group of two or more residential or nonresidential buildings and/or units, whether proposed initially or cumulatively; or
 - (b) a single nonresidential unit on a lot or lots regardless of the number of occupants or tenure; or
 - (c) the division or allocation of land or space, whether initially or cumulatively, between or among two or more existing or prospective occupants by means of, or for the purpose of streets, common areas, leaseholds (i.e. rental units), condominiums, building groups or other features.
 - 2) A subdivision of land.

- 3) Any nonresidential development of land.
 - 4) Any alteration of the existing topography on a single nonresidential lot, tract or parcel of land that alters the drainage characteristics of an adjoining land parcel(s) or publicly held right-of-way by increasing the rate of surface water runoff.
- b. The following activities are excluded from the definition of Land Development unless the proposal involves the construction described in subsection a.4) above:
- 1) The conversion of an existing single-family detached dwelling or single-family semi-detached dwelling (with no enlargement of the structure) into not more than three (3) residential units, unless such units are intended to be a condominium; or
 - 2) The addition of an accessory building, including farm buildings, that are subordinate to an existing principal building on the same lot; or
 - 3) The addition of rides to an existing amusement park.
30. Landowner - The owner of a legal or equitable interest in land, including the holder of an option or contract to purchase (whether or not such option or contract is subject to any condition), or a lessee if he is authorized under the lease to exercise the right of landowner.
31. Lot - Any designated parcel, tract or area of land established by a plat or otherwise as permitted by law and to be used, developed, leased, rented, or built upon as a unit. Contiguous nonconforming lots under common ownership shall be considered one lot.
- a. Corner Lot - A lot situated at and abutting the intersection of two (2) streets having an interior angle of intersection not greater than one hundred thirty-five (135) degrees.
 - b. Interior Lot - A lot other than a corner lot whose sides do not abut a street.
 - c. Reverse Frontage Lots - Lots which front on one public street but provide vehicular access solely from another public street at the rear of the lot.
 - d. Through Lot - An interior lot having frontage on two (2) streets.
 - e. Irregular Lots - A lot that does not meet the minimum lot width at the street line.
 - f. Flag Lot or Keyhole Lot - An irregularly shaped lot characterized by an elongated extension from a road to the principal part of the lot. The flag or keyhole shape of the lot is normally intended to provide for access to an otherwise land-locked interior parcel. A flag lot with over 50% of a proposed house location in the pole section is not a flag or keyhole lot. It shall be deemed an irregularly shaped lot.

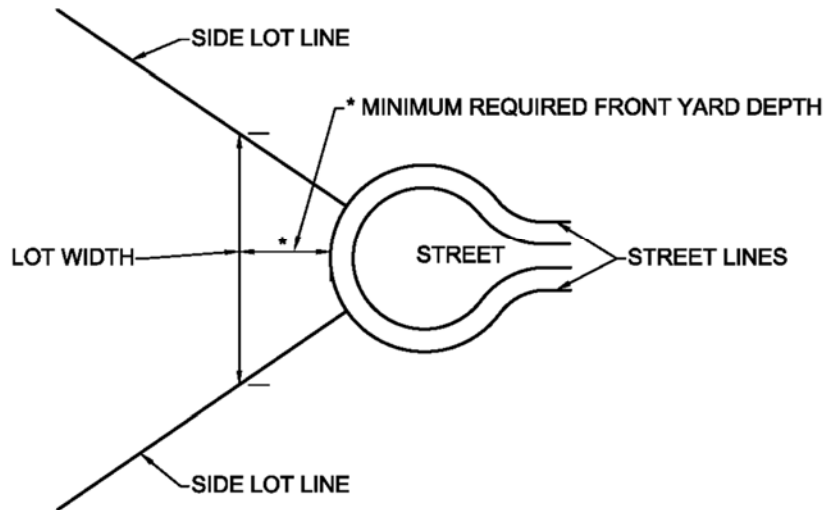
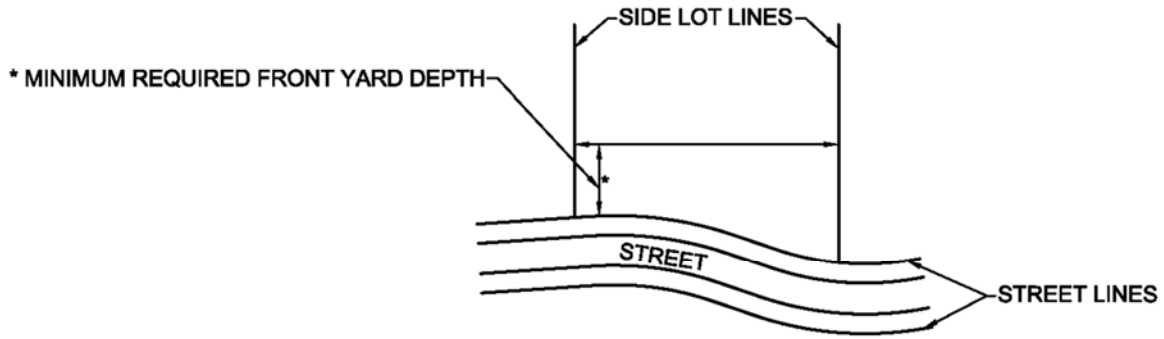
32. Lot Area - The area contained within the lot lines, excluding space within all existing and future road rights-of-way, permanent drainage easements and stormwater management easements area.
33. Lot Depth – The mean average horizontal distance between the front and the rear lot lines.
34. Lot Lines – The property lines bounding the lot.
 1. Front Lot Line (Street Line) - A lot line separating the lot from an existing or future street right-of-way (whichever contains a greater right-of-way width).
 2. Rear Lot Line – A lot line opposite and most distant from the front lot line. (A three (3) sided lot has no rear lot line.)
 3. Side Lot Line - Any lot line other than a front or rear lot line. A "side street lot line" is a side lot line separating a lot from a street.



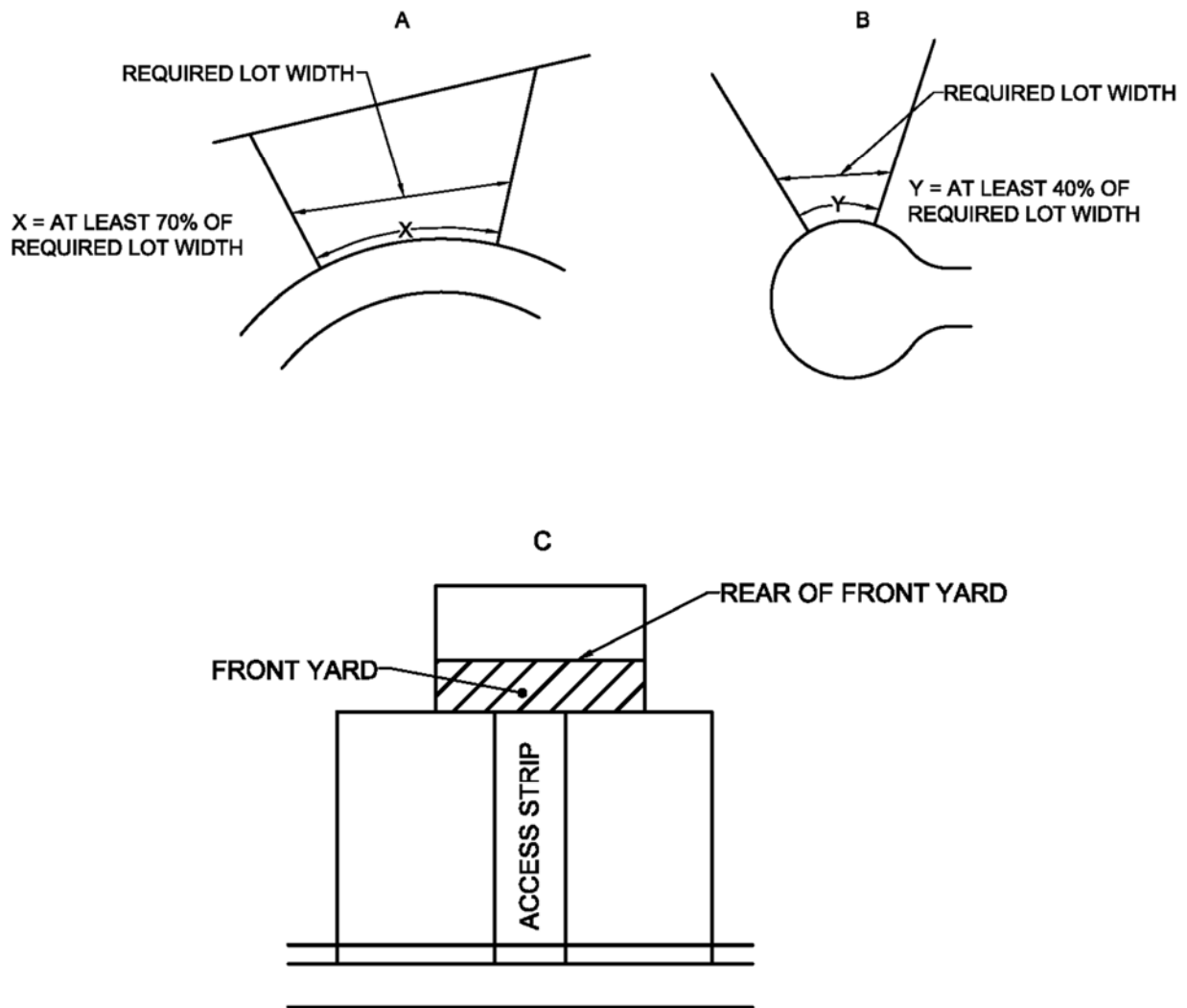
SAMPLE LOT CONFIGURATION: NUMBERS CORRESPOND TO THE ABOVE DEFINITIONS

35. Lot Width - The horizontal distance between the side lot lines measured at the front yard setback line as set forth in the Township Zoning Ordinance. The front yard depth may be increased to achieve lot width if necessary.

In the case of irregularly shaped lots, the minimum lot width specified in the Zoning Ordinance shall be measured at the front yard setback line, provided that in no case shall the lot frontage measured at the street right-of-way line be less than seventy (70 %) percent of the minimum lot width (see Sketch A) except in the following situations:



- a. On cul-de-sacs or courts where the lot frontage measured at the street right-of-way line shall not be less than forty (40 %) percent of the minimum lot width (see Sketch B); and
- b. On flag or keyhole lots where the rear of the front yard (building setback line) shall be established based upon the distance required to meet the minimum lot width established in the Zoning Ordinance. A required access strip shall be capable of accommodating all vehicles, including emergency vehicles (see Sketch C) and shall be designed consistent with Section 10-12 of this Ordinance.



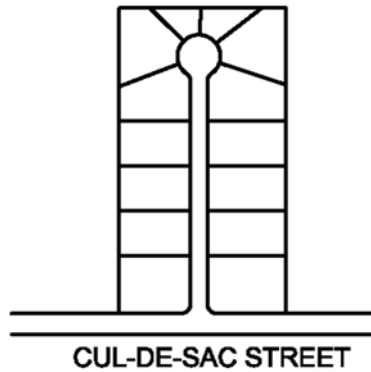
36. Maintenance Agreement - An agreement (in a form and manner acceptable to the Township) requiring the developer of improvements which have been dedicated to make any repairs or reconstructions and to maintain such improvements for a period not to exceed eighteen (18) months from date of acceptance of dedication.
37. Maintenance Guarantee - Financial security (which is acceptable to the Township) to secure the promise made by a developer in the Maintenance Agreement that dedicated improvements shall be maintained by the developer (including acceptable letters of credit, performance bonds, escrow agreements, and other similar collateral or surety agreements).

38. Mobile Home Space - A parcel of land in a mobile home park, improved with the necessary utility connection and other appurtenances necessary for the erection thereon of a single mobile home, which is leased or rented by the park owner to the occupants of the mobile home erected on the lot.
39. Mobile Home Park - A parcel of land under single ownership which has been planned and improved for the placement of two (2) or more mobile homes for non-transient residential use.
40. Nonconforming Lot - A lot which does not conform with the minimum width, or area dimensions specified for the district where such lot is situated, but was lawfully in existence at the time of enactment of the Zoning Ordinance or is legally established through the granting of a variance by the Zoning Hearing Board. Contiguous nonconforming lots under common ownership shall be considered one (1) lot.
41. Open Space - The area of a lot unoccupied by principal or accessory structures, streets, driveways, parking areas; but may include areas occupied by walkways, patios and porches without roofs, playgrounds and other areas occupied by outdoor recreation or play apparatus, gardens and trees.
42. Open Space, Common - A parcel or parcels of land, or an area of water, or a combination of land and water within a development site which is open space designated and intended for the use or enjoyment of residents of a development.
43. Open Space, Useable - Open space of a lot or tract used for residential purposes, exclusive of required front and side yard areas, which is suitable for specified use(s) or as outdoor recreation for the residents.
44. Ordinance - The Washington Township Subdivision Ordinance and any provisions or amendments thereof, enacted by the Board of Supervisors.
45. Parcel - A tract, lot or area of land.
46. Parking Facilities - Outdoor areas or specially designed buildings or garages used for the storage of vehicles.
47. Pathway - A pedestrian accessway which is not adjacent to a street, access drive or driveway and conforms with this Ordinance.
48. Performance Guarantee - Financial security (which is acceptable to the Township) to secure the promise made by a developer in the Development Agreement that certain improvements shall be made by the developer (including acceptable letters of credit, performance bonds, escrow agreements, and other similar collateral or surety agreements).
49. Person - An individual, partnership, organization, association, trust, or corporation. When used in a penalty provision, "person" shall include the members of such partnership, the trustees of such trust, and the officers of such organization, association, or corporation.
50. Plan (or Plat) - A map of a land development or subdivision of land.

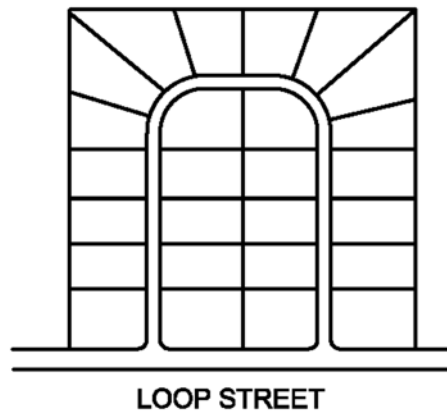
- a. Sketch Plan - An informal plan, identified as such with the title "Sketch Plan" on the map, indicating existing features of a tract and its surroundings and the general layout of the proposed subdivision.
 - b. Preliminary Plan - A complete plan, identified as such with the title "Preliminary Plan", accurately showing proposed streets and lot layout and such other information as required by this Ordinance.
 - c. Final Plan - A complete and exact plan, identified as such with the title "Final Plan", prepared for official recording as required by this Ordinance to define property rights and proposed streets and other improvements.
51. Planning Commission - The Planning Commission of Washington Township, Northampton County, Pennsylvania.
52. Principal Building - The primary or main building on a lot.
53. Public Hearing - A formal meeting held pursuant to public notice by the Township Supervisors, or the Township Planning Commission, intended to inform and obtain public comment, prior to taking action in accordance with this Ordinance.
54. Public Notice - Notice required by Act 247, the Pennsylvania Municipality Planning Code. Currently Act 247 requires notice to be given not more than thirty (30) days and not less than seven (7) days in advance of any public hearing required by this ordinance. Such notice shall be published once each week for two (2) successive weeks in a newspaper of general circulation in the Township. Such notice shall state the time and place of the hearing and the particular nature of the matter to be considered at the hearing.
55. Right-of-Way – Land reserved for the public or others for future use as a street or other purpose.
56. Sanitary Facilities – All of the following: sink with piped water, a toilet, and a bathtub or shower with piped water.
57. Screen – A fence or natural obstruction of sufficient height (but not less than six (6') feet high) to effectively visually obscure the area being screened from adjoining areas.
58. Sewage Disposal System - A system designed to collect, treat, and dispose of sewage from users in compliance with regulations of the appropriate state agency and of the Township.
- a. Centralized Sewage Disposal System - A Sewage Disposal System which collects, treats, and disposes sewage from more than one (1) dwelling, principal use, or lot.
 - 1) Public Sewage Disposal System - A Centralized Sewage Disposal System owned and operated by a public authority.
 - b. On-Lot Sewage Disposal System - A Sewage Disposal System which collects, treats, and disposes of sewage or holds sewage from only one (1) dwelling, principal use, or lot.

59. Sewer Connection - The connection consisting of all pipes, fittings, and appurtenances from the drain outlet of a dwelling or building to the inlet of the street or main collector sewer pipe of the sewerage system serving the subdivision or land development.
60. Sidewalk - A pedestrian accessway which is adjacent to a street, access drive, or driveway and conforms to the regulations of this Ordinance.
61. Sign - A visual display or image which is affixed to, painted, or represented directly or indirectly upon a building, structure, land, or any surface and which directs attention to an object, product, service, place, activity, person, institution, organization, or business, regardless of whether such display or image is permanent or temporary, but excluding displays or images which are decorative only.
62. Site Alteration - Includes regrading the existing topography, filling lakes, ponds, marshes or floodplains, clearing vegetation or altering watercourses.
63. Northampton County Conservation District - The Soil and Water Conservation District for Northampton County.
64. Soil Survey - A scientific survey of soil conditions and characteristics prepared by an engineer or soil scientist and approved or certified by the U.S. Soil Conservation Service.
65. Solar Access - The capability of receiving direct sunlight between 9:00 AM and 3:00 PM (Solar Time) on any area of a lot not within required yard areas.
66. Street - A public or private thoroughfare which affords the principal means of access to abutting property and contains a right-of-way area (in addition to the cartway); including avenue, place, way, parkway, drive, land, boulevard, highway, road and any other thoroughfare except an alley, access drive, or driveway.
- a. Arterial Street - Streets designed primarily to carry medium to heavy volumes of traffic at moderately high speeds, and generally should not provide access to land which would interface with their primary traffic functions. Arterial Streets are those streets which are so designated on the Official Street Classification Map.
 - b. Collector Street - Streets designed to carry a moderate volume of traffic between local streets and arterials at moderate speeds, and provide only limited vehicular access to the abutting properties. Collector Streets are those streets which are so designated on the Official Street Classification Map.
 - c. Local Street - Streets designed to provide direct access from abutting properties to collector and arterial streets. Local streets are those streets which are so designated on the Official Street Classification Map.
 - 1) Cul-de-sac Street - A cul-de-sac street is a local street which is permanently terminated at one end by a vehicular turnaround and

intersects another street at the other end. Cul-de-sac streets have a maximum length of one thousand (1,000) feet and furnish access to not more than twenty-five (25) single family dwelling units. The length of a cul-de-sac street shall be measured from the centerline point of the radius of the cul-de-sac curve to the point of centerline intersection of the cul-de-sac with an approved through street.



- 2) Loop Street - A loop street is a local street which intersects other streets on each end and may intersect a cul-de-sac street at some point between each end. A loop shall not ultimately furnish access to more than seventy (70) dwelling units.



- 3) Marginal Access Street - A marginal access street is a local street which is parallel and adjacent to collector or arterial streets and provides access to abutting properties.
67. Structure - Any man-made object having an ascertainable, stationary location on or in land or water, whether or not affixed to the land. The term structure shall include: building, sign, fence, wall, tower, swimming pool, porch, garage, and similar structures. "Structure" shall be interpreted as including the words "or part thereof".
68. Subdivider - See "Developer".
69. Subdivision - The division or redivision of a lot, tract or parcel of land by any means into two (2) or more lots, tracts, parcels, or other divisions of land including changes in existing lot lines for the purpose, whether immediate or future, of lease, partition by the court for distribution to heirs or divorcees, transfer of ownership or building or lot development. Provided, however, that the subdivision by lease of land for agricultural purposes into parcels of more than ten acres, not involving any new street or easement of access or any residential dwelling, shall be exempted.
70. Subdivision, Major - Any subdivision which does not qualify as a minor subdivision.
71. Subdivision, Minor
- a. A Minor Subdivision is:
 - 1) Any Subdivision
 - (a) Into not more than three (3) lots, as the residual parcel counting as one lot,
 - (b) Which involves no extension of public facilities, no new street, nor an extension or improvement of an existing street, and
 - (c) Which provides for and does not adversely affect the potential development of the remainder of the tract, or
 - 2) A lot line adjustment that does not create a new lot.
 - b. From the first enactment date of this Ordinance on February 13, 1985, a landowner who has undergone one (1) or more minor subdivisions totaling three (3) lots shall comply with the provisions required for major subdivisions before further subdividing his residual tract of land.
72. Subdivision, Natural - Any tract or parcel of land divided into two (2) or more separate areas by one or more public streets.
73. Township - The Township of Washington, Northampton County, Pennsylvania.

74. Tract - A parcel of land, the dimensions and extent of which are determined by the latest official records or by the latest approved recorded map of a subdivision of which the tract is a part. A tract may include lands covered by more than one (1) legal description.
75. Uniform Parcel Identifier - A property identifier system adopted by Northampton County which is the same as the Tax Map, Block and Lot Number that has been used in the past.
76. Use - Any activity, occupation, business, or operation carried on or intended to be carried on in a structure or on a lot.
77. Water Connection - The connection consisting of all pipes, fittings and appurtenances from the water pipe to the inlet pipe of the distribution system within the dwelling or non-residential unit.
78. Watercourse - A discernible, definable natural course or channel along which water is conveyed ultimately to streams and/or rivers at lower elevations. A watercourse may originate from a lake or underground spring(s) and be permanent in nature or it may originate from a temporary source such as runoff from rain or melting snow.
79. Water Supply System - A system designed to transmit water from a source to users, in compliance with the requirements of the appropriate state agencies and the Township.
- a. Centralized Water Supply System - A water supply system which transmits water from a common source to more than one (1) dwelling, principal use, or lot.
 - 1) Public Water Supply System - A centralized water supply system owned and operated by a public authority.
 - b. On-Lot Water Supply System - A water supply system which transmits water from a source on the lot to one (1) dwelling, principal use, or lot.
80. Yard - An open space on the same lot with a structure (or a group of structures) which lies between the structure (or group of structures) and a lot line and which is unoccupied and unobstructed from the ground upward except as permitted in the Township Zoning Ordinance.
- a. Front Yard - A yard extending the full width of the lot between a structure and the front lot line or side street lot line.
 - b. Rear Yard - A yard extending the full width of the lot between a structure and a rear lot line.
 - c. Side Yard - A yard extending from the front yard to the rear yard between a structure and the nearest side lot line.

Article 3

General Procedures

3.1 Purpose

This Article provides an overview of the general procedure for the Township review of proposed subdivisions and land developments (Section 3.2) and of the general procedures for submitting plans to the Township (Section 3.3).

3.2 General Procedure for Subdivisions and Land Developments

A. Review and Approval Stages

1. Three (3) types of plan submission are included in the procedure for approval of subdivision and land development plans; Sketch, Preliminary and Final.
2. These plans enable the Planning Commission and the Board of Supervisors to have an adequate opportunity to review the submission and to insure that their formal recommendations are reflected in the Final Plan which is recorded.
3. The table below outlines the stages for the different types of proposed subdivision or land development.

Stage	Subdivision Ordinance Article	Land Development *	Major Subdivision *	Minor Subdivision *
Sketch Plan	4	Not Required	Not Required	Not Required
Preliminary Plan	5	Required	Required	Not Required
Final Plan	6	Required	Required	Required **
Guarantee of Improvements Installation	8	Required	Required	Required
Recording of Final Plan	9	Required	Required	Required

* See Article 2 for precise definitions.

** See Article 7 for Minor Subdivision Final Plan submission and review requirements.

B. Sketch Plan

1. While Sketch Plans are not required for major and minor subdivisions or land development, it is recommended that they be submitted to allow Applicant to consult early and informally with the Planning Commission before preparing a Preliminary Plan in order to resolve potential differences and avoid unnecessary expenses and delay.
2. The Sketch Plan will also be used to classify the subdivision as a major subdivision, minor subdivision, or land development.
3. Comments made by the Planning Commission on all plans are only recommendations and are not binding.

4. The Board of Supervisors shall also review the Sketch Plan and make suggestions for inclusion with the Planning Commission comments to the applicant. The Board of Supervisors comments on the Sketch plan are only recommendations to the applicant. Later, the Supervisors Preliminary and Final Plan approval or rejections are binding.

C. Preliminary Plan

1. Except for any sketch Plan which is submitted, the initial plan submitted to the Commission for formal review of a major subdivision or land development shall be considered the official Preliminary plan.
2. Minor subdivisions need not submit a preliminary plan.
3. The purpose of the Preliminary Plan is to achieve formal approval of the overall development scheme proposed in order to minimize the need for any revisions of Final plans.

D. Final Plan

1. After approval of the Preliminary Plan of a major subdivision or land development, the Applicant submits a Final Plan to the Commission in accordance with one of the following two procedures:
 - a. Install Required Improvements Prior To Final Plan Approval – Based upon the terms of the Preliminary plan approval, the applicant executes a Developer's Agreement with the Township and then the applicant installs the improvements. After the improvements have been made and inspected by the Township Engineer, the applicant may submit a Final plan application. Upon approval of the Final Plan, the applicant may record the plan and sell lots.
 - b. Submits a Final Plan Application with Required Improvements To Follow Final Plan Approval - This requires both a Developer's "Guarantee of Improvements Installation" Agreement and a deposit of financial security in the amount sufficient to cover costs of such improvements as defined by this ordinance and the terms of Preliminary Plan approval by the Township. See Article 8 of this ordinance for more details. The applicant shall record the approved plat within 90 days from the date of Final Plan approval. After the plat has been recorded, the Applicant may sell lots or develop buildings after the plat has been recorded and proof of recording has been supplied to the Township.
2. The purpose of the Final Plan is to require formal approval by the Board of Supervisors before plans for all subdivisions and land developments are recorded.

- E. Guarantee of Improvements Installation - Before approving any final subdivision or land development plan for recording, the Board of Supervisors shall require that the Township be assured (by means of a proper Development Agreement and Performance Guarantee) that the improvements required by this Ordinance

will subsequently be installed in strict accordance with the standards and specifications of this Ordinance.

F. Recording of Final Plan

1. The Applicant shall record the Final Plan approved by the Board of Supervisors in the office of the Recorder of Deeds of the County within ninety (90) days of such final approval. The costs of recording the Final Plan shall be borne by the applicant.
2. The Applicant shall supply a copy of the Recorder of Deeds receipt to the Township within fifteen (15) days of such recording. No permits can be issued prior to recording of the plan and supplying the receipt copy to the Township.

3.3 General Plan Submission Procedures

A. Submission - The Applicant shall submit the required number of plans to the Administrator by certified mail or by delivery in person at least twenty-one (21) days prior to a regularly scheduled Planning Commission meeting.

B. Initial Administrator Actions

1. The Administrator shall review the submission against a checklist for completeness.
2. The Administrator shall report such review and forward the submission to the Commission at or before the next regularly scheduled meeting after the submission is made to the Administrator.
3. If the applicant has not posted the property as per Section 5.4 I of this Ordinance, then the Administrator shall notify the public, Townships and/or Boroughs that adjoin a minor or major subdivision that a Sketch Plan or Preliminary plan will be considered for the first time by the Township Planning Commission. Notification to adjacent property owners shall be accomplished by having the Township Zoning Officer post the property with a 11" x 17" sign indicating the time and date when the proposed subdivision and/or land development will be first considered by the Planning Commission as a Sketch Plan or Preliminary Plan stage whichever comes first.

C. Receipt by Commission

1. The Commission shall review the submission at the next regularly scheduled meeting after the submission is made to the Administrator to determine if the submission is complete.
2. If the submission is incomplete, the Commission shall not accept the submission.
3. If the submission is complete, the Commission shall accept the submission as being filed for review, shall issue a receipt to the Applicant stating that the submission has been so accepted. The Planning Commission may begin its review of the plan at this first regularly scheduled meeting.

- D. Attendance
1. The Applicant or his duly authorized representative should endeavor to attend the Commission to discuss the submitted plans.
 2. The Commission may request such attendance, and failure to appear when so requested may result in a recommendation to the Board of Supervisors for plan disapproval.
- E. Action by the Commission - Within ninety (90) days from the date the Commission accepts the Plan for review (unless the Applicant grants a written extension of time for the entire Township review of such plan), the Commission shall recommend to the Board of Supervisors that the submitted plan be approved, approved with conditions, or disapproved.
- F. Action by Board of Supervisors
1. The Board of Supervisors shall approve or reject a submitted plan within the time required by Pennsylvania Act 247.
 2. Currently, Act 247 as amended would require the Board of Supervisors to act not later than ninety (90) days following the date of the first regular meeting of the commission held after it has accepted the submission as being filed for review; but in no case shall the Supervisors decision be made later than one hundred twenty (120) days following the date the submission was accepted (by the Commission) as being filed for review (unless the Applicant grants a written extension of time).
 3. The Board of Supervisors may approve a subdivision or land development subject to conditions acceptable to the applicant. Conditional approval will be rescinded and the application disapproved automatically if the applicant or his agent fails to accept the conditions or rejects in writing such conditions as presented to the applicant with notification of the conditional approval. Written approval or rejection can be given at the Supervisors Board meeting in lieu of notification by mail. If the applicant rejects the conditions and submits an alternate solution, then the Township Supervisors may reconsider their action if sufficient time remains for a decision within the above referenced one hundred twenty (120) days or any extensions to that period agreed to by the applicant and Township Supervisors.
- G. Public Hearing - The Board of Supervisors may hold a public hearing prior to rendering its decision on any Final plan.
- H. Notification of Applicant - The Board of Supervisors shall communicate its decision in writing to the Applicant either personally or by mail to his last known address, not later than fifteen (15) days following the day such decision has been made.

ARTICLE 4
SKETCH PLAN

4.1 Purpose

The purpose of the Sketch Plan is to establish in advance the overall objectives of the Applicant, the extent to which the proposed plan conforms with the provisions of this Ordinance, and if such plan qualifies as a minor subdivision, major subdivision, or a land development. Although Sketch Plans are not required for major subdivisions, minor subdivisions, or land developments, it is recommended that they be submitted to avoid unnecessary expense and delay in the subsequent review of more detailed Preliminary Plans and Final Plans. Comments made on the Sketch Plan are only recommendations and are not binding.

4.2 Submission and Review Procedure

- A. Notice – At least twenty-one (21) days prior to a regularly scheduled meeting of the Planning Commission, the Applicant shall request from the Administrator that time be reserved on the agenda for the Applicant to submit a Sketch Plan.
- B. Submission
 - 1. If such time is reserved or if the commission otherwise permits, the Applicant shall submit ten (10) copies of the Sketch Plan and application form to the Commission at its regularly scheduled meeting. The Commission may require the submission of additional copies.
 - 2. All Sketch Plans shall include an Application Form (See Appendix A), the required fee, and provide the information required by Section 4.3, unless specifically waived by the Commission.
 - 3. The Sketch Plan shall be submitted to the Township not later than twenty-one (21) days prior to the meeting that it will be reviewed. Otherwise, there may be a month delay to secure the technical review and comments from Township technical staff. Since the Sketch Plan is not a required step in the approval process, Sketch Plan submission and length of review are not subject to the subdivision review and approval time limits.
 - 4. The applicant shall submit a copy of the Sketch Plan to the Lehigh Valley Planning Commission (LVPC) if a LVPC review is desired by the applicant or by the Township.
- C. Review and Decision by Commission
 - 1. Within sixty (60) days from the time it accepts the plan for review, the Commission shall review the sketch plan at any public meeting and determine whether:
 - a. The plans and data as submitted do or do not meet the objectives and requirements of this Ordinance,

- b. Any requested changes should be reflected in a resubmission of a Sketch Plan or in a preliminary plan,
 - c. An Erosion and Sedimentation Control Report to the Northampton County Conservation District and/or to the Pennsylvania Department of Transportation will be required during either the Preliminary Plan or Final Plan submission (based on the recommendation of the Township Engineer), and
 - d. The plan is classified as a minor subdivision, major subdivision, or land development.
2. The determinations listed in Section 4.2.C.1 shall be specifically recorded in the minutes of the meeting and be communicated to the Applicant either verbally at the meeting or in writing mailed to his last known address not later than fifteen (15) days following the decision. A Sketch plan shall also be submitted to the Board of Supervisors.
- D. Preliminary Plan Submission Deadline - The determinations listed in Section 4.2.C.1 shall be rendered null and void if:
- 1. Preliminary Plan (which conforms to the provisions of Article 5) or Final Plan (which conforms to the provisions of Article 7) is not submitted within six (6) months of the date of the Commission's review of the Sketch plan, or
 - 2. Such Preliminary Plan or Final Plan does not conform with the approved Sketch Plan.

4.3 Sketch Plan Requirements

- A. Required Information - All Sketch Plans shall contain the following information:
- 1. Name and location of subdivision or land development
 - 2. Names and addresses of:
 - a. Landowner
 - b. Developer
 - c. Corporate officers and major shareholders
 - d. Firm or person that prepared the Sketch Plan, include their appropriate seal
 - 3. Location map at a scale of 1" = 2000' (or other scale acceptable to the Township Engineer) showing the relation of the site to adjoining properties, and other subdivisions and streets within one thousand (1000') feet, and all zoning district and municipal boundaries within one thousand (1000') feet.
 - 4. General Information:
 - a. North arrow

- b. Written and graphic scales as approved by the Township Engineer.
Typical acceptable scales are 1"=20', 1"=30', 1"=40', 1"=50', 1"=60', and 1"=100' or similar.
 - c. Date of plan
 - d. Site boundaries
 - e. Boundaries with all adjoining properties with names of landowners
5. Zoning requirements:
- a. Applicable district
 - b. Lot size, maximum density and yard requirements
 - c. Required open space
6. Proposed layout:
- a. Total acreage of site
 - b. Proposed general lot layout including approximate dimensions for lot layout.
 - c. Proposed general street layout and lineal feet of new streets
 - d. Rights-of-way, restrictive covenants, and easements for all drainage, utilities, and other purposes which might affect development.
 - e. Number of units and types of buildings proposed
 - f. Open space areas and recreation areas
 - g. Map of entire contiguous holdings of owner or developer showing sketch plan for roads
7. Plans shall be prepared on a standard sheet of 18" x 24", 24" x 36" or 36" x 48", except when the Commission approves of other size plans.
- B. Supplemental Information - All sketch plans should contain the following information:
- 1. Location of natural features on the site
 - a. Contour lines at an interval of not more than twenty (20') feet accurately superimposed from the latest U.S.G.S. quadrangle map
 - b. Permanent and seasonal high water table areas
 - c. Watercourses, lakes and wetlands, including one hundred (100) year flood zones
 - d. Location and extent of various soil types with NRCS and DEP classification for each
 - 2. Location of existing man-made features
 - a. Street names and widths of rights-of-way on the site and on immediately adjacent tracts

- b. Existing lot layout on the site and on immediately adjacent tracts
 - c. Historic sites or structures, including name and description
 - d. Sewer lines, water lines, storm water drains and culverts
 - e. Utility easements and restrictive covenants and easements for purposes which might affect development
3. Latest U.S.G.S. quadrangle map or portion thereof with the perimeter of the development accurately plotted thereon.
 4. A letter of intent explaining the concept of development proposed for the subdivision tract shall be included on the Sketch Plan.

ARTICLE 5
PRELIMINARY PLAN

5.1 Purpose

The purpose of the Preliminary Plan is to achieve formal approval of the overall development scheme proposed in order to minimize the need for any revisions of Final Plan.

5.2 Submission and Review Procedure

A. Preliminary Plan Submission Required

1. A Preliminary Plan submission for a Major subdivision or Land Development must be submitted by the Applicant and reviewed in accordance with the provisions of Article 5.
2. A Preliminary Plan submission need not be submitted for a Minor Subdivision (See Article 7).

B. Submission Deadline - The determinations listed in Section 4.2.C.1 shall be rendered null and void if:

1. A Preliminary Plan submission (which conforms to the provisions of Article 5) is not submitted within six (6) months of the date of the Commission's review of the Sketch plan, and
2. Such Preliminary Plan submission does not conform with the approved Sketch Plan.

C. Required Submission

1. The Applicant shall submit the following to the Administrator at least twenty-one (21) days prior to a regularly scheduled Planning Commission meeting.
 - a. The fee, if no Sketch Plan is submitted,
 - b. Ten (10) copies each of the following:
 - 1) Application Form
 - 2) Preliminary Plan Checklist
 - c. At least ten (10)* copies of the Preliminary Plan
 - d. At least ten (10)* sets of Supportive Documents
2. An Application Form is included in Appendix A.
3. A Preliminary Plan Checklist is included in Appendix B.

4. a. Each Preliminary Plan submitted:
 - 1) Shall provide the information required by Section 5.3 and
 - 2) Should conform to any changes recommended during the Sketch Plan procedure
- b. All sheets shall be folded to 9" x 12" size in such a manner that the title of the sheet faces out.
5. Each set of Supportive Documents shall provide the information required by Section 5.4.

D. Initial Actions by the Administrator and Applicant

1. The Administrator shall review the submission against a checklist for completeness and shall report such review to the Commission at its next regularly scheduled meeting.
2. The Administrator shall retain in the Commission's files:
 - a. One (1) copy of the Application Form
 - b. One (1) copy of the Preliminary Plan Checklist
 - c. Three (3) copies of the Preliminary Plan
 - d. One (1) set of Supportive Documents

3. The Applicant and Administrator shall forward copies of the Preliminary Plan and Supportive Documents to the following agencies and persons for review prior to the next regularly scheduled meeting of the Township Planning Commission:

Agency or Person to Receive Copies	Copies of Preliminary Plan	Copies of Supportive Documents
<u>Township Subdivision Administrator Shall Send To:</u>		
Township Board of Supervisors	3**	1
Township Planning Commission	5	1
Township Engineer	1	1
Township Solicitor	1	-
Township Zoning Officer	1	-
Township Sewage Enforcement Officer	1	-
<u>Applicant Shall Send To:</u>		
Adjacent Municipalities (Where Subdivision Abuts Adjacent Municipality(ies))	*	*
Lehigh Valley Planning Commission (LVPC)	*	*
PA Dept. of Transportation (If State roads are involved)	*	*
Northampton County Conservation District (NCCD)	*	*
Utility Company	*	*

*Number of copies to be determined by each entity.

**The Township reserves the right to require additional copies.

Note: The Developer shall be responsible for payment of any fees charged by the LVPC, PennDOT, NCCD or utility companies and for payment to Northampton County to assign parcel identification numbers.

E. Determination of Completeness by Commission

1. The Commission shall review the Preliminary Plan submission at its first regularly scheduled meeting after the submission is properly made to the Administrator to determine if the submission is complete.
2. If the Commission determines that the submission is incomplete, the Commission shall not accept the submission, indicating the deficiencies.

3. If the Commission determines that the submission is complete except for such additional number of Plans and sets of Supportive Documents that it may require (see Section 5.2.E.5.c)
 - a. The Commission may accept the submission as being filed for review on the condition that the Applicant shall submit such additional number of plans and sets of supportive documents to the Administrator within five (5) days from the date of such acceptance.
 - b. If so accepted, the Commission shall issue a Preliminary Plan receipt stating that the submission has been so conditionally accepted as being filed for review.
4. If the Commission determines that the submission is complete, it shall accept the submission as being filed for review and issue a Preliminary Plan receipt stating that the submission has been so accepted.
5. The Planning Commission may begin its review of the plan at this first regularly scheduled meeting.

F. Review by Township Engineer

1. Within thirty (30) days from the date the Commission accepts the plan for review (unless granted an extension by the Commission), the Township Engineer shall review the engineering considerations in the submission and prepare an initial report on such considerations to the Commission.
2. The Township Engineer shall report to the Board and Commission his knowledge of any floodplain, wetland, ground water problems or other environmental limitation of a site proposed for subdivision and/or land development.
3. The Township Engineer may make additional reports and recommendations to the Commission and the Supervisors during review of the plan.

G. Review by Commission - Within ninety (90) days from the date the Commission accepts the submission for review (unless the Applicant grants a written extension of time for the entire Township review of such submission), the Commission shall:

1. Review all applicable reports received from the agencies and officers listed in Section 5.2.E.6.d.
2. Determine whether the Preliminary Plan submission meets the objectives and requirements of this Ordinance, other ordinances, and statutes.
3. Review the Preliminary Plan submission with the Applicant, his agent, or representative and recommend any needed revisions so that the submission will conform to this ordinance, other ordinances, and statutes.
4. Recommend approval, conditional approval, or disapproval of the Preliminary Plan submission in a written report to the Board of Supervisors, specifying any recommended conditions for approval, identifying any defects found in the application, describing any requirements which have not been

met, citing the provisions of any ordinance or statute relied upon, and including the materials listed in Section 5.2.E.6.a.

H. Review by Board of Supervisors - The Board of Supervisors shall:

1. Review the advisory report of the Commission.
2. Review the report of all other reviewing agencies received within forty-five (45) days from the date the submission was forwarded to such agencies (the Supervisors may review the reports of such agencies received after the forty-five (45) day period).
3. Determine whether the Preliminary plan submission meets the objectives and requirements of this Ordinance, other ordinances, and statutes.
4. Approve or reject the Preliminary plan submission within the time required by Pennsylvania Act 247 as amended. (Currently, Act 247 would require the Board of Supervisors to act not later than ninety (90) days following the date of the first regular meeting of the Commission held after it has accepted the submission as being filed for review; but in no case shall the Supervisors' decision be made later than one hundred twenty (120) days following the date the submission was filed for review, unless the Applicant grants a written extension of time)

I. Decision by Board of Supervisors

1. The decision of the Board of Supervisors shall be in writing and shall be communicated to the Applicant personally or by mail at his last known address not later than fifteen (15) days following the decision.
2. Approval of the Preliminary Plan submission shall constitute conditional approval of the subdivision or land development as to the character and intensity, but shall not constitute approval of the Final Plan or authorize the sale of lots or construction of buildings.
3. When the Preliminary Plan submission is disapproved, the decision shall specify the defects found in the submission, shall describe the requirements which have not been met, and shall cite the provisions of the Subdivision Ordinance relied upon in each case.
4. Failure of the Board of Supervisors to render a decision and communicate it to the Applicant within the time and in the manner required by Act 247 shall be deemed an approval of the plan as presented, unless the Applicant has agreed in writing to an extension of time or change in the prescribed manner of communication of the decision.

J. Development in Stages

1. If requested by the Applicant, the Board of Supervisors may permit the undertaking of the required improvements and the preparation of the Final Plan to be completed in a series of sections or stages, each covering a portion of the proposed subdivision as shown on the Preliminary Plan; Or

2. If the Final Plan is to be submitted in sections or stages, each section or stage shall relate logically to provide continuity of access, extension of utilities, and availability of amenities.
3. The Board of Supervisors shall approve both the boundaries and configuration of stages or sections of a development.
4. If staged, the applicant shall state the time period which shall be approved by the Board of Supervisors. In no event shall five (5) years elapse between approval of the Preliminary Plan and submission of the Final Plan for the entire development without prior annual approval after five (5) years by the Board of Supervisors.

K. Final Plan Submission Deadline

1. An applicant shall submit a Final Plan within five (5) years from the date of the approval of the Preliminary Plan by the Board of Supervisors, unless an extension in writing has been granted by the Board of Supervisors.
2. Failure to comply with this requirement shall render the Preliminary Plan null and void, and a new Preliminary Plan shall be submitted.

5.3 Preliminary Plan Requirements

A. Plans Required

1. The following plans shall be required for all major subdivisions and land developments and shall show the information set forth in Sections 5.3 B. through 5.3.K, as applicable:
 - a. Layout Plan (See Sections 5.3.B, C, D and E)
 - b. Grading and Storm Drainage Plan (See Sections 5.3.B, C, D and E)
 - c. Utility Plan (See Sections 5.3.B, C, D, and G)
 - d. Erosion and Sedimentation Plan (See Sections 5.3.B, C, D and H)
 - e. Road Plan - Profiles (See Sections 5.3.B, C and I)
 - f. Sanitary Sewer Plan - Profiles (See Sections 5.3.B, C and J)
 - g. Storm Sewer Plan - Profiles (See Section 5.3.B, C and K)
 - h. Construction Details (See Sections 5.3.B, C and K)
2. The Plans listed in Section 5.3.A.1 may be combined if, in the discretion of the Commission, clarity of such plans will not be impaired.

B. Drafting Standards Required for All Plans

1. Plans shall be prepared on a standard sheet of 18"x24", 24"x36", or 36"x48", except when the Township Engineer approves of other size plans.
2. All information shall be legibly and accurately presented.

3. a. Plans shall include written and graphic scales as approved by the Township Engineer. Typical acceptable scales are 1"=20', 1"=30', 1"=40', 1"=50', 1"=60', and 1"=100' or similar.
- b. Profiles shall be drawn at a vertical scale of:
 - 1) Five (5') feet per inch or ten (10') feet per inch (for horizontal scale of 1" = 50').
 - 2) Ten (10') feet per inch (for horizontal scale of 1" = 100').
- c. Other scales may be permitted if approved by the Township Engineer.
4. All dimensions shall be set in feet and decimal parts thereof, and all bearings shall be set in degrees, minutes and seconds. Curve data shall include radius, arc length, delta angle, and chord bearing and distance. Such information may be listed in a table, using reference numbers on the plan, provided that sufficient information is provided along each course such that each course can be reproduced in the field.
5. Each sheet shall be numbered and shall show its relationship to the total number of sheets. If match lines are employed, a legend showing sheet relationship shall be provided.
6. Plans shall be so prepared and shall bear an adequate legend to indicate clearly which features are existing and which are proposed.
7. Where any revision is made, or when the plan is a revision of previously approved plan, dotted lines shall be used to show features or locations to be abandoned and solid lines to show the currently proposed features. Notations of revisions shall be dated. The Developer shall submit a detailed list of revisions and his Engineer shall certify to the revisions made.
8. The boundary line of the site shall be shown as a solid heavy line.

C. General Information Required on All Plans

1. Titled: "Preliminary Plan"
2. Sheet Title (e.g., "Layout Plan")
3. Name and Location of subdivision or land development
4. Graphic and written scales
5. Date (day, month, and year) of plan and all subsequent revision dates.
6. Name and Address, signature and seal to Engineer's Statement (See Appendix C) of the licensed engineer, surveyor, architect or landscape architect responsible for the preparation of the plan.
7. General Notes:

By approval of this plan, the Township of Washington has neither confirmed nor denied the existence and/or extent of any wetlands areas whether or not delineated on the said plan and any encroachment thereon, for any reason whatsoever shall be the sole responsibility of the subdivider and/or developer,

his heirs and assigns and shall be subject to the jurisdiction of the Army Corps of Engineers and/or the Pennsylvania Department of Environmental Protection and the said encroachment shall conform to the rules and regulations of the jurisdictional agencies.

D. Information Required On All Layout Plans, Grading and Storm Drainage Plans, Utility Plans, and Erosion and Sedimentation Plans

1. General information:
 - a. North arrow
 - b. Site boundaries with survey precision of 1:10,000 or better and subsequently closed and balanced
 - c. Boundaries of all adjoining properties with names of landowners
 - d. Location and type of all existing monumentation
2. Natural features:
 - a. Slope areas
 - 1) 0 – 8%
 - 2) 8 – 12%
 - 3) 12 - 15%
 - 4) 15 - 25%
 - 5) Over 25%
 - b. 100-year floodplain, flood prone, and alluvial soils
 - c. Location and extent of various soil types with NRCS classification and DEP definition for each
 - d. Forested areas
 - e. Watercourses, lakes, and wetlands (together with names, if any)
3. Location of existing man-made features on the site and within one hundred (100') feet from the site being subdivided or developed.
 - a. Streets and rights-of-way (including name and right-of-way widths) on the site and on immediately adjacent tracts
 - b. Existing lot layout on the site and on immediately adjacent tracts
 - c. Historic sites or structures, including name and description
 - d. Sewer lines, water lines, storm drains and culverts
 - e. Bridges
 - f. Utility easements, restrictive covenants, and easements for purposes which might affect development

4. Proposed features
 - a. Layout of streets with centerlines, cartways and right-of-ways, and proposed names
 - b. Layout of lots with identification number
 - c. Building setback lines from all lot lines
 - d. In non-residential developments and planned residential developments, the arrangement and use of buildings and parking areas, with all necessary dimensions and number of parking spaces. (Elevations and perspective sketches of proposed buildings are encouraged.)
 - e. Rights-of-way, restrictive covenants, and easements for all drainage, utilities, or other purposes which might affect development
 - f. Sidewalks and pedestrian paths
 - g. Open space areas
 - h. Recreation facilities
 - i. Proposed monumentation with reference to proposed improvements
 - j. Proposed final contours
 - k. Possible driveway location for each lot. Follow specifications for driveways as per this Ordinance.

E. Layout Plan

The Applicant shall submit a letter of intent on the drawing describing in detail, the intended uses of the property, a layout plan map shall also be required with the following information provided:

1. Names and addresses of:
 - a. Landowner
 - b. Developer
 - c. Corporate officers and major shareholders
 - d. Adjoining property owners, including those across adjacent roads
2. Owner's Statement of Acknowledgement (See Appendix C):
 - a. The owner shall acknowledge the statement contained in Appendix C before an officer authorized to take acknowledgements.
 - b. The seal of the notary public or other qualified officer acknowledging the owner's statement shall be impressed to the Plan.
3. Approval/Review signature blocks (See Appendix C) for:
 - a. Township Supervisors
 - b. Township Planning Commission

- c. Township Engineer
 - d. County Planning Commission
4. Location map at a scale of 1" = 2,000' showing the relation of the site to adjoining properties, streets, zoning district boundaries, and municipal boundaries within one thousand (1,000') feet. Other scales may be approved by the Township Engineer.
 5. Project Summary List - The following information shall be listed on the Plan:
 - a. Total acreage of site
 - b. Applicable zoning district(s)
 - c. Total number of lots in this development
 - d. Density of dwelling units per acre
 - e. Required lot size
 - f. Proposed lot size, maximum, minimum and average
 - g. Open space required
 - h. Open space proposed
 - i. Type of water systems
 - j. Type of sanitary disposal systems
 - k. Lineal feet of new road
 - l. Deed source: volume and page
 - m. Uniform Parcel Identifier (Tax map: map, block and lot)
 - n. Required building setbacks
 6. Proposed features:
 - a. Dimensions, and areas of lot expressed in both square feet and acres
 - b. Streets:
 - 1) Cartway and right-of-way width
 - 2) Centerline with bearings, distances, horizontal curve data and stations corresponding to the profile
 - 3) Right-of-way and curb lines with horizontal curve radii at intersections
 - 4) Beginning and end of proposed construction
 - 5) Tie-ins by courses and distances to intersection of all public roads, with their names and widths of cartway and right-of-way

F. Grading and Storm Drainage Plan

1. Elevations

- a. Existing and proposed contour lines at intervals of either two (2') feet (if slope is 15% or less) or five (5') feet (if slope is over 15%)
 - b. These contour intervals shall be based on a field survey or photogrammetric procedure at a scale of 1" = 100' or larger. Extrapolation from U.S.G.S. maps shall not be acceptable.
 - c. A permanent bench mark shall be established.
2. Street centerline data and stations corresponding to the profile.
3. Storm drainage
 - a. Location and size of facilities with stations corresponding to the profile.
 - b. Location of inlets with invert elevation of flow line and grade at the top of each inlet
 - c. Watershed areas and drainage paths for each structure, swale or point of concentration must be shown
 - d. Property lines and ownership, with details of easements where required
 - e. Beginning and end of proposed construction
 - f. Location of all other drainage facilities and public utilities in the vicinity of storm drain lines
 - g. Hydraulic design standards for culverts, bridge structures and/or other storm facilities
 4. Location and size of proposed drainage swales
 5. Retention and detention ponds may be recommended as a method of controlling storm water runoff, however, the Township will require the applicant to deed properties required for these ponds to Washington Township.

G. Utility Plan

1. If on-lot sanitary sewage disposal systems are being proposed:
 - a. Existing and proposed contour lines at intervals of: (1) two (2') feet (if slope is 15% or less) and (2) five (5') feet (if slope is over 15%) (Contour intervals shall be based on a field survey or photogrammetric procedure.)
 - b. Proposed location of wells
 - c. Proposed or typical location of dwelling
 - d. Proposed location of subsurface disposal field and alternate field. All areas shall be located by at least two ties to lot corners.
 - e. Location of percolation test holes with average perc rate and soil probe pit, including any soil test found to be unsuitable with depth to limiting zone.
 - f. Permanent and seasonal high water table areas

2. If centralized sanitary sewers are being proposed:
 - a. Location and size of line with stations corresponding to the profile
 - b. Location of manholes with invert elevation of flow line and grate at the top of each manhole
 - c. Property lines and ownership, with details of easements where required
 - d. Beginning and end of proposed construction
 - e. Location of laterals
 - f. Location of all other drainage facilities and public utilities in the vicinity of sanitary sewer lines
3. If centralized water system is being proposed:
 - a. Location and size of waterline
 - b. Location of fire hydrants
 - c. Plans pertaining to water source as required by Appendix F. A water system plan shall be submitted as part of the application to the Township. The plan shall be certified and sealed by a PA registered, professional Engineer.
4. If on-lot water system is being proposed, location of all wells (existing and proposed)
5. Street lighting

H. Erosion and Sedimentation Plan (If required by the Commission)

1. Shall be in accordance with the regulations of the Northampton County Conservation District.
2. All storm water runoff calculations shall be governed by the parameters set forth in Appendix D.

I. Road Plan - Profiles

1. Profile of existing ground surface along centerline of street.
2. Proposed centerline grade with percent on tangents and elevations at fifty (50') foot intervals.
3. All vertical curve data including length, elevations and minimum sight distance as required by Article 10.

J. Sanitary Sewer and Storm Sewer Plan - Profiles

1. Profile of existing ground surface with elevations at top of manholes or inlets.
2. Profile of storm drain or sewer showing type and size of pipe, grade, cradle, manhole, and inlet locations, and invert elevations along flow line.

3. All line crossings of other utilities.
 4. Invert elevations along flow line at manholes, inlets, and at line crossing of other utilities.
- K. Construction Details
1. Typical cross-section and specifications for street construction as required by Article 10.
 2. Drainage swale cross-section and construction materials
 3. Pipe bedding details.
 4. Storm drainage structures.
 5. Sanitary sewer structures.
 6. Curb and sidewalk details.
 7. Detailed plan and cross sectional drawings shall be required for detention or retention basins.
- L. House Numbering Plan - The Preliminary Plan shall describe the proposed house numbering system.

5.4 Supportive Documents and Information

- A. General Information
1. All private deed restrictions or covenants already imposed or to be imposed as a condition to sale.
 2. A map of all property holdings of the owner within one thousand (1,000') feet of the proposed subdivision, indicating the site of proposed subdivision.
 3. A sketch plan of a proposed road system with any property holdings contiguous to the proposed subdivision.
- B. Certification of Public Water Supply System. If the subdivision or land development is to be served with water by an existing water company or authority, the developer shall submit a copy of a letter from such water company or authority which states that the company or authority can adequately serve the subdivision and which states any conditions required by the company or authority for the provision of services.
- C. Certification of a Centralized Sewage Disposal System
1. Public. If the subdivision or land development is to be served by an existing sewer company or authority, the developer shall submit a copy of a letter from the company or authority which states that the company or authority can adequately serve the subdivision and which states any conditions required by the company or authority for the provision of services.
 2. Private. If the subdivision or land development is to be served by a private centralized sewage disposal system, the developer shall submit five copies of a completed Planning Module for Land Development.

- D. Certification of On-Lot Sewage System. When the subdivision or land development is to be served by individual on-lot sewage disposal systems the developer shall submit five copies of a completed Planning Module for Land Development.
- E. Storm Drainage Calculations. All calculations (which shall be in accordance with Appendix D) relating to facilities appearing on the Grading and Storm Drainage Plan and the Erosion and Sedimentation Plan shall be submitted for review by the Township Engineer.
- F. Development Statement and Schedule. A statement setting forth in detail the character of the improvements the Applicant proposed to make on the property to be developed and a development schedule indicating the approximate date when construction can be expected to begin and be completed.
- G. Highway Occupancy Permit. A Highway occupancy permit approved by PennDOT for access to any adjoining state highway. A Township road encroachment permit must be obtained.
- H. Report on Proposed Solution To Identify Environmental Limitations. Where the applicant or the Township Engineer has identified a floodplain, wetland, ground water or other environmental limitation, the applicant's Engineer shall submit a report that indicates how the proposed subdivision and/or land development will mitigate the environmental problem or limitation.
- I. Conformance With Current Zoning. - The applicant shall secure a Preliminary Opinion from the Township Zoning Officer as to the compliance of the proposed subdivision and/or land development with the Township Zoning Ordinance. If the Preliminary opinion indicates non-compliance, then the applicant needs to submit a letter or agreement wherein the applicant is submitting the Preliminary and/or Final Application contingent upon the applicant securing a zoning approval.
- J. Certification By Property Owner. If the applicant for a subdivision and/or land development application is a developer and not the owner of the property, then all property owners must also sign the application to the Township to officially acknowledge the proposed plan.
- K. Copy of Deed. - Submit a copy of the current deed for the property involved in the subdivision and/or land development application.

ARTICLE 6

FINAL PLAN

6.1 Purpose

The purpose of the Final Plan is to require approval by the Board of Supervisors before plans for all major subdivisions and land developments are recorded.

6.2 Submission and Review Procedure

A. Final Plan Submission Required

1. A Final Plan Submission for each major subdivision or land development must be submitted by the Applicant and reviewed in accordance with the provisions of Article 6.
2. A Final Plan for a minor subdivision shall be submitted by the Applicant and reviewed in accordance with the provisions of Article 7.

B. Submission Deadline

1. An applicant shall submit a Final Plan submission within five (5) years from the date of the approval of the Preliminary Plan by the Board of Supervisors, unless an extension in writing has been granted by the Board of Supervisors.
2. Failure to comply with this requirement shall render the Preliminary Plan submission null and void, and a new Preliminary Plan submission must be submitted.

C. Required Submission

1. The applicant shall submit to the Administrator at least twenty-one (21) days prior to a regularly scheduled Planning Commission meeting:
 - a. The fee,
 - b. Ten (10) copies each of the
 - 1) Application
 - 2) Final Plan Checklist
 - c. At least ten (10)* copies of the Final plan, and
 - d. At least ten(10)* sets of Supportive Documents.
2. The Final Plan submission shall conform with the approved Preliminary Plan submission and any changes recommended during the Preliminary Plan review.

D. Initial Actions by the Administrator

1. The Administrator shall review the submission against a checklist for completeness and shall report such review to the Commission at its next regularly scheduled meeting.

2. The Administrator shall retain in the Commission's files:
 - a. One (1) copy of the Application Form,
 - b. One (1) copy of the Final Plan Checklist,
 - c. Five (5) copies of the Final Plan, and
 - d. One (1) set of Supportive Documents.

3. The Applicant and the Administrator shall forward copies of the Final Plan and supportive Documents to the following agencies and persons for review prior to the next regularly scheduled meeting of the Township Planning Commission:

Agency or Person to Receive Copies	Copies of Preliminary Plan	Copies of Supportive Documents
<i>Township Subdivision Administrator Shall Send To:</i>		
Township Board of Supervisors	1**	1
Township Planning Commission	5	1
Township Engineer	1	1
Township Solicitor	1	-
Township Zoning Officer	1	-
Township Sewage Enforcement Officer	1	-
<i>Applicant Shall Send To:</i>		
Lehigh Valley Planning Commission	*	*
PA Dept. of Transportation (if State roads are involved)	*	*
Northampton County Conservation District	*	*
Utility Company	*	*

* Number of copies to be determined by each entity. **The Township reserves the right to require additional copies.

Note: The Developer shall be responsible for payment of any fees charged by the LVPC, PennDOT, NCCD or utility companies and for payment to Northampton County to assign parcel identification numbers.

- E. Determination of Completeness
1. If the Commission determines that the submission is incomplete, the Commission shall not accept the submission, indicating the deficiencies.
 2. If the Commission determines that the submission is complete, it shall accept the submission as being filed for review and issue a Final Plan receipt stating that the submission has been so accepted.
 3. The Planning Commission may begin its review of the plan at this first regularly scheduled meeting.
- F. Review by Township Engineer
1. Within thirty (30) days from the date the Commission accepts the plan for review (unless granted an extension by the Commission), the Township Engineer shall review the engineering considerations in the Plan and prepare an initial report on such considerations to the Commission.
 2. The Township Engineer may make additional reports and recommendations to the Commission and the Supervisors during review of the plan.
- G. Review by Commission - Within ninety (90) days from the date the Commission accepts the plan for review (unless the Applicant grants a written extension of time for the entire Township review of such submission), the Commission shall:
1. Determine whether the Final Plan submission meets the objectives and requirements of this Ordinance, other ordinances, and statutes.
 2. Recommend approval, conditional approval, or disapproval of the Final Plan submission in a written report to the Board of Supervisors, specifying any recommended conditions for approval, identifying any defects found in the application, describing any requirements which have not been met, citing the provisions of any ordinance or statute relied upon, and including the materials listed in Section 6.2.E.7.a.
- H. Review by Board of Supervisors - The Board of Supervisors shall:
1. Review the advisory report of the Commission.
 2. Review the report of all other reviewing agencies received within forty-five (45) days from the date the submission was forwarded to such agencies (the Supervisors may review the reports of such agencies received after the forty-five (45) day period).
 3. Approve or reject the Final Plan submission within the time required by Pennsylvania Act 247 as amended. (Currently, Act 247 would require the Board of Supervisors to act not later than ninety (90) days following the date of the first regular meeting of the Commission held after it has accepted the submission as being filed for review; but in no case shall the Supervisors, decision be made later than one hundred twenty (120) days following the date the submission was filed for review, unless the Applicant grants a written extension of time).

I. Decision by Board of Supervisors

1. The decision of the Board of Supervisors shall be in writing and shall be communicated to the Applicant personally or by mail at his last known address not later than fifteen (15) days following the decision.
2. a. The approval of the Final Plan by the Board of Supervisors shall not constitute an acceptance of the dedication of any street or other proposed public way, space, or area shown on the Final Plan.
b. Any such acceptance of dedication shall be specifically stated along with the signatures required for approval.
c. If the Board of Supervisors elects to accept lands offered for dedication, the submission shall be accompanied by duly executed instruments of conveyance to the Township. Such instruments shall state that the title thereof is free and unencumbered.
3. When the Final Plan submission is disapproved, the decision shall specify the defects found in the submission, shall describe the requirements which have not been met, and shall cite the provisions of the Subdivision Ordinance relied upon in each case.
4. Failure of the Board of Supervisors to render a decision and communicate it to the Applicant within the time and in the manner required by Act 247 shall be deemed an approval of the plan as presented, unless the Applicant has agreed in writing to an extension of time or change in the prescribed manner of communication of the decision.

6.3 Final Plan Requirements

A. Plans Required (For Major Subdivisions)

1. The following plans shall be required for all major subdivisions and land developments and shall show the information set forth in Sections 6.3 B. through 6.3.M. as applicable.

	<u>See Section 6.3</u>
a. Plot Plan	B, C, D and E
b. Grading and Storm Drainage Plan	B, C, D and G
c. Utility Plan	B, C, D and H
d. Erosion and Sedimentation Plan	B, C, D and I
e. Road Plan – Profiles	B, C and J
f. Sanitary Sewer Plan – Profiles	B, C and J
g. Storm Sewer Plan – Profiles	B, C and K
h. Construction Details	B, C and L

2. The Plans listed in Section 6.3.A.1 may be combined if, in the discretion of the Commission, clarity of such plans will not be impaired.

B. Drafting Standards Required for All Plans

1. Plans shall be prepared on a standard sheet of 18"x24", 24"x36", or 36"x48", except when the Township Engineer approves of other size plans.
2. a. Plans shall include written and graphic scales as approved by the Township Engineer. Typical acceptable scales are 1"=20', 1"=30', 1"=40', 1"=50', 1"=60', and 1"=100' or similar.
b. Profiles shall be drawn at a vertical scale of:
 - 1) Five (5') feet per inch or ten (10') feet per inch (for horizontal scale of 1" = 50')
 - 2) Ten (10') feet per inch (for horizontal scale of 1" = 100')
c. Other scales may be permitted if approved by the Township Engineer.
3. All dimensions shall be set in feet and decimal parts thereof, and all bearings shall be set in degrees, minutes and seconds. Curve data shall include radius, delta angle, arc length, and chord bearing and distance.
4. Where any revision is made, or when the plan is a revision of a previously approved plan, dotted lines shall be used to show features or locations to be abandoned and solid lines to show the currently proposed features. Notations of revisions shall be dated. A detailed list of revisions shall be submitted.
5. The boundary line of the site shall be shown as a solid heavy line.

C. General Information Required on All Plans

1. Titled: "Final Plan"
2. Sheet Title (e.g., "Layout Plan")
3. Name and Location of subdivision or land development
4. Graphic and written scales
5. Date (day, month, and year) of plan and all subsequent revision dates.
6. Name and Address, signature and seal to Engineer's Statement (See Appendix C) of the licensed engineer, surveyor, architect or landscape architect responsible for the preparation of the plan. The engineering aspects of all final and plot plans shall be certified by a licensed engineer or surveyor.
7. General Notes:

By approval of this plan, the Township of Washington has neither confirmed nor denied the existence and/or extent of any wetlands areas whether or not delineated on the said plan and any encroachment thereon, for any reason whatsoever shall be the sole responsibility of the Subdivider and/or developer, his heirs and assigns and shall be subject to the jurisdiction of the Army Corps of Engineers and/or the Pennsylvania Department of

Environmental Protection and the said encroachment shall conform to the rules and regulations of the jurisdictional agencies.

D. Information Required On All Layout Plans, Grading and Storm Drainage Plans, and Utility Plans

1. General information:
 - a. North arrow
 - b. Site boundaries with survey precision of 1:10,000 or better and subsequently closed and balanced
 - c. Boundaries of all adjoining properties with names of landowners
 - d. Location and type of all existing monumentation
2. Natural features:
 - a. Slope areas
 - 1) 0 - 8%
 - 2) 8 - 12%
 - 3) 12 - 15%
 - 4) 15 - 25%
 - 5) Over 25%
 - b. 100-year floodplain, flood prone, and alluvial soil areas
 - c. Location and extent of various soil types with NRCS classification and DEP definition for each
 - d. Forested areas
 - e. Watercourses, lakes, and wetlands (together with names, if any)
3. Location of existing man-made features on the site and within two hundred (200') feet from the site being subdivided or developed.
 - a. Streets and rights-of-way, including name and right-of-way widths, on the site and on immediately adjacent tracts
 - b. Existing lot layout on the site and on immediately adjacent tracts
 - c. Historic sites or structures, including name and description
 - d. Sewer lines, water lines, storm drains and culverts
 - e. Bridges
 - f. Utility easements, restrictive covenants, and easements for purposes which might affect development
4. Proposed features
 - a. Layout of streets with centerlines, cartways and right-of-ways, and proposed names

- b. Layout of lots with identification number
 - c. Building setback lines from all lot lines
 - d. In non-residential developments and planned residential developments, the arrangement and use of buildings and parking areas, with all necessary dimensions and number of parking spaces. (Elevations and perspective sketches of proposed buildings are encouraged.)
 - e. Rights-of-way, restrictive covenants, and easements for all drainage, utilities, or other purposes which might affect development
 - f. Sidewalks and pedestrian paths (if proposed)
 - g. Open space areas
 - h. Recreation facilities
 - i. Proposed monumentation with reference to proposed improvements
 - j. Proposed final contours
5. Protective covenants providing for:
- a. Building setbacks
 - b. Clear sight triangle easements (See Section 10.4.H and 10.12.D)
 - c. Utility, drainage and slope easements
 - d. "Well and sewage disposal systems shall be constructed in accordance with recommended standards of the Pennsylvania Department of Environmental Protection.", (If appropriate)
 - e. "Individual owners of lots must apply to the Township for a sewage permit prior to undertaking the construction of an on-lot sewage disposal system". (If appropriate)
 - f. Individual lot owners shall be responsible for maintenance of drainage swales.

E. Plot Plan and Layout Plan Additional Required Information

- 1. Names and addresses of:
 - a. Landowner
 - b. Developer
 - c. Corporate officers and major shareholders
 - d. Adjoining property owners, including those across adjacent roads
- 2. Owner's Statement of Acknowledgement (See Appendix C):
 - a. The owner shall acknowledge the statement contained in Appendix C before an officer authorized to take acknowledgements.
 - b. The seal of the notary public or other qualified officer acknowledging the owner's statement shall be impressed to the Plan.

3. Approval/Review signature blocks (See Appendix C) for:
 - a. Township Supervisors
 - b. Township Planning Commission
 - c. Township Engineer
 - d. County Planning Commission
4. Location map at a scale of 1" = 2,000' (or other scale acceptable to the Township Engineer) showing the relation of the site to adjoining properties, streets, zoning district boundaries, and municipal boundaries within one thousand (1,000') feet.
5. Project Summary List - the following information shall be listed on the Plan:
 - a. Total acreage of site
 - b. Applicable zoning district(s)
 - c. Total number of lots in this development
 - d. Density of dwelling units per acre
 - e. Required lot size
 - f. Proposed lot size, maximum, minimum and average
 - g. Open space required
 - h. Open space proposed
 - i. Type of water systems
 - j. Type of sanitary disposal systems
 - k. Lineal feet of new road
 - l. Deed source: volume and page
 - m. Uniform Parcel Identifier (Tax map: map, block and lot)
 - n. Required building setbacks
 - o. House numbers
6. Proposed Features (where all dimensions shall be to the nearest 1/100 of a foot closed and balanced, and areas of lots expressed in both square feet and acres)
 - a. Layout of lots, with identification number
 - b. Streets:
 - 1) Proposed names
 - 2) Cartway and right-of-way width
 - 3) Centerline with bearings, distances, curve data. Curve data shall include radius, tangent, arc length, and chord bearing and distance.

- 4) Right-of-way and curb lines with radii at intersections
 - 5) Beginning and end of proposed construction
 - 6) Tie-ins by courses and distances to intersection of all public roads, with their names and widths of cartway and right-of-way
 - c. Building setback lines
 - d. Rights-of-way, restrictive covenants, and easements for all drainage, utilities, or other purposes which might affect development.
 - 7. A letter of intent on plan describing in detail the intended use of the property shall be required.
- F. Plot Plan: Additional Information Required
- 1. General Information:
 - a. Site boundaries with survey precision of 1: 10,000 or better and subsequently closed and balanced
 - b. Boundaries of all adjoining properties with names of landowners
 - c. Location and type of all existing monumentation
 - d. North arrow
 - 2. Location of existing man-made features within one hundred (100') feet from the tract being subdivided should be shown as follows:
 - a. Streets and rights-of-way, including name and right-of-way widths, on the site and on immediately adjacent tracts
 - b. Existing lot layout on the site and on immediately adjacent tracts, including tracts across streets
 - c. Utility easements, restrictive covenants, and easements for purposed which might affect development
- G. Grading and Storm Drainage Plan
- 1. a. Existing and proposed contour lines at intervals of either two (2') feet (if slope is 15% or less) or five (5') feet (if slope is over 15%)
 - b. These contour intervals shall be based on a field survey or photogrammetric procedure at a scale of 1" = 100' or larger. (Topography extrapolated from U.S.G.S. maps will not be acceptable.)
 - 2. Street centerline data and stations corresponding to the profile.
 - 3. Storm drainage
 - a. Location and size of line with stations corresponding to the profile
 - b. Location of inlets with invert elevation of flow line and grade at the top of each inlet

- c. Watershed areas and drainage paths for each drainage structure, swale or point of concentration must be shown
 - d. Property lines and ownership, with details of easements where required
 - e. Beginning and end of proposed construction
 - f. Location of all other drainage facilities and public utilities in the vicinity of storm drain lines
 - g. Hydraulic design standards for culverts and/or bridge structures
4. Location and size of proposed drainage swales

H. Utility Plan

1. If on-lot sanitary sewage disposal systems are being proposed:
 - a. Existing and proposed contour lines at intervals of: either two (2') feet (if slope is 15% or less) or five (5') feet (if slope is over 15%) (contour intervals shall be based on a field survey or photogrammetric procedure.)
 - b. Proposed location of wells
 - c. Proposed or typical location of dwelling
 - d. Proposed location of subsurface disposal field and alternate field
 - e. Location of percolation test holes and soil probe pit, including any soil test found to be unsuitable, average percolation rate and depth to limiting zone.
 - f. Permanent and seasonal high water table areas
2. If centralized sanitary sewers are being proposed:
 - a. Location and size of line with stations corresponding to the profile
 - b. Location of manholes with invert elevation of flow line and grade at the top of each manhole
 - c. Property lines and ownership, with details of easements where required
 - d. Beginning and end of proposed construction
 - e. Location of laterals
 - f. Location of all other drainage facilities and public utilities in the vicinity of sanitary sewer lines
 - g. Plans and procedures as required by Appendix E.
3. If centralized water system is being proposed:
 - a. Location and size of waterline
 - b. Plans pertaining to water source as required by Appendix
 - c. Fire hydrants
4. Street lighting

- I. Erosion and Sedimentation Control Plan (If required by the Commission)
 - 1. Shall be in accordance with the regulations of the County Conservation District.
 - 2. All storm water runoff calculations shall be governed by the parameters set forth in Appendix D or by other methods approved by the Township Engineer.

- J. Road Plan – Profiles. Plans showing right-of-way width, cartway width, shoulders, courses and distances, stations, curve data, including radius, tangent, arc length, and chord bearing and distance, adjacent lot lines and lot numbers shall be required.
 - 1. Profile of existing ground surface along centerline of street.
 - 2. Proposed centerline grade with percent on tangents and elevations at fifty (50') foot intervals.
 - 3. All vertical curve data including length, elevations and minimum sight distance as required by Article 10.

- K. Sanitary Sewer and Storm Sewer Plan - Profiles
 - 1. Profile of existing ground surface with elevations at top of manholes or inlets.
 - 2. Profile of storm drain or sewer showing type and size of pipe, grade, cradle, manhole, and inlet locations, and invert elevations along flow line.
 - 3. All line crossings of other utilities
 - 4. Invert elevations along flow line at manholes, inlets, and at line crossing of other utilities.

- L. Construction Details
 - 1. Cross-sections and specifications for street construction as required by Article 10. Where cuts or fills extend beyond the right-of-way, cross sections, at fifty (50') foot intervals, shall be required; unless waived by the Township Engineer.
 - 2. Drainage swale cross-section and construction materials.
 - 3. Pipe bedding details.
 - 4. Storm drainage structures.
 - 5. Sanitary sewer structures.
 - 6. Curb and sidewalk details.

- M. House Numbering Plan. The Final Plan shall include the house numbers proposed for each lot in the subdivision and/or land development.

6.4 Supportive Documents and Information

- A. Deed Restrictions. All private deed restrictions or covenants already imposed or to be imposed as a condition to sale.
- B. Dedicated improvements. The developer shall provide a deed of dedication together with a plan of each such improvement.
- C. Nondedicated Streets Agreement
 - 1. Agreement for any street not offered for dedication.
 - 2. Such agreement shall state who is responsible for the improvement and maintenance of such streets until dedication to the Township.
 - 3. If an association of lot owners is made responsible, such association must be legally organized prior to plan approval.
- D. Open Space Agreement. A formal contract providing for the maintenance of open space and the method of management, together with all offers of dedication and covenants governing the reservation and maintenance of undedicated open space, bearing the certificate of approval of the Township Solicitor.
- E. Utilities Agreements and Permits
 - 1. All signed agreements or contracts with utility companies, water companies or authorities or sewage companies or authorities for the provision of services to the subdivision.
 - 2. Approval letters from all appropriate Federal and state agencies of any private centralized water supply system or sewage disposal system.
- F. Storm Drainage Calculations. All calculations relating to facilities appearing on the Grading and Storm Drainage plan and the Erosion and Sedimentation Control Plan shall be submitted for review by the Township Engineer (See Appendix D.) Also refer to the Lehigh Valley Planning Commission Act 167 stormwater review submission process.
- G. Development Statement and Schedule. A statement setting forth in detail the character of the improvements the Applicant proposes to make on the property to be developed and a development schedule indicating the approximate date when construction can be expected to begin and be completed.
- H. Legal Description. Legal descriptions, prepared by an appropriate licensed professional, for all lots and for all roadways and easements to be dedicated to the Township.

ARTICLE 7
MINOR SUBDIVISION

7.1 Purpose

Classification of a proposed subdivision as a minor subdivision permits the developer and Township to utilize a simplified procedure for reviewing such subdivision prior to approval for recording.

7.2 Submission and Review Procedure

- A. Final Plan Submission Required. A Final plan Submission for each Minor Subdivision must be submitted by the Applicant and reviewed in accordance with the provisions of Article 7.
- B. Submission Deadline
 - 1. An applicant shall submit a Final Plan submission within six (6) months from the date of the review of the sketch plan by the Commission (unless an extension in writing has been granted by the Board of Supervisors).
 - 2. Failure to comply with this requirement shall render the determinations listed in section 4.2.C.1 of the sketch plan null and void.
- C. Required Submission
 - 1. The applicant shall submit to the Administrator at least twenty-one (21) days prior to a regularly scheduled Planning Commission meeting:
See Section 6.2.C.1 and 2. Same regulations apply.
- D. Initial Actions By The Administrator
Same as Section 6.2.D.
- E. Determination of Completeness
Same as Section 6.2.E.
- F. Review by Township Engineer
Same as Section 6.2.F.
- G. Review by Commission - Within ninety (90) days from the date the Commission accepts the plan for review (unless the Applicant grants a written extension of time for the entire Township review of such submission), the Commission shall:
Same as Section 6.2.G.
- H. Review by Board of Supervisors - The Board of Supervisors shall:
Same as Section 6.2.H.
- I. Decision by Board of Supervisors
Same as Section 6.2.I.

7.3 Final Plan Requirements

A. Drafting Standards

1. Plans shall be prepared on a standard sheet of 18"x24", 24"x36", or 36"x48", except when the Township Engineer approves of other size plans.
2. All information shall be legibly and accurately presented.
3. Plans shall include written and graphic scales as approved by the Township Engineer. Typical acceptable scales are 1"=20', 1"=30', 1"=40', 1"=50', 1"=60', and 1"=100' or similar.

Sections 6.3.B.2 through 5 also apply.

B. General Information

1. Name and Location of subdivision
2. Names and addresses of:
 - a. Landowner
 - b. Developer
 - c. Corporate officers and major shareholders
 - d. Adjoining property owners, including those across adjacent roads
3. Owner's Statement of Acknowledgement (See Appendix C):
 - a. The owner shall acknowledge the statement contained in Appendix C before an officer authorized to take acknowledgements.
 - b. The seal of the notary public or other qualified officer acknowledging the owner's statement shall be impressed to the Plan.
4. Name, address, signature, and seal of the licensed engineer or surveyor responsible for the preparation of the plan to Engineers Statement (see Appendix C). The engineering aspects of all final and plot plans shall be certified by a licensed engineer or surveyor.
5. Approval/Review signature blocks (See Appendix C) for:
 - a. Township Supervisors
 - b. Township Planning Commission
 - c. Township Engineer
 - d. County Planning Commission
6. Location map at a scale of 1" = 2,000' (or other scale acceptable to the Township Engineer) showing the relation of the site to streets, zoning district boundaries, and municipal boundaries within five hundred (500') feet.
7. North arrow
8. Graphic and written scales
9. Date (day, month, and year) of plan and all subsequent revision dates.

10. Boundaries of all adjoining properties with names of landowners.
 11. The Deed Book volume and page number, as entered by the County Recorder, referencing the latest source of title to the land being subdivided.
 12. Uniform Parcel Identifier (Tax map sheet, block and lot number for the tract being subdivided.)
 13. A letter of intent describing in detail, the intended use of each parcel shall be required.
- C. Location of Natural Features on the Site and Within Fifty (50') Feet of the Site
1. Contour lines shall be required as follows:
 - a. 5% or less slope - two (2') foot contour intervals required
 - b. 5% to 15% slope - two (2') foot contour intervals required
 - c. 15% or greater - five (5') foot contour intervals requiredAll contours shall be based upon accurate field survey or photogrammetric procedure. A bench mark shall be established.
 2. Permanent and seasonal high water table areas
 3. Watercourses, lakes and wetlands with names, if any
 4. 100-year floodplain, flood prone and alluvial soil areas
 5. Location and extent of various soil types with NRCS definitions and DEP classifications for each
- D. Boundary Lines of Tract
1. The boundary lines of the area being subdivided.
 - a. The boundaries of the lots being newly created shall be determined by accurate field survey, closed with an error not to exceed one in ten thousand (1 : 10,000) and balanced.
 - b. The boundaries of any residual tract which is greater than ten (10) acres may be determined by deed. Remaining parcels containing less than 10 acres shall be subject to all requirements of the Township Subdivision and Land Development Ordinance.
 2. Location and type of all existing monumentation. Existing monumentation is not required to be shown for residual tracts which are greater than ten (10) acres.
- E. Location of Existing Man-Made Features on the Site and Within Fifty (50') Feet of the Site
1. Sufficient bearings, lengths of lines, radii, arc lengths, street widths, right-of-way and easement widths of all lots, streets, rights-of-way, easements and community or public areas to accurately and completely reproduce each and every course on the ground.
 2. Existing lot layout on the site.

3. Historic sites or structures, including name and description
 4. Sewer lines, water lines, storm drains and culverts
 5. Utility easements, restrictive covenants, and easements for purposes which might affect development
- F. Zoning Requirements
1. Applicable district
 2. Lot size and yard requirements
 3. Required open space
 4. Building setback line
- G. Proposed Layout
1. Total acreage of site
 2. Proposed lot layout with identification number and total number of lots
 3. Lot widths, depth and area
 4. Rights-of-way, restrictive covenants, and easements for all drainage, utilities, or other purposes which might affect development, with designation of areas to be dedicated to the Township.
 5. Open space areas and recreation areas
 6. The following items shall be shown on the plan: dwelling or structure, well, primary leach field, secondary leach field, soil probe location (suitable, with depth to limiting zone and average percolation rate noted for each site), and soil probe location (unsuitable).
 7. Any storm drainage facilities or structures
 8. Legal descriptions, prepared by an appropriate licensed professional, for all lots and for all roadways and easements to be dedicated to the Township.
- H. Covenants
1. All private deed restrictions already imposed or to be imposed as a condition to sale referenced to the drawing.
 2. The Board of Supervisors may require the inclusion of any specific restrictive covenants which will carry out the purposes of this Ordinance.
- I. Additional Information. The Board of Supervisors may require the submission of any additional information required for the Final Plan of a major subdivision under Section 6.3.

7.4 Supportive Documents and Information

- A. Residual Lands Sketch. A sketch to an appropriate scale, on one sheet, covering the entire tract showing the location of the area to be subdivided together with a sketch of any proposed roads to demonstrate that the proposed subdivision provides for

the orderly development of any residual lands and/or does not adversely affect the potential development of residual lands.

- B. Planning Module. The DEP Planning Module for Land Development (as required by Act 537, as amended, the PA Sewage Facilities Act).

7.5 Access By Easement

- A. Any proposed Minor Subdivision Plan submitted pursuant to this Article shall not be denied approval by the Township for failure of the proposed plan to comply with the: 1) lot design standards of Section 10.6, 2) the street design requirements of section 10.4 or 3) the access drive and driveway requirements of section 10.12 of this Ordinance, if the following conditions are met by the owner or developer:
1. Fee simple ownership of the parcel to be subdivided by the owner or developer predated the enactment of the Township Subdivision Ordinance said date being November 13, 1973, and
 2. The owner or developer has ingress and egress access to a public road pursuant to a recorded easement or right-of-way, with access as required by Sections 10.6, 10.4 and 10.12 of this ordinance unable to be obtained by the owner or developer at a reasonable cost based on his having exhausted to the satisfaction of the Township all reasonable efforts to purchase the otherwise required access pursuant to the aforementioned Sections, and
 3. There will be no adverse impact upon neighboring landowners nor upon the general public, and
 4. The means of access to the subdivision shall be used exclusively as a means of ingress and egress for the owners of the subdivided lots and will not be dedicated or offered for dedication to the Township, such restriction to be included in the deed from the owner or developer to the lot purchaser, and
 5. The maintenance of the means of access to the subdivision shall be guaranteed by the owner or developer by means of covenants in all deeds to lot purchasers or other means acceptable to the Township, and shall be further evidenced by an agreement, to be recorded in the Office for the Recording of Deeds for the County, between the owner or developer and the Township to the effect that the maintenance of means of access to the subdivision shall not be the responsibility of the developer or owner, his heirs and assigns in accord with deeds and agreements of record. However, if the developer has a recorded agreement whereby the responsibility for the maintenance of a roadway falls upon a group of landowners including the owner or developer, his heirs and assigns, then this section shall not be construed to require the owner or developer to provide for the sole maintenance of the roadway.
 6. The area to be used for access:
 - a. Is physically suitable and usable, free of natural feature obstacles,
 - b. Is capable of allowing the free passage of emergency vehicles, service trucks and other vehicles (e.g., fuel or garbage trucks), and

- c. Has grades in conformance with sections 10.12.F of this Ordinance.
- B. The Township shall send by ordinary mail a copy of the subdivision plan submitted pursuant to this Section to the fee simple owner of the easement or right-of-way being used as an access by the owner or developer, as well as copies of said subdivision plan to be sent by ordinary mail to all fee simple property owners abutting said easement or right-of-way to be used in common with the owner or developer, with all of the aforementioned property owners to be given notice of the meeting date and time when the matter will be reviewed for decision by the Township.

ARTICLE 8

GUARANTEE OF IMPROVEMENTS INSTALLATION

8.1 Guarantee of Improvements and Installation Required

Before approving any subdivision or land development plan for recording, the Board of Supervisors shall require that the Township be assured (by means of a proper Development Agreement and Performance Guarantee) that the improvements required by this Ordinance and the improvements appearing on the plan will be installed in strict accordance with the standards and specifications of this Ordinance.

8.2 Improvements to be Provided by the Applicant

- A. In all cases, the Subdivider or land developer shall be responsible for the installation of all improvements required by this Ordinance.
- B. The Township Engineer or the Township's designee shall make such inspections of the required improvements at such intervals as may be reasonably necessary to assure compliance with this ordinance.

8.3 Development Agreement

A. Development Agreement Required

- 1. All applicants proposing any subdivision or land development which provides for the installation of improvements required by this ordinance or any improvements or amenities which appear on the plan shall be required to enter into a legally binding Development Agreement with the Township prior to Final plan approval.
- 2. The Development Agreement shall guarantee the installation of said improvements in strict accordance with all Township requirements.
- 3. The Final Plan shall not be approved by the Board of Supervisors prior to the execution of this agreement and the delivery of the Performance Guarantee.

B. Terms of Development Agreement. The Development Agreement shall be in the manner and form approved by the Township Solicitor and it shall consist of the following terms, where applicable:

- 1.
 - a. The construction depicted upon the approved plans in itemized format.
 - b. Construction of streets with related curbs, street signs, drainage facilities and
 - c. Installation of utility lines.
 - d. Provision of all required improvements in Section 10.2 and Table 10.1 of this Ordinance including required monumentation.
- 2.
 - a. Work schedule setting forth the approximate beginning and ending dates and such other details may be required by the Township, and
 - b. An inspection schedule approved by the Township Engineer.

3. a. The estimated cost of the improvements, including a detailed breakdown in a form acceptable to the Board of Supervisors, and amount of the Performance Guarantee.
- b. All improvements subject to the Development Agreement shall be approved according to the approved inspection schedule and Section 8.4.
4. a. Developer's responsibilities for damage to other property.
- b. Developer shall secure or maintain public liability insurance for the duration of improvements construction. A copy (of other evidence of coverage) shall be submitted to the Township.
- c. A save harmless clause to protect the Township from liability.
- d. Prevention of erosion, sedimentation and water damage to the subject and adjacent properties.
5. Dedication of streets, transfer of water and sewer lines and easements. The Township may accept new streets for dedication at the Final Plan approval if the streets have been constructed to Township standards, approved by the Township Engineer and offered by the developer. Instead, the Township could delay accepting the streets until the developer's 18 month maintenance period ends.
6. The developer shall provide the Township with a set of reproducible "AS BUILT" plans prepared by and certified to by a Professional Engineer of all streets, storm and sanitary sewers, water distribution facilities, and all underground utilities.
7. The developer may be responsible for all reasonable engineering costs and expenses for review, inspection, consultations, and preparation of agreements if higher than the initial fee.
8. Provisions for violation of the Development Agreement.
9. Any other lawful terms which the Board of Supervisors may require to carry out the provisions of this Ordinance.

8.4 Performance Guarantee

The Performance Guarantee for completion of required improvements shall meet the following requirements:

A. Security

1. Within 30 days after the Final Plan Approval, the applicant guarantee shall be secured by the credit of any of the following:
 - a. An irrevocable and unconditional letter of credit of a Federal or Commonwealth chartered lending institution;
 - b. A restrictive or escrow account in a Federal or Commonwealth chartered lending institution, or
 - c. Such other financial security approval by the board of Supervisors (which approval shall not be unreasonably withheld).

2. Such bond, or other security shall provide for, and secure to the public, the completion of any improvements which may be required in the Development Schedule (see Section 6.4.G) for the completion of such improvements.
3. Such financial security shall be posted with a bonding company or Federal or Commonwealth chartered lending institution chosen by the party posting the financial security, provided said bonding company or lending institution is authorized to conduct such business within the Commonwealth.

B. Amount

1. The amount of financial security shall be equal to one hundred ten (110%) percent of the cost of the required improvements for which financial security is to be posted plus the Township Engineer's cost for inspection of the proposed site improvements construction.
2. a. The cost of the improvements shall be established by submission to the Board of Supervisors of bona fide bid or bids from the contractor or contractors chosen by the party posting the financial security to complete the improvements or, in the absence of such bona fide bids, the cost shall be established by estimate prepared by the Township Engineer.
b. The cost of such improvements (regardless of whether determined by contractor bids or by Township Engineer estimate) shall be the cost of completion estimated as of ninety (90) days following the date fixed in the development schedule (see Section 6.4.F) for the completion of such improvements plus ten (10%) percent of such cost.
3. If the party posting the financial security requires more than one (1) year from the date of posting of the financial security to complete the required improvements, the amount of financial security shall be increased by an additional ten (10%) percent for each one-year period beyond the first anniversary date from posting of financial security or to an amount not exceeding one hundred ten (110%) percent of the cost of completing the required improvements as re-established on or about the expiration of the preceding one-year period by using the above bidding procedure.

- C. Multi-Year or Multi-Stage Development. In the case where development is projected over a period of years, the Board of Supervisors may authorize submission of final plats by sections or stages of development subject to such requirements or guarantees as to improvements in future sections or stages of development as it finds essential for the protection of any finally approved section of the development.

8.5 Approval of Improvements

- A. In General. As the work of installing the required improvements proceeds, the party posting the financial security may request the Board of Supervisors to release or authorize the release, from time to time, such portions of the financial security necessary for payment to the contractor or contractors performing the work.

- B. Notice of Completion. When the developer has completed an improvement, the developer shall notify the Board of Supervisors in writing by certified or registered mail of such completion and request for release and shall send a copy thereof to the Township Engineer.
- C. Engineer's Report
1. Within thirty (30) days of the receipt of such request, the Township Engineer shall submit a written report certifying which improvements have been completed in accordance with the approved plan to the Board of Supervisors and mail a copy of such report by certified or registered mail to the developer at his last known address.
 2. This report shall be based on the inspection made according to the approved inspection schedule included in the Development Agreement and shall recommend approval or rejection of the improvements, either in whole or in part.
 3. If the Engineer finds any or all of the improvements to be not as required, he shall include a statement of the reasons for recommending their rejection in the report.
- D. Decision by Board of Supervisors
1. At its first regularly scheduled meeting after receiving the Engineer's Report (but not later than fifty-five (55) days of the receipt of the request) the Board of Supervisors shall review the Engineer's report and shall authorize release of an amount as estimated by the Township Engineer fairly representing the value of the improvements completed.
 2. The Board of Supervisors shall be deemed to have approved the release of funds as requested if the Board of Supervisors fails to act within fifty-five (55) days of receipt of the developer's request.
 3. Until final release (completion of all improvements), the Board of Supervisors shall require retention of ten (10%) percent of the cost of each completed improvement.
 4. The Board of Supervisors shall notify the developer in writing by certified or registered mail of the decision.
- E. Completion of Unapproved improvements. The developer shall proceed to complete any improvements not approved by the Board of Supervisors and, upon completion, request approval in conformance with the procedures specified in Section 8.5.B.
- F. Final Release
1. When the developer has completed all of the necessary and appropriate improvements, the developer shall request Final Approval in conformance with the procedures specified in Section 8.5.
 2. Such Final Release shall include all moneys retained under Section 8.5.D.3.

- G. Appeal. - Nothing herein, however, shall be construed in limitations of the developer's right to contest or question by legal proceedings or otherwise, any determination of the Board of Supervisors or the Township Engineer.

8.6 Remedies to Effect Completion of Improvements

- A. Enforcement of Security. In the event that any improvements which may be required have not been installed as provided in this Ordinance or in accord with the approved Final Plan, the Board of Supervisors are hereby granted the power to enforce any corporate bond (or other security) by appropriate legal and equitable remedies.
- B. Completion by Township. If the proceeds of such bond or other security are insufficient to pay the cost of installing or making repairs or corrections to all the improvements covered by said security, the Board of Supervisors may, at its option, install part of such improvements in all or part of the subdivision or land development and may institute appropriate legal or equitable action to recover the moneys necessary to complete the remainder of the improvements.
- C. Proceeds for Installation of Improvements. All of the proceeds, whether resulting from the security or from any legal or equitable action brought against the developer, or both, shall be used solely for the installation of the improvements covered by such security, and not for any other Township purpose.
- D. Prohibited Remedies. The Township shall not:
 - 1. Condition the issuance of building, grading or other permits relating to the erection or placement of improvements, including buildings, upon the lots or land as depicted upon the final plat upon the actual completion of the improvements depicted upon the approval final plat;
 - 2. Withhold an occupancy permit for any building if the streets providing access to such building are improved to a mud-free or otherwise permanently passable condition and all other improvements which are depicted upon the plan and are necessary for the reasonable use or occupancy of the building are completed.

8.7 Maintenance Agreement

- A. Maintenance Agreement Required
 - 1. All applicants proposing any subdivision or land development which provides for the dedication of improvements required by this ordinance or any improvements or amenities which appear on the Plan shall be required to enter into a legally binding Maintenance Agreement with the Township prior to acceptance of dedication by the Township.
 - 2. The dedication of any improvements shall not be accepted by the Township prior to the execution of a Maintenance Agreement and the delivery of the Maintenance Guarantee.

B. Terms of Maintenance Agreement

1. The Maintenance Agreement shall be in the manner and form approved by the Township Solicitor.
 2. The Maintenance Agreement shall require the Applicant to make any repair or reconstruction of any improvement stipulated in the Maintenance Agreement which is specified by the Board of Supervisors as necessary by reason of faulty construction, workmanship, or materials prior to acceptance of such improvements by the Township.
 3. The Maintenance Agreement shall require the Applicant to maintain at his own cost all improvements stipulated in the Maintenance Agreement for a period not to exceed eighteen (18) months from the date of acceptance or dedication by the Township.
 4. The Maintenance Agreement shall require the posting of financial security to secure structural integrity of said improvements as well as the functioning of said improvements in accordance with the design and specifications as depicted on the final plat for a term not to exceed eighteen (18) months from the date of acceptance of dedication.
- C. Public Utilities and Authorities. If water mains or sanitary sewer lines, or both, along with apparatus or facilities related thereto, are to be installed under the jurisdiction and pursuant to the rules and regulations of a public utility or municipal authority separate and distinct from the Township, financial security to assure proper completion and maintenance thereof shall be posted in accordance with the regulations of the controlling public utility or municipal authority and shall not be included within the financial security as otherwise required by this Section.

8.8 Maintenance Guarantee

- A. Security. The Maintenance Guarantee shall be secured by the credit of any of the following:
1. An unrevocable and unconditional letter of credit of a Federal or Commonwealth chartered lending institution,
 2. A restrictive or escrow account in a Federal or Commonwealth chartered lending institution, or
 3. Such other financial security approved by the Board of Supervisors (which approval shall not be unreasonably withheld).
- B. Terms. Such Maintenance Guarantee shall be in the form approved by the Township solicitor and Supervisors, payable to the Township, to guarantee the maintenance and repair of the streets and other improvements in the subdivision for eighteen (18) months from the date of acceptance thereof by the Township.
- C. Amount. The amount of the Maintenance Guarantee shall be determined by the Township, but shall not exceed fifteen (15%) percent of the actual cost of installation of such improvements.

D. Release. After the expiration of eighteen (18) months from the date of acceptance of said improvements, the Township shall release said Maintenance Guarantee to the developer (or party posting said Maintenance Guarantee) if all improvements are in satisfactory condition.

ARTICLE 9

RECORDING OF FINAL PLAN

9.1 Recording of Final Plan

- A. The Applicant shall record the Final Plan approved by the Board of Supervisors in the office of the Recorder of Deeds of the county within ninety (90) days of such final approval. The costs of recording shall be borne by the Applicant.
- B. The Applicant shall notify the Township, in writing, within fifteen (15) days of such recording. Such notification shall include a copy of the Recorder's receipt.
- C. The Final Plan shall officially note that it has been approved by the Township Board of Supervisors, reviewed by the Township Planning Commission and reviewed by the Lehigh Valley Planning Commission.
- D. If a conditional approval was granted to the Applicant, the Applicant shall submit a letter that gives the status of the Applicant's progress and schedule to fulfill the conditions of approval.

9.2 Recorded Plan

The Record Plan shall be a clear and legible blue or black line print on mylar, and shall be an exact copy of the approved Final Plan on a sheet of the size required for Final Plans. Two (2) mylar copies shall be required by the Township. One (1) original mylar copy will be signed by the Township and returned to the Applicant for recording purposes. The other mylar copy shall be retained at the Township for their records.

9.3 Effect of Recording

- A. Official Map. After a subdivision or land development has been duly recorded, the streets, parks, and other improvements shown thereon shall be considered to be a part of any Official Map of the Township.
- B. Dedication of improvements. Streets, parks, and other public improvements shown on a subdivision or land development plan to be recorded:
 - 1. May be offered for dedication to the Township by formal notation thereof on the plan, or
 - 2. The owner shall note on the plan that such improvements have not been offered for dedication to the Township.

ARTICLE 10

DESIGN STANDARDS AND REQUIRED IMPROVEMENTS

10.1 Application

- A. Evaluating Plans. The design standards and improvements required in this Article shall be the minimum requirements applied by the Commission and the Board of Supervisors in evaluating plans for any proposed subdivision or land development.
- B. Additional Improvements. Additional or higher type improvements may be required in specific cases where, in the opinion of the Board of Supervisors, they are necessary to create conditions essential to the health, safety, morals, and general welfare of the citizens of the Township, to protect the environment of the Township, or to carry out the purposes of this Ordinance.
- C. Modifications and Exceptions
 - 1. Where, owing to special conditions, a literal enforcement of this Ordinance or its accompanying regulations would result in unnecessary hardship, the Board of Supervisors may make reasonable modifications and exceptions.
 - 2. Proof of unnecessary hardship must be presented to the Commission by the developer.
 - 3. The Commission shall review the Applicant's request and submit a written report to the Board of Supervisors.
 - 4. The request for an exception shall be reviewed at a public hearing of the Board of Supervisors who shall make findings of fact consistent with the Comprehensive Plan and the intent of this Ordinance.
 - 5. A written summary of any exception shall be appended to the Record Plan.

10.2 Required Improvements

- A. The Developer shall construct and install (with no expense to the Township) those improvements identified in Table 10.1 for the type of subdivision or land development proposed.

**TABLE 10.1
SCHEDULE OF REQUIRED IMPROVEMENTS**

TYPE OF IMPROVEMENT	ORDINANCE SECTION CONTAINING ADDITIONAL REQUIREMENTS	TYPE OF SUBDIVISION OR LAND DEVELOPMENT			
		SINGLE FAMILY OR TWO FAMILY DWELLINGS		MULTIPLE FAMILY DWELLINGS	COMMERCIAL AND/OR INDUSTRIAL
		LOTS 43,560 S.F. OR MORE	LOTS UNDER 43,560 S.F.		
STREETS	10.4	R	R	R	R
BLOCKS	10.5	S	S	S	S
LOTS	10.6	R	R	R	R
OPEN SPACE	10.7	R	R	R	R
STORMWATER DRAINAGE	10.8	S	S	S	S
CURBS AND GUTTERS	10.8	S	S	S	S
SEWAGE DISPOSAL	10.9	S	S	S	S
WATER SUPPLY	10.10	S	S	S	S
UNDERGROUND UTILITIES	10.11	P	P	P	P
ACCESS DRIVE/ DRIVEWAYS	10.12	S	S	S	S
OFF-STREET PARKING/ LOADING	10.13	R	R	R	R
SIDEWALKS/ PATHWAYS	10.14	S	S	S	S
STREET LIGHTING	10.15	S	S	S	S
SIGNS	10.16	S	S	S	S
TRAFFIC SIGNS/ SIGNALS	10.17	S	S	S	S
MONUMENTS/ MARKERS/ LANDSCAPING	10.18	R	R	R	R

R = Required for that particular type of subdivision or land development.

S = Different facilities required by the Board of Supervisors according to individual site characteristics and/or size of the development.

P = Required when practical or when required by P.U.C.

- B. The remainder of this Article sets forth the design and construction standards for required improvements. These minimum standards shall apply to any improvement, regardless of whether required by this Ordinance or not.

10.3 Overall Requirements

A. In General

1. Land shall be suited to the purpose for which it is to be subdivided.
2. Land subject to hazardous conditions (such as open quarries, unconsolidated fill, floods, excessive erosion, or water supply which does not meet adequacy requirements or U.S. Public Health Service standards, shall not be subdivided until the hazards have been eliminated or overcome by adequate safeguards provided by the developer and approved by the Board of Supervisors.
3. The approval of a plan for any proposed subdivision or land development shall not constitute a representation, guarantee, or warranty of any kind by the Township, any official, or any employee thereof of the practicability or safety of the use of such land or development, and shall create no liability upon the Township, its officials, or its employees.

B. Natural and Historic Feature Preservation

1. The Planning Commission and the Board of Supervisors may require that the design and development of subdivisions and land developments shall preserve, insofar as possible, natural, scenic, and historic features, which will add attractiveness by providing parks, adequate open space for recreation, light and air by proper distribution of population thereby creating conditions favorable to the health, safety, morals and general welfare of the citizens and for the harmonious development of the Township.
2. Some of these features are the natural terrain and natural drainage, large trees or groves, watercourses and falls, historic areas and structures, scenic views and landmarks, and other community assets.
3. Tree Removal - Existing trees shall be retained wherever possible.
4. Wetlands - identify and preserve wetland areas.
5. Waterbodies and Floodplains - Lake and stream frontages should be preserved from development wherever possible. Floodplain areas should be protected as required by Zoning and other Township regulations.

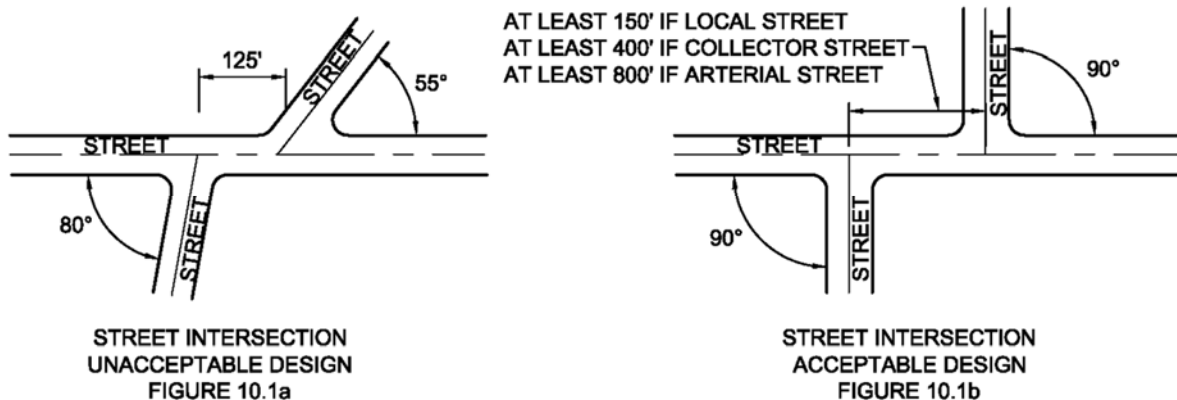
C. Soil Protection

1. a. The developer shall be required to submit an "Erosion and Sedimentation Control Plan" prepared by a person trained and experienced in erosion and sedimentation control methods and techniques (as provided for under Title 25 Rules and Regulations, Chapter 102, issued by the PA Department of Environmental Protection) to the Northampton County Conservation District for review.

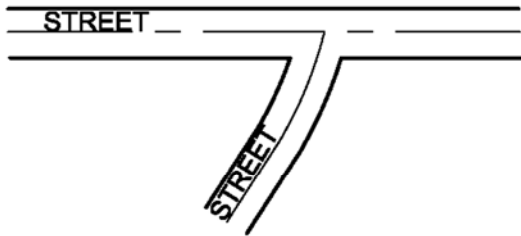
- b. A copy of the “Erosion and Sedimentation Control Plan”, as approved by the Northampton County Conservation District shall be submitted to the Commission.
 - c. The PA DEP Erosion and Sediment Pollution Control Program Manual shall be used as a resource in soil protection planning and in the review of such plans.
 - d. The owner of the land shall be responsible for carrying out the requirements of the Erosion and Sedimentation Control Plan during earth moving activities.
 - 2. a. No topsoil shall be removed from the site or used as spoil without approval of the Township Supervisors.
 - b. Topsoil must be removed from the areas of construction and stored separately. Upon completion of the construction, the topsoil must be uniformly redistributed on the site.
 - c. All areas of the subdivision shall be stabilized by seeding or planting. Slopes steeper than fifteen (15%) percent shall be further protected by mulching which shall be adequately tied down.
 - 3. If the proposed subdivision and/or land development is over one acre, then the applicant is required by the Commonwealth of Pennsylvania to secure a permit from the Pennsylvania Department of Environmental Protection for erosion and sediment control and National Pollutant Discharge Elimination System (NPDES) Permit. Said Permits, the related plans and a promise to comply with the conditions are required for Final plan approval of any subdivision and/or land development.
- D. Location of site. The design of a proposed subdivision or land development shall be viewed with regard to the following:
 - 1. Comprehensive Plan and Official Map Requirements –The subdivision or land development shall conform to any applicable provisions of the Township Comprehensive plan and the Township Official Map.
 - 2. Zoning - The use of land in the subdivision or land development shall conform to the Township Zoning Ordinance.
 - 3. Nearby Development - A subdivision or land development and its street pattern shall be coordinated with existing nearby developments or neighborhoods so that the area as a whole may be developed harmoniously.
 - 4. Solar orientation and Energy conservation - All developers are encouraged to use recognized solar design principles and features which will maximize the use of individual building sites for passive solar building construction. Such solar principles include the following:
 - a. Layout of streets to provide maximum number of sites with a southern orientation to maximize solar heat gain.
 - b. Minimum use of north facing building exposures.
 - c. Protection of solar access.

10.4 Streets (See Section 10.12 for Access Drive and Driveway Provisions)

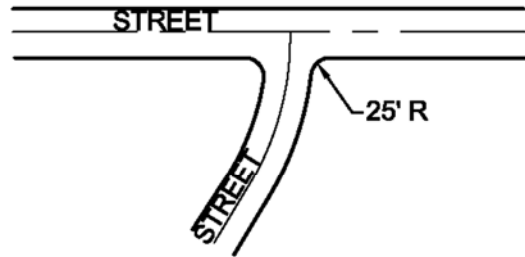
- A. Access to Proposed Subdivisions and Land Developments. All proposed subdivisions and land developments shall have adequate access to the public highway system.
- B. Streets and Topography. Proposed streets shall be adjusted to the contour of the land so as to produce usable lots and streets of reasonable gradient.
- C. Street Continuations. Where appropriate, proposed streets shall be extended to the boundary line of the tract being subdivided so as to eventually provide for normal circulation of traffic within the vicinity. Within a development, through traffic shall be discouraged. Wherever there exists a dedicated or platted portion of a street or alley along a boundary of the tract being subdivided or developed, the remainder of said street or alley to the prescribed width shall be platted within the proposed development where this would not adversely affect the proposed subdivision or land development. Where a subdivision or land development abuts or contains an existing street of inadequate right-of-way width; additional right-of-way width shall be required in conformance with Table 10.2, "Design Standards for Streets."
- D. Intersections
 1. The centerlines of streets shall intersect at right angles unless existing conditions dictate otherwise. In such case the intersection shall be as nearly at right angles as possible, with a 75 degree minimum for arterial and collector streets and a 60 degree minimum for local streets.
 2. Intersections of more than two streets at one point shall be prohibited. Where streets intersect other streets, offsets shall not be created. The minimum offset or distance between centerlines of parallel or approximately parallel streets intersecting a cross street from opposite directions shall be:
 - a. One hundred fifty (150') feet for local streets.
 - b. Four hundred (400') feet for collector streets.
 - c. Eight hundred (800') feet for arterial streets. (See Figures 10.1a and b)



3. At street intersections, the property line shall be rounded by arcs with radii of not less than twenty-five (25') feet. For streets other than local streets, the Township may require a larger radius. (See Figures 10.2a and b)

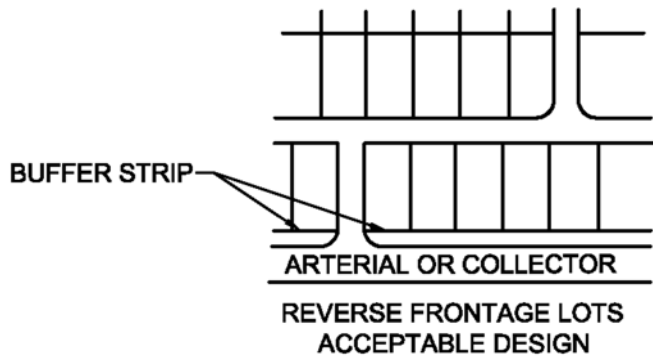
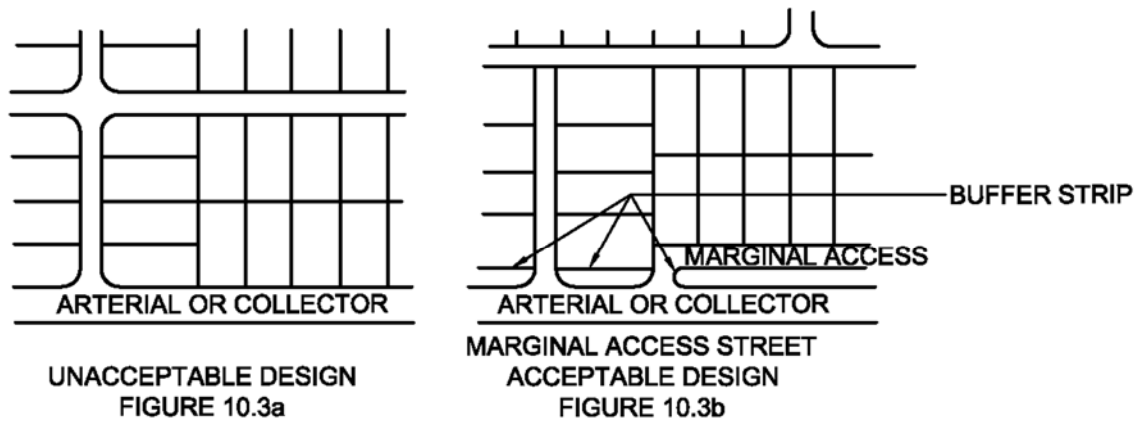


**STREET INTERSECTION
UNACCEPTABLE DESIGN
FIGURE 10.2a**



**STREET INTERSECTION
ACCEPTABLE DESIGN
FIGURE 10.2b**

- E. Arterial and Collector Street Frontage. Where subdivision or land development abuts or contains an existing or proposed arterial or collector street, the Board of Supervisors (upon review and recommendation of the Commission) may require:
 1. Marginal access streets
 2. Buffer strips for abutting properties
 3. A reduction in the number of intersections
 4. A separation of local and through traffic (See Figures 10.3a, b, and c)



F. Street Design Standards

1. Minimum street design standards shall be as shown in Table 10.2.

TABLE 10.2

DESIGN STANDARDS FOR STREETS

(All Dimensions in Feet Unless Specified)

DESIGN SPECIFICATION	Type of Street			
	Arterial	Collector	Local	Marginal Access
Right-of-Way Width	80	60	50	40
Cartway Width	28	26	24	24
Cartway Width with Curbs on Both Sides and No Parking	30	26	NA	NA
Cartway Width with Curbs and One Side Parking	NA	34	30	30
Cartway Width with Curbs and Two Sides Parking	NA	42	36	36
Acceleration/Deceleration Lane Width (One Side Without Curbs)	12	12	NA	NA
Minimum Sight Distance*	475	300	200	150
Minimum Tangent between Reverse Curves**	200	100	100	100
Minimum Centerline Radii for Horizontal Curves	400***	300***	150	100
Maximum Grade****	6%	8%	10%	10%
Stabilized or Paved Shoulder Each (without curbs)	4	4	4	4

* Horizontal sight distances shall be measured from a point 3.75 feet above the road surface to a point six (6") inches above the road surface.

** All tangents shall be measured along the street centerline.

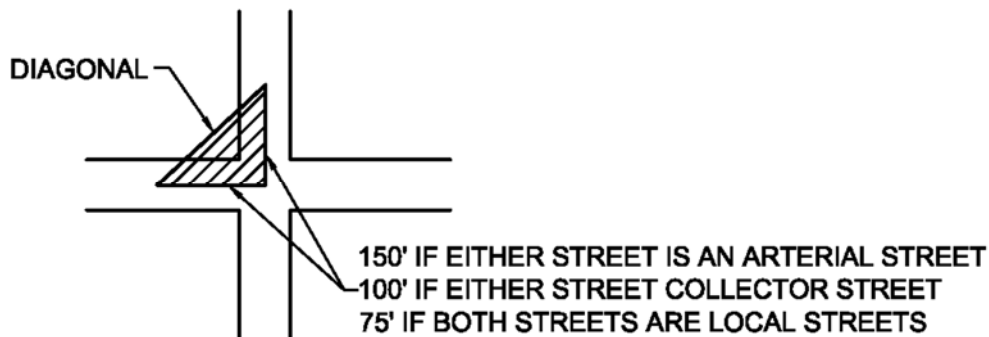
*** Larger radii may be required as determined by the Township Engineer and/or appropriate State Agency.

**** Minimum grades for all streets shall be 0.75%.

NA = Not Applicable

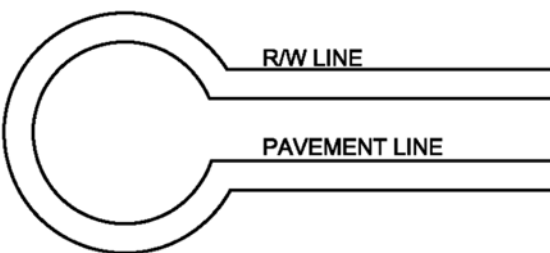
2. Whenever street lines are deflected in excess of five degrees, connection shall be made by horizontal curves.
3. Vertical curves shall be used at changes of grade exceeding one (1%) percent. The length of the vertical curve shall be determined by multiplying the algebraic difference in change of percent in grade by the following factors:
 - a. Arterial streets 70 feet
 - b. Collector streets 50 feet
 - c. Local streets 30 feet
 - d. Marginal access streets 30 feet
4. At the approach to an intersection, a levelling area shall be provided having a minimum four (4%) percent grade for a distance of fifty (50') feet measured from the nearest right-of-way line of the intersecting street.

5. The maximum grade across the turnaround in a cul-de-sac shall not exceed seven (7%) percent.
 6. To provide for adequate drainage, the minimum grade of any street gutter shall be not less than one (1%) percent.
- G. Easements. Easements shall be provided adjacent to street right-of-way as follows:
1. Drainage easements shall be provided as indicated and required by the drainage plans.
 2. Slope easements shall be provided as indicated by the required cuts and fills.
 3. Utility easements of a minimum of ten (10') feet in width shall be provided for electric power, gas, telephone, and television cable lines so that each lot or dwelling unit can be served.
- H. Sight Lines at Intersections of Streets
1. A triangular area as defined in Section 10.4.H.3.c. shall be graded and shall be free of sight obstructions so that vision between a height of from two to ten (2' – 10') feet above the centerline grades of the intersecting streets is not obscured.
 2. By means of deed restrictions, lease restriction, or plan amendment (whichever method is applicable), vegetation shall not be planted or allowed to grow in such a manner as to obscure vision between a height of from two to ten (2' – 10') feet above the centerline grades of the intersecting streets within the triangular area defined in Section 10.4.H.3.c.
 3. Such triangular area shall be bounded by the intersecting street centerlines and a diagonal connecting two points, one which is at each end of the centerline of each street:
 - a. One hundred and fifty (150') feet from the intersection of such street centerlines, if either street is an arterial street.
 - b. One hundred (100') feet from the intersection of such street centerlines if either street is a collector street.
 - c. Seventy-five (75') feet from the intersection of such street centerlines, if both streets are local streets.

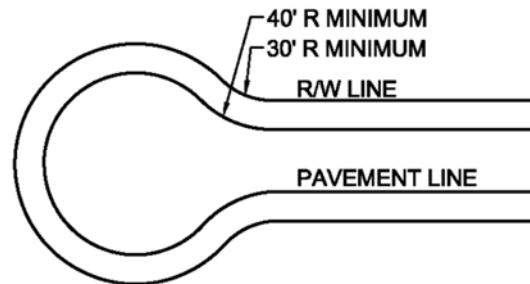


I. Cul-de-Sac Streets

1. Cul-de-sac streets shall terminate in a circular right-of-way with a minimum diameter of one hundred (100') feet and eighty (80') feet diameter to the outer pavement edge or curb line if no parking is allowed. If parking is allowed on the cul-de-sac, the minimum diameters indicated above shall be increased by twenty (20') feet.
2. The circular right-of-way of the cul-de-sac shall be connected to the approach right-of-way by a right-of-way arc having a radius of not less than thirty (30') feet. (See Figures 10.4a and b)
3. The circular paving of the cul-de-sac shall be connected to the approach paving by an easement arc having a radius of not less than forty (40') feet. (See Figures 10.4a and b)
4. The circular terminus of a cul-de-sac street may be offset to the left, but shall not be offset to the right.
5. All dead ends shall terminate in a cul-de-sac. If the street is to be extended in the future, a temporary cul-de-sac shall be constructed using the same dimensional standards specified above for a permanent cul-de-sac. The temporary cul-de-sac shall be improved to an all-weather surface using oil and chip or other stabilized surface to the satisfaction of the Board of Supervisors.
6. A cul-de-sac shall not serve more than twenty-five (25) dwellings or be over one thousand (1,000') feet in length measured from the centerline point of the radius of the cul-de-sac curve to the point of centerline intersection of the cul-de-sac with an approved through street.
7. Provisions for future extensions of proposed cul-de-sac streets must be considered. Use of the LVPC Street Connectivity Guidance Document is encouraged.
8. Lots fronting the turnaround portion of the cul-de-sac shall have at least one usable driveway entrance of less than eight (8%) percent grade. The plan shall show at least one such potential driveway for each lot on the turnaround.



UNACCEPTABLE TURNAROUND
FIGURE 10.4a



ACCEPTABLE TURNAROUND
FIGURE 10.4b

J. Street Names

1. Proposed streets which are in alignment with others already existing and named, shall bear the names of the existing streets.
2. In no case shall the name of a proposed street duplicate an existing street name in the municipality and in the postal district, irrespective of the use of the suffix street, road, avenue, boulevard, drive, way, place, court, lane, etc.
3. All street names shall be subject to the approval of the Municipal Governing Body.

K. Agreement. As a condition for Final Plan approval, the developer must enter into a legally binding agreement which shall state who is to be responsible for the improvement and maintenance of any street not offered for dedication. If an association of lot owners is to be made responsible, such association must be legally organized prior to plan approval.

L. Design and Construction Standards

1. In General. Streets shall be graded, improved and surfaced to the grades and dimensions shown on plans, profiles and cross-sections submitted by the developer and approved by the Board of Supervisors.
2. Right-of-Way Grading
 - a. The entire right-of-way shall be graded to the approved cross-section. All trees, stumps and other material deemed unsuitable by the Township Engineer shall be removed. The excavation shall be backfilled and suitably compacted to the satisfaction of the Township Engineer.
 - b. The finished road surface both tangent and curve shall be crowned at 3/8" per foot away from the centerline.
 - c. A proper super-elevation (banked curves) shall be required on arterials and collectors when the centerline curve radii are less than twelve-hundred (1200') feet and may be required by the Township Engineer on minor local streets when the centerline curve radii are less than six-hundred (600') feet.
3. Grading Beyond Right-of-Way
 - a. Where the approved profile of the centerline requires excavation or landfill to a depth exceeding six (6") inches, the Subdivider or developer may be required to grade beyond the right-of-way line in order to provide continuous slope from the right-of-way line to the proposed elevation of the abutting property.
 - b. Such grading beyond the right-of-way shall maintain the original conditions of slope and contours except where storm water runoff designs dictate or warrant improvement or alteration of the original slope and contours.
 - c. Approved plans, either preliminary or final, showing proposed grading, shall be a covenant running with the land, unless altered by written permission

from the Board of Supervisors in conjunction with the Northampton County Conservation District.

- d. In areas of earth excavation or earth fill, such grading shall be done to a maximum slope of one (1') foot vertical to five (5') feet horizontal. In areas of rock excavation such grading shall be done to a maximum slope of two (2') feet vertical to one (1') foot horizontal.
4. Trench Excavation. All trenches excavated within the cartway of a public street or right-of-way shall be backfilled with modified stone and shall be adequately compacted.
 5. Drainage
 - a. Parallel and cross drainage facilities shall be properly located, designed and installed to maintain proper drainage of the completed streets.
 - b. Proper design and construction in accordance with those requirements may require the use of curb and gutter or paved drainage swales to prevent erosion, drainage facilities shall be designed in accordance with requirements of Appendix D.
 - c. The minimum diameter of any cross drainage or culvert pipe shall be fifteen (15") inches. High density polyethylene pipe (HDPE) and reinforced concrete pipe (RCP) are accepted pipe materials. Aluminized corrugated metal (CMP) pipe may be used except under roadways where RCP pipe or HDPE pipe shall be required.
 - d. Open pipe ends must be fitted with concrete end walls or wing walls and child proof screening.
 - e. No open pipes shall be allowed to end within the Township road right-of-way, except in cases where new driveways must cross existing deep road side swales adjacent to existing Township roads. In the case of these exemptions to the standard, the pipe shall be located as far off the edge of pavement as possible, (at least 20 feet from the road centerline).
 - f. Energy dissipators shall be placed at the outlets of all pipes where flow velocities exceed maximum permitted channel velocities.
 - g. Bridges and culverts shall be designed to support expected loads, to carry expected flows, and to be constructed to the full width of the right-of-way in accordance with Pennsylvania Department of Transportation Construction Standards. Separate design plans and specifications shall be required for each bridge and culvert which Plans and Specifications shall be subject to review and approval of the Township Engineer.
 - h. Consideration shall be given for subgrade drainage of those soils subject to frost heave. Design of the road bed in such locations may require parallel drainage facilities and/or underdrains to properly stabilize the subgrade in conformance with PennDOT standards. The Board of Supervisors may require that such drainage facilities be provided. The design of such

subgrade drainage facilities shall be subject to the review and approval of the Township Engineer.

- i. Construction of storm water management and erosion control facilities shall be in accordance with the approved plans and accompanying specifications, if any. The construction details and standards of the following publications in their most recent revision shall be acceptable:
 - 1) PA DEP Erosion and Sediment Pollution Control Program Manual
 - 2) PennDOT, Publication 408 Specifications
 - 3) PennDOT, RC Series, Roadway Construction Standards
 - 4) Township Subdivision and Land Development Regulations
 - 5) Pennsylvania Stormwater Best Management Practices Manual
 - j. A set of approved design plans shall be maintained on file at the site during construction, as record drawings.
6. Subgrade
- a. The design and construction of the road bed shall take into consideration the supporting capacities of the subgrade, with particular attention to those soils which are subject to frost heave.
 - b. Unsuitable soils shall be removed and replaced, drained or otherwise stabilized to provide adequate support for the road bed and anticipated loads.
7. Subbase and Underdrain - A six (6") inch compacted depth subbase consisting of PennDOT No. 2A coarse aggregate shall be constructed in accordance with the requirements of PennDOT Publication 408, latest edition. Where subgrade conditions dictate, the use of underdrain may be required by the Township Engineer. Where required, underdrain shall be constructed in accordance with PennDOT Publication 408, latest edition.
8. Base Course - For all classifications of streets, base course shall be constructed of a minimum of four (4") inches compacted depth 25.0mm Superpave Base Course, constructed in accordance with PennDOT Publication 408, latest edition. Prior to placement of the base course all vertical surfaces, including curbing and existing pavement, shall be tack coated. Unless full depth stone backfill is used for underground utilities construction, a 6 month waiting period shall be required between completion of utilities and placement of base course.
9. Surface Courses
- a. Leveling Course. - Where, in the opinion of the Township Engineer, the surface of the base course or binder course is not sufficiently uniform or level for placement of the binder or wearing course, a leveling course shall be constructed per PennDOT Publication 408 prior to placement of the next pavement surface.
 - b. Tack Coat. - Tack coat conforming to PennDOT Publication 408, latest edition, shall be required on all base course and binder course surfaces prior to

placement of new paving, unless placed within seventy-two (72) hours of the previous pavement course and approved by the Township Engineer.

- c. Arterial Streets. - The surface courses shall consist of a minimum of two and one-half (2½") inches compacted depth 19.0 mm Superpave Binder Course and a minimum of one and one-half (1½") inches of compacted depth 9.5 mm Superpave Wearing Course as specified in PennDOT Publication 408, latest edition.
 - d. Collector Streets. - The surface courses shall consist of a minimum of two (2") inches of compacted depth 12.5 mm Superpave Wearing Course and one and one-half (1½") inch of compacted depth 9.5 mm Superpave Wearing Course as specified in PennDOT Publication 408, latest edition.
 - e. Local Roads. - The surface courses shall consist of a minimum of one and one-half (1½") inches of compacted depth 9.5 mm Superpave Wearing Course as specified in PennDOT Publication 408, latest edition. No binder course shall be required.
 - f. All materials, construction procedures and other specifications shall be in conformance with the latest edition of the PA Department of Transportation Publication 408, latest edition. All bituminous pavement shall be Superpave Asphalt Mixture Design, PG 64-22 and shall include the proper mESAL (million Equivalent Single Axle Loads) value and the appropriate SRL (skid resistance level) designation. The plans shall include references to the required material specifications.
10. Shoulders. All shoulders shall be PennDOT Type III and shall:
- a. Have four (4") inch depth
 - b. Be four (4') feet wide
 - c. Have a one and one-half (1-1/2") inch per foot (1') slope
11. Alternative Designs. Alternative road bed designs may be prepared and will be considered. The alternate design must provide load capabilities equivalent to or higher than the capabilities of the designs set forth above. Alternate designs will be reviewed on the basis of design recommendations of the Asphalt Institute and be subject to the approval of the Board of Supervisors and Township Engineer.
12. Bridges and Stream Crossings. Bridges and other stream crossing structures which are part of the proposed street system shall be designed and constructed in accordance with current PennDOT Standards and Specifications. Evidence of compliance with and approval of the Division of Dams and Encroachments, Pennsylvania Department of Environmental Protection, shall be provided by the developer, if applicable.

10.5 Blocks

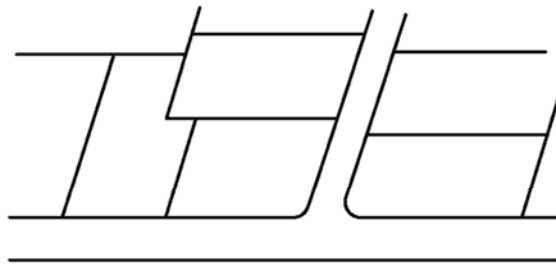
A. Residential

1. Residential blocks shall not exceed two thousand (2000') feet in length in subdivisions using an average lot size of one (1) acre or larger and shall not exceed one thousand five hundred (1500') feet in length in subdivisions having an average lot size less than one (1) acre, unless permitted by the Board of Supervisors.
2. Blocks shall be of sufficient width to permit two (2) tiers or lots except where access is limited by virtue of an adjoining arterial street or by virtue of topographic limitations, unless permitted by the Board of Supervisors.

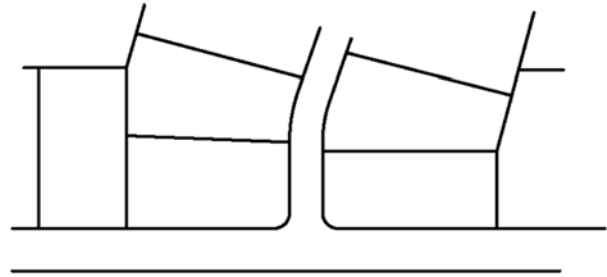
- B. Nonresidential. Nonresidential blocks shall not be less than eight hundred (800') feet in length.

10.6 Lots

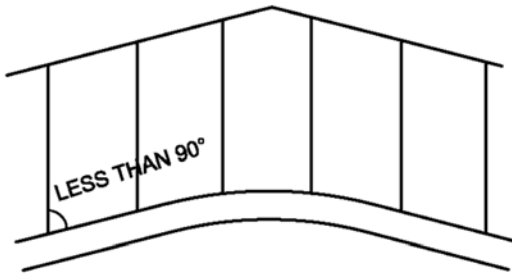
- A. Lots shall conform to the applicable minimum lot sizes, lot widths and yard requirements as set forth in the Township Zoning Ordinance.
- B. All lots shall have direct access from and front on a street constructed in accordance with the standards of this Ordinance.
- C. The depth-to-width ratio of a lot shall not be greater than three to one (3 to 1), unless otherwise permitted by the Board of Supervisors.
- D. Side lines of lots shall abut and be at right angles to straight streets and on radial lines to curved streets, unless otherwise permitted by the Board of Supervisors. Pointed or very irregular lots shall be avoided. (See Figures 10.6a, b, c, and d)
- E.
 1. Double frontage lots shall ordinarily not be .platted except as provided in Section 10.6.E.2.
 2. In the event such lots are provided, the lot shall be increased twenty (20') feet in depth to provide for a planting strip along the back of the lot. (See Figure 10.7)
- F. If the remnants of land (other than rights-of-way) exist after subdividing, they shall be incorporated in existing or proposed lots.



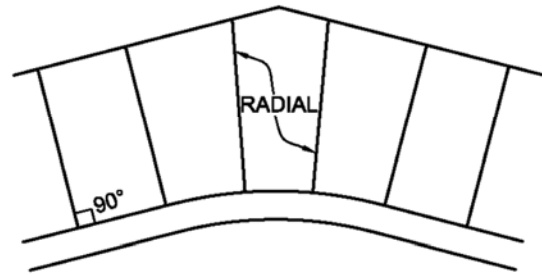
UNACCEPTABLE LOT LAYOUT
FIGURE 10.6a



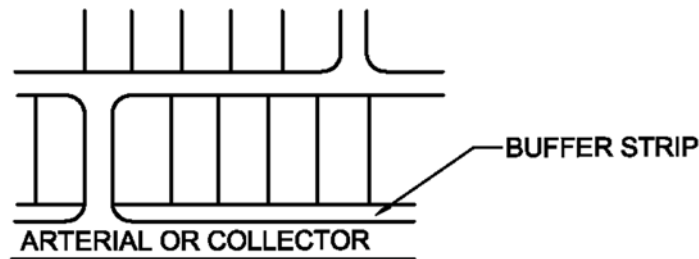
ACCEPTABLE LOT LAYOUT
FIGURE 10.6b



UNACCEPTABLE LOT LAYOUT
FIGURE 10.6c



ACCEPTABLE LOT LAYOUT
FIGURE 10.6d



REVERSE FRONTAGE LOTS
DESIRABLE DESIGN
FIGURE 10.7

10.7 Open Space and Recreation Areas

A. Dedication or Cash Contribution Required

1. The Board of Supervisors shall, at their option, require one of two actions for all subdivisions and land developments:
 - a. Set aside two thousand (2000) square feet of open space and recreation area for each lot or dwelling unit; or
 - b. Pay the Township fee for each newly subdivided lot, excluding the residual lot, or dwelling unit in lieu of setting aside land for open space and

recreation. The Board of Supervisors set this amount as needed by resolution. This cash contribution shall be paid prior to Final Plan approval.

2. This option shall apply to all residential subdivisions (whether major or minor) and land developments as well as nonresidential (commercial, industrial, public and quasi-public uses) subdivisions and developments.
3. The amount of land or cash from non-residential subdivisions and land developments shall be determined by the number of dwelling units that would result if eighty (80%) percent of the tract were occupied by one (1) acre lots for single family dwellings (i.e., 100 acre tract = 80 dwelling units). when the computation of dwelling units results in a fractional number, only the fraction of one-half or more shall be counted as one.

B. Characteristics of Open Space and Recreation Areas

1. Twenty-five (25%) percent of the land set aside for open space and recreation areas shall be less than ten (10%) percent slope and be suitable for active recreation uses.
2. These areas may be dedicated in fee-simple to the Township if dedication is acceptable to the Board of Supervisors.
3. If these areas are not dedicated to the Township, legal entity shall be provided to operate and/or maintain the open space and recreation areas. This entity may include but not be limited to a condominium, cooperative, a home association, trust or corporation.
4. The remedies in section 705(f) in Article VII of the Pennsylvania Municipalities Planning Code, Act 247 as amended, are authorized in this Ordinance and are hereby incorporated by reference.
5. The land donated for recreational use shall be in accordance with principles and standards of this ordinance and shall also be consistent with the Township Recreation Plan.

- C. Characteristics of Cash Contributions. Cash contributions shall only be used for the acquisition of land for open space and recreation areas, or for the development or maintenance of facilities in these areas or in existing Township-owned open space and recreation areas. The fee shall be used for the purpose of providing or maintaining park or recreation facilities accessible to the development(s) making such cash contribution.

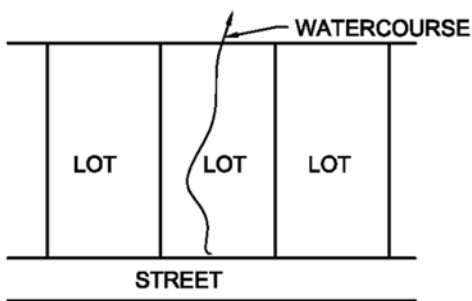
10.8 Storm Water Drainage

A. Design Requirements

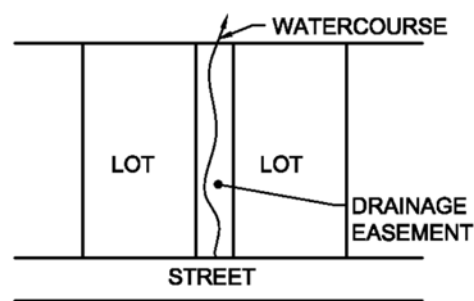
1. Storm drainage facilities shall be designed and provided to convey flow of surface waters without damage to persons or property.
2. Storm drainage facilities should be designed not only to handle the anticipated peak discharge from the property being subdivided or developed, but also the

runoff that will occur from the property at a higher elevation in the same watershed.

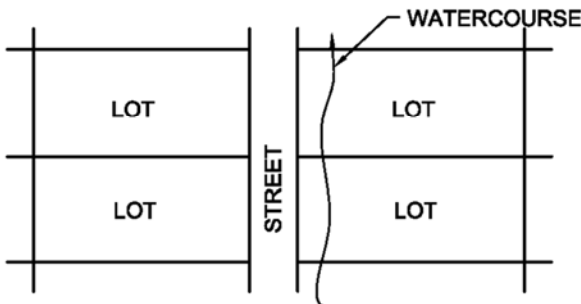
3. All lots shall be laid out and graded to prevent cross lot drainage, to provide positive drainage away from proposed building areas, and to reduce storm water runoff from the land by taking maximum advantage of natural on-site storm water percolation into the soils.
4. An adequate storm sewer system consisting of inlets and other underground drainage structures with approved outlets shall be constructed where the runoff of storm water and the prevention of erosion cannot be accomplished satisfactorily by surface drainage facilities.
5. Outlets shall be approved by the owners of the adjacent properties, by the Township Engineer and by the Board of Supervisors if the rate, volume of water run off or the point of concentration is altered. (See Appendix D)
 - a. Natural drainage courses shall be maintained. (See Figures 10.8.a and b and 10.9.a and b)



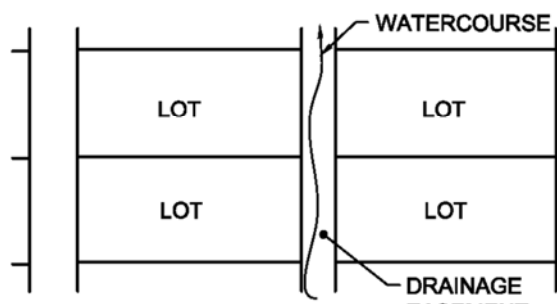
DRAINAGE
UNACCEPTABLE DESIGN
FIGURE 10.8.a



DRAINAGE
ACCEPTABLE DESIGN
FIGURE 10.8.b



DRAINAGE
UNACCEPTABLE DESIGN



DRAINAGE
ACCEPTABLE DESIGN

- b. The existing points of natural drainage discharge onto adjacent property shall not be altered nor shall the rate of water runoff be increased because of development without the written approval of all affected land owners.
- c. No storm water runoff or natural drainage water shall be so diverted as to overload existing drainage systems, or create flooding or the need for additional drainage structures on other private properties or public lands,

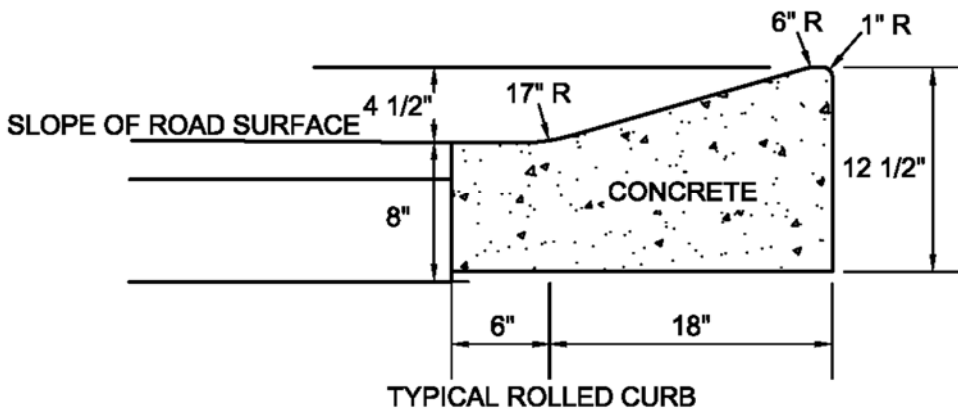
without complete approval of provisions being made by the developer for properly handling such conditions, including water runoff impoundments, if necessary.

6. a. To minimize sheet flow of storm water across lots located on the lower side of roads or streets, and to divert flow away from building areas, the cross-section of the street as constructed shall provide for parallel ditches or swales or curbing on the lower side which shall discharge only at drainage easements.
 - b. Drainage structures that are located on State highway rights-of-way shall be approved by the PA Department of Transportation, and a letter from that office indicating such approval shall be directed to the Commission before Preliminary Plan Approval.
 - c. All streets shall be so designed to provide for the discharge of surface water from their right-of-way. The slope of the crown on proposed streets shall be one quarter ($1/4''$) inch per foot away from the centerline.
 - d. Inlets shall be placed at points of abrupt changes in the horizontal or vertical directions of storm sewers, at points where the flow in gutters exceeds three ($3''$) inches, and at a maximum flow distance of six hundred ($600'$) feet apart and at the sag points of vertical curves. In streets, inlets shall normally be located along the curb line at or beyond the curb radius points. For the purpose of inlet location at corners, the depth of flow shall be considered for each gutter. At intersections, the depth of flow across through streets shall not exceed one ($1''$) inch. The Rational Formula explained in Appendix D, shall be used to calculate the capacities of gutters. PA Department of Transportation C, M, S inlets or equivalents should be used and shall be considered to intercept eighty (80%) percent of the peak runoff from the design storm. Inlets shall be depressed two ($2''$) inches below the grade of the gutter or ground surface. Manholes may be substituted for inlets at locations where inlets are not required to handle surface runoff.
 - e. Storm sewers shall have a minimum diameter of fifteen ($15''$) inches and shall be made of High density polyethylene pipe (HDPE) or reinforced concrete pipe (RCP). Sewers shall be installed on sufficient slopes to provide a minimum velocity of three ($3'$) feet per second when flowing full, or a minimum slope of 0.5%, whichever is greater.
 - f. Headwalls with child proof safety grates shall be used where storm runoff enters the storm sewer horizontally from a natural or man-made channel. The capacity of such storm sewers shall be calculated for both steady flow and culvert design. The lower value of the two shall be used to determine the capacity of the storm sewer.
7. a. Storm sewer facilities may be required in any development situation where the Board of Supervisors, upon review and report of the Township Engineer and recommendation of the Commission, determine that surface drainage

facilities are inadequate to prevent excessive erosion and lot or road maintenance problems.

- b. Whenever storm sewers are required by the Commission and Board of Supervisors, such storm sewer system shall be separate from the sanitary sewer system.
 - c. Vertical pipes, inlets, and other surface water receiving structures shall be installed with trash racks.
 - d. Bridges and culverts shall be designed to support expected loads, to carry expected flows, and to be constructed to the full width of the right-of-way in accordance with PA Department of Transportation Construction Standards.
8. a. Drainage easements shall be provided adjacent to street rights-of-way, streams, side property lines and rear property lines as required by the Commission or Board of Supervisors.
- b. Drainage easements shall be a minimum width of:
 - 1) Ten (10') feet adjacent to a street right-of-way
 - 2) Twenty (20') feet along rear or side lot lines, ten (10') feet on each side on the lot line. Where the lot line coincides with the subdivision boundary a minimum easement width of fifteen (15') feet may be required by the Township, or
 - 3) Fifty (50') feet from the banks of a stream, lake, pond or watercourse.
9. Storm Water Detention Basins
- a. When a stormwater detention basin is required as an engineering solution to meet State, County or local drainage standards, then the detention basin design requirements contained in Appendix D of this Ordinance shall be followed.
 - b. It is the Township policy to accept a dedication of the areas designated as detention ponds under which the Township would assume ownership and control of the subject detention pond.
 - c. In consideration of Washington Township agreeing to accept the conveyance of any detention pond, the Township shall hold a sum of money for a period of twenty-five (25) years in escrow as security in light of any repair, replacement, maintenance, and/or upkeep related to the detention pond.
10. Curbs, Gutters and/or Drainage Swales
- a. Curbs and gutters and/or drainage swales shall be provided as required by the Board of Supervisors, upon the recommendation of the Commission and Township Engineer.
 - b. On-street parking shall be provided on at least one side of a local or marginal access street when curb and gutter are required.

- c. Drainage swales on slopes of seven (7%) percent or more shall be paved, and the Board of Supervisors may require the paving or sodding of drainage swales on less than seven (7%) percent slopes. The minimum slope of drainage swales shall be two (2%) percent.
- d. Minimum curb construction standards are as follows:
 - 1) Straight curbs of Portland cement concrete shall be eighteen (18") inches in depth, six (6") inches wide at the top, and eight (8") inches wide at the bottom, and shall have an exposed face of six (6") inches.
 - 2) Rolled curbs shall be constructed in accordance with the following sketch:



- 3) Expansion joints shall be provided at least every thirty (30') feet. Each expansion joint shall contain one-half (1/2") inch premolded bituminous expansion joint materials. Contraction joints shall be provided at least every ten (10') feet.
- 4) Gutter requirements shall be in conformance with good engineering practice and subject to the approval of the Engineer.
- 5) Portland cement concrete used in the construction of curbs and gutters shall meet the minimum 3000 P.S.I., 28 day strength test according to A.S.T.M. Standards.
- 6) Bituminous paved berm and gutter shall be constructed in accordance with specifications set forth by the Township Engineer.
- e. Rolled curb shall not be used on streets whose grade exceeds six (6%) percent, or on any arterial streets. The transition from one type of curb to another shall be made only at a street intersection, and adequate provision shall be made for driveway entrances.

B. Ownership and Maintenance. A system for the ownership and maintenance responsibilities of all temporary and permanent storm water facilities and erosion and sedimentation control facilities that is satisfactory to the Board of Supervisors shall be established prior to Final Plan approval including:

1. Description of temporary and permanent maintenance requirements.
2. Identification of responsible individual, corporation, association, or other entity for ownership and maintenance of both temporary and permanent stormwater management and erosion and sedimentation control facilities.
3. Establishment of suitable easements for access to all facilities for maintenance.
4. The Township may, at the complete discretion of the Board of Supervisors, decide not to accept an offer by the applicant for Township ownership of stormwater facilities.
5. Stormwater facilities shall be designed to require minimal maintenance.
6. All storm drainage facilities shall be properly maintained by the party designated as responsible on the Final subdivision plan, unless the Board of Supervisors agree to accept a change in the party responsible or the party owning the facility.
7. The Owner(s), their heirs, executors, administrators, and successors and assigns shall make provision for and be personally responsible for strict compliance with all of the aforesaid requirements and any other agreement contained in any and all agreements with the Township. Upon failure by the owner(s) to comply within the time period specified by oral or written notice, or in the event the Township, in its sole and absolute discretion determines the work to be on an emergency nature, the Township may perform such work as may be necessary to bring the Owner(s) into compliance at the Owner's expense and the Owner(s) shall be charged for said administrative expenses, plus any costs expended by the Township if a municipal lien or suit in assumpsit or equity is filed, which expenses the Owner(s) hereby agree to assume and pay.

10.9 Sewage Disposal Systems

A. In General

1. All subdivisions and land developments shall be served with an adequate sewage disposal system (either on-lot or centralized systems) acceptable to the PA. Department of Environmental Protection.
2. All residential lots shall contain a suitable area for on-lot sewage disposal system and a reserved site for a second system or be served by an approved central sewage disposal system. Both the primary and reserved site shall be tested or witnessed by the Township Sewage Enforcement Officer.
3. An approved sewage permit is required for all lots, regardless of size, before development.

B. Centralized Sewage Disposal System

1. When the Board of Supervisors determines upon review of competent data and information that on-site soil conditions are unsuitable for on-lot subsurface disposal systems, the developer shall provide a centralized sewer system.

2. a. The developer may be required to provide sewer connections to a centralized sewer system if determined to be feasible.
 - b. When a County Plan, regional plan, municipal plan or subdivision requirement indicates that construction of sanitary sewers will serve the site within five (5) years, then capped sewers shall be required.
 - c. When a public sanitary sewer system will not be available within five (5) years but will be available within ten (10) years, then a central sewage treatment and disposal system (commonly called a package treatment plant or a central subsurface disposal system) shall be installed by the developer.
 3. The design standards, materials, and specifications of centralized sewage disposal systems shall comply with Appendix E, the current PA Department of Environmental Protection Sewerage Manual, supplements thereto and all other requirements either Federal or State necessary to secure the requisite permit from such agencies.
 4. Any nonpublic sewer services shall be organized in such fashion as to fall within the jurisdiction of the PA Public Utility Commission.
 5. In the event any centralized sewer system is transferred to the Township or a municipal authority, neither the developer nor his assignee shall be entitled to receive compensation or payment therefor. In no event shall the Township or municipal authority be obligated to accept such system by virtue of the provisions of this Ordinance.
- C. On-Lot Sewage Disposal System
1. Where it is not necessary to connect to a centralized sewage disposal system, on-lot systems shall be constructed in accordance with criteria set forth by the PA Department of Environmental Protection.
 2. An adequate number of test pits and soil percolation tests, as determined by the Sewage Enforcement Officer, shall be undertaken to determine the general suitability of soils throughout the subdivision or land development for on-lot subsurface sewage disposal.
 3. The Township Sewage Enforcement Officer's site and soils investigation and favorable report are required prior to unconditional Preliminary Plan approval.

10.10 Water Supply System

- A. In General. All subdivisions and land developments shall be served with an adequate water supply system (either on-lot or centralized system) acceptable to the Authority having jurisdiction such as PA American Water Company, PADEP, Delaware River Basin Commission and the Township.
- B. Centralized Water Supply System
1. Subdividers and land developers shall provide connection to a centralized water system where such system is within one-quarter (1/4) of a mile and connection is feasible.

2. Proposed centralized water systems shall meet the development procedures and requirements of Appendix F of this Ordinance prior to approval of any Final Plan relying upon such system.
3. Any nonpublic water services shall be organized in such fashion as to fall within the jurisdiction of the PA Public Utility Commission.
4. In the event any centralized water system is transferred to the Township or a municipal authority, neither the developer nor his assignee shall be entitled to receive compensation or payment therefor. In no event shall the Township or municipal authority be obligated to accept such system by virtue of the provisions of this Ordinance.
5. Fire hydrants shall be provided in all centralized public and private water supply systems which will serve more than ten (10) lots or dwellings.

C. On-Lot Water Supply System

1. Where it is not necessary to connect to a centralized water supply system, on-lot systems shall be constructed in accordance with criteria set forth by the PA Department of Environmental Protection.
2. Wells should be located no closer than twenty-five (25') feet from any future street right-of-way.

D. Hydrogeologic Report. The Board of Supervisors may require a study of the subsurface water supply. This would primarily apply to developments that propose on-lot water service for the lots and developments that are in areas where water quality or quantity has been identified to be a potential problem. When a study is required, the applicant shall submit an outline of the study to the Township for review by the Township Engineer. The Township Engineer may require additional study elements to satisfy the special concerns of the study area. Upon approval of the study outline, the applicant and his qualified hydrologist or geologist shall complete the study and submit it to the Township.

10.11 Other Utilities

- A. Underground Placement. All electrical power, telephone, cable television, gas, and other utilities shall be placed underground where feasible and in accordance with the current standards of the utility serving the subdivision or development.
- B. Easements. Utility easements of a minimum of ten (10') feet in width shall be provided for electric power, gas, telephone and cable television lines so that each lot or dwelling unit can be served.

10.12 Access Drives and Driveways

- A. Access Drives. Access drives shall be provided for multi-family residential, mobile home parks and all non-residential subdivisions or land developments. Access drives shall be constructed to conform to all requirements of this ordinance for local streets, except that an easement may be provided in lieu of right-of-way and Section 10.12.B, C, D, E, F and G shall apply. However, the Township may permit, after

recommendation by the Planning Commission, a reduction in the width of the access drive easement to no less than thirty (30') feet (fifty (50') feet required if the flag lot can be further subdivided) provided:

1. At least a ten (10') foot wide easement shall be provided on each side of the access drive.
2. The maximum number of flag or keyhole lots shall be one plus ten percent (10%) of the number of lots in the subdivision.
3. The area to be used for the access drive:
 - a. Is physically suitable and usable, free of natural feature obstacles
 - b. Is capable of allowing the free passage of emergency vehicles, service trucks, and other vehicles
 - c. Has grades in conformance with Section 10.12.F.
4. The other requirements of Section 10.12 are met.

(Note: See Section 7.5 Access by Easement provisions for Minor Subdivisions under special conditions.)

- B. Access. Access drives and driveways shall not be permitted to have direct access to state highways unless authorized by the PA Department of Transportation through issuance of a highway occupancy permit. A Township Road Occupancy permit is also required for all access drives and driveways. An access drive shall be used exclusively as a means of ingress and egress for the owners of the subdivided lots and will not be dedicated or offered for dedication to the Township, such restriction shall be included in the deed from the owner or developer to the lot purchaser. These access drives shall not be accepted by the Township as dedicated right-of-ways.
- C. Location. The minimum distance between an access drive or driveway to a street shall be as follows:

Type of Subdivision or Land Development	Distance Between Centerlines of Access Drive or Driveway and Nearest Intersecting Road By Type of Intersecting Road		
	Arterial	Collector	Local
Residential	150 ft.	100 ft.	75 ft.
Nonresidential or Mixed	300 ft.	200 ft.	150 ft.

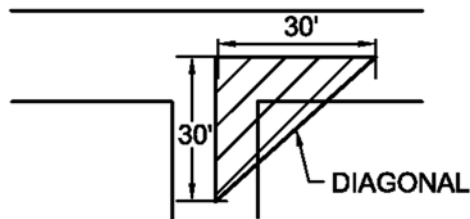
The Plan shall show the location of at least one approvable driveway access from an existing or proposed street to each proposed lot. Driveway locations shall be shown on the plan, available sight distance must be noted.

D. Sightlines at Intersections of Driveways or Access Drives with Streets

1. A triangular area as defined in Section 10.12.D.3 shall be graded and shall be free of sight obstructions so that vision between a height of from two to ten (2'-10')

feet above the centerline grades of the intersecting driveway, accessway, or streets is not obscured.

2. By means of deed restriction, lease restriction, or plan amendment (whichever method is applicable), vegetation shall not be planted or allowed to grow in such a manner so as to obscure vision between a height of from two to ten (2'-10') feet above the centerline grades of the intersecting driveway, accessway, to streets within the triangular area defined in Section 10.12.D.3.
3. Such triangular area shall be bounded by the intersecting driveway, accessway, or street centerlines and a diagonal connecting two points, one which is at each end of the centerline of each driveway, accessway, or street thirty (30') feet from the intersection of such centerlines.



E. Sight Distances of Driveways or Access Drives on State Highways

1. Access drives shall be located so that the operator of a vehicle departing from the driveway has adequate clear sight distance in either direction along the highway.
2. Minimum sight distances shall be based upon standards of the PA Department of Transportation.
3. The applicant shall be responsible for any traffic signs recommended by PennDOT related to the proposed access drives and driveways.

F. Grades

1. Within the first fifty (50') feet extending from the street right-of-way, grades of access drives or driveways shall not exceed:
 - a. Seven (7%) percent when access is to an arterial street
 - b. Ten (10%) percent when access is to a collector or local street
2. In no case shall the grades of access drives or driveways exceed fifteen (15%) percent.

- G. Maintenance. The maintenance of access drives shall be guaranteed by the owner or developer by means of covenants in all deeds to lot purchasers or other means acceptable to the Township, and shall be further evidenced by an agreement, to be recorded in the Office for the Recording of Deeds for Northampton County, between

the owner or developer and the Township to the effect that the maintenance of means of access to the subdivision shall not be the responsibility of the Township but shall be the sole responsibility of the developer or owner, his heirs and assigns in accord with deeds and agreements of record. However, if the developer has a recorded agreement whereby the responsibility for the maintenance of a roadway falls upon a group of landowners including the owner or developer, his heirs and assigns, then this section shall be not construed to require the owner or developer to provide for the sole maintenance of the roadway.

- H. Street Drainage. The developer shall make adequate provisions to maintain uninterrupted parallel drainage along a public street where intersected by an access drive or driveway.
- I. REFERENCE DOCUMENTS. Additional guidance can be provided by the LVPC Access Management Best Practice Manual and the LVPC Street Connectivity Guide.

10.13 Off-Street Parking and Loading

- A. Every land development or subdivision shall provide a minimum number of off-street parking and loading spaces required by the Zoning Ordinance.
- B. Off-street parking or loading spaces may be in an individual garage, carport, or driveway or in a common parking area outside the street right-of-way, convenient to the dwelling units or use to be served and shall be installed concurrently with the construction of the dwelling units.

10.14 Sidewalks and Pathways

- A. Sidewalks or pathways shall be required in all residential developments where density exceeds five (5) dwelling units per acre.
- B. In other subdivisions or land developments, sidewalks or pathways may also be required by the Board of Supervisors.
- C. Location
 - 1. Sidewalks, where required or provided, shall be located within the street right-of-way and no closer than one (1') foot from the right-of-way line nor closer than three (3') feet from the curb line.
 - 2. A grass planting strip shall be planted between the curb and sidewalk.
 - 3. Sidewalks, when required, shall be placed on each side of the street where development occurs.
- D. Width
 - 1. Sidewalks shall be a minimum width of:
 - a. Five (5') feet along arterial streets
 - b. Four (4') feet along collector or local streets, access drives, and driveways
 - 2. Pathways shall be a minimum width of four (4') feet.
- E. Required Construction

1. Sidewalks shall be Portland cement concrete of at least four (4") inches thick underlain by four (4") inches of compacted gravel or crushed stone.
2. Sidewalks at driveway crossings shall be at least six (6") inches thick, reinforced and underlain by six (6") inches of compacted gravel or crushed stone. Provide welded wire fabric reinforcement made of W4 or W4.5 wire at 6 inch centers transversely and longitudinally. Secure fabric reinforcement at half-depth of cement concrete.
3. Pathways shall be Portland cement concrete or bituminous of at least four (4") inches thick underlain by four (4") inches of compacted gravel or crushed stone. Alternative methods of construction for pathways may be approved by the Board of Supervisors upon recommendation from the Planning Commission.

10.15 Street Lighting

- A. The developer shall be required to provide street lights when the Board of Supervisors deems them necessary to provide safe traffic circulation.
- B. Such lights shall meet design standards established by the Board of Supervisors. For residential subdivisions and land developments, the Board of Supervisors current standard is the Metropolitan Edison Electric Company "Distribution Engineering Practices Installation Specification for Residential Development Street Lighting Overhead or Underground Service". See Appendix.

10.16 Signs

- A. The developer shall provide the subdivision or land development with adequate street signs at the intersection of all streets and with any other signs required by PennDOT and the Board of Supervisors.
- B. Sign style, color, and lettering, shall be subject to the approval of the Board of Supervisors.

10.17 Traffic Signals and Signs

- A. The developer shall be required to provide traffic signals and signs when the Board of Supervisors, after review and recommendation of the commission, deems them necessary to provide safe traffic conditions.
- B. Such traffic signals and signs shall meet current design standards as established by the PA Department of Transportation.

10.18 Monuments and Markers

- A. Monuments
 1. Monuments shall consist of either:
 - a. Concrete or stone with a minimum size of four (4") inches by four (4") inches by thirty-six (36") inches, and shall be marked on top with a one-quarter (1/4") inch round steel pin, or a drilled hole.
 - b. Such other monuments as the Township Engineer may approve.

2. Placement

- a. All monuments shall be placed by a Professional Land Surveyor, licensed to practice in the Commonwealth of Pennsylvania.
- b. Monuments shall be placed so that the center of a scored or marked point shall coincide exactly with the intersection of the lines to be marked.
- c. Monuments shall be placed flush with the ground.
- d. Monuments shall not be placed until road grading has been completed.
- e. Monuments shall be set as follows (this section does not apply to residual tracts which are greater than ten (10) acres):
 - 1) One at each angle of the perimeter of the property on all major subdivisions and land developments.
 - 2) At least two (2) monuments shall be required for each minor subdivision. These monuments shall be contiguous to the right-of-way line of a public street, the parcel being subdivided out and the remaining tract of land.
 - 3) One at the beginning and end of all curves along street right-of-way lines along one side of the street.
 - 4) A minimum of one at each corner street intersection along the street right-of-way line

B. Markers

1. Markers shall consist of either:

- a. Solid steel rods not less than three-quarters ($3/4$ ") inch in diameter or less than twenty-four (24") inches in length
- b. Steel pipes not less than three-quarters ($3/4$ ") inch in diameter or less than twenty-four (24") inches in length
- c. Such other markers as the Township Engineer may approve.

2. Placement

- a. Markers shall be placed so that the center of a scored or marked point shall coincide exactly with the intersection of the lines to be marked.
- b. Markers normally shall be set two (2") inches above the surrounding grade.
- c. Markers shall be set as follows (this section does not apply to residual tracts which are greater than ten (10) acres):
 - 1) At all points where lot lines intersect street right-of-way lines, except for monument locations.
 - 2) At all other lot corners
 - 3) At all points where lot lines intersect curves.
 - 4) At the beginning and end of all curves along street rights-of-way lines along the opposite side of the street from a monument.

5) At all angles in property lines of lots

- C. Replacement. Any monuments or markers that are removed shall be replaced by a Professional Land Surveyor, licensed to practice in the Commonwealth of Pennsylvania at the expense of the person removing it.

10.19 Landscaping

- A. Street Trees. Within and abutting all land developments and major subdivisions, along any existing or proposed street, or any access drive serving more than one commercial, industrial or institutional principal use or any access drive serving 5 or more dwelling units, street trees are required to be planted. However, street trees shall not be required: 1) along a single family detached residential lot or agricultural lot with a lot area of greater than 3 acres, or 2) where the Township determines that existing healthy trees proposed to be preserved will serve the same function.
1. The Board of Supervisors may approve other species of trees than those listed below if the applicant proves to the satisfaction of the Supervisors that the trees would be sturdy, attractive and resistant to disease and road salt.
 2. A tree required by this Section shall be of the following species. This list shall not regulate types of trees that are not required to be planted by this Ordinance.

Acer rubrum – American Red Maple

Acer saccharum – Sugar Maple

Carpinus – Hornbeam

Celtis occidentalis – Common Hackberry

Fagus sylvatica – European Beech

Gleditsia triacanthos – Thornless Locust or Honey Locust

Prunus sargentii – Sargent Cherry

Quercus – all varieties of Oak

Sophora japonica – Scholar Tree/Pagoda Tree

Tilia americana – American Linden

Tilia petiolaris – Silver Linden

Tilia euchlora – Crimean Linden

Tilia cordata – Little Leaf Linden

Ulmus – hybrids: Homestead or Sapporo Autumn Gold Elms

Ulmus parviflora – Chinese or Lacebark Elm, not including Siberian Elm

Zelkova serrata - Zelkova

- a. If more than 10 trees are required to be planted, then no more than 50 percent shall be of one species.
3. Quality of Trees.
 - a. Trees shall be of symmetrical growth, free of insect pests and disease and durable under the maintenance contemplated.
 - b. Trees which have died or have become diseased or pest-ridden within 18 months from the time of planting shall be replaced by the developer.
4. Minimum Sizes and Standards. The trunk diameter (measured at a height of 4.5 feet above the finished grade level) of deciduous shade trees required by this Ordinance shall be a minimum of 2.5 inches. The minimum height above the ground level at the time of planting of evergreen trees required by this Ordinance shall be 6 feet.
5. Planting and Maintenance.
 - a. Trees shall be planted in conformance with good landscaping practices.
 - b. Trees adjacent to or within parking areas shall be properly protected from damage by vehicles by raised curbs, raised earth, protective devices and/or sufficient setback.
 - c. Required trees shall be properly maintained and shall not be removed without being replaced by another tree that meets the requirements of this section.
 - d. A covenant must be placed on the recorded plan(s) indicating any street trees required by this Ordinance must be owned and properly maintained by the lot owner unless a Homeowners Association is in place, in which case the Homeowners Association must be responsible. Any street trees which become unhealthy or are removed must be replaced by the lot owner or Homeowners Association with a street tree meeting the requirements of this Ordinance.
6. Required Number and Spacing of Street Trees.
 - a. Along streets and access drives where street trees are required, an average of one street tree shall be required for every 50 feet of distance along the street right-of-way line on each affected side of the street. Where a right-of-way does not exist, an average of one street tree shall be required for every 50 feet of length of cartway.
 - b. Spacing. The trees required under this Section shall be spaced throughout the development along the street, but are not required to be planted at exact intervals and may be clustered following an approved plan. Trees shall be located so that they do not restrict sight distance at driveway and street intersections.
7. Location of Street Trees. The trunks of required street trees shall be planted outside of the street right-of-way, but within the front yard area unless an

alternative location is specifically approved by the Township or required by PennDOT. Where trees are not allowed in a location because of a sight distance issue, the trees shall be planted at other locations on the tract.

8. Other Requirements. The street trees required under this Section shall be in addition to any trees required under other Township regulations. The planting of street trees shall follow good nursery practices, and may be require to include staking. Trees shall be properly watered and fertilized.

ARTICLE 11

MOBILE HOME PARK DESIGN STANDARDS AND REQUIRED IMPROVEMENTS

11.1 Application

- A. The design standards and required improvements set forth in this Article will be applied by the commission and the Board of Supervisors in evaluating any application for a Mobile Home Park which is on a tract held in single ownership and provides mobile home spaces on a lease or rental basis.
- B. Mobile home parks proposed to be developed for sale of lots shall be designed in accordance with all requirements set forth for single family residential development.
- C. Every proposed mobile home park shall be submitted, reviewed, approved and recorded as either a land development or major subdivision.
- D. Where there are conflicts between this Article and Township Ordinance No. 157, in regard to Mobile Home park Design standards and required improvements, the provisions of this Article shall apply.

11.2 Exemptions

The provisions of this Article shall not apply to:

- A. The business of mobile home sales, provided that the mobile home shall not be occupied.
- B. The storage or garaging of mobile homes not being used for living or sleeping purposes within a building or structure.
- C. A single mobile home used as a residence on a lot with no other dwellings.
- D. A mobile home located on the site of a construction project, survey project, or other similar work project and used solely as a field office, or work office or tool house in connection with such project, provided such mobile home is removed from said site within thirty (30) days after the completion of such project.
- E. Travel trailer camps which are regulated by Township Ordinance No. 157.

11.3 Contents, Submission and Review of Plans

The provisions of Articles 4, 5, 6, 8 and 9 shall apply with respect to the contents, submission and review of Mobile Home Park Plans.

11.4 General Standards and Requirements

- A. All Mobile Home Parks shall have a total land area of not less than ten (10) acres and a maximum overall density of no more than five (5) mobile homes per acre.
- B. All Mobile Home Parks shall be located on land where the average natural slope of the area of the site intended for development shall not exceed twelve (12%) percent.
- C. All Mobile Home Parks shall have centralized sewer and water.

- D. All Mobile Home Parks shall have a twenty (20') feet, planted buffer yard around the perimeter of the site. The buffer yard shall be provided in accordance with Sections 10.19.C.2. and 10.19.C.3.
- E. No proposed homes within the proposed Mobile Home Park shall be placed in flood prone or flood hazard areas. The proposed Mobile Home Park shall have access to paved public streets or roads.
- F. All mobile homes shall comply with applicable local and State safety standards.
- G. The Mobile Home Park shall be in conformance with all applicable provisions of the Township Zoning ordinance, except for those requirements specifically outlined herein.

11.5 Design Standards

A. Spacing of Mobile Home Units

- 1. No mobile home shall be located so that the long side of any home is closer than twenty-five (25') feet to any portion of any other mobile home or permanent building in the Mobile Home Park. No mobile home shall be located so the short portion of any home is closer than twenty (20') feet to the short portion of any other mobile home, or between the rears of two long sides of abutting homes.
- 2. No more than six (6) homes in a row shall have the same setback; Where varied setbacks are utilized, the difference shall be at least four (4') feet.
- 3. No mobile home shall be located so that any portion of any mobile home is closer than five (5') feet to any common parking court, nor twenty-five (25') feet from the edge of any access road, street or parking court aisle.

B. Access

- 1. General Requirements. A safe and convenient vehicular access shall be provided from abutting public streets or roads.
- 2. Access to mobile home spaces shall be from interior driveways, access drives, or private streets and shall not be from public streets or roads. Entrance roads shall have a paved cartway width of at least twenty-six (26') feet and access drives shall have a paved cartway width of at least twenty-four (24') feet. Access drives and driveways shall conform to the requirements of Section 10.12.
- 3. All streets with the Mobile Home Park which are offered for dedication shall conform to the requirements for streets contained in Section 10.4.
- 4. Access to internal streets of mobile home parks shall be designed to minimize congestion and hazards at the entrance or exit and allow free movement of traffic on adjacent streets. Streets shall have a minimum road pavement width of thirty-six (36') feet where parking is permitted on both sides, or a minimum road pavement width of twenty-eight (28') feet where parking is limited to one side. Where the primary entrance road is more than one hundred (100') feet long and does not provide access to abutting mobile home lots within such distance, the minimum road pavement width may be twenty-four (24') feet, provided parking

is prohibited on both sides. The above listed street widths may be reduced by two (2') feet if an adjacent sidewalk is provided. A street serving less than ten (10) mobile homes shall have a minimum width of eighteen (18') feet, provided on-street parking is prohibited.

5. Intersections - Within one hundred (100') feet of an intersection, streets shall be at approximately right angles. A distance of at least one hundred fifty (150') feet shall be maintained between center lines of offset intersecting streets. Intersections of more than two (2) streets at one point shall be avoided.

C. Parking

1. Every mobile home space shall be provided with a minimum of two (2) paved off-street parking spaces, with a minimum width of ten (10') feet and a minimum length of twenty (20') feet per parking space.
2. Parking courts may be used to meet off-street parking requirements.

D. Walks and Pedestrian Ways

1. General Requirements - All parks should provide safe, convenient, all-season pedestrian access of adequate width for intended use, durable and convenient to maintain, between individual mobile homes, the park streets, and all community facilities provided for park residents. Sudden changes in alignment and gradient shall be avoided.
2. Common Walk System - Where a common walk system is provided and maintained between locations, and where pedestrian traffic is concentrated, such common walks shall have a minimum width of three and one-half (3 ½') feet.
3. Individual walks - All mobile home stands shall be connected to common walks, or to streets, or to driveways or parking spaces connecting to a paved street. Such individual walks shall have a minimum width of two (2') feet.

E. Street Trees and Screening

1. Street trees shall be provided in accordance with Section 10.19.A.
2. Street trees shall not be located any closer than ten (10') feet from the paved cartway.
3. All mobile home parks shall provide screening such as natural growth along the property boundary line separating park and adjacent property. The screening shall be at least ten (10') feet wide and six (6') feet high or as required by the topography. A landscaping plan shall be submitted, with the Final plans, showing the location, size and specie of all trees and shrubs to be preserved or planted.

F. Open space

1. Every Mobile Home Park shall provide common open space areas, excluding required buffer areas, which total at least twenty (20%) percent of the area of the total site. Such open space areas shall be improved so as to be accessible for recreational purposes to all families within the development.

2. At least one-half (1/2) of the required common open space shall consist of areas of adequate size, shape, slope, soil type and other physical characteristics suitable for outdoor passive and active recreational use or be improved to ensure suitability for such use.
3. The area provided for common open space shall be in addition to the required buffer yard around the perimeter of the Mobile Home Park.

G. Required Water Service

1. General Requirements - An adequate supply of water shall be provided for mobile homes, service buildings, and other accessory facilities as required by this Ordinance. Where a public water supply system of satisfactory quantity, quality and pressure is available, or can feasibly be extended, connection shall be made thereto and its supply shall be used exclusively. Where a satisfactory public water supply system is not available, the development of a private central water supply system shall be approved by the Pennsylvania Department of Environmental Protection, by the (appropriate municipal agency) and by other authorities having jurisdiction. Individual on-lot water sources are prohibited.
2. Source of Supply
 - a. The water supply shall be capable of supplying a minimum of one hundred fifty (150) gallons per day per mobile home.
 - b. The source of supply and distribution system shall also be adequate for fire protection and shall comply with the National Fire Protection Association Standard NFPA No. 501A.
3. Water Storage Facilities - All water storage reservoirs shall be covered, watertight and constructed of impervious material. Over flows and vents of such reservoirs shall be effectively screened. Manholes shall be constructed with overlapping covers, so as to prevent the entrance of contaminated material. Reservoir overflow pipes shall discharge through an acceptable air gap.
4. Water Distribution System
 - a. All water piping, fixtures and other equipment shall be constructed and maintained in accordance with state and local regulations.
 - b. The water piping system shall not be connected with non-potable or questionable water supplies and shall be protected against the hazards of backflow or back-siphonage.
 - c. The system shall be so designed and maintained as to provide a pressure of not less than twenty (20) pounds per square inch, under normal operating conditions, at service buildings and other locations requiring potable water supply.
5. Individual Water-Riser pipes and Connections
 - a. Individual water-riser pipes shall be located within the confined area of the mobile home stand at a point where the water connection will approximate a

vertical position, thereby ensuring the shortest water connection possible and decreasing susceptibility to water pipe freezing.

- b. The water-riser pipe shall have a minimum inside diameter of three-quarter (3/4") inch and terminate at least four (4") inches above the ground surface. The water outlet shall be provided with a cap when a mobile home does not occupy the lot.
- c. Adequate provisions shall be made to prevent freezing of service lines, valves and riser pipe and to protect risers from heaving and thawing actions of ground during freezing weather. Surface drainage shall be diverted from the location of the riser pipe.
- d. A shut-off valve below the frost line shall be provided near the water-riser pipe on each mobile home lot. Underground stop-and-waste valves are prohibited unless their type of manufacture and their method of installation are approved by the Township Zoning Officer.

H. Required Sewage Disposal

1. General Requirements - An adequate and safe sanitary sewerage system shall be provided for conveying and disposing of sewage from all mobile homes, service buildings, and other accessory facilities. Where a public sanitary sewerage system is available, connection shall be made thereto and it shall be used exclusively. Where a public system is not available, a private central sewage treatment plant shall be installed, approved by the Pennsylvania Department of Environmental Protection, and by the Township's Sewage Enforcement Officer. Individual on-lot sewage disposal systems are prohibited.
2. Individual Sewer Connections
 - a. Each mobile home stand shall be provided with at least a four (4") inch diameter sewer riser pipe. The sewer riser pipe shall be so located on each stand that the sewer connection to the mobile home drain outlet will approximate a vertical position.
 - b. The sewer connection from the sewerage system to the mobile home unit shall have a nominal inside diameter of not less than four (4") inches, and the slope of any portion thereof shall be at least one-fourth (1/4") inch per foot. All joints shall be watertight.
 - c. All materials used for sewer connections shall be semi rigid, corrosive resistant, non-absorbent and durable. The inner surface shall be smooth.
 - d. Provision shall be made for plugging the sewer riser pipe when a mobile home does not occupy the site. Surface drainage shall be diverted away from the riser. The rim of the riser pipe shall extend at least one-half (1/2") inch above ground elevation.

I. Required Fuel Supply and Storage

1. Natural Gas Systems

- a. Natural gas piping systems when installed in mobile home parks shall conform to the rules and regulations of the American Gas Association.
 - b. Each mobile home lot provided with piped gas shall have an approved shutoff valve installed upstream of the gas outlet. The outlet shall be equipped with a cap to prevent accidental discharge of gas when the outlet is not in use.
2. Liquefied Petroleum Gas Systems - Liquefied petroleum gas systems provided for mobile homes, service buildings or other structures, when installed, shall be maintained in conformity with the rules and regulations of the National Fire Prevention Association Standard NFPA No. 57 and No. 58.
- a. Systems shall be provided with safety devices to relieve excessive pressures and shall be arranged so that the discharge terminates at a safe location.
 - b. Systems shall have at least one accessible means for shutting off gas. Such means shall be located outside the mobile home and shall be maintained in effective operating condition.
 - c. All liquefied petroleum gas piping outside of the mobile homes shall be well supported and protected against mechanical injury. Undiluted liquefied petroleum gas in liquid form shall not be conveyed through piping equipment and systems in mobile homes.
 - d. Vessels of more than twelve (12) and less than sixty (60) U.S. gallons gross capacity may be installed on a mobile home lot and shall be securely but not permanently fastened to prevent accidental overturning.
 - e. No liquefied petroleum gas vessel shall be stored or located inside or beneath any storage cabinet, carport, mobile home or any other structure.
3. Fuel Oil Supply Systems
- a. All fuel oil supply systems for mobile homes, service buildings and other structures shall be installed and maintained in conformity with the rules and regulations of the National Fire Protection Association Standards NFPA No. 31.
 - b. All piping from outside fuel storage tanks or cylinders to mobile homes shall be securely, but not permanently, fastened in place.
 - c. All fuel oil supply systems provided for mobile homes, service buildings and other structures shall have shutoff valves located within five (5") inches of storage tanks.
 - d. All fuel storage tanks or cylinders shall be securely placed and shall be not less than five (5') feet from any mobile home exit.
 - e. Storage tanks located in areas subject to traffic shall be protected against physical damage.
- J. Required Fire Hydrants

1. Fire hydrants shall be installed. All fire hydrant thread connections are to comply with legal requirements.
 - a. The water supply source shall permit the operation of a minimum of two (2) one and one-half (1-1/2") inch hose streams.
 - b. Each of two nozzles, held four (4') feet above the ground, shall deliver at least seventy-five (75) gallons of water per minute at a flowing pressure of at least thirty (30) pounds per square inch at the highest point of the park, for a period of at least twenty (20) minutes.
2. a. Fire hydrants shall be located within five hundred (500') feet of any mobile home, service building or other structure in the park.

K. Other Design Standards and Improvements

1. Every mobile home space shall be graded to provide a level, stable, and well-drained stand for the mobile home.
2. a. For double wide mobile homes, ten (10") inch diameter concrete piers or equivalent, shall be installed from ground level to below the frost line (36 inches minimum) and shall be appropriately spaced along each of the two main longitudinal frame sections for each section of the home. Reuse of existing piers may be permitted. Concrete blocks shall be used to support the home on the concrete piers and wood shims may be used for final leveling.
 - b. For single wide mobile homes, concrete blocks shall be used to support the home from ground level and wood shims may be used for final leveling.
3. Every mobile home in the park shall be enclosed from the bottom of the mobile home to the ground or stand using industry-approved skirting material compatible with the home.
4. Every mobile home space in the Mobile Home Park shall be provided with connections to an adequate supply of potable water and to a centralized sewage disposal system which conforms to the standards required in Article 10 of this Ordinance.
5. Every space shall be provided with underground electric, telephone, and cable television (if available) service.
6. Every mobile home shall be securely anchored or tied-down on at least the four (4) corners and also in accordance with the manufacturers recommendations furnished with each home.
7. Each Mobile Home Park shall provide such other improvements as the Board of Supervisors may require which are in the best interests of the public's health, safety and general welfare and the purposes of this Ordinance. Such improvements may include garbage and trash collection, removal and disposal as approved by the PA Department of Environmental Protection; adequate park lighting system; maintenance of all areas; and any improvement listed in Article 10.

8. Site Drainage Requirements

- a. The ground surface in all parts of every park shall be graded and equipped to drain all surface water in a safe, efficient manner. Design of storm water drainage facilities shall comply with the guidelines contained in the Lehigh Valley Planning Commission publication, "Drainage and Flood Plains."
- b. Surface water collectors and other bodies of standing water capable of breeding mosquitoes and other insects shall be eliminated or controlled in a manner approved by the Pennsylvania Department of Environmental Protection.
- c. Waste water from any plumbing fixture or sanitary sewer line shall not be deposited upon the ground surface in any part of a mobile home park.

9. Soil and Ground Cover Requirements

- a. Exposed ground surfaces in all parts of every park shall be paved, or covered with stone screenings, or other solid material, or protected with a vegetative growth that is capable of preventing soil erosion and the emanation of dust during dry weather.
- b. Park grounds shall be maintained free of vegetative growth which is poisonous or which may harbor rodents, insects, or other pests harmful to man.

APPENDIX A
APPLICATION FORM

WASHINGTON TOWNSHIP

1021 Washington Blvd.
Bangor, Pa. 18013

Phone 610-588-1524

Fax 610-588-0245

Zoning Department

Application for Subdivision or Land Development

A. GENERAL INFORMATION:

Date of Application: _____

Name of Subdivision/Submission: _____

Location: _____

B. PLOT INFORMATION:

Parcel ID: _____

Zoning District: _____

Total Acres: _____

Number of Lots: _____

Minimum Lot Size: _____

Proposed Plot

Improvements: _____

C. SUBMISSION:

- Major Subdivision (4 Lots or more)
- Land Development
- Lot line Adjustment
- Minor Subdivision (3 Lots or less)
- Site Plan Review

D. PLAN:

- New
- Revised
- Preliminary /Final
- Preliminary
- Sketch
- Alternate

E. OWNER/APPLICANT/ENGINEER:

Applicant's Name: _____ **Phone:** _____

Address: _____ **City:** _____ **State:** _____ **Zip:** _____

Property Owner's Name: _____ **Phone:** _____

Address: _____ **City:** _____ **State:** _____ **Zip:** _____

Engineer's Name: _____ **Phone:** _____

F. INSTRUCTIONS:

THE FOLLOWING ITEMS SHALL BE SUBMITTED NOT LATER THAN 21 DAYS PRIOR TO THE MEETING:

Township Planning Commission Meetings are held on the third Tuesday of the month.

(Incomplete applications will not be accepted.)

(Please check when completed)

Ten (10) copies of each:

- Completed Application Form
- All supporting documents
- Affidavit of Posting

(Property must be posted at least 14 days before the meeting)

One (1) copy of each:

- Electronic copy of the entire submission package in PDF format or equivalent
(Contained in a CD, E-Mail, or equivalent)

Check or Money Order:

- Required fee – *(Check or Money Order is to be made payable to "Washington Township".)*

G. DISCLAIMER: *The Township reserves the right to require additional information and additional copies of the Plans. Initial fees are non-refundable. Any charges over and above the initial fees are the responsibility of the applicant and must be paid in full, prior to the release of the signed final approved plans.*

I, the undersigned, hereby certify that all of the information provided in this application is true and correct and I hereto agree to the terms and conditions set forth in this application.

Applicant's Signature: _____ **Date:** _____

(FOR OFFICE USE ONLY)

Fee(s) \$ _____

Check Number: _____

Received By: _____

Date: _____

WASHINGTON TOWNSHIP

1021 Washington Blvd.

Bangor, Pa. 18013

Phone 610-588-1524

Fax 610-588-0245

Zoning Department

NOTICE TO ALL APPLICANTS FOR SUBDIVISION AND/OR LAND DEVELOPMENT

The Applicant for Subdivision and/or Land Development must post the property involved 14 days prior to the scheduled Planning Commission meeting in accordance with Section 3.3 B.3.

The Applicant shall provide an Affidavit of Posting prior to the acceptance of the submission by the Planning Commission for review.

Failure of the Applicant to post the property and submit the affidavit of posting will require Washington Township to advertise once each week for two successive weeks in a newspaper of general circulation within the municipality. The first publication shall not be more than 30 days and the second publication shall not be less than 7 days before the Planning Commission meeting.

Advertising will require the hearing to be held the month after submission in order to comply with the Public Notice requirements of the SALDO and MPC.

The cost of the advertising shall be the responsibility of the Applicant.

NOTICE OF PUBLIC MEETING

WASHINGTON TOWNSHIP PLANNING COMMISSION

SCHEDULED MEETING: Beginning at 7:00 PM
on _____, 20_____

LOCATION: The Washington Township Municipal Building
1021 Washington Blvd., Bangor, PA.

WILL CONSIDER REVIEW OF: Sketch Plan – Preliminary Plan - Preliminary/Final
Or Land Development Plan Submission

_____ Subdivision – Land Development

DESCRIPTION: _____

UNIFIED PARCEL I.D. MAP _____ **BLOCK** _____ **LOT** _____

APPLICANT:

OWNER OF RECORD:

Affidavit of Posting

Re: Posting of Premises Located at _____,

Washington Township, Northampton County, Pennsylvania.

NOTICE OF PUBLIC MEETING FOR SUBDIVISION AND/OR LAND DEVELOPMENT

Subdivision/Land Development Name: _____

Unified Parcel I.D. Map _____ Block _____ Lot _____

Owner of Record: _____

Applicant (if other than owner): _____

I, the undersigned, hereby certify that on the _____ day of _____ 20_____, at _____ hours that I personally posted the premises, at _____, Washington Township, Northampton County, Pennsylvania.

Print Name

Signature

APPENDIX B
PLAN CHECKLISTS

Sketch Plan Checklist

General Submission items:

- 1. Ten (10) copies of the completed Application Form
- 2. Ten (10) copies of the Sketch Plan Checklist
- 3. Ten (10) copies of the Sketch Plan (Prints 24" x 36")
- 4. One (1) copy of the Sketch Plan (11' x 17')
- 5. One (1) electronic copy of the entire submission package in PDF format or equivalent
- 6. Ten (10) copies of all supporting documents
- 7. Submission to LVPC (applicant option)
- 8. The required fee (in accordance with the Township fee schedule)
- 9. Affidavit of Posting or Proof of Publication

Applicant:

Name: _____

Address: _____

Telephone: _____

Applicant's Statement:

I hereby certify all of the above information is included in this application.

Applicant's Signature: _____ Date: _____

Note: The Township may require the submission of additional copies of the Plan and other information.

Appendix B. 1
Minor Subdivision
Final Plan Checklist

A. Property Information:

1. Property Location: _____
2. Property Owner's Name: _____ Phone: _____
3. Property Owner's Address: _____
4. Applicant's Name: _____ Phone: _____
5. Applicant's Address: _____

B. General Submission Items:

- | | | |
|------------------------------|------------------------------|--|
| <input type="checkbox"/> Yes | <input type="checkbox"/> N/A | 1. Ten (10) copies of completed Application form. |
| <input type="checkbox"/> Yes | <input type="checkbox"/> N/A | 2. Ten (10) copies of the Preliminary/Final Plan Checklist. |
| <input type="checkbox"/> Yes | <input type="checkbox"/> N/A | 3. Ten (10) copies of Preliminary/Final Plan (Prints 24" x 36"). |
| <input type="checkbox"/> Yes | <input type="checkbox"/> N/A | 4. One (1) copy of the Preliminary/Final Plan (11" x 17"). |
| <input type="checkbox"/> Yes | <input type="checkbox"/> N/A | 5. One (1) electronic copy of the entire submission package in PDF format or equivalent. |
| <input type="checkbox"/> Yes | <input type="checkbox"/> N/A | 6. Ten (10) copies of all supporting documents. |
| <input type="checkbox"/> Yes | <input type="checkbox"/> N/A | 7. Seven (7) sets of Planning Module. |
| <input type="checkbox"/> Yes | <input type="checkbox"/> N/A | 8. Review letter from PennDOT (if applicable). |
| <input type="checkbox"/> Yes | <input type="checkbox"/> N/A | 9. The required fee (in accordance with the Township fee schedule). |
| <input type="checkbox"/> Yes | <input type="checkbox"/> N/A | 10. Affidavit of Posting or Proof of Publication. |
| <input type="checkbox"/> Yes | <input type="checkbox"/> N/A | 11. Prepared Response letter from Professional Engineer/Surveyor/Landscape Architect. |

C. Specific Plan Requirements – Drafting Standards:

- Yes N/A 1. Drawings at a size of 24" x 36" and 11" x 17". Other sizes may be permitted if approved by the Township Engineer.
- Yes N/A 2. Written and graphic scales as approved by the Township Engineer. Typical acceptable scales are 1"=20', 1"=30', 1"=40', 1"=50', 1"=60', and 1"=100' or similar.
- Yes N/A 3. Dimensions set in feet and decimal part thereof and bearings in degrees, minutes, and seconds.
- Yes N/A 4. Sheets numbered and showing relationship to total number of sheets.
- Yes N/A 5. An adequate legend indicating clearly which features are existing and which are proposed.
- Yes N/A 6. Revisions noted, if Plan is a revision of previously submitted plan.
- Yes N/A 7. A boundary line shown as a solid heavy line.

D. General Information:

- Yes N/A 1. Name and location of subdivision.
- Yes N/A 2. Name and address of:
Landowner.
Developer.
Corporate officers and major shareholders.
Adjourning property owners.
- Yes N/A 3. Executed Owner's Statement (see Appendix C).
- Yes N/A 4. Name, address, signature and seal of the licensed engineer or surveyor and Executed Engineer's/Surveyor's Statement (see Appendix C).
- Yes N/A 5. Approval/review signature blocks for:
Township Supervisors.
Township Planning Commission.
Township Engineer.
3" x 5" space for Lehigh Valley Planning Commission's approval seal.
- Yes N/A 6. Location map at a scale of 1" = 2,000' (or other scale acceptable to the Township Engineer) showing the relation of the site to streets and all Zoning District and Municipal boundaries within five hundred (500') feet.
- Yes N/A 7. Graphic and/or written scale.

- Yes N/A 8. North arrow.
- Yes N/A 9. Date of plan and all subsequent revision dates.
- Yes N/A 10. Site Boundary and Boundaries of all adjoining properties with names and addresses of Landowners.
- Yes N/A 11. The Deed Book volume and page number, as entered by the County Recorder, referencing the latest source of title to the land being subdivided.
- Yes N/A 12. Tax Map sheet, block and lot number for the tract being subdivided.

E. Natural Features – Does the Plan include the location of the following natural features on the site and within 50 feet of the site:

- Yes N/A 1. Contour lines at an interval of not more than two (2') feet if slopes are over 5%.
- Yes N/A 2. Permanent and seasonal high water table areas.
- Yes N/A 3. Watercourses, lakes and wetlands with names, if any.
- Yes N/A 4. Location and extent of various soil types with SCS definitions and DEP classifications for each.

F. Boundary Lines of Tract:

- Yes N/A 1. Boundary lines of the area being subdivided.
- Yes N/A 2. Location and type of all existing and proposed monumentation.
- Yes N/A 3. Deed descriptions, prepared by an appropriate licensed professional.

G. Man-Made Features – Does the plan include the location of the following man-made features on the site and within 50 feet of the site:

- Yes N/A 1. Contour sufficient bearings, length of lines, radii, arc lengths, street widths, rights-of-way, and easement widths of all lots, streets, rights-of-way, easements and community or public areas to accurately and completely reproduce each and every course on the ground.
- Yes N/A 2. Existing lot layout on the site.
- Yes N/A 3. Historic sites or structures, including name and description.
- Yes N/A 4. Sewer lines, water lines, stormwater drains and culverts.

- Yes N/A 5. Utility easements and restrictive covenants and easements for purposes which might affect development.

H. Zoning Requirements:

- Yes N/A 1. Applicable Zoning Districts.
- Yes N/A 2. Lot size and yard requirements.
- Yes N/A 3. Required open space.
- Yes N/A 4. Building setback line.

I. Proposed Layout:

- Yes N/A 1. Total acreage of the site.
- Yes N/A 2. Proposed lot layout with identification number and total number of lots.
- Yes N/A 3. Lot width, depth and area.
- Yes N/A 4. Rights-of-way, restrictive covenants and easements for all drainage, utilities and other purposes which might affect development, with designations of areas to be dedicated to the Township.
- Yes N/A 5. Open space areas and recreation areas.
- Yes N/A 6. Well location.
- Yes N/A 7. Primary Sewage Disposal Bed.
- Yes N/A 8. Secondary Sewage Disposal Bed.
- Yes N/A 9. Soil probe location with depth to limiting zone.
- Yes N/A 10. Percolation test location with average test rate.
- Yes N/A 11. Storm drainage facilities or structures.
- Yes N/A 12. Private deed restrictions already imposed or to be imposed as a condition to sale.

J. Supportive Documents and Information:

- Yes N/A 1. Residual lands sketch.
- Yes N/A 2. Planning Module.

Yes N/A

3. Legal descriptions, prepared by an appropriate licensed professional, for all lots and for all roadways and easements to be dedicated to the Township.

K. APPLICANT'S STATEMENT:

I hereby certify that all of the information contained in this application is true and correct according to my knowledge. Further, I hereto acknowledge the Township may require the submission of additional copies of the Plan and/or other information to complete this submission. Refer to Fee Schedule and Payment Requirements.

Applicant's Signature: _____ Date: _____

L. ENGINEER'S/SURVEYOR'S STATEMENT

I, _____, a registered professional Engineer/Surveyor of the Commonwealth of Pennsylvania, do hereby certify that the completed checklist is true and correct and in compliance with the this ordinance.

Engineer's/Surveyor's Signature: _____ Date: _____

Appendix B. 2
Major Subdivision & Land Development
Preliminary Plan Checklist

A. Property Information:

1. Property Location: _____
2. Property Owner's Name: _____ Phone: _____
3. Property Owner's Address: _____
4. Applicant's Name: _____ Phone: _____
5. Applicant's Address: _____

B. General Submission Items:

- | | | |
|------------------------------|------------------------------|--|
| <input type="checkbox"/> Yes | <input type="checkbox"/> N/A | 1. Ten (10) copies of completed Application form. |
| <input type="checkbox"/> Yes | <input type="checkbox"/> N/A | 2. Ten (10) copies of the Preliminary Plan Checklist. |
| <input type="checkbox"/> Yes | <input type="checkbox"/> N/A | 3. Ten (10) copies of the Preliminary Plan (Prints 24" x 36"). |
| <input type="checkbox"/> Yes | <input type="checkbox"/> N/A | 4. One (1) copy of the Preliminary Plan (11" x 17"). |
| <input type="checkbox"/> Yes | <input type="checkbox"/> N/A | 5. One (1) electronic copy of the entire submission package in PDF format or equivalent. |
| <input type="checkbox"/> Yes | <input type="checkbox"/> N/A | 6. Ten (10) copies of all supporting documents. |
| <input type="checkbox"/> Yes | <input type="checkbox"/> N/A | 7. Seven (7) sets of Planning Module. |
| <input type="checkbox"/> Yes | <input type="checkbox"/> N/A | 8. Review letter from Northampton County Conservation District. |
| <input type="checkbox"/> Yes | <input type="checkbox"/> N/A | 9. Review letter from PennDOT (if applicable). |
| <input type="checkbox"/> Yes | <input type="checkbox"/> N/A | 10. Review letter from appropriate utility companies. |
| <input type="checkbox"/> Yes | <input type="checkbox"/> N/A | 11. The required fee (in accordance with the Township fee schedule). |
| <input type="checkbox"/> Yes | <input type="checkbox"/> N/A | 10. Affidavit of Posting or Proof of Publication. |
| <input type="checkbox"/> Yes | <input type="checkbox"/> N/A | 11. Prepared Response letter from Professional Engineer/Surveyor/Landscape Architect. |

C. Specific Plan Requirements – Drafting Standards:

- Yes N/A 1. Drawings at a size of 24" x 36" and 11" x 17". Other sizes may be permitted if approved by the Township Engineer.
- Yes N/A 2. Written and graphic scales as approved by the Township Engineer. Typical acceptable scales are 1"=20', 1"=30', 1"=40', 1"=50', 1"=60', and 1"=100' or similar.
- Yes N/A 3. Profiles drawn at a vertical scale of:
Five (5') feet per inch or ten (10') feet per inch (for horizontal scale of 1"=50')
or
Ten (10') feet per inch (for horizontal scale of 1"=100')
- Yes N/A 4. Dimensions set in feet and decimal part thereof and bearings in degrees, minutes, and seconds.
- Yes N/A 4. Sheets numbered and showing relationship to total number of sheets.
- Yes N/A 5. An adequate legend indicating clearly which features are existing and which are proposed.
- Yes N/A 6. Revisions noted and dated, if Plan is a revision of previously submitted plan.
- Yes N/A 7. A boundary line shown as a solid heavy line.

D. General Information:

- Yes N/A 1. A title, "Preliminary Plan".
- Yes N/A 2. Sheet title (eg. "Layout Plan")
- Yes N/A 3. Name and location of subdivision or land development.
- Yes N/A 3. Graphic and/or written scales.
- Yes N/A 4. Date of plan and all subsequent revision dates.
- Yes N/A 5. Name, address, signature and seal to Engineer's Statement (see Appendix C) of the licensed engineer, surveyor, architect or landscape architect responsible for preparation of the Plan.
- Yes N/A 6. North Arrow.
- Yes N/A 7. Site boundaries with survey precisions of 1 in 10,000 or better.
- Yes N/A 8. Site Boundary and Boundaries of all adjoining properties with names and addresses of landowners.
- Yes N/A 9. Location and type of all existing monumentation.

E. Natural Features:

- Yes N/A 1. Slope areas (0-8%, 8-12%, 12-15%, 15-25%, over 25%).
- Yes N/A 2. Permanent and seasonal high water table areas.
- Yes N/A 3. Location and extent of various soil types with SCS classifications and DEP definitions for each and 100-year floodplain (if mapped).
- Yes N/A 4. Forested areas.
- Yes N/A 5. Watercourses, lakes and wetlands (with names, if any).

F. Man-Made Features – Does the Plans include the location of the following man-made features on the site being subdivided or developed and within 100 feet of the site:

- Yes N/A 1. Streets and right-of-way (including names and rights-of-way widths) on the site and on immediately adjacent tracts
- Yes N/A 2. Existing lot layout on the site and on immediately adjacent tracts.
- Yes N/A 3. Historic sites or structures, including name and description.
- Yes N/A 4. Sewer lines, water lines, storm water drains and culverts.
- Yes N/A 5. Bridges.
- Yes N/A 6. Utility easements and restrictive covenants and easements for purposes which might affect development.

G. Proposed Features:

- Yes N/A 1. Layout of streets with centerlines, cartways and rights-of-way, and proposed names.
- Yes N/A 2. Layout of lots with identification number.
- Yes N/A 3. Building setback lines from all lot lines.
- Yes N/A 4. The arrangement and use of buildings and parking areas in nonresidential developments and planned residential developments, with all necessary dimensions and number of parking spaces. (Elevations and perspective sketches of proposed buildings are encouraged)
- Yes N/A 5. Rights-of-way, restrictive covenants and easements for all drainage, utilities or other purposes which might affect development.
- Yes N/A 6. Sidewalks and pedestrian paths.
- Yes N/A 7. Open space areas.
- Yes N/A 8. Recreation facilities.

- Yes N/A 9. Proposed monumentation with reference to proposed improvements and proposed final contours.
- Yes N/A 10. Well location.
- Yes N/A 11. Primary Sewage Disposal Bed.
- Yes N/A 12. Secondary Sewage Disposal Bed.
- Yes N/A 13. Soil probe location.
- Yes N/A 14. Percolation test location.

H. Layout Plan:

- Yes N/A 1. Name and address of landowner.
- Yes N/A 2. Names and addresses of developers.
- Yes N/A 3. Names and addresses of Corporate officers and major shareholders.
- Yes N/A 4. Names and address of adjoining property owners.
- Yes N/A 5. Owners Statement of Acknowledgement (see Appendix C).
- Yes N/A 6. Approval/review signature blocks (see Appendix C).
- Yes N/A 7. Location map at a scale of 1"=2000' (or other scale acceptable to the Township Engineer) showing the relation of the site to adjoining properties, streets, zoning district boundaries, and municipal boundaries within 1000' feet.
- Yes N/A 8. Project Summary List (see Section 5.3 E.5.a.-n).

I. Proposed Features:

- Yes N/A 1. Approximate dimensions, and areas of lots expressed in both square feet and acres.

J. Streets:

- Yes N/A 1. Cartway and right-of-way width.
- Yes N/A 2. Centerline with bearings, distances, horizontal curve data and stations corresponding to the profile.
- Yes N/A 3. Right-of-way lines and curb lines with horizontal curve radii at intersections?
- Yes N/A 4. Beginning and end of proposed construction.
- Yes N/A 5. Tie-ins by courses and distances to intersection of all public roads, with their names and widths of cartway and right-of-way.

K. Grading Plan:

- Yes N/A 1. Existing and proposed contour lines at intervals of two (2') feet (if slope is 15% or less and five (5') feet (if slope is over 15%).
- Yes N/A 2. Street centerline data and stations corresponding to the profile.

L. Storm Drainage:

- Yes N/A 1. Location and size of facilities with stations corresponding to the profile.
- Yes N/A 2. Locations of inlets with invert elevation of flow line and grade at the top of each line.
- Yes N/A 3. Watershed areas for each drainage structure or swale.
- Yes N/A 4. Property lines and ownership, with details of easements where required.
- Yes N/A 5. Beginning and end of proposed construction.
- Yes N/A 6. Location of all other drainage facilities and public utilities in the vicinity of storm drain lines.
- Yes N/A 7. Hydraulic system standards for culverts, bridge structures and/or other storm facilities.
- Yes N/A 8. Location and size of proposed drainage swales.

M. Utility Plan:

i. Proposed on-lot sanitary sewage disposal systems.

- Yes N/A 1. Existing and proposed contour lines at intervals of two (2') feet (if slope is 15% or less) and five (5') feet (if slope is over 15%).
- Yes N/A 2. Proposed location of the well.
- Yes N/A 3. Proposed or typical location of dwelling.
- Yes N/A 4. Proposed location of subsurface disposal bed and alternate bed.
- Yes N/A 5. Location of percolation test holes and soil probe pit.
- Yes N/A 6. Permanent and seasonal high water table areas.

ii. Proposed centralized sanitary sewers.

- Yes N/A 1. Location and size of line with stations corresponding to the profile.
- Yes N/A 2. Location of manholes with invert elevation of flow line and grade at the top of each manhole.
- Yes N/A 3. Property lines and ownership, with details of easements where required.

- Yes N/A 4. Beginning and end of proposed construction.
- Yes N/A 5. Location of laterals.
- Yes N/A 6. Location of all other drainage facilities and public utilities in the vicinity of sanitary sewer lines.

iii. Proposed centralized water system.

- Yes N/A 1. Location and size of water line.
- Yes N/A 2. Plans pertaining to water source.
- Yes N/A 3. Fire hydrants.

iv. Proposed on-lot water system.

- Yes N/A 1. Location of all wells (existing and proposed).
- Yes N/A 2. Street lighting.

N. Erosion and Sediment Plan:

- Yes N/A 1. Comply with regulations of the Northampton County Conservation District.
- Yes N/A 2. Use stormwater runoff calculations governed by the parameters set forth in Appendix D.

O. Road Profiles:

- Yes N/A 1. Profile of existing ground surfaces along centerline of street.
- Yes N/A 2. Proposed centerline grade with percent on tangents and elevations at fifty (50') foot intervals.
- Yes N/A 3. All vertical curve data including length, elevations and minimum sight distance as required by Article 10.

P. Sanitary Sewer and Storm Drain Profiles:

- Yes N/A 1. Profiles of existing ground surface with elevations at top of manholes or inlets.
- Yes N/A 2. Profile of storm drain or sewer showing type and size of pipe, grade, cradle, manhole and inlet locations, and invert elevations along flow line.
- Yes N/A 3. All line crossings of other utilities.
- Yes N/A 4. Invert elevations along flow line at manholes, inlets, and at line crossing of other utilities.

Q. Construction Details:

- Yes N/A 1. Typical cross-section and specifications for street construction as required by Article 10.
- Yes N/A 2. Drainage swale cross-section and construction materials.
- Yes N/A 3. Pipe bedding details.
- Yes N/A 4. Storm drainage structures.
- Yes N/A 5. Sanitary sewer structures.
- Yes N/A 6. Curb and sidewalk details.

R. Supportive Documents and Information:

- Yes N/A 1. Private deed restrictions or covenants already imposed or to be imposed as a condition of sale.
- Yes N/A 2. Map of all property holdings of the owner within 1000 feet of the proposed subdivision, indicating the site of the proposed subdivision.
- Yes N/A 3. A sketch plan of a proposed road system with any property holdings contiguous to the proposed subdivision.
- Yes N/A 4. Certification of the Public Water System.
- Yes N/A 5. Certification of a Centralized Sewage Disposal System.
- Yes N/A 6. Certification of On-Lot Sewage System.
- Yes N/A 7. Storm drainage calculations. (See Appendix D)
- Yes N/A 8. Development Statement and Schedule.
- Yes N/A 9. Highway Occupancy Permit.

S. Applicant's Statement:

I hereby certify that all of the information contained in this application is true and correct according to my knowledge. Further, I hereto acknowledge the Township may require the submission of additional copies of the Plan and/or other information to complete this submission.

Applicant's Signature: _____ Date: _____

Appendix B. 3
Major Subdivision & Land Development
Final Plan Checklist

A. Property Information:

1. Property Location: _____
2. Property Owner's Name: _____ Phone: _____
3. Property Owner's Address: _____
4. Applicant's Name: _____ Phone: _____
5. Applicant's Address: _____

B. General Submission Items:

- | | | |
|------------------------------|------------------------------|--|
| <input type="checkbox"/> Yes | <input type="checkbox"/> N/A | 1. Ten (10) copies of completed Application form. |
| <input type="checkbox"/> Yes | <input type="checkbox"/> N/A | 2. Ten (10) copies of the final Plan Checklist. |
| <input type="checkbox"/> Yes | <input type="checkbox"/> N/A | 3. Ten (10) copies of the final Plan (Prints 24" x 36"). |
| <input type="checkbox"/> Yes | <input type="checkbox"/> N/A | 4. One (1) mylar reproducible of the Final Plan (if required). |
| <input type="checkbox"/> Yes | <input type="checkbox"/> N/A | 5. One (1) copy of the Final Plan (11" x 17"). |
| <input type="checkbox"/> Yes | <input type="checkbox"/> N/A | 6. One (1) electronic copy of the entire submission package in PDF format or equivalent. |
| <input type="checkbox"/> Yes | <input type="checkbox"/> N/A | 7. Ten (10) copies of all supporting documents. |
| <input type="checkbox"/> Yes | <input type="checkbox"/> N/A | 8. Review letter from Northampton County Conservation District. |
| <input type="checkbox"/> Yes | <input type="checkbox"/> N/A | 9. Review letter from PennDOT (if applicable)? |
| <input type="checkbox"/> Yes | <input type="checkbox"/> N/A | 10. Review letter from appropriate utility companies. |
| <input type="checkbox"/> Yes | <input type="checkbox"/> N/A | 11. The required fee (in accordance with the Township fee schedule). |
| <input type="checkbox"/> Yes | <input type="checkbox"/> N/A | 12. Prepared Response letter from Professional Engineer/Surveyor/Landscape Architect. |

C. Specific Plan Requirements – Drafting Standards:

- | | | |
|------------------------------|------------------------------|--|
| <input type="checkbox"/> Yes | <input type="checkbox"/> N/A | 1. Drawings at a size of 24" x 36" and 11" x 17". Other sizes may be permitted if approved by the Township Engineer. |
|------------------------------|------------------------------|--|

- Yes N/A 2. Written and graphic scales as approved by the Township Engineer. Typical acceptable scales are 1"=20', 1"=30', 1"=40', 1"=50', 1"=60', and 1"=100' or similar.
- Yes N/A 3. Profiles drawn at a vertical scale of:
Five (5') feet per inch or ten (10') feet per inch (for horizontal scale of 1"=50')
or
Ten (10') feet per inch (for horizontal scale of 1"=100').
- Yes N/A 4. Dimensions set in feet and decimal part thereof and bearings in degrees, minutes, and seconds.
- Yes N/A 4. Sheets numbered and showing relationship to total number of sheets.
- Yes N/A 5. An adequate legend indicating clearly which features are existing and which are proposed.
- Yes N/A 6. Revisions noted and dated, if Plan is a revision of previously submitted plan.
- Yes N/A 7. A boundary line shown as a solid heavy line.

D. General Information:

- Yes N/A 1. A title, "Final Plan".
- Yes N/A 2. Sheet title (eg. "Layout Plan")
- Yes N/A 3. Name and location of subdivision or land development.
- Yes N/A 3. Graphic and/or written scales.
- Yes N/A 4. Date of plan and all subsequent revision dates.
- Yes N/A 5. Name, address, signature and seal to Engineer's Statement (see Appendix C) of the licensed engineer, surveyor, architect or landscape architect responsible for preparation of the Plan.
- Yes N/A 6. North Arrow.
- Yes N/A 7. Site boundaries with survey precisions of 1 in 10,000 or better.
- Yes N/A 8. Site Boundary and Boundaries of all adjoining properties with names and addresses of landowners.
- Yes N/A 9. Location and type of all existing monumentation.

E. Natural Features:

- Yes N/A 1. Slope areas (0-8%, 8-12%, 12-15%, 15-25%, over 25%).
- Yes N/A 2. Permanent and seasonal high water table areas.

- Yes N/A 3. Location and extent of various soil types with SCS classifications and DEP definitions for each and 100-year floodplain (if mapped).
- Yes N/A 4. Forested areas.
- Yes N/A 5. Watercourses, lakes and wetlands (with names, if any).

F. Man-Made Features – Does the Plans include the location of the following man-made features on the site being subdivided or developed and within 100 feet of the site:

- Yes N/A 1. Streets and right-of-way (including names and rights-of-way widths) on the site and on immediately adjacent tracts
- Yes N/A 2. Existing lot layout on the site and on immediately adjacent tracts.
- Yes N/A 3. Historic sites or structures, including name and description.
- Yes N/A 4. Sewer lines, water lines, storm water drains and culverts.
- Yes N/A 5. Bridges.
- Yes N/A 6. Utility easements and restrictive covenants and easements for purposes which might affect development.

G. Proposed Features:

- Yes N/A 1. Layout of streets with centerlines, cartways and rights-of-way, and proposed names.
- Yes N/A 2. Layout of lots with identification number.
- Yes N/A 3. Building setback lines from all lot lines.
- Yes N/A 4. The arrangement and use of buildings and parking areas in nonresidential developments and planned residential developments, with all necessary dimensions and number of parking spaces. (Elevations and perspective sketches of proposed buildings are encouraged)
- Yes N/A 5. Rights-of-way, restrictive covenants and easements for all drainage, utilities or other purposes which might affect development.
- Yes N/A 6. Sidewalks and pedestrian paths.
- Yes N/A 7. Open space areas.
- Yes N/A 8. Recreation facilities.
- Yes N/A 9. Proposed monumentation with reference to proposed improvements and proposed final contours.
- Yes N/A 10. Well location.

- Yes N/A 11. Primary Sewage Disposal Bed.
- Yes N/A 12. Secondary Sewage Disposal Bed.
- Yes N/A 13. Soil probe location.
- Yes N/A 14. Percolation test location.

H. Protective Covenants – Do the plans have protective covenants for:

- Yes N/A 1. Building setbacks.
- Yes N/A 2. Clear site triangle easements (see Sections 10.4H and 10.12D).
- Yes N/A 3. Utility, drainage and slope easements.
- Yes N/A 4. “Well and sewage disposal systems shall be constructed in accordance with recommended standards of the Pennsylvania Department of Environmental Protection.” (if appropriate)
- Yes N/A 5. “Individual owners of lots must apply to the Township for a sewage permit prior to undertaking the construction of an on-lot sewage disposal system.” (if appropriate)
- Yes N/A 6. “The Planning Commission and Board of Supervisors have not passed upon the feasibility of any individual lot or location within a lot being able to sustain any type of well or sewage disposal system” (if appropriate).

I. Plot Plan and Layout Plan Additional Information:

- Yes N/A 1. Name and address of landowner.
- Yes N/A 2. Names and addresses of developers.
- Yes N/A 3. Names and addresses of corporate officers and major shareholders.
- Yes N/A 4. Names and address of adjoining property owners.
- Yes N/A 5. Owners Statement of Acknowledgement (see Appendix C).
- Yes N/A 6. Approval/review signature blocks (see Appendix C).
- Yes N/A 7. Location map at a scale of 1”=2000’ (or other scale acceptable to the Township Engineer) showing the relation of the site to adjoining properties, streets, zoning district boundaries, and municipal boundaries within 1000’ feet.
- Yes N/A 8. Project Summary List (see Section 5.3 E.5.a.-n).

J. Proposed Features:

- Yes N/A 1. Layouts of lots, with identification number.
- Yes N/A 2. Layout of streets.

- Yes N/A 3. Proposed names.
- Yes N/A 4. Cartway and right-of-way width.
- Yes N/A 5. Centerline with bearings, distances, and curve data.
- Yes N/A 6. Right-of-way lines and curb lines with radii at intersections.
- Yes N/A 7. Beginning and end of proposed construction.
- Yes N/A 8. Tie-ins by courses and distances to intersection of all public roads, with their names and widths of cartway and right-of-way.
- Yes N/A 9. Building setback lines.
- Yes N/A 10. Rights-of-way, restrictive covenants, and easements for all drainage, utilities, or other purposes which might affect development.

K. Plot Plan Additional Information:

- Yes N/A 1. Site boundaries with closure of 1 in 10,000.
- Yes N/A 2. Boundaries of all adjoining properties with names of landowners.
- Yes N/A 3. Location and type of all existing monumentation.
- Yes N/A 4. North arrow.

L. Location of Existing Man-Made Features Within 100 Feet of the Tract Being Subdivided:

- Yes N/A 1. Streets and rights-of-way, including name and right-of-way widths, on the site and on immediately adjacent tracts.
- Yes N/A 2. Existing lot layouts on the site and on immediately adjacent tracts.
- Yes N/A 3. Utility easements, restrictive covenants, and easements for purposes which might affect development.

M. Grading Plan:

- Yes N/A 1. Existing and proposed contour lines at intervals of two (2') feet (if slope is 15% or less) and five (5') feet (if slope if over 15%).
- Yes N/A 2. Street centerline data and stations corresponding to the profile.

N. Storm Drainage:

- Yes N/A 1. Location and size of facilities with stations corresponding to the profile.
- Yes N/A 2. Locations of inlets with invert elevation of flow line and grade at the top of each line.
- Yes N/A 3. Watershed areas for each drainage structure or swale.
- Yes N/A 4. Property lines and ownership, with details of easements where required.

- Yes N/A 5. Beginning and end of proposed construction.
- Yes N/A 6. Location of all other drainage facilities and public utilities in the vicinity of storm drain lines.
- Yes N/A 7. Hydraulic system standards for culverts, bridge structures and/or other storm facilities.
- Yes N/A 8. Location and size of proposed drainage swales.

O. Utility Plan:

i. Proposed on-lot sanitary sewage disposal systems.

- Yes N/A 1. Existing and proposed contour lines at intervals of two (2') feet (if slope is 15% or less) and five (5') feet (if slope is over 15%).
- Yes N/A 2. Proposed location of the well.
- Yes N/A 3. Proposed or typical location of dwelling.
- Yes N/A 4. Proposed location of subsurface disposal field and alternate field.
- Yes N/A 5. Location of percolation test holes and soil probe pit.
- Yes N/A 6. Permanent and seasonal high water table areas.

ii. Proposed centralized sanitary sewers.

- Yes N/A 1. Location and size of line with stations corresponding to the profile.
- Yes N/A 2. Location of manholes with invert elevation of flow line and grade at the top of each manhole.
- Yes N/A 3. Property lines and ownership, with details of easements where required.
- Yes N/A 4. Beginning and end of proposed construction.
- Yes N/A 5. Location of laterals.
- Yes N/A 6. Location of all other drainage facilities and public utilities in the vicinity of sanitary sewer lines.

iii. Proposed centralized water system.

- Yes N/A 1. Location and size of water line.
- Yes N/A 2. Plans pertaining to water source.
- Yes N/A 3. Fire hydrants.

iv. Proposed on-lot water system.

- Yes N/A 1. Location of all wells (existing and proposed).

- Yes N/A 2. Street lighting.

P. Erosion and Sediment Plan:

- Yes N/A 1. Comply with regulations of the Northampton County Conservation District.
- Yes N/A 2. Use stormwater runoff calculations governed by the parameters set forth in Appendix D or other methods approved by the Township Engineer.

Q. Road Profiles:

- Yes N/A 1. Profile of existing ground surfaces along centerline of street.
- Yes N/A 2. Proposed centerline grade with percent on tangents and elevations at fifty (50') foot intervals.
- Yes N/A 3. All vertical curve data including length, elevations and minimum sight distance as required by Article 10.

R. Sanitary Sewer and Storm Drain Profiles:

- Yes N/A 1. Profiles of existing ground surface with elevations at top of manholes or inlets.
- Yes N/A 2. Profile of storm drain or sewer showing type and size of pipe, grade, cradle, manhole and inlet locations, and invert elevations along flow line.
- Yes N/A 3. All line crossings of other utilities.
- Yes N/A 4. Invert elevations along flow line at manholes, inlets, and at line crossing of other utilities.

S. Construction Details:

- Yes N/A 1. Typical cross-section and specifications for street construction as required by Article 10.
- Yes N/A 2. Drainage swale cross-section and construction materials.
- Yes N/A 3. Pipe bedding details.
- Yes N/A 4. Storm drainage structures.
- Yes N/A 5. Sanitary sewer structures.
- Yes N/A 6. Curb and sidewalk details.

T. Supportive Documents and Information:

- Yes N/A 1. Private deed restrictions or covenants already imposed or to be imposed as a condition of sale.

- | | | |
|------------------------------|------------------------------|---|
| <input type="checkbox"/> Yes | <input type="checkbox"/> N/A | 2. Deed of dedication along with a plan of such improvement. |
| <input type="checkbox"/> Yes | <input type="checkbox"/> N/A | 3. Non-dedicated Streets Agreement. |
| <input type="checkbox"/> Yes | <input type="checkbox"/> N/A | 4. Open Space Agreement. |
| <input type="checkbox"/> Yes | <input type="checkbox"/> N/A | 5. Utilities Agreements and permits. |
| <input type="checkbox"/> Yes | <input type="checkbox"/> N/A | 6. Storm drainage calculations (see Appendix D). |
| <input type="checkbox"/> Yes | <input type="checkbox"/> N/A | 7. Development Statement and Schedule. |
| <input type="checkbox"/> Yes | <input type="checkbox"/> N/A | 8. Legal descriptions, prepared by an appropriate licensed professional, for all lots and for all roadways and easements to be dedicated to the Township. |

U. Disclaimer:

1. The Township may require the submission of additional copies of the Plan and/or other information to complete this submission.
2. Applicant should return a copy of this Final Plan Checklist with any revisions, corrections or resubmissions to the Township. Any changes from the original submission shall be identified with a red circle. One of the required Plan map copies should be submitted with the changes identified in red highlight or circled.
3. Applicant's Engineer should provide a certifying statement that the changes identified as part of B above are the only changes that have been made to the Plan. See Appendix C Certifications.

V. Applicant's Statement:

I hereby certify that all of the information contained in this application is true and correct according to my knowledge. Further, I hereto agree to the terms and conditions set forth in this application.

Applicant's Signature: _____ Date: _____

WASHINGTON TOWNSHIP

1021 Washington Boulevard
Bangor, PA 18013 – 9415

Phone: (610) 588 – 1524

Fax: (610) 588 – 0245

APPENDIX C: ENGINEER'S/SURVEYOR'S STATEMENT, OWNER'S STATEMENT AND APPROVAL/REVIEW BLOCK FORM

C.1. ENGINEER'S/SURVEYOR'S STATEMENT

I, _____, a registered professional Engineer/Surveyor of the Commonwealth of Pennsylvania, do hereby certify that the Plan, prepared from field survey, correctly represents the proposed lots as surveyed by me for the owners and that the requirements of the Subdivision and Land Development Ordinance of Washington Township have been fully complied with.

Engineer/Surveyor's Signature and Address

C.2. OWNER'S STATEMENT

We, the owners of this plat of land being duly sworn according to law, depose and say we are the sole owners of this property in peaceful possession of it and that there are no suits pending affecting the title of same, hereby dedicate to the Township of Washington for public use all the road rights-of-way, utility easements and rights-of-way of public improvements such as sewer lines and storm drainage facilities as shown on this Subdivision Plan. We further depose and say that we have complied with all requirements and provisions of the Washington Township Subdivision and Land Development Ordinance and shall save the Township harmless and indemnify the Township of Washington against any liability or loss resulting from the subdivision of this plat for whatever reason present or future.

(Owners Signature)

(Owners Signature)

SWORN AND SUBSCRIBED BEFORE THIS _____ DAY OF _____, 20_____.

NOTARY PUBLIC

Appendix D

Storm Water Drainage Runoff Calculation

1. Rational Formula

The method used in calculating runoff shall be the Rational Formula $Q=CIA$, in which “Q” is the storm flow in cubic feet per second, “C” is a coefficient indicating the degree of imperviousness of the drainage area, “I” is the intensity of rainfall in inches per hours for the particular frequency of storm used, and “A” is the drainage area in acres.

2. Values of Coefficient “C”

- A. All predevelopment calculations shall be in accordance with Ordinance 271 – Amended Martins Creek/Jacoby Creek Watershed Act 167 Stormwater Management Ordinance.
- B. Coefficient “C” used for the calculation of runoff shall be based on the anticipated ultimate use of the land.

3. Values of Storm Intensity “I”

- A. The values of “I” in inches per hour, to be used are listed in Ordinance 271.
- B. Release rates from storage structures and from each subdivision or land development shall be based on the runoff from the two-year predevelopment storm event.
- C. In addition to the requirements found in Ordinance 271 (whichever is more stringent), storage structures and peak flows from subdivisions or land developments shall be designed such that the post-development five-year peak discharge will not exceed the predevelopment two-year peak discharge for the primary outlet structure and from the development.
- D. All storage structures shall be designed with emergency spillways. The minimum design capacity of the emergency spillway shall be the 25 year post-development peak discharge while maintaining a minimum 1.0 foot freeboard, and the 100 year post-development peak discharge rate while maintaining a minimum 0.5 foot freeboard.
- E. Storms with a frequency of twenty-five (25) years shall be used for drainage facilities other than storage structures in new developments and for minor streets, and fifty (50) year storms shall be used for Collector and Arterial highways. The time of flow shall be the time which it takes to reach the location of the drainage facility to be designed, and shall include overland flow time plus gutter flow time plus time of flow through pipes, culverts, or natural streams. Overland flow time shall be computed using a generally accepted chart or formula.
- F. Other measures to control storm flow such as downspouts into French drains, dry wells, and stone filter berms may be required by the Township.

4. Suggested Runoff Velocities

Suggested runoff velocities are listed in Ordinance 271.

5. Velocity of Flow in Open Channels

A. The velocity of flow in open channels, and in closed drains not under pressure, shall be determined by Manning’s velocity equation:

$$V = \frac{1.486}{n} \left(\frac{a}{p} \right)^{2/3} S^{1/2}$$

V = velocity in feet per second

n = coefficient of roughness

a = cross-section area of structure

p = perimeter of the wetted channel

s = slope in feet per foot

B. The coefficient of roughness, “n”, shall be as follows unless otherwise approved by the Township Engineer:

1. 0.015 for concrete pipe and similar paving
2. 0.025 for corrugated metal pipes and flumes.
3. 0.04 for earth ditches.

6. Permissible Stream Velocities in Open Channels

<u>Material</u>	<u>Allowable Velocity (Feet Per Second)</u>
Well established grass on good soil –	
Short pliant bladed grass	5-6
Bunch grass, soil exposed	2-4
Stiff stemmed grass	2-3
Earth without vegetation –	
Fine sand or silt	1-2
Ordinary firm loam	2-3
Stiff Clay	3-5
Clay and gravel	4-5
Coarse gravel	4-5
Soft Shale	5-6
Other –	
Bituminous or cement stabilized channels	6
Paved Channels	10-15

7. Calculations

The Grading and Storm Drainage Plan shall include calculations indicating velocities of flow, grades, sizes, and capacities of water carrying structures, debris or sediment basins, and retention and detention structures and sufficient design information to construct such facilities.

8. Detention Basin Requirements

- A. In addition to the requirements found in Ordinance 271, detention basin shall be designed such that the post-development 5 year peak discharge shall not exceed the predevelopment 2 year peak discharge; the post development 10 year peak discharge shall not exceed the predevelopment 5 year peak discharge; the post development 25 year post development peak discharge shall not exceed the predevelopment 10 year peak discharge, while maintaining a minimum freeboard of one foot.
- B. The emergency spillway shall be able to pass the 100 year post development peak discharge with 0.5 feet of freeboard measured to the top of the berm.
- C. The emergency spillway and the outfall of the detention basin shall be lined with mortared rip rap and shall meet requirements of PennDOT Publication 408. Other lining methods may be considered by the Township Engineer.
- D. The minimum top width of the detention basin berm shall be 10 feet, unless the Township Engineer determines that a greater width shall be required.
- E. Maximum inside and outside slopes of earthen detention basin shall be 5 horizontal to 1 vertical. An access slope of 8 horizontal to 1 vertical (maximum) may be required, based upon recommendation by the Township Engineer.
- F. Where no existing point of concentration exists, the outfall from a detention basin shall not discharge closer than 30 feet from the adjoining property line, unless permission is given, in writing, by said adjacent property owner.

Where discharge from the detention basin is to be spread into sheet flow, the allowable flow shall be determined by the predevelopment flow rate for a two year storm, across the length of the spreader.

- G. Antisteepest collars and a cutoff trench shall be required on basins having a berm height exceeding 5 feet.

Watertight antisteepest collars shall be installed around the discharge pipe at intervals not to exceed 24 feet or as approved by the Township Engineer. Collar shall extend a minimum of 2 feet beyond the outside of the pipe.

- H. Where, in the opinion of the Township Engineer, soil permeability is low, an area, just preceding the outlet structure, representing 25% of the basin floor area or 1,200 square

feet, whichever is smaller, shall be excavated to a minimum depth of 22", filled with minimum 18" depth of #3A (or larger) aggregate, covered with 4" depth topsoil and seeded or sodded.

- I. Fencing, surrounding the detention basin, shall be required if any of the following conditions are evident:
 - 1. The maximum design depth of water in the basin shall exceed 30".
 - 2. The basin is intended to retain water for periods exceeding 4 hours after rainfall subsides.
 - 3. The Washington Township Board of Supervisors determines that public safety would be endangered if the basin were not fenced.

Fencing shall be a minimum 4 feet high, chain link or other as approved by the Board of Supervisors, and shall have suitable gates to permit access by maintenance vehicles.

- J. Where a detention basin shall be constructed in view of an existing dwelling or an existing proposed street, and the basin depth exceeds 30", it shall be screened from view using evergreen screening or other methods approved by the Board of Supervisors.
- K. Basins not having direct access to a public street shall have a 25' wide, usable access easement to a public street.
- L. The design engineer shall verify that the operation of the detention facility will not significantly increase downstream peaking conditions per the adopted Act 167 Stormwater Management Plan.

Appendix E

Centralized Sewage Disposal System Procedures and Requirements

1. General

All centralized sewage disposal system design, plans and construction shall:

- A. Be compatible with sewage feasibility studies and plans on the Township.
- B. Comply with all requirements of the Department of Environmental Protection and of the Township, whichever may be more stringent.
- C. Be approved by the appropriate agencies prior to Final Plan submission.

2. Collection

All sanitary sewers and appurtenances shall be designed and constructed in accordance with regulations and requirements of the Department of Environment Protection (as set forth in the Sewerage Manual prepared by the Bureau of Water Quality Management), and/or the Township. In the case of relatively small Community Sewage Systems (as defined in Chapter 73 of the Department Regulations) the applicant may submit a written request for a variance from such requirements together with justification therefor. All sanitary sewers shall be designed and constructed to provide adequate capacity for the ultimate flow of the subject development plus such additional flow as may be projected to be generated by adjacent or nearby properties within a period of twenty (20) years.

The plans shall provide that all individual lateral connections be installed to the curb or right-of-way at the time of initial installation.

- A. Existing Facility. Plans for the extension of existing sanitary sewers shall be prepared by or on behalf of the utility and approved by it. Such plans shall be submitted to the Township Planning Commission and the Engineer. The Utility shall also secure such approvals, permits and certificates of convenience to furnish such services from the appropriate State agencies as required.
- B. Proposed Facility. Plans for proposed sanitary sewers shall be prepared by a registered professional engineer well versed and knowledgeable in the field. Such plans shall be submitted to the Township Planning Commission and the Engineer. The applicant shall also secure such approvals, permits and certificates as required.

3. Community Sewage Systems

All systems utilizing subsurface disposal of sewage effluent (Community Sewage Systems as defined by Chapter 73 of the Department of Environmental Protection Regulations) shall be designed and constructed in accordance with requirements of the aforesaid Chapter 73 and the Township.

The registered Professional Engineer employed by the applicant shall certify that the existing or proposed facility has adequate capacity to satisfactorily treat the total projected sewage flow.

4. Sewerage Services

All systems classified as Sewerage Services (as defined by Chapter 73 of the Department of Environmental Protection Regulations) shall be designed and constructed in accordance with regulations and requirements set forth in the Sewerage Manual prepared by the Bureau of Water Quality Management.

- A. Existing Facility. The utility shall demonstrate the adequacy of treatment capacity to serve the proposed subdivision or land development.
- B. Proposed Facility. Plans for proposed treatment and discharge facilities shall be prepared by a registered Professional Engineer well versed and knowledgeable in the field. Such plans shall be submitted to the Township Planning Commission and the Engineer. The applicant shall also secure such approvals, permits and certificates as required.

5. Township Official Plan

The applicant shall demonstrate compliance with or cause to be prepared such revisions as may be requested for the Official Township Sewage Plan and Township Sewage Feasibility study.

Appendix F

Central Water System Development Procedures and Requirements

1. Central Water Supply

A Central Water Supply System shall meet the requirements stated herein prior to the approval of a preliminary subdivision or land development plan which proposes to use such Central Water Supply Systems.

A. Existing Utility

1. The Utility shall submit plans for extension of its present distribution system to the Washington Township Planning Commission and the Township Engineer. The Utility shall also secure such permits and certificates to furnish such services from the appropriate State Agencies where required by Ordinance.
2. The Utility shall demonstrate an adequacy of supply to provide a minimum Of 110 gallons per capita per day and/or 400 gallons per day for each residential dwelling unit to be serviced. Service to Industrial or Commercial establishments shall show adequacy of supply to meet said Industrial or Commercial needs as established by the American Water Works Association and/or Pennsylvania Department of Environmental Protection.

B. Proposed Utility. Any proposed new utility shall be engineered by a registered professional engineer.

The Applicant shall present evidence to the Township Planning Commission that the subdivision or land development is to be supplied by a certified public utility, property owner's association, or by a municipal corporation, authority or utility. A copy of a Certificate, Cooperation Agreement, or Commitment or Agreement to serve the area in question, shall be acceptable.

2. Sanitary Survey

A sanitary survey at the proposed well site shall be performed by the Pennsylvania Department of Environmental Protection.

3. Well Construction Procedures and Requirements

- A. The inside diameter of the permanent casing and drill holes shall not be less than a nominal six inches and the casing shall consist of black steel pipe with a minimum wall thickness of 0.280 inch conforming to ASTM Specification A-53 having either screwed couplings or welded joints and equipped with a six inch forged steel drive shoe.

- B. The well shall be constructed by the driving of a temporary nominal ten inch diameter steel pipe to a solid rock formation and the under drilling of a nominal ten inch diameter hole for a minimum depth of twenty feet into hard rock below the bottom of the ten inch casing. The permanent six inch casing shall be concentrically set in the hole at this point and shall extend from the bottom of the hole to one foot above the final grade elevation. The annular space between the inner casing and the drilled hole and between the inner and outer casing shall be completely sealed with quick-setting cement grout. The grout shall be forced by pressure into the annular space, starting at the bottom and the operation shall be continuous until the grout flushes out at the ground surface with the outer casing being withdrawn as grouting proceeds. The quick-setting cement shall be a minimum of two inches thick surrounding the permanent casing.
- C. The quick-setting grout shall be allowed to set for a minimum period of thirty six hours and no work is to be performed on the well during this period. Extreme care must be taken in all subsequent drilling of the six inch well to avoid jarring and cracking the grout. The Contractor shall supply and install a threaded type cap for temporary sealing of the casing to prevent tampering with or the insertion of foreign objects into the well.
- D. The well must be commercially straight and true. Under no circumstances may the deviations from plumb be sufficient to interfere with the installation of proper operation of a shaft driven turbine type well pump.
- E. Utility Company water source shall be centrally located within a dedicated open space water protection zone of minimum 43,560 square feet in area. No buildings other than the Utility Company pumping station, Standtank, etc. shall be constructed thereon. No on-lot sewage disposal system shall be constructed within two hundred feet of such water source well.

4. Dynamic Water Recovery Rate and Draw-Down Test

- A. Test Required
 - 1. Deep well water sources shall be tested to determine the Dynamic Recovery Rate draw-down. The time duration of said test shall encompass a continuous seventy two hour period minimum.
 - 2. The proposed new Utility Company or Developer shall notify the Township Engineer and the Pennsylvania Department of Environmental Protection Agency of the date and time said test is scheduled to start and end by registered or certified mail. Such notification must be received at least seven days prior to starting the test.
 - 3. The test results shall be recorded in triplicate on the appropriate forms provided by the Township Engineer and certified as to accuracy of test performance by a registered Professional Engineer licensed in the Commonwealth of Pennsylvania. Such test results shall bear the Engineer's seal and signature.

B. Test Procedure. The Dynamic Recovery Rate and draw-down test shall be conducted as follows:

1. a. Requirement for wells situated in water bearing slate. Four test hole wells drilled to the same depth as the source well and having a minimum diameter of two inches shall be placed in each of the four quadrants at a distance of one hundred feet from said well in order to determine the area of influence and specific capacity of the source well.

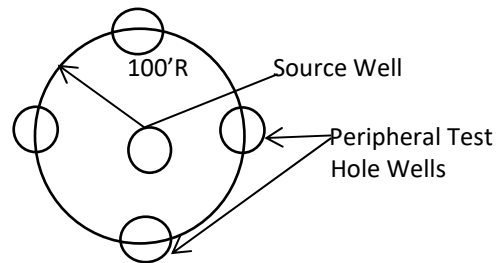


Figure F-1

- b. A submersible pump, capable of variable output, having sufficient capacity to exceed the Dynamic Recovery Rate of the water source shall be employed for said test. It is recommended that the capacity of the source pump be such that draw-down to within twenty feet of the source pump be achieved in a maximum of three hours.
 - c. A suitable calibrated water meter capable of measuring the water output in units of gallons or cubic feet shall be connected to the water source pump outlet.
 - d. The exact location of the water source pump with respect to the bottom of the well shall be recorded and maintained constant for the duration of the test.
 - e. The water source pump shall be operated at maximum capacity and output for the first six hours of the test or until the water level in the source well reaches a point twenty feet above the water source pump. The elapsed time and rate of pumping shall be recorded at sixty minute intervals on the provided log data form.
 - f. Draw-down of the source well in feet shall be recorded at sixty minute intervals as well as the water draw-down of any required peripheral test hole wells on the log data form.
2. Reduce the maximum rate of pumping by ten gallons per minute and continue pumping for the next two hours of test or until the water level reaches a point twenty feet above the water source pump. The elapsed time, rate of pumping

and draw-down of the source well and, where required, the peripheral test hole wells shall be recorded on the log data forms at sixty minute intervals.

3. Continue the above procedure using the two hour time periods or the criteria of water level above the source pump until the conditions are such that the Dynamic Recovery Rate of the water source equals the pumping rate (dynamic equilibrium). The Township Engineer may increase the increment of gallons per minute reduction where on-site review of the data warrants such action. Note, as the Dynamic Recovery Rate is approached, the increment of gallons per minute reduction will need to be reduced from ten gallons per minute to eight gallons per minute to five gallons per minute to zero gallons per minute. At this point, no deductible change in draw-down will occur. If any change in draw-down is detected, either plus or minus, dynamic equilibrium has not been achieved.
4. When said Dynamic Recovery Rate is reached, record elapsed time, pumping rate and draw-down on the log data form and continue pumping at this rate for the remainder of the seventy two hour test time or a minimum of twenty four hours, whichever is the greater time. Elapsed time, pumping rate and draw-down of the source well and where required, the peripheral test wells, shall be recorded hourly.
5. Measures of static water level recovery shall be made on the source well and peripheral test hole wells where required on an hourly basis and the data recorded for a minimum time period of twenty four hours upon cessation of the Dynamic Recovery Rate test.
6. Calculations of Specific Capacity and safe daily yield of the source well shall be submitted to the Township Engineer and appropriate State Agency by the registered Professional Engineer employed by the Utility Company or Developer for review and analysis.
7. Where peripheral test hole wells were required for determining specific capacity of the source well aquifer, such test hole wells shall be abandoned by filling with sand to the level twenty feet into bedrock and filling the remaining distance to the surface with quick-setting grout.

5. Water Distribution System Requirements

A. Water Mains

1. Water mains shall be a minimum of eight inches in diameter.
2. Gate valves shall be installed at all street intersections. Spacing between gate valves shall not exceed twelve hundred feet.

3. Acceptable Materials:
 - a. Cement lined cast iron pipe.
 - b. Cement lined ductile iron pipe
 - c. Steel pipe
 - d. Reinforced concrete pipe – (for mains greater or equal to twelve inches in diameter).
 - e. Other suitable materials approved by the Township Engineer having inherent properties of non-corrosiveness, mechanical strength under pressure or vacuum and non-susceptibility to pitting or formation of tubercles.

Note: Wall thickness of all distribution pipe materials shall be capable of withstanding 250 pounds per square inch pressure test without rupture.

B. Customer Connections

1. All service connections from the main to the customer shall be minimum of three-quarters inch inside diameter (I.D.).
2. Customer service connections shall be one of the approved materials for mains. Heavy wall copper may be used for service connections where soils are not permeated or subject to acidic ground drainage waters.
3. A curb stop shall be furnished for each customer service connection.
4. Water supply pressure shall be a minimum 40 pounds per square inch at the customer's meter.
5. Cross connections – A cross connection is any physical connection, direct or indirect, which provides a potential opportunity for non-potable water to enter a conduit, pipe or receptacle containing potable water. Such cross connections are prohibited.

C. Leakage Test

1. Extension of existing utilities or proposed utilities distribution system shall meet the requirements stated herein. No installation shall be approved until the leakage is less than the number of gallons per hour as determined by the formula below:

$$L = \frac{ND \sqrt{P}}{3700}$$

Where:

- L = Allowable leakage in gallons per hour.
- N = Number of joints in the length of pipe.
- D = Nominal diameter of the pipe in inches.
- P = The average test pressure during test.

2. Leakage tests are conducted by measuring, through a calibrated meter, the amount of water which enters the test section under normal working pressures for a period of at least two hours.

6. Water Service Area Requirement – Drilled Well Source

- A. The Dynamic Recovery Rate in gallons per minute establishes the criteria for adequacy of the water source based on 110 gallons per capita day or 400 gallons per dwelling unit per day.
- B. The minimum number of residential dwelling units that may be serviced by a utility within any service area shall be fifty.
- C. If the Dynamic Recovery Rate is insufficient to meet the adequacy of supply requirements for the service area under consideration, additional Drilled Well Water sources must be developed. Such additional sources shall be located in geologically separate aquifers. When the utility intends to employ more than one well in a single aquifer, a Dynamic Recovery Rate and draw-down test shall be connected on each well simultaneously to determine the adequacy of supply of such aquifer. In addition, such test shall encompass a continuous test time period of 120 hours minimum.

7. Distribution, Storage and Maintenance Requirements

- A. Utilities serving fifty or more, but less than one hundred customers, shall maintain a minimum distribution storage capability of one hundred percent of the twenty four hour demand and one complete set of standby replacement pumps.
- B. Utilities serving greater than one hundred but less than two hundred customers shall maintain a minimum distribution storage capacity of one hundred percent of the maximum twenty four hour demand, a complete set of standby replacement pumps and an auxiliary power generating source. A single fire hydrant connected by an 8" cast iron (or other suitable pipe material) main directly to the storage facilities shall also be

provided. Such hydrant shall meet local fire company requirements for size and hose connections.

- C. Utilities servicing greater than 200 customers shall provide elevated storage facilities of sufficient capacity to meet Insurance Services Office requirements for fire protection, fire hydrants and design requirements of the American Water Works Association. Said fire hydrants shall meet local fire company requirements for size and hose connections.
- D. All utilities are required to furnish the municipality with an accurate comprehensive map showing exact location of the utilities distribution system. Additions or changes within said system shall be duly noted thereon and the utility shall furnish updates of said comprehensive map within 30 days of the completion of such additions or changes.
- E. The Insurance Service Office requirements for low or medium value residential and commercial areas are indicated in the table below. Subject to changes by the Insurance Services Office.

Zone	Rated Capacity GPM	Time Duration (Hours)	Residual Pressure At Rated Capacity
Residential	500	4	20 PSI
Commercial	1000	6	20 PSI

8. Nonmunicipal Owned Public Utilities

All utilities furnishing the public with water service shall be organized in such fashion as to fall within the jurisdiction of the Pennsylvania Public Utilities Commission.