

WEST VINCENT TOWNSHIP
SUBDIVISION AND LAND DEVELOPMENT ORDINANCE
OF 1998

As amended by Ordinance No. 102 of 1999
As amended by Ordinance 112 of 2001
As amended by Ordinance No. 117 of 2002
As amended by Ordinance 157-2013

Prepared by the
West Vincent Township Planning Commission
and the
West Vincent Township Board of Supervisors

With Assistance from
Siana, Bellwoar, McAndrew, LLP
and
Carroll Engineering Corporation

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I, Michael G. Crotty, Esquire of Siana, Bellwoar and McAndrew, LLP, Solicitor of West Vincent Township, hereby certify and attest that the below Ordinance is a true and correct copy of the proposed ordinance containing amendments to the West Vincent Township Subdivision and Land Development Ordinance to be considered for adoption by the West Vincent Township Board of Supervisors at a Township meeting immediately following a public hearing on December 23, 2013.

Michael G. Crotty, Township Solicitor

**WEST VINCENT TOWNSHIP
CHESTER COUNTY, PENNSYLVANIA**

ORDINANCE 157 – 2013

AN ORDINANCE AMENDING SECTIONS 611, 612 AND APPENDIX C OF THE SUBDIVISION AND LAND DEVELOPMENT ORDINANCE OF WEST VINCENT TOWNSHIP, RELATING TO ROAD, CURB, TRENCHING, DRIVEWAY AND PAVING REQUIREMENTS.

PURSUANT TO THE AUTHORITY CONTAINED IN THE PENNSYLVANIA MUNICIPALITIES PLANNING CODE, 53 P.S. § 10101 ET SEQ., THE BOARD OF SUPERVISORS OF WEST VINCENT TOWNSHIP, CHESTER COUNTY, PENNSYLVANIA, DOES HEREBY ENACT AND ORDAIN AS FOLLOWS:

SECTION 1.

Article VI of the West Vincent Township Subdivision and Land Development Ordinance, Section 611(F)(4) is hereby revised and amended to incorporate the following additional subsections :

- f. All cul-de-sac streets shall incorporate an eased area for snow removal and snow stockpiling purposes. The eased area shall be located at or near the terminus of the cul-de-sac turnaround, in a location to be determined by the Township. The easement shall run in favor of the Township and any entity that is obligated to perform snow removal for the cul-de-sac. The eased area shall be sufficiently marked for snow removal purposes (i.e., through signage and/or delineators) and shall be accessible by way of a curb cut. If parking is generally permitted in a cul-de-sac, no parking shall be permitted along the bulb turnaround portion of a cul-de-sac during periods of snow accumulation of four (4) inches or greater or during a declared snow emergency until all snow is cleared.
- g. If a cul-de-sac is offset, it shall not be offset to the right (from the perspective of a vehicle entering into the cul-de-sac).

SECTION 2.

Article VI of the West Vincent Township Subdivision and Land Development Ordinance, Section 612(A) is hereby revised and amended as follows:

A. Paving

1. Whenever possible, the subgrade shall be in cut or undisturbed subsoil. In no case shall the subgrade consist of filled or undisturbed topsoil or frozen soils. All deleterious material, such as tree roots, leaves, branches, trash, stones exceeding six (6) inches in diameter, and miscellaneous construction debris, shall be removed from the subgrade. Compaction shall be accomplished by sheep's-foot, smooth wheel, vibratory roller, or rubber-tired roller at the discretion of the Township Engineer.
2. The subgrade shall be compacted tight and dry and shall not be soft and spongy when check or proof rolled. Compaction of the subgrade shall extend the full width of the cartway, including the width to be occupied by shoulders where applicable. The required road crown shall be built into the shaped subgrade. Upon inspection of the compacted subgrade by the Township Engineer, the placement of a geotextile material may be required.
3. All collector, residential, non-residential, local access streets, and commercial parking areas shall be constructed in accordance with the paving detail shown in Appendix C. All street widening shall also be constructed in accordance with the paving details shown in Appendix C.
4. The subbase course shall consist of a stone application meeting with requirements of PennDOT Publication 408. A ten (10) ton or twelve (12) ton vibratory roller shall be used for the stone compaction.
5. The base course shall consist of of superpave asphalt mixture, PG 64-22, 0.0 to 0.3 million Esals, 25.00 mm mix, SRL H, meeting the requirements of the current PennDOT Publication 408.
6. When required, a superpave asphalt mixture design, HMA Binder course, PG 64-22, 0.0 to 0.3 million Esals, 19.0 mm mix, SRLH shall be placed over the base course, meeting the requirements of the current PennDOT Publication 408. In no case shall the binder course be applied over a frozen, saturated, or excessively dirt-laden base course.
7. After proper cleaning, repairing, and preparation of the binder course as directed by the Township Engineer, a tack coat shall be applied to the binder course prior

to placing the wearing course. The tack coat, shall consist of materials meeting the specifications of the current PennDOT Publication 408.

8. The wearing course shall consist of a superpave asphalt mixture design, HMA wearing course, PG 64-22, 0.0 to 0.3 million Esals, 9.5 mm mix, SRL H, meeting the requirements of the current PennDOT Publication 408.
9. After application of the wearing course, all curb, inlet, manhole, driveway, and similar joints shall be sealed with a PennDOT approved joint sealer applied to neat lines with a minimum width of six (6) inches.
10. All roads shall have a crown in accordance with the paving details located in Appendix C, sloping away from the centerline unless otherwise directed by PennDOT or the Township Engineer.

SECTION 3.

Appendix C of the West Vincent Township Subdivision and Land Development Ordinance is hereby amended and replaced with the details and specifications attached hereto as Exhibit 1.

SECTION 4.

If any sentence, clause, section or part of this Ordinance is for any reason found to be unconstitutional, illegal or invalid, such unconstitutionality, illegality or invalidity shall not affect or impair any of the remaining provisions, sentences, clauses, sections or parts of this Ordinance. It is hereby declared as the intent of the Board of Supervisors that this Ordinance would have been adopted had such unconstitutional, illegal or invalid sentence, clause, section or part thereof not been included herein.

SECTION 5.

All ordinances or parts of ordinances conflicting or inconsistent herewith are hereby repealed to the extent of such inconsistency only.

SECTION 6.

This ordinance shall become effective five (5) days from the date hereof.

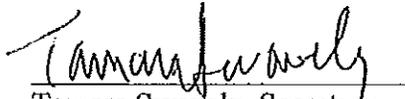
SECTION 7.

Pursuant to the Pennsylvania Municipalities Planning Code and the Second Class Township Code, the West Vincent Township Subdivision and Land Development Ordinance shall be revised to codify and incorporate the above-referenced ordinance amendments.

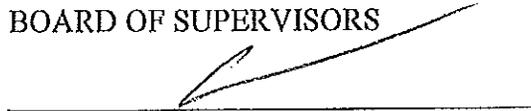
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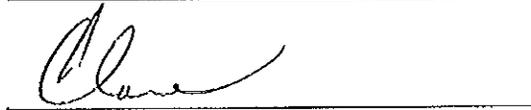
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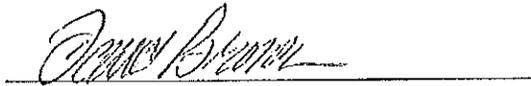
WEST VINCENT TOWNSHIP
BOARD OF SUPERVISORS



Tamara Swavely, Secretary







**MOTION
TO ENACT SUBDIVISION AND LAND DEVELOPMENT ORDINANCE**

THIS MOTION, made the 28th day of December, 1998 by the Supervisors of West Vincent Township, Chester County, Pennsylvania, hereby states that:

It is moved by Zoë Perkins and seconded by Karl Brachwitz that the Subdivision and Land Development Ordinance, as amended during the public hearing on this date, is adopted as Ordinance No. 89-1998, the Subdivision and Land Development Ordinance of West Vincent Township, Chester County, Pennsylvania, and shall become effective five days after the date of this action.

APPROVED: December 28, 1998

BOARD OF SUPERVISORS OF
WEST VINCENT TOWNSHIP

Kenneth Miller, Jr., Chairman

Zoë Perkins, Vice Chairman

Karl A. Brachwitz

Attest:

WEST VINCENT TOWNSHIP

BOARD OF SUPERVISORS

Kenneth Miller, Jr., Chairman
Zoë Perkins, Vice-Chairman
Clare Quim, Member

TOWNSHIP MANAGER

James R. Wendelgass

PLANNING COMMISSION

George Martin , Chairman
Sara Shick, Vice-Chairman
Robert Kaiser
Kate Damsgaard
Barbara Mueller
Bill Dietrich

SUBDIVISION AND LAND DEVELOPMENT ORDINANCE

West Vincent Township

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SUBDIVISION AND LAND DEVELOPMENT ORDINANCE
TOWNSHIP OF WEST VINCENT
CHESTER COUNTY, PENNSYLVANIA

ORDAINING CLAUSE

Be it hereby ordained and enacted by the Board of Supervisors of the Township of West Vincent, by authority of and pursuant to the provisions of the Act of the General Assembly of the Commonwealth of Pennsylvania, approved July 31, 1968, known and cited as the "Pennsylvania Municipalities Planning Code", (53 P.S., Section 10101, et seq.) and any amendments and supplements thereto, and as follows:

ARTICLE I
AUTHORITY AND PURPOSE

SECTION 101 **TITLE**

An Ordinance establishing rules, regulations, and standards governing the subdivision of land, land development, and mobile home parks within the Township of West Vincent, setting forth procedures to be followed in applying and administering the Ordinance, and providing penalties for the violation thereof.

SECTION 102 **SHORT TITLE**

This Ordinance shall be known and may be cited as the "West Vincent Township Subdivision and Land Development Ordinance of 1998", as may be amended from time to time.

SECTION 103 **PURPOSE**

It is the general intent of this Ordinance to regulate the subdivision and development of land in West Vincent Township to ensure that:

- A. The layout or arrangement of the subdivision or land development and all other characteristics of the subdivision or land development shall conform to the Comprehensive Plan for West Vincent Township, as may be amended from time to time, and shall further the orderly and appropriate use of the land.
- B. Streets in and bordering a subdivision or land development shall be coordinated with existing streets, parks, and other features of the Township, and shall be of such widths and grades and in such locations as deemed necessary to efficiently accommodate prospective traffic.
- C. Adequate easements or rights-of-way shall be provided for drainage and utilities.

- D. Adequate open space for traffic, recreation, light, air, and effective drainage shall be provided in subdivisions and land developments and that reservations, if any, by the developer of any area designed for use as public grounds shall be of suitable size and location for their designated uses.
- E. Land which is subject to flooding, subsidence, or other environmental limitation either shall be made safe for the purpose for which such land is proposed to be used or that such land shall be set aside for uses which shall not endanger life or property or further aggravate or increase the existing menace.
- F. Adequate facilities for transportation (including streets, walkways, curbs, gutters, and street lights), water, fire hydrants, sewage, storm drainage, schools, parks, playgrounds, and other public facilities shall be installed in the subdivision or land development, as necessary.
- G. Adequate provisions for safety from fire, panic, and other dangers shall be provided for in subdivisions and land developments.

SECTION 104 VALIDITY AND REPEALER

Should any section or provision of this Ordinance be declared by a court of competent jurisdiction to be invalid, such decision shall not affect the validity of the Ordinance as a whole of any other part thereof. All other ordinances and parts thereof which are inconsistent with this Ordinance are hereby repealed to the extent of such inconsistency.

SECTION 105 EFFECTIVE DATE

This Ordinance shall take effect five (5) days after the adoption and signing of this Ordinance by the Township Board of Supervisors.

ARTICLE II DEFINITIONS

SECTION 201 INTERPRETATION

As used in this Ordinance, words in the singular include the plural and those in the plural include the singular. The word "building" shall be construed as if followed by the phrase "or part thereof". The word "may" is permissive; the words "shall" and "will" are mandatory, subject to the provisions of Section 601D. of this Ordinance. The present tense includes the future. The masculine gender includes the feminine and the neuter. The word "Township" means West Vincent Township, Chester County, Pennsylvania; the term "Planning Commission" means the Planning Commission of said Township; the term "Zoning Ordinance" means the Zoning Ordinance of said Township.

SECTION 202 DEFINITIONS OF TERMS

Unless otherwise expressly stated, the following words and phrases shall be construed throughout this Ordinance to have the meanings indicated in this Article. Terms not included in this Article or otherwise defined shall be interpreted according to common usage.

ALLEY. A minor right-of-way, which may or may not be legally dedicated to the Township, serving as a secondary means of access to the rear or side of properties otherwise abutting on a street.

ANNEXATION. A subdivision in which a portion of a parcel is conveyed and merged with an adjacent parcel and so long as the resultant parcels conform to the area and bulk requirements of the applicable district in which they are located.

APPLICANT. A landowner, subdivider, or developer, as herein defined, who has filed an application for development, including his heirs, successors, and assigns.

BLOCK. An area bounded by streets.

BMP (Best Management Practice). Stormwater structures, facilities, and techniques to maintain or improve the water quality of surface runoff.

BOARD. The Board of Supervisors of West Vincent Township, Chester County, Pennsylvania.

BUILDING. A combination of materials to form a permanent structure having walls and a roof. Included shall be all mobile homes and trailers to be used for human habitation.

BUILDING SETBACK LINE. A line established within a lot by the required minimum front yard depth, measured from the street right-of-way and parallel thereto, defining the minimum distance in which no building may be constructed. In the case of an interior lot not fronting a street for its entire width, the building setback line shall be a line parallel to and measured from the

property line nearest the street, defining the minimum distance in which no building may be constructed.

CALIPER. The diameter of a tree trunk measured six (6) inches above ground level for and up to and including four inch caliper trees, and twelve (12) inches above ground level for trees with calipers over four inches.

CARTWAY or ROADWAY. The portion of a street or alley right-of-way, paved or unpaved, intended for vehicular use, including travel lanes. Shoulders, curbing, and drainage facilities are excluded.

CERTIFICATE OF REGISTRATION FOR MOBILE HOME PARKS. Written approval as issued by the Pennsylvania Department of Environmental Protection authorizing a person to operate and maintain a Mobile Home Park.

CLEAR SIGHT DISTANCE/TRIANGLE. An area of unobstructed vision at street intersections defined by lines of sight between points at given distance from the intersection of street center lines.

COMMON OPEN SPACE. A parcel or parcels of land, an area of water, or a combination of land and water within a development site designed and intended for the use and enjoyment of residents of the development, not including:

- streets and off-street parking areas
- areas set aside for public facilities

COMMUNITY ASSOCIATION. A group of real property owners who together comprise an entity, or that entity itself, the function of which is to maintain and administer property which either the entity itself owns or which is owned in common by the members of the entity, to protect and enhance the value of the property owned individually by each of the members and to provide a mechanism for the orderly co-existence of a membership which lives in proximity one to another. Homeowners' Associations and Condominium Associations are types of Community Associations.

CROSSWALK or INTERIOR WALK. A right-of-way for pedestrian use extending from a street into a block or across a block to another street.

CUL-DE-SAC. A minor street intersecting another street at one end and terminated at the other by a vehicular turn-around.

CUSTOMARY USE (of a trail). Use by pedestrians and/or equestrians of sufficient frequency to create a path relatively free of undergrowth and easily discerned at ground level.

CUT. An excavation. The difference between a point on the original ground and a designated point of lower elevation on the final grade. Also, the material removed in excavation.

DBH (Diameter at Breast Height). Tree trunk diameter measured in inches at a height of four and

one-half (4.5) feet above the ground. If a tree divides or splits into multiple trunks below 4.5 feet, the trunk is measured at its most narrow point beneath the split.

DEVELOPER. Any landowner, agent of such landowner, or tenant with the permission of such landowner, who makes or causes to be made a subdivision of land or a land development.

DESIGN STORM. The magnitude and temporal distribution of precipitation from a storm event measured in probability of occurrence (e.g. - a 5-year storm) and duration (e.g. - 24 hours), used in the design and evaluation of stormwater management systems.

DETENTION BASIN. An impoundment structure designed to manage stormwater runoff by temporarily storing the runoff and releasing it at a predetermined rate.

DRAINAGE. The flow of water or liquid waste, and the method of directing such flow, whether natural or artificial.

DRAINAGE CONVEYANCE FACILITY. Any swale, ditch, gutter, pipe, culvert, storm sewer, or structure designed, intended, or constructed for the purpose of diverting surface waters from, or carrying surface waters off, streets, public rights-of-way, parks, recreational areas, or any part of any subdivision and contiguous territory.

DRAINAGE EASEMENT. A right granted by a landowner to a grantee, allowing the use of private land for stormwater management purposes.

DRIVEWAY. A private access strip, graded and usually hardsurfaced, intended for use as a means of vehicular access to an individual dwelling or other structure.

DRIVEWAY, COMMON. A private driveway serving two (2) or more lots or properties, the use and maintenance of which is shared between or among the property owners.

EARTH DISTURBANCE. Any activity including, but not limited to, construction, mining, timber harvesting, and grubbing which alters, disturbs, or exposes the existing land surface.

EASEMENT. An interest in land owned by another that entitles the holder to a specific limited use or enjoyment.

EMERGENCY SPILLWAY. See "Spillway".

ENGINEER. The Township Engineer, or any consulting engineer designated by the Board of Supervisors to review subdivision plans and perform the duties of engineer on behalf of the Township.

EROSION. The removal of surface materials by the action of natural elements.

EXCAVATION. Any act by which earth, sand, gravel, rock, or any other similar material is dug into, cut, quarried, mined, uncovered, removed, displaced, relocated, or bulldozed and shall include

the conditions resulting therefrom.

FLOODPLAIN AREA. A relatively flat or low land area which is subject to partial or complete inundation from an adjoining or nearby stream, river, or watercourse; and/or any area subject to the unusual and rapid accumulation of surface waters from any source; and coinciding with the extent of an identified floodplain area, as defined in the West Vincent Township Zoning Ordinance.

FREEBOARD. A vertical distance between the elevation of the design high-water and the top of a dam, levee, lagoon, tank, basin, or diversion ridge. The space is required as a safety margin.

GREENWAY LAND. That portion of a tract that is set aside for open space and which is comprised of environmentally constrained lands and other features as identified on the Township Conservation Area Map.

GROUNDWATER RECHARGE. Replenishment of existing natural underground water supplies.

HALF or PARTIAL STREET. A street of less than required right-of-way width for a public street.

IMPERVIOUS SURFACE. A surface that prevents the percolation of water into the ground.

IMPOUNDMENT. A retention or detention basin designed to retain stormwater runoff and/or release it at a controlled rate.

IMPROVEMENTS. Those physical changes to the land necessary to produce usable and desirable lots from raw acreage including, but not limited to, grading, paving, curbing, street lights, signs, fire hydrants, water mains, sanitary sewers, storm drains, sidewalks, crosswalks, bridges, culverts, and street shade trees.

INFILTRATION STRUCTURES. A structure designed to direct runoff into the ground, including but not limited to, french drains, seepage pits, seepage trench.

LAND DEVELOPMENT. (1) The improvement of one (1) lot or two (2) or more contiguous lots, tracts or parcels of land for any purpose involving: (i) a group of two (2) or more residential or non-residential buildings, whether proposed initially or cumulatively, or a single non-residential building on a lot or lots regardless of the number of occupants or tenure; or (ii) the division or allocation of land or space, whether initially or cumulatively, between or among two (2) or more existing or prospective occupants by means of, or for the purpose of streets, common areas, leaseholds, condominiums, building groups or other features. (2) A subdivision of land. (3) Certain land development shall be excluded from the definition of land development only when such land development involves: (i) the conversion of an existing single-family detached dwelling or single family semi-detached dwelling into not more than three (3) residential units, unless such units are intended to be a condominium; or (ii) the addition of an accessory building, including accessory farm and non-residential buildings, on a lot or lots subordinate to an existing principal building.

LANDOWNER. The legal or beneficial owner or owners of land including the holder of an option or contract to purchase (whether or not such option or contract is subject to any condition), a lessee if authorized under the lease to exercise the rights of the landowner, or other person having a proprietary interest in the land.

LOT. A designated parcel, tract or area of land established by a plat or otherwise as permitted by law and to be used, developed or built upon as a unit. The term "lot" shall also mean parcel, plot, site, tract, or any similar term.

LOT LINE CHANGE. A subdivision in which no increase in the number of lots is proposed or an annexation, as long as each lot is a conforming lot.

MAJOR SUBDIVISION. Any land development; any subdivision plan proposing improvements to be dedicated to the Township; any subdivision plan proposing the construction, improvement, or widening of a public or private street; any subdivision plan involving land disturbance activities requiring permanent stormwater management facilities; or a subdivision in which four (4) or more lots are proposed.

MANNING EQUATION/FORMULA. A method for calculation of velocity of flow (e.g. - feet per second) and flow rate (e.g. - cubic feet per second) in open channels based upon channel shape, roughness, depth of flow and slope. "Open channels" may include closed conduits so long as the flow is not under pressure.

MINOR SUBDIVISION. Any subdivision in which:

- No improvements to be dedicated to the Township are proposed;
- No public or private street is to be constructed, improved, or widened;
- No other improvement is to be constructed that requires any form of subdivision escrow agreement other than individual on-lot stormwater management systems;
- No land disturbance activities will take place except those incidental to construction of a single-family dwelling on each lot; and
- No more than three (3) lots are proposed; or
- Any lot line adjustments where no construction, grading, or excavation is proposed.

MOBILE HOME. A transportable, single family dwelling intended 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 constructed so that it may be used without a permanent foundation. A mobile home shall meet the West Vincent Township Building and Fire Codes.

MOBILE HOME LOT. A parcel of land in a mobile home park, improved with the necessary utility connections and other appurtenances necessary for the erection thereon of a single mobile home.

MOBILE HOME PAD. A concrete pad at least six (6) inches in thickness with at least six (6) tie-down rings to which the mobile home shall be secured, and equal in length and width to the dimensions of the mobile home to be placed thereon.

MOBILE HOME PARK. A parcel or contiguous parcels of land which has been so designated and improved that it contains two (2) or more mobile home lots for the placement thereon of mobile homes.

MOBILE HOME PERMIT. Written approval issued by the Township authorizing a person to operate and maintain a mobile home or mobile home park under the provisions of this Ordinance.

NRCS. Natural Resource Conservation Service, formerly the Soil Conservation Service.

PEAK DISCHARGE. The maximum rate of stormwater runoff from a specific storm event.

PLAN, EXISTING RESOURCES AND SITE ANALYSIS. A plan containing a comprehensive analysis of existing conditions, both on the proposed development site and within 500 feet of the site.

PLAN, FINAL. A complete and exact subdivision plan, prepared for official recording as required by statute, to define property rights, proposed streets, and other improvements.

PLAN, IMPROVEMENTS CONSTRUCTION. A plan setting forth the nature and location of all public and/or private improvements and all engineering data necessary for completion of such work.

PLAN, PRELIMINARY. A tentative subdivision plan, showing proposed street and lot layout and improvements as a basis for consideration prior to preparation of a final plan.

PLAN, RESOURCE CONSERVATION. A plan prepared to categorize the impacts of the proposed subdivision or land development on those resources depicted on the Existing Resources and Site Analysis Plan.

PLAN, SITE CONTEXT. A plan showing the location of the proposed subdivision within its neighborhood context.

PLAN, SKETCH. An informal plan indicating salient existing features of a tract and its surroundings and the general layout of the proposed subdivision or land development.

RATIONAL FORMULA/METHOD. A rainfall-runoff relation used to estimate peak flow.

RESERVE STRIP. A strip of land adjacent to a street intended to control access to the street from an adjacent property.

RESTORATION. Construction, reconstruction, maintenance, or other work performed upon a building site with the intention of re-establishing a previously existing condition.

RETENTION BASIN. An impoundment in which stormwater is stored and not released during the storm event. Stored water may be released from the basin at some time after the end of the storm or recharged into the groundwater.

RETURNED PERIOD. The average interval, in years, within which a storm event of a given magnitude can be expected to recur. For example, the 25-year return period rainfall would be expected to recur on the average once every twenty-five years.

REVERSE FRONTAGE LOT. A lot extending between and having frontages on a major traffic street and a minor street, with vehicular access solely from the latter.

RIDGELINE. The line of intersection at the top of opposite slopes or sides of increasing contour lines or the boundary between watershed drainage areas.

RIGHT-OF-WAY. The total width of the land area reserved or dedicated as a street, crosswalk, or for some other public or semi-public purpose.

RUN-OFF. The surface water discharge or rate of discharge of a given watershed after a fall of rain or snow that does not enter the soil but runs off the surface of the land.

RUN-OFF FROM A FULLY DEVELOPED AREA UPSTREAM. The surface water run-off that can be reasonably anticipated upon maximum development of an area of the watershed located upstream from any subject tract, as permitted by prevailing zoning.

SEDIMENTATION. The process by which mineral or organic matter is accumulated or deposited by moving wind, water, or gravity. Once this matter is deposited (or remains suspended in water), it is usually referred to as "sediment".

SEDIMENT BASIN. A barrier, dam, retention or detention basin located and designed to retain rock, sand, gravel, silt, or other material transported by water.

SEEPAGE PIT/TRENCH. An area of excavated earth filled with loose stone or similar coarse material, into which surface water is directed for infiltration into the ground.

SEPTIC TANK. A covered, watertight settling tank in which raw sewage is biochemically changed into solid, liquid, and gaseous states to facilitate further treatment and final disposal.

SERVICE BUILDING. A structure which contains operational, office, recreational, sanitary, maintenance, or other facilities built for the exclusive use of mobile home park residents or the owner.

SEWAGE SERVICE, INDIVIDUAL ON-SITE. A system for the disposal of sewage on the lot of which it originated by the uses of septic tanks or other means as approved by the Chester County Health Department and the Pennsylvania Department of Environmental Protection.

SEWAGE SERVICE, COMMUNITY. An on-site system for the collection, treatment, and disposal of sewage from more than one lot, intended to be dedicated to and operated by the Township for the benefit and at the sole expense of the lot owners served. The system is subject to the approval of the Township, the Chester County Health Department and the Pennsylvania Department of Environmental Protection.

SEWAGE SERVICE, PUBLIC. An off-site system for treatment and disposal of sewage in which sewage is conveyed by interceptor to a publicly-operated treatment plant and disposed of through means approved by the Pennsylvania Department of Environmental Protection.

SEWER CONNECTION. Consists of all pipes, fittings, and appurtenances from the drain outlet of a building or mobile home to the inlet of the corresponding sewer riser pipe.

SEWER RISER PIPE. That portion of the sewer lateral which extends vertically to the ground elevation and terminates at a designated point at each building or mobile home space.

SIGHT DISTANCE. The extent of unobstructed vision (in a horizontal or vertical plane) along a street from a vehicle located at any given point on the street.

SLOPE. The face of an embankment or cut section; any ground whose surface makes an angle with the plane of the horizon. Slope is expressed as a percentage based upon vertical difference in feet per one hundred (100) feet of horizontal distance.

SLUDGE. Solids removed from raw sewage during wastewater treatment and then disposed of by incineration, land application, burial, or other approved means.

SOIL COVER COMPLEX METHOD. A method of runoff computation developed by the NRCS that is based on relating soil type and land use/cover to a runoff parameter called curve number (CN).

SOIL PERCOLATION TEST. A field test conducted to determine the suitability of the soil for sanitary sewage disposal facilities by measuring the absorptive capacity of the soil at a given location and depth, performed in accordance with the rules and regulations of the Chester County Health Department and the Pennsylvania Department of Environmental Protection.

SOIL STABILIZATION. Chemical or structural treatment of a mass of soil to increase or maintain its stability or otherwise to improve its engineering properties.

SPECIMEN TREE. A unique, rare, or otherwise specifically selected plant or tree considered worthy of conservation by the Township because of its species, size, age, shape, form, historical importance, or any other significant characteristic, including listing as a Species of Special Concern

by the State of Pennsylvania and/or in the visual resource inventory of the Township Open Space and Recreation Plan; particularly as applied to trees over 20 inches in caliper.

SPILLWAY. A depression in the embankment of a pond or basin which is used to pass peak discharge greater than the maximum design storm controlled by the structure (a.k.a. - emergency spillway).

STORM FREQUENCY. The number of times than a given storm event occurs or is exceeded on the average in a stated period of years. See "return period".

STREET. A strip of land, including the entire right-of-way intended for use as a means of vehicular and pedestrian access. The word "street" includes alley, avenue, boulevard, court, expressway, highway, lane, road, thoroughfare, parkway, viaduct and other ways used or intended to be used by vehicular traffic or pedestrians, whether public or private.

STREET, PRIVATE. A street serving two (2) or more lots held in single and separate ownership and not dedicated or deeded to the Township.

STREET, SINGLE-ACCESS. A minor street which has access to the road circulation system at only one (1) point. Cul-de-sacs are a type of single-access street.

SUBDIVIDER. The owner, or the authorized agent of the owner, of a subdivision.

SUBDIVISION. The division or redivision of a single lot, tract, or parcel of land, or other divisions of land, including changes in street lines or lot lines, for the purpose, whether immediate or future, of lease, partition by the court for distribution to heirs or devisees, transfer of ownership or of building or lot development; provided, however, that 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 any residential dwelling, shall be exempted. The term "subdivision" shall refer, as appropriate in these regulations, to the process of subdividing land or to the land proposed to be subdivided.

SUBSTANTIAL COMPLETION. Where, in the judgment of the Township Engineer and as evidenced by the Township Engineer's issuance of a Certificate of Substantial Completion, those improvements required as a condition for final approval have been completed in accordance with the approved plan and that those improvements can be utilized for the purposes for which they were intended; or if no such certificate is issued, when the improvements are complete and ready for final payment as evidenced by the Township Engineer's written recommendation of final payment.

SWALE. A low-lying stretch of land which gathers or carries surface water run-off.

TILE DISPOSAL FIELD. A system to distribute sewage effluent into the soil for absorption and vaporization through open-jointed or perforated pipes laid in the upper soil strata.

TIME OF CONCENTRATION (T_c). The time for surface runoff to travel from the hydraulically most distant point of the watershed to a point of interest within the watershed. This time is the combined total of overland flow time and flow time in pipes or channels, if any.

TOPSOIL. Surface soils and subsurface soils which presumably are fertile soils and soil material, ordinarily rich in organic matter and humus debris. Topsoil is usually found in the uppermost soil layer, called the "A" horizon.

TOWNSHIP. West Vincent Township, Chester County, Pennsylvania.

TRAIL. An improved, but not necessarily paved, route designed and used for travel by pedestrians, equestrians, cross-country skiers, and/or non-motorized vehicles.

WATER CONNECTION. Consists of all pipes, fittings, and appurtenances from the water riser pipe to the water inlet pipe of the distribution system within a building or mobile home.

WATERS OF THE COMMONWEALTH: Rivers, streams, creeks, rivulets, impoundments, ditches, watercourses, storm sewers, lakes, dammed water, wetlands, ponds, springs, and other bodies or channels of conveyance of surface and underground water, or parts thereof, whether natural or artificial, within or on the boundaries of the Commonwealth of Pennsylvania.

WATERCOURSE. A channel or conveyance of surface water having defined bed and banks, whether natural or artificial, with perennial or intermittent flow. The term shall also include water features defined as "Waters of the Commonwealth".

WATER RISER PIPE. That portion of the water service pipe which extends vertically to the ground elevation and terminates at a designated point at each building or mobile home lot.

WATER SUPPLY SYSTEM, COMMUNITY. A centralized system other than a public water supply system for treating, supplying and distributing water from a common source or sources to two (2) or more dwellings or structures within a single development, neighborhood, or area. The system shall be approved by the Township, the Chester County Health Department, the Pennsylvania Department of Environmental Protection, and the Pennsylvania Public Utility Commission. The water supply source may be located on-site or off-site.

WATER SUPPLY SYSTEM, INDIVIDUAL ON-SITE. A system for supplying and distributing water to a single dwelling or other structure from a source located on the same lot. The system shall be approved by the Chester County Health Department.

WATER SUPPLY SYSTEM, PUBLIC. A system owned and operated by a municipality, governmental agency, or public utility for treating, supplying and distributing water from a common source or sources to dwellings and other structures generally not confined to a single development, neighborhood, or area. The system shall be approved by the Township, the Chester County Health Department, the Pennsylvania Department of Environmental Protection, and the Pennsylvania Public Utility Commission. The water supply source may be located on-site or off-site.

WETLANDS. Those areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions, including swamps, marshes, bogs, and similar areas.

ARTICLE III
SUBDIVISION CONTROL AND PENALTIES

SECTION 301 JURISDICTION

The Board of Supervisors is vested by law with the jurisdiction and control of the subdivision and development of land located within the limits of West Vincent Township. District justices shall have initial jurisdiction in enforcement proceedings brought under Section 305 of this Ordinance.

SECTION 302 SUBDIVISION AND LAND DEVELOPMENT CONTROL

No subdivision or land development of any lot, tract, or parcel of land shall be effected and no street, alley, sanitary sewer, storm sewer, water main, or other facilities 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 or to abut thereon, except in strict accordance with the provisions of this Ordinance.

SECTION 303 PLAN APPROVAL AND RECORDING OF PLAN

No lot in a subdivision may be sold, no permit to erect or alter any building upon land in a subdivision or constituting a land development may be issued, and no building may be erected in a subdivision or land development unless and until a subdivision or land development plan has been approved and properly recorded, and until the required improvements in connection therewith have either been constructed or the completion thereof has been assured by means of a proper completion guarantee in accordance with Section 510 of this Ordinance.

SECTION 304 PREVENTIVE REMEDIES

- A. 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 transferer from such penalties or from the remedies herein provided.

- B. 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 of real property or a land development in violation of this Ordinance. This authority to deny such a permit or approval shall apply to any of the following applicants:
 - 1. The owner of record at the time of such violation.
 - 2. 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.

3. 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.
4. 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.

SECTION 305 ENFORCEMENT REMEDIES

- A. Any person, partnership, or corporation who or which has violated any provisions of this Ordinance shall, upon being found liable therefor in a civil enforcement proceeding commenced by the Board of Supervisors or Township Manager, pay a judgment of not more than \$500 plus all court costs, including reasonable attorney fees incurred by the Township as a result thereof. No judgment shall commence or be imposed, levied or payable until the date of the determination of a violation by the district justice. If the defendant neither pays nor timely appeals the judgment, the Township may enforce the judgment pursuant to the applicable rules of civil procedure. Each day that a violation continues shall constitute a separate violation, unless the district justice determining that there has been a violation further determines that there was a good faith basis for the person, partnership or corporation violating the Ordinance to have believed that there was no such violation, in which event there shall be deemed to have been only one such violation until the fifth day following the date of the determination of a violation by the district justice and thereafter each day that a violation continues shall constitute a separate violation.
- B. All fines collected for such violations shall be paid over to West Vincent Township.
- C. The court of common pleas, upon petition, may grant an order of stay, upon cause shown, tolling the per diem judgment pending a final adjudication of the violation and judgment.
- D. Nothing contained in this section shall be construed or interpreted to grant to any person or entity other than the Township the right to commence any action for enforcement pursuant to this section.

ARTICLE IV
PLAN CONTENT REQUIREMENTS

SECTION 401 PURPOSES AND APPLICABILITY

The provisions of this Article shall apply to all subdivision and land development applications in West Vincent Township. For the convenience of applicants, the Township provides a complimentary Plan Requirements Checklist listing all the documents that this Ordinance requires to be submitted, at each step of the review process. Copies of this checklist are contained in Appendix A of this Ordinance and are available from the Township Office. The checklist also facilitates review by Township staff and officials, as they review each application for completeness and conformance with relevant ordinance provisions.

SECTION 402 SKETCH PLAN

- A. A Sketch Plan may be submitted by the subdivider or developer as a basis for informal discussion with the Township Board of Supervisors, the Township Planning Commission, and the Chester County Planning Commission. Sketch Plan submission is strongly encouraged by the Township as a way of helping applicants and Township officials develop a better understanding of the property and to help establish an overall design approach that respects its special or noteworthy features, while providing for the density permitted under the Township's Zoning Ordinance.

When a Sketch Plan is submitted to the Board it will serve as a diagrammatic basis for informal discussion with the Planning Commission as to the intended use and arrangement of a proposed subdivision or land development. The applicant is therefore encouraged to follow the Five-Step Design Process contained in Section 403F. of this Ordinance.

- B. The applicant may submit whatever information he deems useful. However, to provide a full understanding of the site's potential and to facilitate the most effective exchange with the Planning Commission, it is suggested that the Sketch Plan include the information listed below. Many of these items can be taken directly from the Existing Resources and Site Analysis Plan, a document that is required to be prepared and submitted no later than the date of the Site Inspection, which precedes the Preliminary Plan (see Section 403D.) and which applicants are strongly encouraged to prepare as part of the Sketch Plan submission.

1. Name and address of owner/applicant;
2. Name and address of the applicant's engineer, surveyor, planner, architect, landscape architect, or site designer, if available;
3. Graphic scale (not greater than 1" = 200 ft.; however, dimensions on the plan need not be exact at this stage);

4. Approximate tract boundaries, sufficient to locate the tract on a map of the Township;
5. North arrow;
6. Location map, zoning district, 100-year floodplain limits, and approximate location of wetlands, if any;
7. Streets on and adjacent to the tract (both existing and proposed);
8. Topographical and physical features, including existing structures, wooded areas, hedgerows and other significant vegetation, topographic contours at an interval of five (5) feet, steep slopes (over 25%), soil types, ponds, streams within two hundred (200) feet of the tract, and existing rights-of-way and easements;
9. Schematic layout indicating a general concept for land conservation and development ("bubble" format is acceptable).
10. In the case of residential developments located in the RC, R-3, and R-2 Residential Districts, a comparison of the design options permitted in the applicable district.
11. In the case of land development plans, proposed general layout, including building locations, parking lots, and open spaces.

SECTION 403 PRELIMINARY PLAN

A preliminary plan shall consist of and be prepared in accordance with the following:

A. Conceptual Preliminary Plan

The submission requirements for a Conceptual Preliminary Plan are the same as those for Sketch Plans contained in Section 402B. above, in addition to the requirements contained in this Section. Any discrepancies shall be interpreted in favor of the requirements of this Section, which are mandatory.

B. Drafting Standards

1. The plan shall be drawn to a scale of either 1"=100' or 1"=200', whichever would fit best on a standard size sheet (24" x 36"), unless otherwise approved by the Planning Commission.
2. Dimensions shall be set in feet and decimal parts thereof, bearings in degrees, minutes and seconds (errors in closure shall not be more than one part in 10,000).
3. Each sheet shall be numbered and shall show its relationship to the total number of sheets.

4. The plan shall bear an adequate legend to indicate clearly which features are existing and which are proposed.
5. All plans submitted shall be made on sheets no larger than 30" x 42", nor smaller than 24" x 36". One (1) copy of the title plan shall also be submitted on an 11" x 17" sheet.
6. Where it is necessary to use more than one sheet for a plan, the layout shall be such that any lot shall be complete on one (1) plan and no lot shall be split on two (2) sheets. In such cases, a master plan shall be submitted as part of the application at a scale of one (1) inch equals two hundred (200) feet.
7. Signature blocks for West Vincent Township Planning Commission, Board of Supervisors, Township Engineer and Chester County Planning Commission shall be provided on the right-hand side of the Title Plan, Improvement Construction Plan and Stormwater Management Plan.

C. **Site Location and Context Plan**

A plan showing the location of the proposed subdivision within its neighborhood context shall be submitted. For sites under 100 acres in area, such plans shall be at a scale not less than 1" = 200', and shall show the relationship of the subject property to natural and man-made features existing within 500 feet of the site. For sites of 100 acres or more, the scale shall be 1" = 400', and shall show the above relationships within 500 feet of the site. The features that shall be shown on Site Location and Context Maps include:

1. Topography (from U.S.G.S. maps).
2. Streams and water courses, drainage basins and sub-basins.
3. Wetlands (from maps published by the U.S. Fish & Wildlife Service or the U.S.D.A. Natural Resources Conservation Service).
4. Woodlands over one-half acre in area (from aerial photographs).
5. Ridge lines.
6. Public roads, trails, utility easements, pipelines, and rights-of-way.
7. Public land and land protected under conservation easements.
8. Zoning district lines and boundaries.
9. Existing property lines.
10. Names of owners of all properties and the names of all subdivisions.

D. **Existing Resources and Site Analysis Plan**

For all subdivisions (except those in which all proposed lots are to be ten or more acres in area), an Existing Resources and Site Analysis Plan shall be prepared to provide the developer and the Township with a comprehensive analysis of existing conditions, both on the proposed development site and within 500 feet of the site. Conditions beyond the parcel boundaries may be described on the basis of existing published data available from governmental agencies, and from aerial photographs.

The Township shall review the Plan to assess its accuracy and thoroughness. Unless otherwise specified by the Planning Commission, such plans shall generally be prepared at the scale of 1"=100' or 1"=200', whichever would fit best on a single standard size sheet (24" x 36"). The following information shall be included in this Plan:

1. Topography, the contour lines of which shall generally be at two-foot intervals, determined by photogrammetry and measured in accordance with the standards contained in Article XVII of the Township Zoning Ordinance (although 10-foot intervals are permissible beyond the parcel boundaries, interpolated from U.S.G.S. published maps). The determination of appropriate contour intervals shall be made by the Planning Commission, which may specify greater or lesser intervals on exceptionally steep or flat sites. Slopes between 15 and 25 percent and exceeding 25 percent shall be clearly indicated. Topography for major subdivisions shall be prepared by a professional land surveyor or professional engineer from an actual field survey of the site or from stereoscopic aerial photography and shall be coordinated with official U.S.G.S. benchmarks. Datum to which contour elevations refer shall be noted.
2. The location and delineation of ponds, streams, and natural drainage swales, as well as the 100-year floodplains and wetlands, as defined in the Zoning Ordinance. Additional areas of wetlands on the proposed development parcel shall also be indicated, as evident from testing, visual inspection, or from the presence of wetland vegetation.
3. The location, delineation, and identification any resource included within the Chester County Natural Areas Inventory.
4. Vegetative cover conditions on the property according to general cover type including cultivated land, permanent grass land, old field, hedgerow, woodland and wetland, specimen trees, the actual canopy line of existing trees and woodlands. Vegetative types shall be described by plant community, relative age and condition.
5. Soil series, types and phases, as mapped by the U.S. Department of Agriculture, Natural Resources Conservation Service in the published soil survey for Chester County, Pennsylvania, and accompanying data tabulated for each soil. The following soil types shall be specifically identified:

- a. Alluvial soils.
 - b. Seasonal high water table soils.
 - c. Hydric soils.
 - d. Class I and II agricultural soils
 - e. Soil hydrologic group (i.e. - Group A, B, C or D).
6. Ridge lines and watershed boundaries shall be identified.
 7. A viewshed analysis showing the location and extent of views into the property from public roads and from adjoining properties.
 8. Visual resources as delineated in the Township Open Space and Recreation Plan.
 9. Geologic formations on the proposed development parcel, based on available published information or more detailed data obtained by the applicant.
 10. The location and dimensions of all existing streets, roads, buildings, utilities and other man-made improvements, including wells and sewer systems.
 11. Locations of all historic districts and resources on the tract and on any abutting tract as defined and identified by Article XXIV of the Zoning Ordinance.
 12. Locations of trails that have been in public use (pedestrian, equestrian, bicycle, etc.).
 13. All easements and other encumbrances of property which are or have been filed of record with the Recorder of Deeds of Chester County shall be shown on the plan.
 14. Areas within the French Creek Scenic River Corridor as defined by the Township Zoning Ordinance.

E. Preliminary Impact Analysis and Resource Conservation Plan

1. A Preliminary Impact Analysis and Resource Conservation Plan shall be prepared to categorize the impacts of the proposed subdivision or land development on those resources shown on the Existing Resources and Site Analysis Plan (as required under Section 403D.). All proposed improvements, including but not necessarily limited to grading, excavation, fill, streets, buildings, utilities and stormwater detention facilities, as proposed in the other Preliminary Plan documents, shall be taken into account in preparing the Preliminary Impact Analysis and Resource Conservation Plan.

2. Using the Existing Resources and Site Analysis Plan as a base map, impact areas shall be mapped according to the following categories: (1) primary impact areas, i.e., areas directly impacted by the proposed subdivision; (2) secondary impact areas, i.e., areas in proximity to primary areas which may be impacted; and (3) designated protected areas, either to be included in a proposed Greenway or an equivalent designation such as dedication of a neighborhood park site.

F. **Five-Step Design Process for Residential Subdivisions**

All preliminary plans in the residential districts shall include documentation of a five-step design process in determining the layout of proposed Greenway lands, house sites, streets, stormwater facilities, and lot lines, as described below.

1. **Step 1: Delineation of Greenway Lands**

Proposed Greenway lands shall be designated using the Existing Resources and Site Analysis Plan as a base map and complying with Article XIX of the Township's Zoning Ordinance and Article VII herein, dealing with Resource Conservation and Greenway Delineation Standards. The Township's base map of Potential Conservation Areas shall also be referenced and considered.

Primary conservation areas shall be delineated comprising floodplains, submerged lands, wetlands and slopes over 25 percent.

In delineating secondary conservation areas, the applicant shall prioritize natural and cultural resources on the tract in terms of their highest to least suitabilities for inclusion in the proposed Greenway, in consultation with the Planning Commission. On the basis of those priorities and practical considerations given to the tract's configuration, its context in relation to resources areas on adjoining and neighboring properties, and the applicant's subdivision objectives, secondary conservation lands shall be delineated to meet at least the minimum acreage requirements for such lands and in a manner clearly indicating their boundaries as well as the types of resources included within them. Calculations shall be provided indicating the applicant's compliance with the acreage requirements for Greenway areas on the tract.

2. **Step 2: Location of House Sites**

Potential house sites shall be tentatively located, using the proposed Greenway lands as a base map as well as other relevant data on the Existing Resources and Site Analysis Plan such as topography and soils. House sites should generally be located not closer than 100 feet from primary conservation lands and 50 feet from secondary conservation lands, taking into consideration the potential negative impacts of residential development on adjoining Greenway areas as well as the potential positive benefits of such locations to provide attractive views and visual settings for residences.

3. **Step 3: Alignment of Streets and Trails**

Upon designating the house sites, a street plan shall be designed to provide vehicular access to each house, complying with the standards in Section 611 herein and bearing a logical relationship to topographic conditions. Impacts of the street plan on proposed Greenway lands shall be minimized, particularly with respect to crossing environmentally sensitive areas such as wetlands and traversing slopes exceeding 15%. Street connections shall generally be encouraged to minimize the number of new cul-de-sacs to be maintained by the Township and to facilitate access to and from homes in different parts of the tract (and adjoining parcels). Trails to provide pedestrian and equestrian access in accordance with Section 616 herein shall also be shown, connecting streets with greenway lands and trails on adjacent parcels.

4. **Step 4: Location of Land-Based Water Management Facilities**

Preferred locations for the stormwater and wastewater management facilities will be identified using the Site Analysis Plan and proposed Greenway lands as the base maps. Opportunities to use these facilities as an additional buffer between the proposed greenways and development areas are encouraged. These facilities should generally be designed to improve the quality of stormwater runoff and wastewater effluent with emphasis placed on achieving maximum groundwater recharge. The facilities should be located in areas identified as groundwater recharge areas as indicated on the Site Analysis Plan. The design of the facilities should strive to use the natural capacity and features of the site to facilitate the management of stormwater and wastewater generated by the proposal.

4. **Step 5: Drawing in the Lot Lines**

Upon completion of the preceding four steps, lot lines are drawn as required to delineate the boundaries of individual residential lots.

5. Applicants shall submit five separate sketch maps indicating the findings of each step of the design process and/or a composite map.

G. **Preliminary Title Plan**

The plan shall include the following:

1. A key map for the purpose of locating the site to be subdivided or developed, at a scale of not less than 800 feet to the inch, showing the relation of the tract to adjoining property and to all streets and municipal boundaries existing within 1,000 feet of any part of the property proposed to be subdivided or developed.
2. A map or series of maps, prepared according to Section 403.B., above, with

accompanying narrative as needed, showing the following:

- a. Proposed subdivision or land development name or identifying title and deed book and page reference(s) applicable to the subject property.
- b. Name and address of the landowner of the tract or of his authorized agent, if any.
- c. Name and address of the registered engineer or surveyor responsible for the plan. If an architect or landscape architect collaborated in the preparation of the plan, his name and address also shall appear.
- d. Zoning information including: applicable district, lot area and bulk regulations, proof of any variance or special exception which may have been granted and conditions, thereof, and any zoning boundaries that traverse or are within 200 feet of the tract.
- e. Tract boundaries showing bearings and distances.
- f. Total acreage of the tract.
- g. Original date of preparation, revision dates, north point, and graphic and verbal scale.
- h. The names of all owners of all adjacent lands with appropriate deed references.
- i. The locations and dimensions of all existing street rights-of-way and paving widths, including those approved or recorded but not constructed, existing gas, electric, and petroleum transmission lines, water courses, buildings, structures, sources of water supply, easements, trails and any other significant features, man-made and natural within the property proposed to be developed or subdivided and within 200 feet of the tract boundaries. Significant natural features shall include information shown on the Existing Resources and Site Analysis Plan.
- j. The locations and widths of any proposed streets or other public rights-of-way or land; including those proposed as part of the adopted Township Comprehensive Plan or Official Map, if such plan or map exists for the area to be subdivided or developed; and any street extensions or spurs as are reasonably necessary to provide adequate street connections and facilities to adjoining or contiguous developed or undeveloped areas.
- k. Location, if any, of all parks, playgrounds, and other areas dedicated or reserved for public use, with any conditions governing such use.

1. A full plan of the development, showing the proposed lot layout with "Gross" and "Net" (i.e. - minimum lot area, acreage indicated). Lots shall be numbered in a consecutive order and approximate lot dimensions and areas to demonstrate to the Township how the proposed layout compares to zoning requirements and that it is both mathematically attainable and practicable from an engineering perspective within the parcel being subdivided. Location of areas to be subject to easements of any kind shall be shown. The plan shall include:
 - (1). Building envelope showing setback lines and yard area requirements.
 - (2). Proposed easements and rights-of-way.
 - (3). The location of all percolation tests and test pits and the location of the primary and reserve disposal beds approved by the Chester County Health Department shall be indicated on each proposed lot.
 - (4). In addition, the plan for a land development shall show, where applicable, proposed building locations, location and size of parking lots, provisions for access and traffic control, locations of loading docks, and provisions for landscaping and lighting of the site.
- m. When a tract is subdivided into parcels large enough to permit resubdivision of the parcels, a sketch layout shall be included showing future potential subdivision of the parcels to ensure that subdivision may be accomplished in accord with current ordinances and with appropriate access. Submissions and review of the sketch plan described in this section shall not constitute approval of the future subdivision shown thereon.
- n. Where subdivision of land is proposed as a part of land development because of the creation of mortgages encumbering less than the entire tract, a plan shall be submitted showing the proposed division of property, including easements for access to all parcels not fronting on public roads. Such easements shall be a minimum of twenty (20) feet wide.
- o. Notes regarding ownership, maintenance responsibilities, and any use restrictions for all rights-of-way and easements within or adjacent to the subdivision or land development except those rights-of-way for pre-existing public streets.
3. Signature blocks for the West Vincent Township Planning Commission, Board of Supervisors, Township Engineer and Chester County Planning Commission shall be provided on the right-hand side of the Title Plan, Improvement Construction Plan and Storm Water Management Plan.

4. A note placed on the plan indicating where noncompliance occurs relative to zoning, subdivision, building, sanitation, and other applicable Township ordinances, and a citation of the date and content of any decision concerning a Special Exception, Variance, or Conditional Use and any request for a waiver.

H. **Preliminary Improvements Construction Plan**

The plan shall include the following:

1. Historic resources, trails and significant natural features, including topography, areas of steep slope, wetlands, 100-year floodplains, swales, rock outcroppings, vegetation, existing utilities, etc., as indicated on the Existing Resources and Site Analysis Plan.
2. Existing and approximate proposed lot lines, any existing easements and rights-of-way.
3. Approximate location, width and tentative names of all proposed streets and street rights-of-way including all street extensions or spurs that are reasonably necessary to provide adequate street connections and facilities to adjoining development or undeveloped areas; preliminary profiles for proposed streets.
4. Approximate location of proposed swales, drainage easements, stormwater and other management facilities.
5. Where community sewage service is to be permitted, the conceptual layout of sewage systems, including but not limited to the tentative locations of sewer mains and sewage treatment plants, showing the type and degree of treatment intended and the size and capacity of treatment facilities.
6. Where central water service is to be permitted, the conceptual layout of water distribution facilities including water mains, fire hydrants, storage tanks and, where appropriate, wells or other water sources.
7. Location of all percolation tests as may be required under this Ordinance, including all failed test sites or pits as well as those approved and including an approved reserve site for each lot less than one (1) acre in size or requiring an elevated sandmound system. All approved sites shall be clearly distinguished from unapproved sites.
8. Limit of disturbance line.
9. Location and dimensions of playgrounds, public buildings, public areas and parcels of land proposed to be dedicated or reserved for public use.
10. If land to be subdivided lies partly in another municipality, the applicant shall

submit information concerning the location and conceptual design of streets, layout and size of lots and provisions of public improvements on land subject to his control within the adjoining municipalities. The design of public improvements shall provide for a smooth, practical transition where specifications vary between municipalities. Evidence of approval of this information by appropriate officials of the adjoining municipalities also shall be submitted.

11. Where the applicant proposes to install the improvements in phases beyond the five-year period described in Section 508.(4). of the Pennsylvania Municipalities Planning Code, as amended, he shall submit with the preliminary plan a delineation of the proposed sections and a schedule of deadlines within which applications for final approval of each section are intended to be filed in accordance with the requirements of the Pennsylvania Municipalities Planning Code, as amended.
12. Typical street cross-section drawing(s) for all proposed streets shall be shown, including details relating to thickness, crowning and construction materials.
13. Location of all proposed street, traffic, and other signs, including identification and entrance signs, indicating the type, material, and any lighting of such signs.
14. Utilities and Easements.
 - a. Utility easement locations.
 - b. Layout of all water facilities, sanitary and storm sewers and location of all inlets and culverts, and any proposed connections with existing facilities (these data may be on a separate plan).
 - c. All construction of water systems and sanitary sewers shall be in accordance with the standards and specifications adopted by West Vincent Township and the plan shall be so noted.
 - d. The tentative location of on-site sewage and water facilities.
15. Approximate location of proposed shade trees and landscaping as required by Section 614 of this Ordinance and the Township Zoning Ordinance, plus locations of existing vegetation to be retained.
16. Signature blocks for the West Vincent Township Planning Commission, Board of Supervisors and Chester County Planning Commission shall be provided on the right-hand side of the Improvements Construction Plan.

I. **Studies and Reports**

The preliminary plan submission shall include the following studies to assist in determination of the impact of the application upon Township services and facilities:

1. **Sewer and Water Feasibility Report**

- a. The report shall identify the availability and adaptability of any sewer and water facilities in or near the proposed subdivision or land development.
- b. The report shall demonstrate the adherence of the plan to the Township Well Ordinance and Sections 607 and 608 of this Ordinance.
- c. The report shall be prepared by a registered professional engineer and be submitted with the preliminary plan for review and recommendations by the Township Engineer, the Chester County Health Department, and the local office of the Pennsylvania Department of Environmental Protection.
- d. The report shall contain engineering and cost data, evaluations, and recommendations sufficient to enable the Planning Commission to evaluate the reasons for or against providing the subdivision with various means of waste disposal and water supply.
- e. The following items, when incorporated in the report, shall constitute adequate fulfillment of this requirement:
 - (1). A map of the area to be subdivided or of the land to be developed locating elements of existing community sewer and water systems including fire hydrants, water mains, water towers; collector, interceptor, and trunk sewers; and pump stations.
 - (2). An evaluation of costs and public interest factors in providing water disposal and water supply by three (3) different means:
 - (a). Connection to an existing public sewer and/or water system.
 - (b). Reliance upon a private community sewer and/or water system.
 - (c). Reliance upon on-lot sewer and/or water system, complying with Sections 607 and 608.
 - (3). The results of deep-hole percolation tests, as performed in accordance with the current standards of the Chester County Health Department and the Pennsylvania Department of Environmental Protection.
 - (4). An evaluation of the impact of the proposed sewer and water facilities on the groundwater resources of the applicable watershed and surrounding water supplies, both existing and future.

- (5). Recommendations stating the engineer's professional opinion as to the means of disposal and water supply that will be preferable in the short and long-term interest of the community in which the subdivision is located.
- (6). A copy of Form "A" of the applicant's Sewage Planning Module.
- (7). A Sewage Planning Module completed in accordance with the requirements of the Pennsylvania Department of Environmental Protection and the Chester County Health Department.

2. **Hydrogeology and Groundwater Protection Study**

All proposed subdivisions or land developments within the Township shall be in compliance with the West Vincent Township Well Ordinance (Ordinance No. 97-78, as amended), the contents of which are hereby incorporated herein by reference. Without limiting the foregoing, all applicants for subdivision or land development approval shall submit all information required under the Well Ordinance, at the times specified therein, in conjunction with their applications for subdivision or land development approval. All applicants shall comply with the substantive requirements of the Well Ordinance.

3. **Erosion and Sedimentation Control Plan**

- a. This plan shall be required when any developer shall express intent to change the natural state of any land proposed to be subdivided, developed, or changed in use by grading, excavating, removing, or destroying the natural topsoil, trees, or other vegetative covering under a site plan or subdivision plan submitted to the Township.
- b. The plan shall demonstrate adherence to Section 610 of this Ordinance.
- c. The designer or engineer responsible for preparation of the plan shall include in the plans adequate measures for control of erosion and siltation, following the guidelines and policies of the Chester County Soil Conservation District.
- d. Plans for control of erosion and sedimentation shall be submitted by the Township to the Chester County Soil Conservation District for review at the time the preliminary plan is submitted.
- e. The reviewed and approved Erosion and Sedimentation Control Plan and the control practices shall be incorporated into an agreement between the Township and the developer. The agreement shall include a cash or cash equivalent guarantee which will assure the Township that emergency measures could be taken by the Township at the expense of the developer if

said developer does not initiate erosion and sedimentation control measures within a specified time.

- f. The following control measures are typical of the type required in an effective Erosion and Sedimentation Control Plan:
 - (1). The smallest practical area of land should be exposed at any given time during development.
 - (2). When land is exposed during development, the exposure shall be kept to the shortest practical period of time.
 - (3). Where necessary, temporary vegetation and/or mulching should be used to protect areas exposed during development.
 - (4). Sediment traps (debris basins, desilting basins, or silt traps) should be installed and maintained to remove sediment from run-off waters from land undergoing development.
 - (5). Provisions should be made to accommodate the increased run-off caused by changed soil and surface conditions during and after development.
 - (6). The permanent final vegetation and structures should be installed as soon as practical in the development.
 - (7). The development plan should be fitted to the topography and soils so as to create the least erosion potential.
 - (8). Wherever feasible, natural vegetation should be retained and protected. Indiscriminate cutting of trees is prohibited.
 - (9). Data on various practices and methods of controlling erosion and sedimentation are available at the offices of the Chester County Conservation District, Pennsylvania Department of Environmental Protection, USDA Soil Conservation Service, and the Chester County Planning Commission.
- g. The Township may waive the requirement for an Erosion and Sedimentation Control Plan if they determine that such a plan is not necessary. This determination shall be made at the time of the Sketch Plan or Preliminary Plan review.

4. **Stormwater Management Plan**

A preliminary plan for the management of stormwater shall be submitted which, at a minimum, complies with the standards and criteria contained in Section 610 of this Ordinance and the following:

- a. The applicant and/or his engineer shall confer with the Township Engineer prior to the preparation of a Stormwater Management Plan.
- b. The Plan shall be submitted to the Chester County Conservation District for its review and approval.
- c. The Stormwater Management Plan shall be reviewed by the Township Engineer, who shall submit a report thereon to the Township Planning Commission.
- d. The Stormwater Management Plan shall consist of two parts: (1) a map or maps describing the topography of the area, the proposed alteration to the area, and the proposed permanent stormwater control measures and facilities; and (2) a narrative report describing the project and its compliance with Section 610 of this Ordinance, giving the purpose and the engineering assumptions and calculations for control measures and facilities. The following elements shall be included in the map and narrative portions of the Plan:
 - (1). A narrative summary of the project, including:
 - (a). general description of the project;
 - (b). general description of stormwater management, both during and after construction;
 - (c). date project is to begin and expected date final stabilization will be completed.
 - (2). A map of the total watershed in which the project is located (a U.S.G.S. quadrangle map is sufficient).
 - (3). Mapping of various physical features of the project area, including:
 - (a). the location of the project relative to highways, municipal boundaries, and other identifiable landmarks;
 - (b). property lines of proposed project area;
 - (c). contour lines at vertical intervals of not more than two (2) feet (including location and elevation to which contour lines

refer);

- (d). acreage or square footage of the project;
 - (e). wetlands (both state and federal jurisdiction), streams, lakes, ponds, or other bodies of water within the subject property or within 50 feet of any boundary of the property; intermittent streams and natural drainageways also should be shown;
 - (f). other significant natural features, including existing drainage swales, tree masses, and areas of trees and shrubs to be protected during construction;
 - (g). proposed location of underground utilities, sewer and/or water lines;
 - (h). scale of map and north arrow;
 - (i). existing roads and easement.
- (4). Mapping of the soils and underlying geology of the project area, including:
- (a). soil types, including depth, slope, texture, and structure;
 - (b). hydrologic soil group classifications and soil rated permeabilities in inches per hour;
 - (c). soil constraints including depth to bedrock, depth to seasonal high water table;
 - (d). geologic formations underlying the project area and extending 50 feet beyond all property boundaries;
 - (e). describe aquifer characteristics of formations; highlight special formations such as limestone.
- (5). A map of proposed alterations to the project area, including:
- (a). changes to land surface and vegetative cover, including zones of disturbance, zones of non-disturbance;
 - (b). areas of cuts;
 - (c). areas of fill;

- (d). structures, roads, paved areas, and buildings;
 - (e). proposed stormwater control provisions, both nonstructural and structural facilities;
 - (f). finished contours at intervals of not more than two (2) feet;
- (6). Calculations and description of the amount of runoff from the project area and the upstream watershed area, including:
- (a). method of calculation and figures used (including square footages for impervious surfaces of buildings, driveways, parking areas, etc.);
 - (b). factors considered.
- (7). The time schedule for land disturbance activities including:
- (a). cover removal, including all cuts and fills;
 - (b). installation of erosion and sediment control facilities and practices;
 - (c). installation of improvements, including streets, storm sewers, underground utilities, sewer and water lines, buildings, driveways, parking areas, recreational facilities, and other structures;
 - (d). program of operations to convert erosion and sedimentation controls to permanent stormwater management facilities, including a chart of the relative time sequence of activities.
- (8). Permanent stormwater management program (indicating, as appropriate, measures for groundwater recharge) and facilities for site restoration and long-term protection, in both map and narrative form, including:
- (a). purpose and relationship to the objectives of this Ordinance;
 - (b). establishment of permanent vegetation or other soil stabilization measures;
 - (c). installation of infiltration facilities, roof-top storage, cisterns, seepage pits, french drains, etc., to serve individual buildings;

- (d). use of semi-pervious materials for driveways, parking areas, etc.;
 - (e). types, locations, and dimensioned details of facilities for stormwater detention and conveyance and for groundwater recharge;
 - (f). design considerations and calculations supporting the stormwater management program;
 - (g). location of drainage easements.
- (9). A narrative description of the maintenance procedures for both temporary and permanent control facilities, and of ownership arrangements, including:
- (a). the methods and frequency of removing and disposing of sedimentation and other materials collected in control facilities, both during and upon completion of the project;
 - (b). the methods and frequency of maintaining all other control facilities, as necessary;
 - (c). the proposed ownership and financial responsibility for maintenance of the permanent control facilities, including drainage and other easements, deed restrictions, and other legally binding provisions.

5. **Traffic Impact Study**

- a. The Board shall require a traffic impact study as part of the application for subdivision and land development under any one (1) of the following conditions:
 - (1). The plan proposes a development of twenty-five (25) or more units.
 - (2). Any proposal which will generate a potential of two hundred and fifty (250) or more trips per day, based on the standards of the Institute of Transportation Engineers.
 - (3). Any plan when, in the opinion of the Board of Supervisors, the site development is expected to have a significant impact on the safety and/or traffic flow of the surrounding roadway network.
- b. Traffic Impact Studies shall be prepared in compliance with the latest edition of PennDOT Publication 282, Chapter 2, Section II. The cost of said

study shall be the responsibility of the applicant.

- c. The Traffic Impact Study shall be submitted by the applicant for review by the Township Engineer. Said study shall meet with the satisfaction of the Board prior to plan approval.
- d. The Traffic Impact Study shall conclude with a list of required improvements, including their estimated cost, timing, and who will be responsible for their installation, subject to review by the Township Engineer.

6. **Fiscal Impact Analysis**

With respect to any proposed development consisting of twenty-five (25) or more residential dwelling units or 10,000 square feet or more of gross floor area to be devoted to non-residential uses, the Preliminary Plan submission shall be accompanied by a Fiscal Impact Analysis reporting the results of a study of the fiscal impact of the proposed development on the Township of West Vincent performed by a qualified professional. It shall project the primary costs that will be incurred by the Township and the immediate revenues that will be generated to the Township as a consequence of the proposed subdivision or land development. The Fiscal Impact Analysis shall employ the Per Capita Multiplier Method for proposed residential development and the Case Study Method for proposed non-residential development, as described in the most recent edition of the Practitioner's Guide to Fiscal Impact Analysis published by the Center for Urban Policy Research (Rutgers University, New Brunswick, NJ). Demographic information by housing type, average expenditures including budgetary information and operating costs, and estimates of excess or deficit service capacity and expected local service responses for use in the Fiscal Impact Study and Analysis shall be obtained from the Township staff.

In lieu of the submission of a Fiscal Impact Analysis as described in this subsection, a developer may submit a written undertaking, in a form satisfactory to the Township Solicitor, to make an unrestricted contribution to the Township at the time of final subdivision and land development plan approval or at the time of application for building permits necessary to commence construction of the proposed development, as the Board shall determine and in an amount promulgated from time-to-time by resolution of the Board.

J. **Preliminary Greenway Ownership and Management Plan**

Using the Preliminary Plan as a base map, the boundaries, acreage and proposed ownership of all proposed greenway, open space, or common areas shall be shown, including a plan containing the following information:

1. Proposed ownership, use restrictions, improvement and building limitations;

2. Necessary regular and periodic operation and maintenance responsibilities for the various forms of greenway lands or open space (i.e. - lawns, playing fields, meadow, pasture, cropland, woodlands, etc.), including mowing schedules, control of invasive plants, etc.; and
3. Estimate of staffing needs, insurance requirements, and associated costs, and defining the means for funding the maintenance of the greenway land and operation of any common or public facilities on an on-going basis. Such funding plan shall include the means for funding long-term capital improvements as well as regular yearly operating, maintenance, and capital reserve costs.

At the Township's discretion, the applicant may be required to escrow sufficient funds for the maintenance and operation costs of common or public facilities for up to eighteen (18) months in accordance with the applicable provisions of Article VIII of this Ordinance.

Any changes to the maintenance plan shall be approved by the Board of Supervisors.

K. **Proof of Adjacent Property Owner Notification**

Verification that all property owners within five hundred (500) feet of the tract boundaries of the proposed subdivision or land development have been notified of the proposed plans via certified mail, returned receipt required.

L. **Proof of Ownership**

A deed or agreement of sale evidencing that the applicant is the legal or equitable owner of the land to be subdivided or developed shall be shown.

M. **Title Report**

The applicant shall provide a current title report prepared by a title insurance or title abstract company showing all easements and encumbrances of record regarding the property which is to be subdivided or developed.

N. **Preliminary Engineering Certification**

Prior to approval of the preliminary plan, the applicant shall submit to the Planning Commission a "Preliminary Engineering Certification" that the approximate layout of proposed streets, house lots, and greenway lands complies with the Township's Zoning and Subdivision and Land Development Ordinances, particularly those sections governing the design of subdivision streets and stormwater management facilities. This certification requirement is meant to provide the Township with assurance that the proposed plan is able to be accomplished within the current regulations of the Township. The certification shall also note any waivers needed to implement the plan as drawn.

O. **Ordinance Relief Report**

The applicant shall provide a report which identifies any conditional uses, special exceptions, and/or variances necessary or granted, along with the applicable decisions of the Zoning Hearing Board and/or Board of Supervisors. The report shall also identify all subdivision waivers requested along with reasons why the waivers are needed in accordance with Section 1203 of this Ordinance.

SECTION 404 **FINAL PLAN**

Final plans shall conform in all important details to the detailed Preliminary Plan, including any conditions specified by the Board. A detailed final plan shall consist of and be prepared in accordance with the following:

A. **Drafting Standards**

All drafting standards as required in Section 403B. shall apply, except that, final plans shall be prepared at the scale of either 1"=100' or 1"=50', at the discretion of the Board of Supervisors. If drawn at 1"=50', an additional plan at 1"=100' or 1"=200' may also be required, with fewer details, to provide reviewers with an overall picture of the entire layout of house lots, streets, open space, etc. However, Final Plans for low density "Tier I" subdivisions shall generally not be required to be prepared at scales more detailed than 1"=100', unless special conditions exist on the site. All linear dimensions shall be shown to the nearest one-hundredth (0.01) of a foot.

B. **Existing Resources and Site Analysis Plan**

A plan as stipulated in Section 403.D. consistent with the terms of preliminary plan approval and modified as necessary to reflect the proposal for final approval.

C. **Final Impact Analysis and Resource Conservation Plan**

1. This Plan shall comply with all of the requirements for the Preliminary Impact Analysis and Resource Conservation Plan, as set forth in Section 403.E., to reflect all proposed improvements described in the other Final Plan documents as required under Section 404 herein.
2. In addition to the requirements of Section 403.E., the Applicant shall submit an accompanying Resource Assessment Report divided into the following sections: (1) description of existing resources (as documented in Section 403.D.); (2) impacts of the proposed subdivision on existing resources, correlated to the areas depicted in the Final Resource Conservation Plan; and (3) measures taken to minimize and control such impacts both during and following the period of site disturbance and construction. The qualifications and experience of the preparer of this report shall be provided.

D. **Final Title Plan**

A plan that shall contain:

1. All information required in Section 403G.
2. Final subdivision or development name, if different from that shown on the preliminary plan.
3. Sufficient data to determine readily the location, bearing and length of every lot and boundary line and to produce such lines upon the ground, including all dimensions, angles, and bearings of the lines. The gross tract acreage and adjusted tract area shall be shown. For each lot created, including areas to be dedicated to public use, the gross and net lot area shall be indicated to the nearest one-thousandth (0.001) of an acre. For lot sizes smaller than one (1) acre, the lot area shall be indicated by square feet.
4. For residential subdivisions, proposed driveway locations and the names of all streets, as approved in writing by the U.S. Postal Service, County Emergency Services Department and local fire companies, and house numbers as assigned by the Township shall be shown.
5. Permanent concrete control and reference monuments, as required by Section 603 of this Ordinance.
6. The location of all percolation tests and test pits approved by the Chester County Health Dept. shall be indicated within lots or within undivided open space (with appropriate easements).

E. **Final Improvements Construction Plan**

Where public or private improvements other than monuments and street traffic signs are to be required for any subdivision or land development, an Improvements Construction Plan and specifications, prepared by a registered professional engineer, shall be filed, setting forth the nature and location of the work and all engineering data necessary for completion of the work. The Improvements Construction Plan and specifications shall be subject to approval of the Township Engineer and the Board of Supervisors as a prerequisite to approval of the final plan. The Improvements Construction Plan shall conform with the following standards and contain the following information:

1. All information required in Section 403.H.
2. Profile sheets for all proposed streets within the tract. Such profiles shall show at least the following information, properly labeled.
 - a. Existing natural profile along both cartway edges or along the center line of

each street.

- b. Proposed finished grade of the center line, or proposed finished grade at the top of both curbs.
- c. The length of all vertical curves.
- d. Size and elevations of existing and proposed sanitary sewer mains and manholes.
- e. Size and elevations of existing and proposed water facilities and fire hydrants.
- f. Size and elevations of existing and proposed storm sewer facilities and drainage improvements.
- g. The profile sheets shall be legibly drawn at one of the following scales:

<u>Scale</u>	<u>Feet Horizontal</u>	<u>Feet Vertical</u>
one (1) inch equals	ten (10)	one (1)
one (1) inch equals	twenty (20)	two (2)
one (1) inch equals	forty (40)	four (4)
one (1) inch equals	fifty (50)	five (5)

- 3. The following data for the cartway edges (curb lines) and right-of-way lines of all recorded (except those which are to be vacated) and/or proposed streets and sidewalks within or abutting the property.
 - a. The length (in feet and hundredths of a foot) of all straight lines and of the radius and the arc (or chord) of all curved lines (including curved lot lines).
 - b. The width (in feet) of the cartway, existing right-of-way and of the ultimate right-of-way, and (in degrees, minutes and seconds) of the delta angle of all curved lines, including curved lot lines.
 - c. The width, location, thickness and construction material for all sidewalks or footpaths to be provided.
- 4. Notification from PennDOT or the Township shall be provided confirming that a Highway Occupancy Permit will be issued after preliminary approval.
- 5. If required, a plan, details and specifications of street lights to be installed, together with the necessary contract for street light installation for approval by the Township.

6. Design of any stormwater management facilities that may be required. The designs shall conform to all applicable state and Township requirements.
7. Where off-site or community sewer service is to be provided, the final design of all facilities, including, but not limited to, sewer mains, manholes, pumping stations, and sewage treatment facilities.
8. Where off-site or central water service or water supply is to be provided, the final design, including location and size of water service facilities within the subdivision, shall be shown, including wells, storage tanks, pumps, mains, valves, and hydrants. The plan shall contain a statement that the placement of fire hydrants and the components of the system have been reviewed by the appropriate Fire Chief and that both are compatible with the fire fighting methods and equipment utilized by local fire companies.
9. Where individual on-lot sewage systems are to be provided, the location described in metes and bounds of the primary and secondary absorption areas and a statement indicating that such description shall be recorded with the deed for any and all affected lots.
10. Any bridges must be approved by all agencies with jurisdiction thereof, such as the Pennsylvania Department of Environmental Protection and Department of Transportation.
11. A Sewage Planning Module approved by the Pennsylvania Department of Environmental Protection and/or the Chester County Health Department.
12. All other improvements as required by this Ordinance.

F. **Final Stormwater Management and Erosion & Sedimentation Control Plan**

A final plan or plans for the management of stormwater, including the control of erosion and sedimentation during the course of site preparation or any other land disturbance, shall be submitted. The plan shall incorporate the revisions required by the Township, the County Conservation District, and/or the Department of Environmental Protection as part of the review of the preliminary plans.

G. **Final Greenway Ownership and Management Plan**

Using the Final Plan as a base map, the boundaries, acreage and proposed ownership of all proposed Greenway areas shall be shown. A narrative report shall also be prepared indicating how and by whom such Greenway areas will be managed, and demonstrating the Applicant's compliance with Article XIX of the West Vincent Township Zoning Ordinance.

H. **Final Landscape Plan**

A landscape plan which meets all requirements of Section 614 shall be prepared by a landscape architect registered in the Commonwealth of Pennsylvania.

I. **Community Association Document**

1. A Community Association Document, also known as a Homeowners' Association Document or a Condominium Association Document, shall be provided for all subdivision and land development applications which propose lands or facilities to be used or owned in common by all the residents of that subdivision or land development and not deeded to the Township. Such documents shall be in compliance with the Pennsylvania Uniform Planned Community Act (as to a Homeowners' Association Document) or the Pennsylvania Uniform Condominium Act (as to a Condominium Association Document), as the case may be.
2. The elements of the Community Association Document shall include, but shall not necessarily be limited to the following:
 - (a). A description of all lands and facilities to be owned by the Community Association. This description shall include a map of the proposal highlighting the precise location of those lands and facilities.
 - (b). Statements setting forth the powers, duties, and responsibilities of the Community Association, including the services to be provided.
 - (c). A Declaration of Covenants, Conditions, and Restrictions, giving perpetual easement to the lands and facilities owned by the Community Association. The Declaration shall be a legal document which also provides for automatic Association membership for all owners in the subdivision or land development and shall describe the mechanism by which owners participate in the Association, including voting, elections, and meetings. Furthermore, it shall give power to the Association to own and maintain the common property and to make and enforce rules.
 - (d). Statements prescribing the process by which Community Association decisions are reached and setting forth the authority to act.
 - (e). Statements requiring each owner within the subdivision or land development to become a member of the Community Association.
 - (f). Statements setting cross covenants or contractual terms binding each owner to all other owners for mutual benefit and enforcement.
 - (g). Statements that the Community Association Document shall be provided to all prospective lot buyers/owners at the time of the agreement of sale and shall be referenced on the deed for each lot.

- (h). Requirements for all owners to provide a pro rated share of the cost of the operations of the Community Association.
 - (i). A process of collection and enforcement to obtain funds from owners who fail to comply.
 - (j). A process for transition of control of the Community Association from the developer to the unit owners.
 - (k). Statements describing how the lands and facilities of the Community Association will be insured, including limit of liability.
 - (l). Provisions for the dissolution of the Community Association, in the event the Association should become inviable.
3. Disclosure of the Community Association Document shall be provided to all prospective lot buyers/ owners at the time of the agreement of sale and shall be referenced on the deeds for all lots within the subdivision.

J. **Performance Guarantee**

- 1. Performance guarantees shall be posted by the applicant/developer prior to release of the approved final plans by the Board of Supervisors for recordation (in the form of a bond, irrevocable letter of credit, cash or cash equivalent in escrow).
- 2. The performance guarantee shall be established in conformance with the provisions of Section 510 of this Ordinance.

K. **Additional Approvals, Certificates and Documents**

- 1. An affidavit stating that the applicant is the owner or equitable owner of the land proposed to be subdivided.
- 2. A statement duly acknowledged before an officer authorized to take such acknowledgement and signed by the owner or owners of the property, to the effect that the owner or owners freely consent to the subdivision or land development shown on the Final Plan and desire to record the same.
- 3. All offers of dedication of realty or structures and all declarations, easements and covenants governing the reservation and maintenance of undedicated open space, for the Final Plan shall be in such form as shall be satisfactory to the Board of Supervisors.
- 4. A copy of such deed restrictions, easements, covenants and declarations which are to be imposed upon the property to comply with the Final Plan as approved by the

Board of Supervisors. All such documents shall be in such form as is satisfactory to the Board of Supervisors.

5. Evidence of approval, or preliminary approval, or waiver by proper federal, state or county authorities as may have been required to subdivide or develop the land as proposed in the Final Plan.
6. Certification of the engineer, land surveyor, landscape architect or land planner who prepared the plan, that the plans are in conformity with zoning, building, sanitation, subdivision and other applicable Township ordinances and regulations. In any instance where such plans do not conform, evidence shall be presented that an exception or waiver has been authorized.
7. All data and information contained in the Final Plan and the Final Improvement Construction Plan shall also be submitted to the Township in digital format of the type and format as required by the Board of Supervisors.

SECTION 405 MODIFICATION OF REQUIREMENTS

The requirements of Article IV of this Ordinance may be modified or waived by the Board of Supervisors in the interest of the public health, safety, or welfare, as warranted by special circumstances.

ARTICLE V
PLAN PROCESSING PROCEDURES

SECTION 501 GENERAL

- A. All preliminary and final subdivision or land development plans shall be referred to and reviewed by the Township Planning Commission and shall be approved or disapproved by the Township Board of Supervisors in accordance with the procedures specified in this Article and in other sections of this Ordinance. Any application not processed as required hereafter shall be null and void unless it was made prior to the adoption of these regulations.
- B. Overview of Procedures: Items 6 through 10 below are required under this Ordinance. Items 1 through 5 are optional but strongly encouraged as an important, valuable and highly recommended step that will speed the Township review process and may result in lower costs for the project. These steps shall be followed sequentially, and may be combined only at the discretion of the Township:
1. Pre-Application Meeting.
 2. Existing Resources and Site Analysis Plan, as described in Section 403.D. of this Ordinance.
 3. Site Inspection by Planning Commission and Applicant.
 4. Pre-Sketch Plan Conference.
 5. Sketch Plan Submission and Review (diagrammatic sketch, optional step).
 6. Preliminary Plan.
 7. Final Plan, Preparation: Incorporation of all Preliminary Plan approval conditions, documentation of all other agency approvals, as applicable.
 8. Final Plan, Submission.
 9. Supervisors' signatures, upon approval of Final Plan and posting of Improvements Agreement and Performance Guarantee.
 10. Recording of Plan with Chester County Recorder of Deeds.

SECTION 502 PLAN CLASSIFICATION FOR MAJOR AND MINOR SUBDIVISIONS

For purposes of procedure, all applications shall be classified as either major or minor. Applicants shall apply for and secure approval in accordance with the following plan submission procedures:

A. **Minor Subdivisions.**

1. Sketch Plan, as described in Section 503 (optional).
2. Final Plan, as described in Sections 506 and 507.

B. **Major Subdivision, Land Development:**

1. Sketch Plan, as described in Section 503 (optional).
2. Preliminary Plan, as described in Sections 504 and 505.
3. Final Plan, as described in Sections 506 and 507.

SECTION 503 SUBMISSION AND REVIEW OF SKETCH PLAN

A. **Applicability**

A diagrammatic sketch plan is strongly encouraged for all proposed minor or major subdivisions. Sketch plans, as described in Section 402, shall be submitted to the Board of Supervisors for review by the Planning Commission. Such plans are for informal discussion only. Submission of a sketch plan does not constitute formal filing of a plan with the Board of Supervisors or the Planning Commission, and shall not commence the statutory review period as required by the Pennsylvania Municipalities Planning Code. The procedures for submission of a diagrammatic sketch plan are described in Section 503F. below, and may be altered only at the discretion of the Township.

B. **Pre-Application Meeting**

A pre-application meeting is encouraged between the applicant, the site designer, and the Planning Commission (and/or its planning consultant), to introduce the applicant to the Township's zoning and subdivision regulations and procedures, to discuss the applicant's objectives, and to schedule site inspections, meetings and plan submissions as described below.

C. **Existing Resources and Site Analysis Plan**

Applicants are required to furnish an Existing Resources and Site Analysis Plan as part of the preliminary plan submission and, hence, are strongly encouraged to prepare and furnish the Existing Resources and Site Analysis Plan as part of a sketch plan submission. The purpose of this key submission is to familiarize the Township with existing conditions on the applicant's tract and within its immediate vicinity, and to provide a complete and factual reference for Township officials in making a site inspection. This Plan should be provided prior to or at the site inspection, and should form the basis for the diagrammatic sketch plan (or the Conceptual Preliminary Plan), and for the detailed Preliminary Plan.

D. **Site Inspection**

After preparing the Existing Resources and Site Analysis Plan, applicants should arrange for a site inspection of the property by the Planning Commission and other Township officials. Applicants, their site designers, and the landowner are encouraged to accompany the Planning Commission. The purpose of the visit is to familiarize the Township with the property's existing conditions and special features, to identify potential site design issues, and to provide an informal opportunity to discuss site design concepts, including the general layout of designated Greenway lands (if applicable), and potential locations for proposed buildings and street alignments.

E. **Pre-Sketch Conference**

Following the site inspection and prior to the submission of a diagrammatic sketch plan, the applicant should meet with the Planning Commission to discuss the findings of the site inspection and to develop a mutual understanding on the general approach for subdividing and/or developing the tract in accordance with the five-step design procedure described in Section 403F. of this Ordinance, where applicable. At the discretion of the Commission, this conference may be combined with the site inspection.

F. **Sketch Plan Submission and Review**

1. Copies of a diagrammatic sketch plan, meeting the requirements set forth in Section 402, should be submitted to the Township Secretary or Zoning Officer for distribution to the Board, the Planning Commission and the Township Engineer, at least seven (7) days prior to the Planning Commission meeting at which the sketch plan is to be discussed.
2. The Planning Commission shall review the sketch plan in accordance with the criteria contained in this Ordinance and with other applicable ordinances of the Township. It shall provide informal dialogue with the applicant and advise him/her as promptly as possible of the extent to which the proposed subdivision or land development conforms to the relevant standards of this Ordinance, and will discuss possible plan modifications that would increase its degree of conformance. Aspects of the sketch plan that shall specifically be evaluated include but are not limited to:
 - a. the location of all areas proposed for land disturbance (streets, foundations, yards, septic disposal systems, storm water management areas, etc.) with respect to notable features of natural or cultural significance as identified on the applicant's Existing Resources and Site Analysis Plan and on the Township's Map of Potential Conservation Areas;
 - b. the potential for street connections with existing streets, other proposed streets, or potential developments on adjoining parcels;

- c. the location of proposed access points along the existing road network;
- d. the proposed building density and impervious coverage;
- e. the compatibility of the proposal with respect to the objectives and policy recommendations of the Comprehensive Plan and the Open Space and Recreation Plan; and
- f. consistency with the Township Zoning Ordinance.

The Commission shall also submit its written comments to the applicant and the Board. The diagrammatic sketch plan may also be submitted by the Board of Supervisors or the Planning Commission to the Chester County Planning Commission for review and comment.

- 3. The applicant may, but need not, request further review of the sketch plan by the Board of Supervisors. Upon receiving written request by the applicant, the Board may consider the sketch plan. The Board may meet with the applicant and may advise the applicant as to the concerns of the Board. The Board is not required to review the sketch plan nor to submit comments to the applicant if the Board does not review the plan.

SECTION 504 SUBMISSION OF PRELIMINARY PLAN

- A. All preliminary plans submitted for review shall conform with the minimum requirements established in Section 403 of this Ordinance.
- B. Preliminary Plan: A Preliminary Plan and application shall be submitted at least five (5) working days prior to the date of the next regularly scheduled Board of Supervisors meeting. Twelve (12) copies of the Detailed Preliminary Plan and all other required documents and information shall be submitted to the Township Secretary, together with the required application fees and any escrow deposit required to cover Township incurred engineering and legal review costs established in accordance with the terms of this Ordinance. The Township Secretary shall note the date of receipt of the application, fees, and escrow deposit. The official 90-day review period provided for Preliminary Plans under the Pennsylvania Municipalities Planning Code shall commence in accordance with Subsection 505B.4. of this Ordinance.
- C. Upon submission of a complete application as determined by the Board, together with all required fees and escrow deposits, the Township Secretary shall accept the application, plans and other required materials and shall distribute them as follows:
 - 1. One (1) copy for the Township files.
 - 2. One (1) copy to the Township Police Department.
 - 3. One (1) copy to the Township Zoning Officer.

4. Two (2) copies to the Township Engineer(s).
 5. One (1) copy to the Township Environmental Advisory Council.
 6. One (1) copy, referral letter, and fee to the Chester County Planning Commission.
 7. Two (2) copies, referral letter, and fee to the Chester County Health Department.
 8. One (1) copy to the Fire Department having jurisdiction.
 9. One (1) copy to the PECO Energy Company.
 10. One (1) copy to Bell Atlantic.
- D. The applicant shall be responsible for forwarding one (1) copy of the detailed Preliminary Plan to the Chester County Conservation District, with applicable referral letter and fee.
- E. Additional copies of the detailed Preliminary Plan, to be furnished by the applicant, shall be distributed by the Township Secretary to the following agencies as warranted by each proposal, in the judgment of the Board:
1. One (1) copy to the district office of the Pennsylvania Department of Transportation if the proposed subdivision abuts or is traversed by a state road, either existing or proposed.
 2. One (1) copy to each public utility, when a proposed subdivision or land development abuts or is traversed by an easement or right-of-way belonging to a public utility. When any proposed subdivision or land development will access any utility, one (1) copy of the plan shall be sent to each utility.
 3. One (1) copy and referral letter to adjacent municipality or municipalities if tract to be subdivided lies partially in another Township(s).
 4. One (1) copy to the Township Historical Commission, if applicable.
 5. One (1) copy to the Township Sewer and/or Water Commission/Authority, if applicable.
 6. One (1) copy to the Township Planning Solicitor.
- F. The applicant shall pay all application and processing fees required for Preliminary Plan review, which fees shall be determined by resolution of the Board.
- G. The applicant shall provide proof of notification of the filing of the application by regular mail to all owners of properties within five-hundred (500) feet of the tract proposed for

subdivision or land development. The notification shall include name and address of the applicant/developer; the tax parcel number of the tract; total tract acreage; number of lots proposed; and any zoning changes, variances, special exceptions, conditional uses and waivers of ordinance requirements being requested. Proof of the notice required by this paragraph shall be provided to the Township within ten (10) days of the submission of the Preliminary Plan. (as amended by Ordinance No. 102 of 1999)

- H. If at any time the applicant submits a substantially revised Preliminary Plan, it shall be deemed a new application and shall not be accepted unless it is accompanied by a new application and appropriate fees.
- I. When a tract is subdivided into parcels large enough to permit resubdivision of the parcels, a sketch layout shall be included showing future potential subdivision of the parcels to ensure that subdivision may be accomplished in accordance with current ordinances and with appropriate access. Submission and review of the sketch plan described in this section shall not constitute approval of the future subdivision shown thereon.

SECTION 505 REVIEW OF PRELIMINARY PLAN

A. Township Planning Commission

1. The Township Planning Commission shall review the plan and any recommendations made by County, State and Federal agencies and the Township Engineer, to determine conformance of the Plan to this Ordinance, the Zoning Ordinance, and any other relevant ordinances of the Township.
2. After such review, and within sixty (60) days from the date the complete detailed Preliminary Plan and application were submitted, the Planning Commission shall send written notice of its findings, recommendations, and reasons both to the Board and to the applicant, and is encouraged to cite specific sections of the statutes or ordinances relied upon.
3. If the Planning Commission and the applicant mutually agree that this review period shall be extended for a period of thirty (30) or more days, to provide additional time for evaluating the proposal, a written agreement to this effect shall be signed in duplicate, with a file copy being retained by the Township and by the applicant.

Such an extension shall be entered in good faith and for specific reasons relating to the review process, including but not limited to providing sufficient time for the Township to receive the written report of the Chester County Planning Commission, the Chester County Health Department, and the Township Engineer, or to allow the applicant additional time in which to complete his application documents.

B. **Board of Supervisors**

1. When the recommendations on the detailed Preliminary Plan have been officially submitted to the Board of Supervisors by the Planning Commission, such recommendations shall be placed on the Board's agenda for review and action.
2. In acting on the preliminary subdivision or land development plan, the Board shall review the plan and the written comments of the Township Engineer, the Planning Commission, the Chester County Planning Commission and Health Department and all other reviewing agencies, and comments from any public hearings or meetings. The Board may specify conditions, changes, modifications or additions thereto which it deems necessary or appropriate, and may make its decision to grant preliminary approval subject to such conditions, changes, modifications or additions. Whenever the approval of a detailed Preliminary Plan is subject to conditions, the written action of the Board should (1) specify each condition of approval; and (2) require the applicant's written agreement to the conditions within ten (10) days of hand delivery or mailing of the Board's written decision.
3. During or before the detailed Final Plan review process, the Board should complete its review of the proposed Sewage Facilities Planning Module in accordance with Pennsylvania Department of Environmental Protection and Chester County Health Department regulations and procedures. When approved or adopted by the Board, the Planning Module shall be forwarded to PaDEP for review and approval.
4. Unless the applicant agrees in writing to extend the period for decision, the Board shall render a decision on all detailed Preliminary Plans and communicate its decision to the applicant not more than ninety (90) days from the date of the first regular meeting of the Planning Commission held after the complete application was filed or after a final order of court remanding an application. However, if that regular meeting of the Planning Commission occurred more than thirty (30) days after the complete application was filed, the ninety (90) day period shall be measured from the thirtieth day following the date the complete application was filed.
5. The decision of the Board shall be in writing and shall be communicated to the applicant personally or mailed to him at his last known address not later than fifteen (15) days following the decision. The form and content of the decision shall comply with applicable requirements of the Pennsylvania Municipalities Planning Code. If the detailed Preliminary Plan is not approved as submitted, the decision shall specify the defects found in the plan, shall describe the requirements that have not been met, and shall cite in each case the ordinance provisions relied upon.
6. A revised Preliminary Plan must be submitted if any revisions are made to the plan. Revisions include, but are not limited to, the following:
 - a. Number, size, alignment or layout of proposed lots;

- b. Location and/or extent of land or other features proposed to be permanently protected through conservation easements;
 - c. Width, location, or alignment of proposed streets or trails;
 - d. Traffic flow patterns or parking arrangements;
 - e. Location or type of proposed drainage or utility systems;
 - f. Location or type of proposed sewage facilities;
 - g. General type, number, size, or area of landscaping, buffering details, or locations of berms; and
 - h. Types or intensities of proposed uses.
7. If the applicant submits a substantially revised Preliminary Plan, it shall be deemed a new application and shall not be accepted unless it is accompanied by a new application and appropriate fees.
 8. The decision of the Board should also be communicated to the governing body of any adjacent municipality, if the plan includes land in that municipality and/or directly abuts its boundaries.
 9. A mediation option may be utilized by the Board as an aid in completing proceedings authorized by this Section. In exercising such an option, the Board and mediating parties shall meet the stipulations and follow the procedures set forth in Section 2712 of the Township Zoning Ordinance.

SECTION 506 SUBMISSION OF FINAL PLAN

- A. Within one (1) year after approval of the detailed Preliminary Plan, a detailed Final Plan and all necessary supplementary data shall be officially submitted to the Township Secretary. The detailed Final Plan shall meet the requirements set forth in Section 404. It shall also conform to the detailed Preliminary Plan as previously reviewed by the Planning Commission and the Board, and shall incorporate all modifications required by the Township in its review of the Preliminary Plan.
- B. The Board of Supervisors may permit submission of the detailed Final Plan in phases, each covering a reasonable portion of the entire proposed development as shown on the approved Preliminary Plan; provided that the first detailed Final Plan phase shall be submitted within one (1) year after approval of the detailed Preliminary Plan. Each subsequent phase shall be submitted within one (1) year of approval of the previous phase, provided all phases have been submitted within three (3) years of original approval.

- C. Unless the filing deadline in Section 506A. is waived or extended by the Board, failure to make timely submission of final plans renders void a Preliminary Plan, and the applicant shall be required to file a new application and fee for Preliminary Plan approval.
- D. Official submission of the detailed Final Plan to the Township Secretary shall consist of:
1. Three (3) copies of the application for review of final subdivision or land development plan.
 2. Twelve (12) or more copies of the detailed Final Plan and all supporting plans and information to enable proper distribution and review, as required by the Board.
 3. Copies of all applications made or notices provided to Federal, State and County agencies by or on behalf of the applicant for permits, certifications, approvals or waivers required or sought for either subdivision or land development as proposed in the Preliminary Plan or in the detailed Final Plan, including, but not limited to, applications or notices provided to the U.S. Army Corps of Engineers, the U.S. Department of Agriculture Soil Conservation District, the U.S. Environmental Protection Agency, the Commonwealth of Pennsylvania Department of Environmental Protection (PaDEP), or the Department of Transportation (PennDOT) and the County of Chester Department of Health.
 4. Payment of application fees and deposit of escrow, if required, for plan review costs.
- E. Twelve (12) or more copies of the detailed Final Plan and all required supplementary data shall be submitted to the Township Secretary together with the required fees and escrow deposit as prescribed by resolution of the Board. The Township Secretary shall note the date of receipt and shall then forward:
1. One (1) copy to the Township Engineer;
 2. One (1) copy for the Township files;
 3. One (1) copy to the Township Environmental Advisory Council;
 4. One (1) copy to the Township Historical Commission, if applicable;
 5. One (1) copy to the Township Sewer and/or Water Commission/Authority, if applicable;
 6. One (1) copy, referral letter and sufficient fee to the Chester County Planning Commission, when required by the Board;
 7. One (1) copy to the Chester County Health Department, when required;
 8. One (1) copy to the Department of Environmental Protection, when required;

9. One (1) copy to governing body of any adjacent municipality or municipalities if tract to be subdivided abuts or lies partially in that Township;
 10. One (1) copy of Final Title Plan showing approved house numbers and addresses to the Township Secretary.
- F. Where the final plan is for a minor subdivision, the applicant shall submit the plan in accordance with the requirements of Section 504D. above.

SECTION 507 REVIEW OF FINAL PLAN

A. General

1. The Final Plan shall conform in all important respects to the detailed Preliminary Plan as previously reviewed and approved by the Board of Supervisors, and shall incorporate all modifications and revisions specified by the Board in its approval of the Preliminary Plan.
2. The Final Plan and supporting data (including reports from the Pennsylvania Department of Environmental Protection, the Chester County Health Department, the Chester County Conservation District, and the Chester County Planning Commission) shall comply with the provisions of this Ordinance and those of the Zoning Ordinance. Failure to do so shall be cause for rejecting the plan.

B. Township Planning Commission

1. The Planning Commission will review the Final Plan and the recommendations of the Township Engineer and any other reviewing agencies, to determine its conformance with the requirements of this Ordinance and with those of the Zoning Ordinance.
2. After such review, and within sixty (60) days of the submission of a complete Final Plan package, the Planning Commission shall send written notice of its findings, recommendations, and its reasons to the Board and the applicant. If the plan includes land in any adjacent municipality and/or directly abuts its boundaries, then such notice and recommendation should also be transmitted to the governing body of the adjacent municipality.
3. No recommendations shall be made by the Planning Commission until the Township has received the written report of the County Planning Commission, the Township Engineer, the Pennsylvania Department of Environmental Protection (PaDEP), the Chester County Health Department and the Department of Transportation (PennDOT), if applicable, and the approval of the Chester County Conservation District; provided, however, that if these reports are not received within forty-five (45) days after transmittal of the detailed final plan to these

agencies, then the Planning Commission may act without having received and considered such report.

C. **Board of Supervisors**

1. When a recommendation on a detailed Final Plan has been submitted to the Board of Supervisors by the Planning Commission, such plan shall be placed on the agenda of the Board of Supervisors for review and action.
2. Upon receipt of the Planning Commission's recommendation and other supporting information, the Board may, at one or more regular or special public meetings, review the detailed Final Plan and shall, within the time limitations set forth in Subsection 505B.4. of this Ordinance, either approve, approve with conditions, or disapprove the plan.
3. Whenever the approval of a detailed Final Plan is subject to conditions, the written action of the Board shall (1) specify each condition of approval; and (2) require the applicant's written agreement to the conditions. Such conditions shall be met or complied with within one (1) year of final plan approval or final plan approval shall become null and void.
4. No approval of the detailed Final Plan shall be granted by the Board until notification of PaDEP's approval of the Sewage Facilities Planning Module has been received by the Board. Should such notification not be received within the time limitations for detailed final plan approval in accord with the Act, the time limitations shall be extended for not more than ninety (90) days at the written request of the applicant. If the applicant refuses to provide such written request, approval of the detailed Final Plan shall be denied.
5. If the Final Plan is not approved as submitted, the decision shall specify the deficiencies found in the plan, shall describe the requirements that have not been met, and shall, in each case, cite the provisions of the ordinance relied upon.
6. Notwithstanding the foregoing procedure, the Board should render a decision on all detailed Final Plans and communicate it to the applicant as required by the Act (the Municipalities Planning Code).
7. The decision of the Board should be in writing and should be communicated to the applicant as required by the Act.
8. If at any time the applicant submits a substantially revised Final Plan, it shall be deemed a new application and shall not be accepted unless it is accompanied by a new application and appropriate fees.
9. Copies of the detailed Final Plan, as finally approved with the appropriate endorsement of the Board, shall be distributed as follows:

- a. At least five (5) copies to the applicant of which two (2) shall be recorded in accordance with Section 511.
 - b. One (1) copy to the County Health Department.
 - c. One (1) copy to be retained in the Township files.
 - d. One (1) copy to the Township Engineer.
 - e. One (1) copy to the Fire Company having jurisdiction.
 - f. One (1) copy to the Department of Environmental Protection.
10. The Board shall require that the owners supply a Title Insurance Certificate from a reputable company before any property may be accepted by the Township.
11. A mediation option may be utilized by the Board as an aid in completing proceedings authorized by this Section. In exercising such an option, the Board and mediating parties shall meet the stipulations and follow the procedures set forth in Section 2712 of the Township Zoning Ordinance.
- D. Where a subdivision plan has been approved and recorded under the terms and conditions of this Ordinance, purchasers and mortgagees of lots in the subdivision shall be relieved of any and all liability from any deficiency in, lack of, or failure to complete, the necessary grading and paving of streets and other street improvements including, where specified in the approved plan, curbs, sidewalks, street lights, fire hydrants, water mains, sanitary sewers and storm sewers. Failure to complete or properly complete said improvements shall not encumber any or all of the lots in the subdivision.

E. **Conditions of Final Plan Approval**

Approval of any detailed Final Plan shall, in addition to any other applicable provisions of this Ordinance, be subject to the following conditions:

- 1. The landowner shall execute a Subdivision and Land Development Agreement in accordance with Section 509.
- 2. Where applicable, the landowner shall execute an Escrow Agreement or other Performance Guarantee in accordance with Section 510.
- 3. Whenever the landowner is providing open space as part of the development, an easement in perpetuity restricting such open space against further subdivision or development shall be executed between the landowner and the Township or an organization acceptable to the Township.

4. Receipt of all permits, final approvals or waivers required by Federal, State and County agencies for development in accord with the final plan including, but not limited to, the U.S. Fish and Wildlife Service, the U.S. Army Corps of Engineers, the Pennsylvania Department of Environmental Protection, the Pennsylvania Department of Transportation, the Public Utility Commission, the Chester County Health Department, and the Chester County Conservation District.

SECTION 508 SUBMISSION REQUIREMENTS TO CHESTER COUNTY AGENCIES

Plans shall be submitted to the following agencies:

- A. Chester County Planning Commission. One (1) copy of all preliminary plans, a copy of the Sewage Facilities Planning Module, a referral letter endorsed by an official of the Township, and sufficient fee, shall be submitted to the Chester County Planning Commission for review and comment. One copy of all detailed final plans, approved and signed, shall be provided to the Commission prior to recording.
- B. Chester County Health Department. Two (2) copies of all preliminary plans, a copy of the Sewage Facilities Planning Module and a referral letter shall be submitted to the Chester County Health Department in accord with PaDEP and Health Department regulations and procedures for review of matters relating to adequacy of the site to sustain on-site water and/or sewage disposal system. Two (2) copies of all detailed final plans, approved and signed, shall be submitted to the Chester County Health Department.
- C. Chester County Conservation District. One (1) copy of preliminary plans shall be submitted by the applicant to the Chester County Conservation District for review of matters relating to drainage, stormwater management, and abatement of soil erosion. Costs for such review shall be paid by the applicant.
- D. Upon request by the Township, the applicant shall submit such additional prints of all plans as may be necessary for forwarding by the Township to any other agencies for their review.

SECTION 509 CONTIGUOUS MUNICIPALITIES

- A. Any municipality contiguous to West Vincent Township which believes that its citizens will experience harm as the result of an applicant's proposed subdivision or land development located in West Vincent Township may request the Board of Supervisors to participate in a mediation process. If the mediation process is agreed to by the Board of Supervisors, the municipalities shall comply with the procedures set forth in Section 2712 of the Township Zoning Ordinance. The cost of the mediation shall be shared equally by the municipalities unless otherwise agreed. The applicant shall have the right to participate in the mediation.
- B.** The Board of Supervisors of any contiguous municipality may appear and comment before the Board of Supervisors and/or Planning Commission of West Vincent Township considering a proposed subdivision or land development application.

SECTION 510

IMPROVEMENTS AGREEMENTS

The applicant shall execute an agreement, to be approved by the Township, pending the review of the Township Solicitor, before the Final Plan is released by the Board of Supervisors and filed on record. Said agreement shall specify the following, where applicable:

- A. The applicant agrees that he will lay out and construct all streets and other public improvements, including grading, paving, sidewalks, fire hydrants, water mains, street signs, shade trees, storm and sanitary sewers, landscaping, traffic control devices, open space areas, and erosion and sediment control measures in accordance with the final plan as approved, where any or all of these improvements are required by this Ordinance or as conditions of approval.
- B. The applicant guarantees completion and maintenance of all improvements by means of a type of financial security acceptable to the Township, in accord with Section 510 of this Ordinance.
- C. The applicant agrees to have prepared a deed or deeds of dedication to the Township for such streets, easements for sanitary and storm sewers, sidewalks, and other public improvements, provided that the Township shall not accept dedication of such improvements until their completion is certified as satisfactory to the Township Engineer.
- D. Whenever an applicant proposes to establish or continue a street which is not offered for dedication to public use, the Board of Supervisors shall require the applicant to submit and to record the plan a copy of an agreement made with the Board on behalf of himself and his heirs and assigns, signed by him, and which shall establish the conditions under which the street may later be offered for dedication. Stipulations of such agreement shall include, but shall not be limited to, the following:
 - 1. That an offer to dedicate the street shall be made only for the street as a whole.
 - 2. That the Township shall not be responsible for repairing or maintaining any undedicated streets.
 - 3. That the method of assessing repair and maintenance costs of undedicated streets be stipulated, and be set forth in recorded deed restrictions so as to be binding on all successors or assigns.
 - 4. That, if dedication is to be sought, the street shall conform to Township specifications or that the owners of the abutting lots shall, at their own expense, bring the streets into conformance with Township specifications.

SECTION 511**PERFORMANCE GUARANTEES (ESCROW AGREEMENTS)**

- A. No plan shall be finally approved unless the streets shown on such plan have been improved to a mud-free or otherwise permanently passable condition, or improved as may be required by this Ordinance and any walkways, curbs, gutters, street lights, fire hydrants, shade trees, water mains, sanitary sewers, storm sewers and other improvements as may be required by this Ordinance have been installed in accordance with the standards and requirements of this Ordinance. In lieu of the completion of any improvements required as a condition for the final approval of a plan, including improvements or fees required pursuant to Section 510F. of this Ordinance, the applicant shall deposit with the Township financial security in an amount sufficient to cover the cost of all improvements (including both public and private improvements) and common amenities, including but not limited to streets and roads, walkways, curbs, gutters, street lights, shade trees, stormwater detention and/or retention facilities, pipes and other related drainage facilities, recreational facilities, open space improvements, buffer or screen plantings, and, except as provided for in Section 510G. hereof, water mains and other water supply facilities, fire hydrants and sanitary sewage disposal facilities. The financial security shall also include amounts sufficient to cover the costs of as-built drawings; legal fees for recording, dedication of improvements, etc.; construction stake-out; engineering review and site inspections; monumentation; and testing requirements. The applicant shall itemize each improvement separately on a unit basis. The applicant shall not be required to provide financial security for the costs of any improvements for which financial security is required by and provided to the Pennsylvania Department of Transportation in connection with the issuance of a highway occupancy permit pursuant to Section 420 of the Act of June 1, 1945, (P.L. 1242, No. 428), known as the "State Highway Law".
- B. Financial security required herein shall be in the form of a Federal or Commonwealth chartered lending institution irrevocable letter of credit, a restrictive or escrow account in such institution or with a financially responsible bonding company, or such other type of financial security which the Township may, in its reasonable discretion, approve. The bonding company may be chosen by the party posting the financial security, provided that the said bonding company or lending institution is authorized to conduct business within the Commonwealth and agrees that it will submit to Pennsylvania jurisdiction and Chester County venue in the event of legal action.
- C. The said financial security shall provide for, and secure to the public, the completion of all subdivision improvements for which such security is being posted within one (1) year of the date fixed in the subdivision plan and subdivision agreement for completion of such improvements.
- D. 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. The cost of the improvements shall be established by:
1. 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 and review of such bids for completeness and reasonableness by the Township Engineer or,

2. In the absence of such bona fide bids, the amount of financial security shall be based upon an estimate of cost of completion of the required improvements, submitted by an applicant or developer and prepared by a professional engineer and certified by such engineer and the Township Engineer to be a fair and reasonable estimate of such cost.
- E. 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 (100) percent of the cost of completing the required improvements as re-established on or about the expiration of the preceding one (1) year period by using the above bidding procedure.
 - F. In the case where development is projected over a period of years, the Board of Supervisors may authorize submission of final plans by section or stage 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.
 - G. 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 municipality, 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.
 - H. 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 to be released, from time to time, such portions of the financial security necessary for payment to the contractor or contractors performing the work. Any such requests shall be in writing addressed to the Board of Supervisors and the Board of Supervisors shall have forty-five (45) days from receipt of such request within which to allow the Township Engineer to certify, in writing, that such portion of the work upon the improvements has been completed in accordance with the approved plans. Upon such certification, the Board of Supervisors shall authorize release by the bonding company or lending institution of an amount, as estimated by the Township Engineer, fairly representing the value of the improvements completed, less the ten (10) percent retainage specified in Subsection J. below.
 - I. The Township Engineer, in certifying the completion of work for a partial release, shall not be bound to the amount requested by the applicant, but shall certify to the Board of Supervisors his independent evaluation of the proper amount of partial releases.
 - J. The Board of Supervisors shall, prior to final release at the time of completion and

certification by the Township Engineer, require retention of ten (10) percent of the estimated cost of the aforesaid improvements. The Board may release the amount in retainage at the time of substantial completion of the entire project.

SECTION 512 RECORDING OF FINAL PLAN

- A. Upon completion of the procedures outlined under this Article, all endorsements shall be indicated on the Record Plan and on as many other copies of the final plan as may be desired. No subdivision plan may be legally recorded unless it bears the seal of the Township.
- B. Copies of the final plan as finally approved, with the endorsement of the Board of Supervisors and the Township Engineer shall be distributed as follows:
 - 1. At least five (5) copies, four (4) of which shall be presented at the Chester County Recorder of Deeds (one copy to be retained by the Recorder of Deeds, one copy for the County Tax Assessment Office, one copy for the County Health Department, and one copy for the applicant) and one (1) of which shall be retained by the Chester County Planning Commission, shall be given to the applicant.
 - 2. One (1) copy to be retained in the Township together with one (1) copy of all supporting materials.
 - 3. One (1) copy to the Township Engineer.
- C. Within ninety (90) days of final approval by the Township Board of Supervisors or ninety (90) days after the date of delivery of an approved plan signed by the Board of Supervisors, following completion of conditions imposed for such approval, whichever is later, the plan for subdivision shall be recorded in the office of the Recorder of Deeds of Chester County by the Township.
- D. If any homeowners' association documents, deed restrictions, covenants, or easements are included in the filing and recording of the subdivision, the applicant shall notify the Township in writing of such restrictions on the use of the properties being recorded and shall provide the Township with proof of such recording.
- E. The applicant shall supply the Township with one (1) reproducible copy of the subdivision or land development plan and two (2) copies of the plan in digital format in the type and format requested by the Township, to be retained by the Township.

SECTION 513 APPLICATION AND PROCESSING FEES

- A. The applicant shall be required to pay such fees at such time to the Township Secretary as shall be set forth by resolution of the Board of Supervisors. Fees may be required for, but not limited to: submission of preliminary plan, submission of final plan, deed of dedication, field inspections (if any), and material tests (if any). Any fees required shall be directly

related to the processing of plans.

- B. Fees shall be collected by the Township Secretary in the same manner as all other stated fees are collected.
- C. Once the applicant has submitted any stage of his subdivision plan in the required procedure and has paid the required fee, no portion of such fee shall be refunded despite the fact that the applicant may abandon the plan.
- D. After approved plans have become null and void, under conditions described in this Article, any fees paid for said plans, or by the same applicant for plans for other lands, shall not apply to any subsequent plans.

SECTION 514 COMMENCEMENT OF DEVELOPMENT

- A. No construction or land disturbance activities shall be commenced until the applicant submits to the Township Secretary a copy of the Recorder of Deeds' receipt for recording of the Final Plan. Soil and percolation testing, well drilling, and similar engineering or surveying activities are excepted from this restriction.
- B. No construction or land disturbance activities shall be commenced until a pre-construction meeting or conference has been held with representatives of the developer, County Conservation District, Township Engineer, and the Board of Supervisors.
- C. For developments involving individual on-site or community sewage systems, no construction or land disturbance activities shall be commenced until the primary and reserve absorption areas are delineated and fenced to prevent soil disturbance and damage.
- D. No building permit under the Township Zoning Ordinance shall be issued for any building in any subdivision or land development until the Final Plans for the said subdivision or land development has been approved and recorded as provided for and until the terms of Section 513A. have been satisfied.
- E. No building permit shall be issued until a copy of the title search to the subdivided lots has been submitted to the Township.
- F. No building permit shall be issued until the stone base course for the road or driveway providing access to the lot has been installed by the developer and approved by the Township Engineer or the Building Inspector.
- G. Where final subdivision or land development approval has been conditioned upon the submission and approval of individual lot grading plans for some or all of the lots, no building permit shall be issued for construction on any such lot until this condition has been complied with.

H. No water system or sewer system, including extensions to existing or proposed Township systems or new systems employing sewage treatment plants, shall be constructed prior to the issuance of appropriate permits from the Pennsylvania Department of Environmental Protection and from any applicable federal, county or local agencies.

SECTION 515 LAND SALES AND AUCTIONS

Land sales or auctions of anything other than a complete tax parcel, whether new streets or easements are involved, shall be considered a subdivision. Final Plan approval for such a subdivision shall be obtained before advertising of the sale or auction, so that sale and offers to sell shall be with reference to an approved final subdivision plan.

SECTION 516 TIME LIMITATION OF PLAN

The continuing validity of any approval of plans in accordance with this Article shall be subject to those limitations established by Section 508.(4). of the Pennsylvania Municipalities Planning Code, as amended.

SECTION 517 PLAN AMENDMENTS

Major modification of the approved plan, as determined by the Township, shall be resubmitted and reprocessed in the same manner as the original plan. All site disturbance activities shall cease and all site disturbance activity performed prior to such resubmission shall be established to the satisfaction of the Township pending approval of modified plans.

ARTICLE VI
DESIGN STANDARDS AND REQUIRED IMPROVEMENTS

SECTION 601 APPLICATION

- A. The following land subdivision principles, standards, and requirements shall be applied by the Board of Supervisors of West Vincent Township in evaluating plans for proposed subdivisions or land developments.
- B. The standards and requirements outlined herein shall be considered minimum standards and requirements for the promotion of public health, safety, and general welfare.
- C. All improvements and facilities specified in this Article and any other improvements or facilities required by the Township shall be installed at the expense of the developer and shall be maintained by the developer until, in the case of temporary facilities, such facilities should be dismantled, or, in the case of permanent facilities, the responsibility for management has been transferred to the Township, a community association, a private management group, or some other official agency.
- D. Where it can be clearly demonstrated by the applicant to the satisfaction of the Board that, because of peculiar conditions pertaining to a tract of land, the literal enforcement of these standards would cause undue hardship, such variations from their literal interpretation may be permitted as may be reasonable and consistent with the purpose and intent of this Ordinance.
- E. Whenever other Township regulations impose more restrictive standards and requirements than those contained herein, such other regulations shall be observed.

SECTION 602 LAND REQUIREMENTS

- A. Proposed land use shall conform to the West Vincent Township Zoning Ordinance provisions.
- B. Land potentially hazardous to life, health, or property shall not be subdivided for residential or public-use purposes until such hazards have been eliminated or unless adequate safeguards against such hazards are provided by the subdivision plan.
- C. Proposed subdivisions shall be coordinated with existing nearby neighborhoods, so that the community as a whole may develop in a coordinated fashion.

SECTION 603 MONUMENTS AND MARKERS

A. Monument Standards.

1. Permanent stone or concrete monuments shall be accurately placed at the intersection of all lines forming angles and at changes in directions of lines in the boundary (perimeter) of the property being subdivided.
2. All monuments shall be placed by a registered engineer or surveyor so that the scored point created by an indented cross or drill hole in the top of the monument shall coincide exactly with the point of intersection of the lines being monumented.
3. Monuments shall be set with their top level with the finished grade of the surrounding ground.
4. All streets shall be monumented on one (1) side, along the right-of-way line at the following locations:
 - a. At least one (1) monument at each intersection.
 - b. At changes in direction of street lines.
 - c. At all points of curvature and tangency.
 - d. An intermediate monument wherever topographical or other conditions make it impossible to sight between two (2) otherwise required monuments.
 - e. At such other places along the line of streets as may be determined by the Township Engineer to be necessary so that any street may be readily defined in the future.

B. Marker Standards.

1. Markers shall be accurately placed at all lot corners within a subdivision.
2. Markers shall consist of solid iron pipe or pins, with a minimum diameter of one-half inch (0.5") and shall have a minimum length of eighteen inches (18").
3. Markers shall be driven level with the finished grade.

SECTION 604 BLOCKS

- A. The length, width, and shape of blocks shall be determined with due regard to provision of adequate sites for building of the type proposed, the Township Zoning Ordinance, topography, and safe and convenient vehicular and pedestrian circulation.

- B. Blocks shall have a maximum length of one thousand six hundred (1600) feet and, as far as practicable, a minimum length of eight hundred (800) feet.
- C. Blocks along arterial highways shall not be less than one thousand (1000) feet long.
- D. Blocks two (2) lot depths in width shall be preferred, except in the case of reverse-frontage lots.
- E. No single lot shall have two (2) street frontages, except for corner lots. Corner lots shall have access along only one (1) frontage and shall access the street with the least traffic.

SECTION 605 LOTS AND LOT SIZES

- A. The minimum area, width, and building setback lines for lots shall be as provided in the area and bulk regulations of the West Vincent Township Zoning Ordinance.
- B. Lot sizes greater than specified in the Zoning Ordinance may be required when necessary to ensure proper functioning of on-lot sewage disposal and/or water supply.
- C. Lot lines shall be substantially perpendicular or radial to street lines.
- D. All lots shall front upon or have an access easement or right-of-way in effect in perpetuity to a public street or private street built to public street standards. The length of such frontage or the width of any lot using an access easement or right-of-way shall be adequate to provide the minimum lot width at the building setback line. The building setback may be decreased on lots which front a cul-de-sac turnaround, with the consent of the Board of Supervisors. (as amended by Ordinance No. 102 of 1999)
- E. Wherever possible, lot lines shall follow municipal boundaries in order to avoid jurisdictional problems.
- F. Excessively deep lots shall be avoided where practicable, and a depth-to-width ratio of not more than two and one-half (2.5) to one (1) shall be considered a desirable proportion for lots. The lot depth-to-width ratio may be increased in cases where the lot size is greater than the minimum required by the Zoning Ordinance, special topographic or natural features exist, or to achieve a more desirable lot design or layout.
- G. All house numbers shall be assigned by the Township upon recommendation by the United States Post Office.

SECTION 606 DRIVEWAYS

- A. Private driveways shall be provided for all residences and other land developments requiring vehicular access. The construction shall be in accordance with the regulations of this section in order to provide safe access to Township and State roads, to minimize problems of stormwater runoff, and to assure sufficient area for access to off-street parking.

- B. Within the road right-of-way of a Township or private road or for a distance of twenty (20) feet from the edge of the cartway, whichever is greater, all driveways accessing a paved road or street shall be paved with a base of Pennsylvania 3A modified stone compacted to a depth of at least eight (8) inches covered by ID-2A bituminous concrete wearing course compacted to a depth of no less than two and one-half (2 1/2) inches. If the remaining portion of the driveway is paved, such paving shall adhere to these standards above as a minimum. If the remaining portion of the driveway is to remain unpaved or if the driveway accesses an unpaved road, it shall be surfaced with 3A modified stone compacted to a minimum depth of eight (8) inches over undisturbed subsoil. Neither bituminous concrete nor gravel shall be laid over undisturbed or graded topsoil. All driveways accessing a State road shall comply with the specifications contained in Chapter 441 "Access to and Occupancy by Driveways and Local Roads" of Title 67 of the Pennsylvania Code.
- C. Driveways serving a single residence shall have a minimum paved or gravelled width of nine (9) feet. Driveways serving more than one (1) lot or dwelling and all non-residential uses shall have a minimum paved width of twelve (12) feet per lane for ingress and egress.
- D. Driveways to single-family residences shall intersect streets at angles of no less than sixty (60) degrees. All other driveways shall intersect streets at right angles where practical, and in no case less than seventy-five (75) degrees. The angle of intersection is defined as the acute angle made by the intersection of the centerline of the driveway with the curb line of the road.
- E. Driveway entrances into all non-residential, single-use properties shall be no less than twenty (20) feet in width, shall not exceed thirty-six (36) feet in width at the street line unless provided with a median divider, and shall be clearly defined by the use of curbing.
- F. Any curves or turns along the length of driveways shall have a minimum radius of twenty-five (25) feet.
- G. All driveways shall be designed and constructed with a turn-around or back-up area at the end of the driveway to adequately accommodate emergency vehicles.
- H. For a length of twenty (20) feet as measured along the centerline of the driveway from the edge of the cartway, the driveway shall have a maximum grade of four (4) percent. Any remaining portion of the driveway shall have a maximum grade of fifteen (15) percent.
- I. The edge of any driveway shall be located a minimum distance from the nearest end of the paving radius at a street intersection based on the standards contained in Section 2103J. of the Zoning Ordinance.
- J. Clear sight triangles shall be provided at all driveway entrances and shall be shown on plans. Within such triangles, no object greater than three and one-half (3.5) feet in height and no other object that would obscure the vision of a motorist shall be permitted. The legs of such triangles shall be a minimum length in both directions as established in Section

2103B. of the Zoning Ordinance, measured from a point ten (10) feet back from the edge of the cartway of the intersecting street. Greater distances may be required if warranted by specific circumstances. Any landscaping elements within the clear sight triangle shall be maintained to a height of three and one-half (3.5) feet or less.

- K. Driveways shall be graded so that, wherever possible, surface drainage will be discharged to the owner's property. Otherwise adequately sized pipes, inlets, or headwalls shall be installed and gutter improvements shall be made to direct surface drainage into the road drainage system and not onto the paving of the intersecting road or a neighboring property. Road drainage systems shall be upgraded to a condition satisfactory to the Township Engineer by the developer to accommodate the additional runoff created by his/her development.
- L. Where applicable, the gutterline shall be maintained as a paved swale matching existing gutters. A pipe may be placed under a driveway entrance only when approved by the Township Engineer. The acceptability of such a pipe will be governed by the gutter depth on each side of the driveway. The property owner shall be responsible for the maintenance of any pipe.
- M. **Shared Driveways.**
 - 1. A single driveway may be shared by no more than three (3) lots or units.
 - 2. Shared driveways shall have a minimum paved or gravelled width of at least twelve (12) feet.
 - 3. Shared driveways with a cartway width of less than sixteen (16) feet and a total length of two hundred (200) feet or more shall have a sixteen (16) foot wide turnout of sufficient length to accommodate a single motor vehicle located every two hundred (200) feet along the driveway.

SECTION 607 SEWERAGE

A. General Requirements.

- 1. Each lot shall have a sanitary sewer system in accordance with the provisions of the Pennsylvania Department of Environmental Protection and the Chester County Health Department.
- 2. Each property shall connect with an approved public sewer system, when accessible. Where the sewer is not yet accessible but is planned for extension to the vicinity of the subdivision, the developer shall install the sewer lines, including lateral connections as may be necessary to provide adequate service to each lot when connection with the sewer system is made. The sewer lines shall be capped at the limits of the subdivision and the laterals shall be capped at the street right-of-way line. When capped sewers are provided, on-site disposal facilities shall also be

provided.

3. Where an approved public sanitary sewerage system is not accessible or planned, an approved on-site sewage disposal system shall be provided by the developer. This system shall comply with the requirements of the Township Act 537 Sewage Facilities Plan, the requirements of the Pennsylvania Department of Environmental Protection and Chester County Health Department rules and regulations, and the Pennsylvania Sewage Facilities Act, known as Act 537.
4. Sanitary sewers shall not be used to carry stormwater and shall be guarded against infiltration.
5. All sanitary sewer facilities shall be subject to requirements of Act 537, the Pennsylvania Sewage Facilities Act, and current rules and regulations of the Department of Environmental Protection.
6. All sanitary sewer facilities shall comply with the Township Standards for Construction of Water and Wastewater Facilities.
7. All sanitary sewage systems shall be designed, constructed, and maintained so as not to adversely impact or affect any existing or future water supplies.

B. Public Sewerage.

Public sanitary sewers installed by the developer shall conform to the requirements of any Authority having jurisdiction over sanitary sewers in the subdivision and Pennsylvania Department of Environmental Protection rules and regulations and Act 537, the Pennsylvania Sewage Facilities Act.

C. On-Site Sewage Disposal.

1. Each lot to be served by an individual on-site sewage disposal system shall be of a size and shape to accommodate the necessary length of tile fields at a safe distance from the proposed building(s) in accordance with the regulations of the Township, the Chester County Health Department, and the State, and shall be so plotted.
2. Soil percolation tests shall be performed for all subdivisions wherein building(s) at the time of construction will not be connected to a public or community sanitary sewage disposal system in operation. Soil percolation tests shall be made in accordance with the procedures required by the Pennsylvania Department of Environmental Protection and the Chester County Health Department, by either a registered sanitarian or the Pennsylvania Sewage Facilities Act sewage enforcement officer, at a rate of not less than one (1) per lot. For lots less than one (1) acre in size and/or in cases when soil percolation tests indicated suitability for an elevated sand mound system, two (2) sets of approved soil percolation tests shall be required per lot so as to identify both primary and replacement disposal areas. The metes and

bounds for both areas shall be described on all plans and in the deed for each lot.

3. The backfilling of all percolation test pits on the tract shall be accomplished within the time period specified in the Pennsylvania Sewage Facilities Act, Act 537, and by the Chester County Health Department.

D. **Community Sewage Disposal Facilities.**

In such cases where public sanitary sewage disposal facilities are not available and on-site facilities are not approved, the applicant shall provide a complete community sanitary sewage disposal system. The design and installation of any community system shall be subject to the approval of the Pennsylvania Department of Environmental Protection, the Chester County Health Department, and the Township Engineer; and such systems shall be further subject to satisfactory provisions for the maintenance thereof. A copy of the approval of such system, where applicable, shall be submitted prior to the approval of the final plan.

SECTION 608 WATER SUPPLY

- A. All wells and water supplies shall comply with the provisions of the Township Well Ordinance and the Township Fire Prevention Ordinance.
- B. All water systems shall comply with the Township Standards for Construction of Water and Wastewater Facilities.
- C. **Central Water Supply Systems.**
 1. Where a public or an approved community or piped common water supply system is accessible or approved, all properties in the subdivision shall be connected to such system.
 2. Each central water supply system shall be either municipally owned or shall otherwise be made subject to the regulations of the Chester County Health Department, the Pennsylvania Department of Environmental Protection, and the Public Utilities Commission.
 3. The design and installation of a central water supply system shall be subject to the approval of the Township and the Pennsylvania Department of Environmental Protection; such system shall also be subject to satisfactory provisions for the maintenance thereof.
 4. Standards and materials for the construction of any central water supply shall meet or exceed those requirements described in the Public Water Supply Manual of the Pennsylvania Department of Environmental Protection and shall be subject to the approval of the Township Engineer.

5. Where a permit is required by the Pennsylvania Department of Environmental Protection, it shall be presented as evidence of Department review and approval before construction commences.

D. **On-Site Systems.**

1. Where a public or an approved community or piped common water supply system is not accessible or provided, an approved individual on-site water supply system shall be provided.
2. The applicant shall be responsible either to install the on-site water supply system or to guarantee (by deed restriction or otherwise) as a condition of the sale of each lot or parcel within the subdivision that the system can be installed by the purchaser of such lot or parcel.
3. Individual on-site systems for residential use shall have a production capacity in accordance with the standards contained in the Township Well Ordinance.
4. On-site water supply systems shall be designed and installed in accordance with all applicable standards of the Pennsylvania Department of Environmental Protection and the Chester County Health Department.

E. **Fire Hydrants.**

1. All subdivisions to be served by public or community water supply systems shall feature fire hydrants arranged so that no proposed building is more than six hundred (600) feet from a fire hydrant.
2. In the absence of fire hydrants, standpipes may be required in streams or ponds wherever feasible to provide a source of water for firefighting equipment.
3. Fire hydrants and standpipes shall be designed to be compatible with the firefighting equipment of the fire company having jurisdiction.
4. Fire hydrants shall be installed which meet the specifications contained in the Township Fire Prevention Ordinance.

SECTION 609 OTHER UTILITIES

- A. All new utility lines or any lines being relocated, replaced, or upgraded as part of a subdivision or land development including, but not limited to, electric, gas, street light supply, cable television, and telephone, shall be placed underground. Installation of all utilities shall be in accordance with the engineering standards and specifications of the Township, municipal authority, or other public utility involved. All such underground utilities shall be put in place, connected, inspected by a qualified Township representative in accordance with Section 802C., and approved before the streets are constructed (where such

utilities lie under the proposed cartway) and before any person is permitted to occupy any building to be served by such utilities.

- B. In accordance with the provisions of Act 287, as amended, the applicant shall contact all applicable utility companies and accurately determine the locations and depths of all underground utilities within the boundaries of the tract proposed for development prior to excavation. A list of the applicable utilities and their phone numbers shall appear on preliminary plans submitted for review, and proof of contact shall be presented to the Township prior to final plan approval.

SECTION 610 EROSION, SEDIMENT CONTROL, AND STORMWATER MANAGEMENT

- A. No grading, excavating, removal, or other movement of the topsoil and no removal or destruction of trees or other vegetative cover of the land shall be commenced until such time that a plan for minimizing erosion and sedimentation has been reviewed by the Township Engineer and approved by the County Conservation District and the Board of Supervisors, or there has been a determination by the Planning Commission and the Board of Supervisors that such plans are not necessary. Appropriate earthmoving and NPDES permits from the Township and the Department of Environmental Protection shall be required.
- B. No subdivision or land development plan shall be approved unless there has been a plan approved by the Board of Supervisors that provides for minimizing erosion and sedimentation and for stormwater management consistent with this Section, and an improvement bond, cash, or other acceptable securities are deposited with the Township in the form of an escrow guarantee which will ensure installation and completion of the required improvements; or there has been a determination by the Board of Supervisors that a plan for minimizing erosion and sedimentation and/or stormwater management is unnecessary.
- C. Land grading or construction of buildings or other site improvements which would directly or indirectly diminish the flow of natural springs shall be prohibited.
- D. Stream and wetlands buffers shall be created and maintained in accordance with the standards contained in Section 2307 of the Township Zoning Ordinance.
- E. Where a development site is traversed by watercourses, drainage easements shall be provided conforming to the line of such watercourses and their associated buffers, if applicable. The terms of the easement shall prohibit excavation, the placing of fill or structures, and any alterations or obstructions which may adversely affect the flow of stormwater within any portion of the easement. Also, maintenance within the easement shall be required, except as waived by the Board of Supervisors.
- F. Erosion and Sedimentation Control

1. Measures used to control erosion and reduce sedimentation shall, as a minimum, meet the standards and specifications of the USDA Soil Conservation Service as adapted for use by the Chester County Conservation District and the guidelines under Chapter 102 and the Special Protection Waters Implementation Handbook, Publication #1455, of the Pennsylvania Department of Environmental Protection. The Township Engineer, or other officials as designated, shall ensure compliance with the appropriate specifications, copies of which are available from the District or the Township.
2. **Vegetative Cover.**
 - a. For that area of land which must be cleared of trees and other vegetation to allow construction of buildings and other improvements, the limits of clearing shall include only:
 - (1). Dedicated streets and public service or utility easements.
 - (2). Building roof coverage area plus fifteen (15) feet on all sides for construction activity.
 - (3). Driveways, alleyways, walkways, and ancillary structures such as patios.
 - (4). Parking lots, except that the area subtracted for parking space shall not include any trees which are unique by reason of size, age, or some other outstanding quality, such as rarity or status as a landmark or specimen species.
 - b. Development plans shall preserve salient natural features, keep cut-and-fill operations to a minimum, and ensure conformity with topography so as to create the least erosion potential and adequately handle surface water run-off.
 - c. Wherever feasible, natural vegetation shall be retained, protected, and supplemented.
 - d. The disturbed area and the duration of exposure shall be kept to a practical minimum.
 - e. Disturbed soils shall be stabilized as quickly as practicable.
 - f. Temporary vegetation and/or mulching shall be used to protect exposed critical areas during development.
 - g. The permanent (final) vegetation and structural erosion control and drainage measures shall be installed as soon as practical in the development.

3. Peak discharges and discharge volumes from the site shall comply with the following:
 - a. For purposes of calculating required detention storage during land disturbance, peak discharges and discharge volumes shall be calculated based upon the runoff coefficients for bare soils during the maximum period and extent of disturbance. Controls shall insure that the difference in volumes and rates of peak discharge before disturbance and during shall not exceed those peak discharges and discharge volumes noted in subsection G. below. It should be understood that detention storage during the period of land disturbance and prior to establishment of permanent cover may require additional facilities on a temporary basis. Such measures shall be located so as to preserve the natural soil infiltration capacities of the planned infiltration bed areas.
 - b. Wherever soils, topography, cut and fill or grading requirements, or other conditions suggest substantial erosion potential during land disturbance, the Township, as recommended by the Township Engineer, may require that the entire volume of all storms up to a 2-year storm from the disturbed areas be retained on site and that special sediment trapping facilities (such as check dams, etc.) be installed.
4. Sediment in runoff water shall be trapped in accordance with criteria of the County Conservation District and Pennsylvania Department of Environmental Protection and removed through means approved by the Township Engineer to assure proper functioning and adequate capacity in the basins or traps.
5. Procedures shall be established for protecting soils or geologic structures with water supply potential from contamination by surface water or other disruption by construction activity.
6. Additional erosion and sedimentation control design standards and criteria that must be applied where infiltration BMPs are proposed include the following:
 - a. Areas proposed for infiltration BMPs shall be protected from sedimentation and compaction during the construction phase so as to maintain their maximum infiltration capacity.
 - b. Infiltration BMPs shall not be constructed nor receive runoff until the entire contributory drainage area to the infiltration BMP has received final stabilization.
 - c. During the period of land disturbance, when significant sediment can be contained in runoff, this runoff shall be controlled prior to entering any proposed infiltration area.

G. **Stormwater Management**

1. **Selection of Stormwater Best Management Approaches and Practices**

The process or procedure for determining specific stormwater management facilities for each site, Comprehensive Stormwater Management Plan, is contained in Appendix B.

2. **General Standards and Requirements**

a. Downstream Hydraulic Capacity Analysis - Any downstream capacity hydraulic analysis conducted in accordance with this Section shall use the following criteria for determining adequacy for accepting increased peak flow rates:

(1). Natural or man-made channels or swales must be able to convey the increased runoff associated with a 2-year return period event within their banks at velocities consistent with protection of the channels from erosion. Acceptable velocities shall be based upon criteria included in the Pennsylvania Department of Environmental Protection Erosion and Sediment Pollution Control Program Manual.

(2). Natural or man-made channels or swales must be able to convey the increased 25-year return period runoff without creating any hazard to persons or property.

(3). Culverts, bridges, storm sewers, or any other facilities which must pass or convey flows from the tributary area must be designed in accordance with DEP, Chapter 105 regulations (if applicable) and, at a minimum, pass the increased 25-year return period runoff.

b. **Detention/Infiltration Standards**

Post-development rates of runoff from any regulated activity shall not exceed the peak rates of runoff prior to development for either the 2, 10, or 25-year frequency storms.

c. Sediment in the run-off water shall be trapped until the disturbed area is stabilized by the use of debris basins, sediment basins, silt traps, or similar measures.

d. All drainage provisions shall be of such design to adequately handle the surface run-off and carry it to the nearest suitable outlet such as a detention basin, retention pond or other groundwater recharge facility, storm drain, or

natural watercourse. Where drainage swales are used to divert surface waters away from buildings, they shall be sodded or planted as required and shall be of such slope, shape, and size as to prevent ponding and to conform with the requirements established by the Township Board of Supervisors.

- e. Concentration of surface water run-off shall only be permitted in swales, watercourses, retention ponds or other groundwater recharge facilities, or detention basins.
- f. Groundwater recharge areas shall not be diminished by new drainage patterns; the size or shape of existing drainage areas shall not be altered by any means.
- g. Existing points of concentrated drainage that discharge onto adjacent property shall not be altered without permission of the altered or affected property owner(s) and shall be subject to any applicable discharge criteria specified in this Section.
- h. Areas of existing diffused drainage discharge shall be subject to any applicable discharge criteria in the general direction of existing discharge, whether proposed to be concentrated or maintained as diffused drainage areas, except as otherwise provided in this Section. If diffused flow is proposed to be concentrated and discharged onto adjacent property, the developer must document that adequate downstream conveyance facilities exist to safely transport the concentrated discharge, or otherwise prove that no erosion, sedimentation, flooding, or other harm will result from the concentrated discharge.
- i. Minimization of impervious surfaces and infiltration of runoff through seepage beds, infiltration trenches, and other recharge systems are encouraged, where soil conditions permit, to reduce the size or eliminate the need for detention facilities.
- j. Groundwater recharge systems shall be designed, constructed, and maintained so as to control water quality.
- k. Roof drains shall not be connected to street, sanitary or stormwater sewers, or roadside swales so as to promote overland flow and infiltration/percolation of stormwater.
- l. Any individual on-lot stormwater management facilities shall be maintained by the property owner on which the facility is located and deed restricted in perpetuity from removal.
- m. Prior to construction of any stormwater management facilities, the applicant shall secure appropriate NPDES permits from the Department of

Environmental Protection and/or Environmental Protection Agency.

- n. Any stormwater management facilities proposed to be located or discharge within the right-of-way of any State road shall be subject to approval by the Pennsylvania Department of Transportation.
- o. As part of the design and construction of any stormwater management facility, concrete or APS plastic (smooth lined) pipe may be required at the discretion of the Board of Supervisors. No corrugated metal pipe shall be permitted.

3. **Design Criteria for Stormwater Management Facilities**

- a. Any stormwater management facility designed to store runoff and requiring a berm or earthen embankment shall be designed to provide an emergency spillway to handle flow up to and including the 100-year post-development conditions. The height of embankment must be set as to provide a minimum 1.0 foot of freeboard above the maximum pool elevation computed when the facility functions for the 100-year post-development inflow. Should any stormwater management facility require a dam safety permit under PaDEP Chapter 105, the facility shall be designed in accordance with Chapter 105 regulations.
- b. Any facilities that constitute water obstructions and/or any work involving wetlands as directed in PaDEP Chapter 105 regulations, shall be designed in accordance with Chapter 105. Any other drainage conveyance facility must be able to convey, without damage to the drainage structure or roadway, runoff from the 25-year design storm with a minimum 1.0 foot of freeboard measured below the lowest point along the top of the roadway.
- c. Roadway crossings located within designated floodplain areas must be able to convey runoff from a 100-year design storm with a minimum 1.0 foot of freeboard measured below the lowest point along the top of roadway.
- d. Conveyance facilities to or exiting from stormwater management facilities shall be designed to convey the design flow to or from that structure.
- e. Storm sewers must be able to convey post-development runoff from a 100-year design storm without surcharging inlets, where appropriate.
- f. The design of all stormwater management facilities shall incorporate sound engineering principles and practices. The Township, upon recommendation by the Township Engineer, shall reserve the right to disapprove any design that would result in the occupancy or continuation of an adverse hydrologic or hydraulic condition within the watershed.

4. **Calculation Methodology**

Stormwater runoff from all development sites shall be calculated using either the rational method or a soil-cover-complex methodology, as follows:

- a. Any stormwater runoff calculations involving drainage areas greater than 200 acres, including on- and off-site areas, shall use generally accepted calculation technique that is based on the NRCS soil cover complex method. Appendix B summarizes acceptable computation methods. The specific method selected by the design professional shall be based on the individual limitations and suitability of each method for a particular site. The Township Engineer may approve the use of the rational method to estimate peak discharges from drainage areas that contain less than 200 acres.
- b. All calculations consistent with this Section using the soil cover complex method shall use the appropriate design rainfall depths for the various return period storms presented in Appendix B of this Ordinance. If a hydrologic computer model such as PSRM or HEC-1 is used for stormwater runoff calculations, then the duration of rainfall shall be 24 hours. The NRCS 'S' curve shown in Appendix B of this Ordinance shall be used for the rainfall distribution.
- c. For the purposes of pre-development flow rate determinations, undeveloped land shall be considered as "meadow" good condition, unless the natural ground cover generates a lower curve number or rational 'C' value.
- d. All calculations using the rational method shall use rainfall intensities consistent with appropriate times of concentration for overland flow and return periods from the PA Department of Transportation Design Rainfall Curves (1986) in Appendix B of this Ordinance. Times of concentration for overland flow shall be calculated using the methodology presented in Chapter 3 of Urban Hydrology for Small Watersheds, NRCS, TR-55. Times of concentration for channel and pipe flow shall be computed using Manning's equation.
- e. Runoff curve numbers (CN) for both existing and proposed conditions to be used in the soil cover complex method shall be obtained from Appendix B of this Ordinance.
- f. Runoff coefficients (c) for both existing and proposed conditions for use in the rational method shall be obtained from Appendix B of this Ordinance.
- g. Where uniform flow is anticipated, the Manning equation shall be used for hydraulic computations, and to determine the capacity of open channels, pipes, and storm sewers. Values for Manning's roughness coefficient (n) shall be consistent with Appendix B of this Ordinance. Outlet structures for

stormwater management facilities shall be designed to meet the performance standards of this Ordinance using any generally accepted hydraulic analysis technique or method.

- h. The design of any stormwater detention facilities intended to meet the performance standards of this Ordinance shall be verified by routing the design storm hydrograph through these facilities using the storage-indication method. For drainage areas greater than 20 acres in size, the design storm hydrograph shall be computed using a calculation method that produces a full hydrograph. The Township Engineer may approve the use of any generally accepted full hydrograph approximation technique which shall use a total runoff volume that is consistent with the volume from a method that produces a full hydrograph.
- i. The Township has the authority to require that computed existing runoff rates be reconciled with field observations and conditions. If the designer can substantiate through actual physical calibration that more appropriate runoff and time-of-concentration values should be utilized at a particular site, then appropriate variations may be made upon review and recommendations of the Township Engineer. Calibration shall require detailed gauge and rainfall data for the particular site in question.

5. **Groundwater Recharge**

- a. The ability to retain and maximize the groundwater recharge capacity of the area being developed is encouraged. Design of the stormwater management facilities shall give consideration to providing groundwater recharge to compensate for the reduction in the percolation that occurs when the ground surface is paved and roofed over. A detailed soil and geologic evaluation of the project site shall be performed to determine the suitability of recharge facilities. The evaluation shall be performed by a qualified geologist and/or soil scientist, and at a minimum, address soil permeability, depth to bedrock, susceptibility to sinkhole formation, and subgrade stability.
- b. The applicability, location, design, and construction of recharge systems shall be in accordance with the BMPs contained in Pennsylvania Handbook of Best Management Practices for Developing Areas.
- c. Where porous pavement is permitted for parking lots, recreational facilities, non-dedicated streets, or other areas, pavement construction specifications shall be noted on the subdivision or land development plan.

6. **Water Quality Requirements**

In addition to the performance standards and design criteria requirements of this Section, the developer shall comply with the following water quality requirements

unless otherwise exempted by the Board:

- a. Detain the 1-year, 24-hour design storm using the SCS Type II distribution. Provisions shall be made so that the 1-year storm takes a minimum of 24 hours to drain from the facility from a point where the maximum volume of water from the 1-year storm is captured (i.e. - the maximum water surface elevation is achieved in the facility). Release of water can begin at the start of the storm (i.e. - the invert of the water quality orifice is at the invert of the facility). The design of the facility shall consider and minimize the chances of clogging and sedimentation potential.
- b. To accomplish the above, the developer may submit original and innovative designs to the Township Engineer for review and approval. Such designs may achieve the water quality objectives through a combination of BMPs.
- c. In selecting the appropriate BMPs or combinations thereof, the developer shall consider the following:
 - (1). Total contributing area
 - (2). Permeability and infiltration rate of the site soils
 - (3). Slope and depth to bedrock
 - (4). Seasonal high water table
 - (5). Proximity to building foundations and well heads
 - (6). Erodibility of soils
 - (7). Land availability and configuration of the topography
- d. The following additional factors should be considered when evaluating the suitability of BMPs used to control water quality at a given development site:
 - (1). Peak discharge and required volume control
 - (2). Streambank erosion
 - (3). Efficiency of the BMPs to mitigate potential water quality problems
 - (4). Volume of runoff that will be effectively treated
 - (5). Nature of the pollutant being removed
 - (6). Maintenance requirements
 - (7). Creation/protection of aquatic and wildlife habitat
 - (8). Recreational value
 - (9). Enhancement of aesthetic and property values

H. Cut-and-Fill Regulations.

1. Cut-and-fill slopes shall not be steeper than fifty (50) percent unless authorized by the Board of Supervisors and stabilized by a retaining wall, cribbing or other means acceptable to the Township. Finished grades shall not be less than one and one-half (1.5) percent.

2. Adequate provisions shall be made to prevent surface water from damaging the cut face of excavations or the sloping surface of fills.
3. No cut-and-fill shall endanger adjoining property.
4. Fill shall be placed and compacted so as to minimize sliding, slumping, and erosion of the soil.
5. Fills shall not encroach upon or be placed adjacent to natural watercourses or constructed channels.

I. **Grading and Excavation Regulations.**

1. Grading shall not result in the diversion of water onto the property of another landowner without the express consent of that landowner and the Board of Supervisors.
2. During grading and excavation operations, necessary measures for dust control will be exercised.
3. Grading and construction equipment will not be allowed to cross live streams. Provisions will be made for the installation of culverts or bridges.
4. No grading or excavation shall be permitted within prescribed distances of any watercourse as contained in Section 2307 of the Township Zoning Ordinance.

J. **Maintenance Responsibilities.**

1. **General Responsibilities**

- a. The owner of stormwater management facilities shall be responsible for their proper maintenance during and after development. A Maintenance Plan shall be prepared for review and approval by the Township Engineer and shall be executed and signed by the applicant and the Township Engineer. Where appropriate, as described below, this Maintenance Plan also must be signed by the Homeowners Association.
- b. On or before completion of subdivision or land development improvements, the permanent stormwater management system for a tract shall be fully installed and functional in accordance with the approved Comprehensive Stormwater Management Plan. Temporary sediment trapping facilities in detention basins, upon inspection and approval by the Township Engineer, shall be converted into permanent stormwater management basins and additional facilities designed to serve more than an individual lot shall begin operation. All such work shall be as specified in the approved Plan.

- c. Whenever sedimentation is caused by stripping vegetation, regrading, or other development, it shall be the responsibility of the person, corporation, or other entity causing such sedimentation to remove it from all adjoining surfaces, drainage systems, and watercourses and to repair any damage at his expense as quickly as possible.
- d. Maintenance of all drainage facilities and watercourses within any subdivision or land development is the responsibility of the developer until such facilities and watercourses become the responsibility of a community association or are accepted by the Township or some other official agency, after which they become the responsibility of the accepting entity.
- e. It is the responsibility of any person, corporation, or other entity conducting any act on or across a stream, watercourse, or swale or upon the floodplain or right-of-way thereof, to maintain as nearly as possible in its present state the stream, watercourse, swale, floodplain, or right-of-way during the pendency of the activity and to return it to its original or equal condition after such activity is completed.
- f. No person, corporation, or other entity shall impede the flow of, alter, construct a structure within, deposit any material or thing within, or commit any act which will affect normal or flood flow of any stream or watercourse without having obtained prior approval from the Township.

2. **Individual Lot Stormwater Facilities**

Stormwater management facilities and systems that are located on an individual lot are the responsibility of that landowner to maintain, unless otherwise specified in the Maintenance Plan. A Comprehensive Stormwater Management Plan must be prepared, including a Maintenance Plan which shall include:

- a. Any obligations concerning perpetuation of natural drainage or infiltration facilities, and/or the maintenance of facilities constructed by the individual lot owner under terms of the building permit (e.g. - berms, cisterns, downspout connections, seepage pits, etc.).
- b. Assurances that no action will be taken by the occupant to disrupt or in any way impair the effectiveness of any stormwater management system.
- c. A description of the facilities and systems on the lot and specified maintenance responsibilities, as called for above, setting forth in deed restrictions binding on the landowner's successors in interest.

3. **Homeowners Association Ownership**

A single entity taking the form of a private corporation, partnership firm, estate or other legal entity empowered to own real estate exclusive of individual lot owners (i.e. - Homeowners Association) shall be established to manage stormwater management facilities that are suitable for such management, and perform other functions defined in this Ordinance. Responsibilities for ownership and management of facilities shall be defined in the Comprehensive Stormwater Management Plan and Maintenance Plan.

All deeds of individual lots or units within the Homeowners Association shall incorporate the specified maintenance responsibilities, making explicit individual owners' responsibilities for stormwater maintenance measures for the common property.

4. **Township Ownership**

Where the Township has accepted an offer of dedication for the permanent stormwater management facilities, the Township shall be responsible for maintenance. Township ownership notwithstanding, the applicant is required to prepare a Comprehensive Stormwater Management Plan including a Maintenance Plan component, as defined above. Upon completion and approval of the stormwater management facilities by the Township, the applicant shall provide a financial security, in a form approved by the Township Solicitor for maintenance guarantees. The terms of the maintenance guarantees shall be documented as part of the Comprehensive Stormwater Management Plan and the Maintenance Plan.

5. **Need for Corrective Measures**

If the Township determines at any time that stipulated temporary erosion and sedimentation control facilities or permanent stormwater management facilities have been eliminated, altered, or improperly maintained, the owner shall be advised of corrective measures required within a period of time set by the Township. If such measures are not taken by the owner, the Township may cause the work to be done and lien all costs against the property.

6. Failure of any person, individual lot owner, or private entity to properly maintain any stormwater management facility shall be a violation of this Ordinance and is declared to be a public nuisance.

SECTION 611 STREETS

A. **Street System.**

1. Proposed streets shall be properly related to such street plans or parts thereof as have been officially prepared and adopted by the Township, including recorded subdivision plans, the Township Official Map, and the Comprehensive Plan of the Township, and shall be classified according to their function.

2. Proposed streets shall further conform to such Township and State road and highway plans as have been prepared, adopted, and filed as prescribed by law.
3. Thoughtful and site-sensitive design of streets and their relationship to the arrangement of lots is required. Streets shall be logically related to the topography so as to produce optimum access to lots, reasonable grades, proper alignment and drainage, and to provide for adequate vision.
4. Streets shall be designed according to the function they are to serve in conformance with the standards provided in this Section.
5. If lots resulting from a subdivision are large enough to permit resubdivision, or if a portion of the tract is not subdivided, adequate street rights-of-way to permit further subdivision shall be provided as necessary, to be no less than the rights-of-way then required.
6. Where a subdivision or land development abuts or contains an existing or proposed collector or arterial street, the Board may require dedication of additional right-of-way specified hereinafter, as well as marginal access streets, rear service alleys, reverse frontage lots, or such other treatment as will provide protection for abutting properties, reduction in the number of intersections with the major street, and separation of local and through traffic.
7. Where warranted because of additional traffic, drainage, or comparable problems or conditions resulting from the proposed development, said public street is to be improved as a responsibility of the applicant himself, or by means of sufficient funds escrowed for use by the Township to execute such improvement as per the conclusion of a traffic impact study.
8. New half or partial streets shall not be approved.
9. The applicant shall be required to provide standard traffic control signs for all streets within the subdivision. The proposed location of said signs must be shown on the preliminary plan.
10. The Township may require that proposed streets and rights-of-way be extended to the property line of a tract where further extension or connection may be made to such extensions by future development.

B. Right-of-Way and Paving Widths for Streets.

1. **Street Classifications.**
 - a. **Expressway.**

Multi-lane roads with access only by interchange. Properties fronting upon expressway have no direct access. Serves interstate and inter-regional traffic.

b. **Principal Arterial.**

Multi-lane roads with intersections at grade and some access provided to properties with frontage. Intended for high-speed inter-city and commuter traffic.

c. **Minor Arterial.**

Usually two (2) travel lanes with a separate turning lane at intersections. Links boroughs and villages. Access limited depending upon adequate sight distance.

d. **Major Collector.**

Roads designed to collect traffic from residential areas and feed it to the arterial and expressway system. Links neighborhoods, serves some local-oriented traffic, and provides direct access for abutting residential lots in rural areas.

e. **Minor Collector.**

Roads designed to collect traffic from residential areas and feed it to the arterial system. Mostly locally-oriented traffic. Serves as through road in neighborhoods and provides direct access for abutting residential lots in rural and suburban areas.

f. **Local Access.**

Roads designed to provide access to all abutting lots. Not intended for through trips, although may be used as such, particularly in rural areas. Includes cul-de-sacs and other single-access streets.

2. **Widths for Rights-of-Way and Cartway.**

a. Minimum street widths for proposed streets and extension or continuations as follows:

<u>Classification</u>	<u>Cartway Width (in feet)</u>	<u>Right-of-Way Width (in feet)</u>
Expressway	as determined by PennDOT	

Principal Arterial	as determined by PennDOT	
Minor Arterial	24	80
Major Collector	22	60
Minor Collector	20	60
Local Access	20	50
Cul-de-Sac Vehicular turnaround	40 radius	50 radius

- b. If driveways in proposed subdivisions are less than fifty (50) feet in average length and/or average lot sizes are less than one (1) acre, street widths shall be adequate to allow on-street parking and adequate drainage in accordance with the applicable standards of this Section.
- c. If parking is to be permitted or required along a major collector, minor collector, or local access road, an additional eight (8) feet of cartway width shall be required for parking along one (1) side of the street; an additional sixteen (16) feet of cartway width shall be required if parking is to be permitted or required along both sides of the street.
- d. No parking shall be permitted along an expressway, principal arterial, or minor arterial.
- e. Additional right-of-way and cartway widths may be required by the Board if necessary to promote public safety and convenience, provide adequate drainage, or if necessary to accommodate special topographic circumstances which result in cut-and-fill slopes extending beyond the standard right-of-way.
- f. Rights-of-way of lesser width than prescribed in this Section shall not be permitted, circumstances described in Section 601D. of this Ordinance being excepted.
- g. Subdivisions abutting existing streets shall provide at least the minimum right-of-way widths for those streets in accordance with the provisions of this Section for dedication.
- h. Where a subdivision or land development abuts an existing street of improper cartway or right-of-way width or alignment, the Township shall require the dedication of land sufficient to widen the street or correct the alignment and require escrow of money where deemed necessary in order to

improve said cartway.

- i. The Township has the right to determine the location of the cartway within the right-of-way.

C. **Street Grades.**

1. Centerline grades shall not be less than one (1) percent.
2. Centerline grades shall not exceed four (4) percent on arterial streets or ten (10) percent on collector and local access streets. PennDOT standards for grade shall be applied to expressways.
3. At all changes of street grades where the algebraic difference exceeds one (1) percent, vertical curves shall be provided to permit a minimum sight distance of two hundred (200) feet along local access streets, three hundred (300) feet along collector streets, and four hundred (400) feet along arterials. PennDOT standards for sight distance shall be applied to expressways.
4. The slope ratio of banks shall not exceed three (3) to one (1) horizontal to vertical for fills, and two (2) to one (1) for cuts for the extend of the cut or fill area. Measurement of slope ratio shall be made perpendicular to the street right-of-way line.

D. **Street Alignment.**

1. Whenever street lines are deflected in excess of five (5) degrees, connection shall be made by horizontal curves.
2. To ensure adequate sight distance, minimum centerline radii for horizontal curves shall be as follows:
 - a. One hundred fifty (150) feet on local access roads.
 - b. Three hundred (300) feet on collector roads.
 - c. Five hundred (500) feet on arterial roads.
 - d. PennDOT standards shall be applied to expressways.
3. A tangent of at least one hundred (100) feet shall be introduced between all horizontal curves on collector and arterial roads.
4. Superelevation shall be required on arterial roads where the curve radius is less than six hundred (600) feet.

5. Minimum curve radius shall not be permitted on maximum grade.

E. **Street Intersections.**

1. Streets shall be laid out to intersect as nearly as possible at right angles. No street shall intersect another at an angle of less than sixty (60) degrees, as measured at the centerlines.
2. No more than two (2) streets shall cross at the same point.
3. Clear sight triangles shall be provided at all street intersections. Within such triangles, no object which obscures vision above a height of thirty (30) inches and below a height of ten (10) feet shall be permitted. Heights shall be measured from the centerline grade of the street intersection. Such triangles shall be established by a distance from the curb line or edge of pavement of the intersected street according to the following street function:
 - a. Distances for collector and arterial roads shall be in conformance with PennDOT standards, but shall in no case be less than four hundred (400) feet in each direction along the collector or arterial road.
 - b. Distances for local access streets, except single access streets, shall be no less than two hundred fifty (250) feet in each direction along the local access street.
 - c. Distances for single access streets shall be no less than one hundred fifty (150) feet along the single access street.
 - d. Where an intersection is controlled by a stop sign or traffic signal, the sight triangle shall be measured from a point in the center of the controlled or lesser street twenty-five (25) feet back from the curb line or edge of pavement of the uncontrolled or through street.
 - e. The sight triangle shall be measured from a point in the center of the street seventy-five (75) feet back from the curb line, or edge of pavement if there is no curb, for all other intersections not equipped with a stop sign or traffic signal.
4. To the fullest extent possible, intersections with major arterials and major collectors shall be located not less than eight hundred (800) feet apart, as measured from centerline to centerline.
5. Streets entering from opposite sides of another street shall either be directly across from each other or offset by at least one hundred fifty (150) feet on local access and

collector roads and three hundred (300) feet on arterial roads, as measured from centerline to centerline.

6. Street curbing or the cartway edge at intersections shall be rounded by a tangential arc with a minimum radius of twenty (20) feet for intersections involving only local access streets, twenty-five (25) feet for intersections including other types of streets, or such greater radius as is suitable to the specific intersection or in the case of intersections involving state roads, as determined by PennDOT.
7. In the case of boulevard streets or streets with center planting islands, the planting island shall be set back at least fifty (50) feet from the cartway edge of the intersecting road to allow access by emergency vehicles. Planting islands may be located less than fifty (50) feet from the intersecting street if other design specifications result in adequate provision for emergency vehicle access.
8. Whenever a subdivision abuts an arterial street or any street where visual resources are located as identified in the Township Open Space and Recreation Plan, the Board of Supervisors may require reverse frontage lots or parallel streets to regulate access to said arterial street or "scenic" road.

F. **Single Access Streets.**

Single access streets shall function as local access streets. All standards applicable to local access streets shall apply to single access streets in addition to the following:

1. A single access street shall not have more than one thousand (1000) linear feet of cartway and shall not have a tangent exceeding four hundred (400) feet.
2. A single access street shall not furnish access to more than twenty (20) dwelling units except in the case of a single access street within Tier III and IV subdivisions as allowed and defined in the Zoning Ordinance, which shall not furnish access to more than thirty (30) dwelling units.
3. A single access street to be publicly maintained shall have no less than two hundred fifty (250) linear feet of cartway.

4. **Cul-de-Sac and Dead-End Streets.**

- a. Dead-end streets are prohibited unless designed as permanent cul-de-sac street, or when designed as a temporary cul-de-sac for future access to adjoining properties.
- b. Any street dead-end for access to an adjoining property or because of authorized phased development shall be provided with a temporary, all-weather turnaround within the subdivision. The use of the turnaround shall be guaranteed to the public until such time as the street is extended.

right-of-way shall be extended to the tract boundary in such cases.

- c. A cul-de-sac providing access for more than two (2) dwelling units shall have a vehicular turnaround of sufficient size and shape to allow service and emergency vehicles to execute a one hundred eighty (180) degree turn with no more than one (1) backing motion.
- d. Circular turnarounds shall have a minimum paved radius of forty (40) feet.
- e. There shall be a maximum of four (4) lots containing any access along the turnaround portion of a cul-de-sac street. A maximum of eight (8) lots may be permitted to access along the turnaround of a cul-de-sac, at the discretion of the Board of Supervisors, if the site is developed under the Tier III or IV options of the Zoning Ordinance.

G. **Private Streets.**

- 1. Private streets shall be built to the same standards as public streets, as specified above.
- 2. Private streets shall function solely as local access streets.
- 3. Provisions for the maintenance of private streets shall be stated in the Community Association document to be submitted and approved with the preliminary plan.
- 4. Private streets shall be owned in common by the property owners served by the street. Ownership shall be transferred along with conveyance of the lots and shall not remain with the developer.

H. **Alleys and Service Streets.**

- 1. No part of any dwelling, garage, or other structure shall be located within sixteen (16) feet of the centerline of a service street or alley.
- 2. Except where other adequate provision is made for off-street loading and parking consistent with the use proposed, service streets shall be required in commercial and industrial districts and shall have a minimum paved width of twenty-two (22) feet.

I. **Street Names and Signs.**

- 1. A proposed street which is obviously in alignment with an already existing and named street shall bear the name of the existing street.
- 2. In no case shall the name of a proposed street duplicate an existing street name in the Township, in the fire company service area having jurisdiction, or in the postal district, irrespective of the use of the suffix Street, Road, Avenue, Boulevard,

Driveway, Place, Court, Lane, etc.

3. All street names shall be subject to the approval of the Board of Supervisors, upon review by the fire company and post office having jurisdiction, the Township Emergency Coordinator, and the Chester County Emergency Services Department.
4. Street name signs shall be installed at all street intersections at the expense of the developer. The design and placement of such signs shall be subject to the approval of the Board of Supervisors and shall be in compliance with the applicable standards of the Pennsylvania Department of Transportation. (as amended by Ordinance No. 102 of 1999)

J. **Street Trees.**

Within any land development or subdivision, street trees shall be planted along all streets, whether public or private, where suitable street trees do not exist in accordance with Section 2106A.6. of the Zoning Ordinance and the following additional standards. In the case of any discrepancies or inconsistencies, the more restrictive standard shall prevail.

1. Street trees shall be planted at intervals of not more than fifty (50) feet apart, or an equivalent number shall be planted in an informal arrangement.
2. Street trees shall not be planted opposite each other, but shall alternate.
3. Street trees shall not obstruct the clear sight triangle as described in Section 611E.3.
4. If the planting strip between the curb and a sidewalk is less than seven (7) feet wide, the street trees shall be planted on the lots.
5. Street trees and other required plants shall be nursery stock; of generally symmetrical growth; free of insects, pests, and disease; suitable for street use; and durable under the location and maintenance contemplated.
6. The trunk diameter shall be a minimum of three (3) inches caliper.
7. Suitable species of street trees include, but are not limited to, the following:
 - a. American Maple Acer ginnala
 - b. Norway Maple Acer platanoides
 - c. Sugar Maple Acer saccharum
 - d. White Ash Fraxinus americana
 - e. Green Ash F. Penna. lanceolata
 - f. Sweet Gum Liquidambar styraciflua
 - g. Tulip Liriodendron tulipifera
 - h. Amur Cork Phellodendron amurense
 - i. London Plane (Sycamore,

	Buttonwood)	Platanus acerifolia
j.	White Oak	Quercus alba
k.	Red Oak	Quercus borealis
l.	Scarlet Oak	Quercus coccinea
m.	Willow Oak	Quercus phellos
n.	Linden	Tilia cordata, Tilia europaea

K. **Scenic Roads.**

1. All subdivisions and land developments proposals shall address the scenic qualities of roads within the Township as identified on the Visual Resources Inventory Map in the Township Open Space and Recreation Plan and shall, as far as reasonably and safely possible:
 - a. Preserve and enhance tree lines along roadways;
 - b. Preserve existing natural vistas from roads;
 - c. Preserve and enhance points of interest, such as barns, ruins, unique or remarkable tree specimens, and historic features.
2. Berms and buffers required in Section 614 shall be designed to harmonize with the natural landscape and enhance the visual quality of the land as observed from adjacent or nearby roads.
3. If preserved in a natural state, scenic vistas observed upon the lands of a proposed subdivision or land development from nearby or adjacent roads may be credited toward the open space requirements for that proposal, as set forth in Section 615, even if the lands within the vista are privately owned and provide no physical access to the public. The area credited shall be limited to the area between the road and the nearest ridgeline or other natural visual obstruction and shall be subject to the following conditions:
 - a. The ridgeline shall not lie between the required building setback line and the cartway.
 - b. No new structures or other improvements, with the exception of landscaping, shall be visible from the road from which the vista shall be observed.
 - c. The vista is naturally occurring and has not been created by destruction of vegetation.
 - d. The vista shall not be artificially restricted by the use of berms, landscaping elements, or any other means.

- e. Future development or subdivision on the lands within the preserved vista shall be prohibited by deed restriction.
- f. The open space credit shall not affect Township requirements for active recreational areas. The Township may still require facilities for active recreation to be located within the subdivision.

SECTION 612 PAVING, CURBING, AND SIDEWALKS

All streets, public or private, shall be paved, curbed, and furnished with sidewalks in accordance with this Section, as otherwise specified by Township regulations, or as otherwise directed by the Board of Supervisors.

A. Paving.

- 1. Whenever possible the subgrade shall be in cut or undisturbed subsoil. In no case shall the subgrade consist of filled or undisturbed topsoil or frozen soils. All deleterious material such as tree roots, leaves, branches, trash, stones exceeding six (6) inches in diameter, and miscellaneous construction debris shall be removed from the subgrade. Compaction shall be accomplished by sheep's-foot, smooth wheel, vibratory roller, or rubber-tired roller at the discretion of the Township Engineer.
- 2. The subgrade shall be compacted tight and dry and shall not be soft and spongy when check or proof rolled. Compaction of the subgrade shall extend the full width of the cartway, including the width to be occupied by shoulders where applicable. The required road crown shall be built into the shaped subgrade. Upon inspection of the compacted subgrade by the Township Engineer, the placement of a geotextile material may be required.
- 3. Before placement of the base course, the subgrade shall be covered with a cushion course of dry limestone screenings meeting the requirements of PennDOT Publication 408 for No. 10 fine material and having a minimum thickness of one (1) inch after placement. Compaction of the screenings layer is not required.
- 4. All collector and non-residential streets shall have a compacted, crushed aggregate base course thickness of ten (10) inches. All other streets shall have a compacted crushed aggregate base course thickness of eight (8) inches unless otherwise directed by the Township Engineer. Measurement of the base course thickness can be taken from the compacted subgrade prior to the placement of screenings, unless otherwise directed by the Township Engineer.
- 5. The base course shall consist of a stone and screenings application meeting with requirements of PennDOT Publication 408 and applied by a box spreader, not a bulldozer or motor grader. A ten (10) ton or twelve (12) ton vibratory roller shall be used for both the stone compaction and the filling of the voids with fines. Completion of the base course will consist of brooming to expose one-half (0.5)

inch to three-fourths (0.75) inch of the uppermost layer of stone over a minimum of seventy-five (75) percent of the road surface. No large areas of solid screenings or loose stone areas will be permitted. Alternate base course materials such as B.C.B.C., Posi-pac, or twelve (12) inches of 3A modified stone compacted in three (3) lifts of four (4) inches each, may be permitted with the approval of the Supervisors upon recommendation of the Township Engineer.

6. An ID-2 binder course with a minimum compacted thickness of two (2) inches meeting the requirements of PennDOT Publication 408, latest edition, shall be applied over the base course. In no case shall the binder course be applied over a frozen, saturated, or excessively dirt-laden base course.
7. After proper cleaning, repairing, and preparation of the binder course as directed by the Township Engineer, a tack coat shall be applied to the binder course prior to placing the wearing course. The tack coat, shall consist of materials meeting the specifications of PennDOT Publication 408, latest edition.
8. The wearing course shall consist of ID-2 material meeting the requirements of PennDOT Publication 408, latest edition, and shall have a minimum compacted thickness of one (1) inch.
9. After application of the wearing course, all curb, inlet, manhole, driveway, and similar joints shall be sealed with a PennDOT approved joint sealer applied to neat lines with a minimum width of six (6) inches.
10. All roads shall have a crown of one-quarter (0.25) inch per foot sloping away from the centerline unless otherwise directed by PennDOT or the Township Engineer.

B. **Curbing.**

1. Curbing shall be required by the Board of Supervisors in those cases where it is deemed necessary for proper drainage.
2. All curbs shall be of the vertical type. Adequate provision shall be made for driveway entrances.
3. All curbs shall be constructed of Class A cement concrete as specified by PennDOT Publication 408, latest edition, or of granite, as required by the Board of Supervisors. Curbs shall be constructed to the dimensions shown in the Appendix.
4. **Concrete Curbing.**
 - a. Curbing shall be constructed in ten (10) foot lengths. A premolded bituminous-impregnated one-half (0.5) inch expansion joint shall be placed between sections of curbing at intervals of not more than thirty (30) feet.

- b. Depressed curbs at driveways shall be between one (1) and one-half (0.5) inches above the finished street surface. Pipes, grates, wood planks, or other materials shall not be placed in the gutter to form a driveway ramp.
- c. Where it is necessary to replace existing vertical curbs with depressed curbing, ten (10) foot long sections of existing vertical curb shall be removed down to the subgrade without disturbing the adjacent cartway paving. The depressed curb shall then be formed and poured in place. Any portions of the cartway disturbed during curbing removal or installation will be repaired to new condition.
- d. When curbing must be cut for any reason, the length of the remaining section shall be no less than four (4) feet between expansion joints. The cut shall be made in a neat manner with a power saw equipped with a proper masonry-cutting blade.
- e. Any depressed curb sections that are unused when a development or phase of a development is completed shall be completely removed and replaced with full section upright curbing to line and grade of adjacent curbing. Forming and pouring concrete vertical curbing on top of an existing curb depression will not be permitted.

5. **Granite Curbing.**

- a. Granite curbing shall be in blocks with a minimum height of ten (10) inches, minimum top width of four (4) inches, minimum base width of four (4) inches, and a maximum length of five (5) feet. Base width shall not be less than top width. Reveal shall not be less than four (4) inches nor greater than six (6) inches, nor greater than one-half (0.5) times the block height. Blocks shall be separated by a mortar joint no less than one-half (0.5) inch wide.
- b. Depressed curbs at driveways shall have a reveal not less than one-half (0.5) inch nor greater than one (1) inch and a total height of not less than six and one-half (6.5) inches. Pipes, grates, wood planks, or other materials shall not be placed in the gutter to form a driveway ramp.

C. **Sidewalks/Walking Paths.**

- 1. Concrete or paved sidewalks or walking paths shall be required along all streets or within common open space or recreational areas within a subdivision or to provide pedestrian linkage and access to adjacent tracts and developments.
- 2. Sidewalks shall be required along all streets within one thousand (1000) feet of and leading to a school and at other locations deemed by the Board of Supervisors to be necessary for the safety and convenience of the public.

3. Sidewalks or walking paths shall be placed within the street right-of-way parallel to and a minimum of six (6) feet from the street line or within a specially designated right-of-way or easement. Gradient and paving of all sidewalks or walking paths shall be continuous across all private driveways. Sidewalks or walking paths located within the street right-of-way shall be maintained by the abutting property owner. Sidewalk or walking path maintenance shall be the responsibility of the owner of the property traversed by the sidewalk or walking path when located within a specially designated right-of-way or easement. Maintenance includes but is not necessarily limited to snow removal, repair of cracks, and replacement of deteriorated sections.
4. Sidewalks or walking paths shall be not less than four (4) feet in width. Concrete sidewalks shall be no less than four (4) inches in thickness, except for crossing driveways where the minimum thickness shall be six (6) inches and shall be constructed of plant mix certified to three thousand (3000) pounds per square inch at twenty-eight (28) days. Paved sidewalks or walking paths shall be constructed in accordance with the specifications contained in Section 606.B. of this Ordinance. Gravel walking paths shall be constructed in accordance with the specifications contained in Section 616 of this Ordinance.

D. **FINISHED GRADING.**

The finished grading for a street or cul-de-sac shall extend across all disturbed soils. The maximum slope between the right-of-way line and the top of the curb, or edge of the cartway if there is no curb, shall be one (1) inch per foot, except that sidewalk or walking path paving shall slope one-quarter (0.25) inch per foot as a maximum, unless otherwise directed by the Board of Supervisors.

SECTION 613 BRIDGES AND CULVERTS

Bridges and culverts shall be designed to meet the requirements and approval of the Township Engineer with regard to design, adequacy, and location. In all cases a culvert or bridge shall extend for the full width of the right-of-way. All culverts and bridges not under Department of Environmental Protection control shall be designed for a fifty (50) year storm. Culverts shall be of reinforced concrete or ABS plastic (smooth lined). Corrugated metal pipe shall be prohibited.

Wherever the drainage area of the watercourse involved consists of more than one hundred (100) acres, a permit shall be obtained from the Dams and Waterway Management section of the Department of Environmental Protection, Commonwealth of Pennsylvania, in conformance with Chapter 105 of the rules and regulations of the Department of Environmental Protection. Such permit shall be submitted to the Board of Supervisors who shall make appropriate notation of receipt of same upon, and prior to approval of, the Preliminary Plan and upon the Township copy of such plan.

SECTION 614 SEEDING AND LANDSCAPING

- A. Landscaping, buffering, and screening shall be provided under all those circumstances stipulated by Section 2106 of the Township Zoning Ordinance in addition to the standards contained in this Section.
- B. Buffers shall be provided along the rear of reverse-frontage lots.
- C. The plant material used to create the buffer shall be of a minimum of six (6) feet in height at the time of planting and shall be planted in a staggered arrangement in order to provide an immediate effect. Deciduous and semi-deciduous shrubs may be used with evergreens to provide an immediate effect and to provide accent and color. It is recommended that a landscape architect licensed by the Commonwealth of Pennsylvania be employed to ensure the proper use and arrangement of plant materials and to provide an aesthetically pleasing effect.
- D. Earthen berms may be incorporated into the landscaping plan along public road frontage and along property lines abutting existing dwellings.
- E. Evergreen species approved for buffers include, but are not limited to, the following:
 - 1. White Pine Pinus strobus
 - 2. Canadian Hemlock Tsuga canadensis
 - 3. Carolina Hemlock Tsuga caroliniana
- G. For developments located in the (VCR) Village Center Residential District and/or the (VCC) Village Center Commercial District of the Township Zoning Ordinance, a landscaped buffer with a minimum distance of one hundred (100) feet between lot lines and the perimeter property lines of the tract shall be required.

SECTION 615 RECREATION AND OPEN SPACE REQUIREMENTS

- A. The Board of Supervisors may require that portions of a subdivision be set aside for parks, playgrounds, or other public uses. Areas set aside for recreational or school purposes shall be reasonably compact parcels, placed to serve all parts of the subdivision, accessible from a public street, and not excessively irregular in terrain.
- B. Play lots for children of pre-school age shall be at least two thousand (2000) square feet in area.
- C. Land Set-Asides for Public Recreational Use and "Fee-in-Lieu" of Open Space Alternatives.

Applicants for new residential developments shall be required to set aside 5,000 sq. ft. of land for each proposed new dwelling unit, as undivided recreational land designated for public usage. Such land shall be suitable for active and/or passive recreation, with at least

half the land suitable for active sports, where such facilities are required by the Board. In lieu of a set-aside for public usage, two alternatives exist for the applicant proposing subdivision:

1. The applicant may offer a set-aside limited to recreational usage by the residents of the proposed subdivision. If land is set aside in this manner for private recreational use, it shall also be permanently protected through a conservation easement enforceable by the Township and/or a land trust, prohibiting future non-recreational (or commercial recreational) uses.
2. The applicant may offer to pay a fee to the Township in lieu of any recreational land set-aside. Situations in which it would be appropriate for the Township to accept such offers include cases where the land would not provide a particular public benefit because of its small size or location. Exceptions to this rule, where public use of relatively small land areas would still be appropriate, include situations in which the land could be used to buffer or extend public parks or public schoolgrounds, or could provide potential linkage in a future Township trail network. The decision whether to accept a fee-in-lieu offer by the applicant shall lie with the Board of Supervisors, which shall also establish the amount of the fee in lieu, based upon the Township's estimated cost of acquiring land that is similar in area and attributes, which would better serve public recreational needs. In appraising alternative sites, the Township shall be guided by the site selection criteria contained in its Recreation and Open Space Plan. Such estimates shall be based on discussions with realtors or appraisers familiar with land values in the Township. Any fees established shall be payable prior to issuance of building permits for the development.
3. All fees collected in lieu of land shall be kept in an interest bearing Township open space capital reserve fund, which shall be used only for the acquisition of open space land or capital improvements for open space and park and recreation purposes within the Township at locations consistent with the open space plans of the Township.
4. In Tier I and II subdivisions involving fewer than ten (10) dwelling units where, in the judgment of the Board, there would be no particular public benefit accruing from a public dedication (as described above), or from a set-aside for shared private recreational usage among the subdivision lot owners, the applicant may offer to place a conservation easement on certain areas of land within individual house lots where certain environmentally-sensitive features are present, without conferring common access rights or privileges for the subdivision residents or the broader public. The percentage of land that is thus protected shall generally be not less than twenty percent (20%) of the gross land area of the subdivision. This land may be access-restricted not only from the public but also from other residents in the subdivision.
5. In Tier III and IV subdivisions with fewer than ten (10) dwelling units, where there

would be no particular benefit accruing from a public dedication (as described above), the recreational land that is part of the requirement for undivided open space shall be designated for private shared recreational usage among the subdivision lot owners.

SECTION 616 Trails.

To preserve a unique feature and an important component of the Township circulation, open space, and recreation systems and the Township rural character, applicants shall make provisions for the continued recreational use of trails when a subdivision or land development proposal is traversed by or abuts an existing trail customarily used by pedestrians and/or equestrians in accordance with the following standards:

- A. Trail use is a privilege, not a right. Abuse of this privilege by any trail user may restrict or result in the loss of this privilege.
- B. Trails shall be intended for Township residents and their guests, and not for commercial purposes unless specifically granted by the landowner.
- C. The applicant may alter the course of the trail within the tract for which development is proposed under the following conditions:
 - 1. The points at which the trail enters and exits the tract remain unchanged, if practical.
 - 2. The proposed alteration exhibits quality trail design according to generally accepted principles of landscape architecture. The Township recommends the Department of Environmental Protection publication, Non-Motorized Trails, prepared by the Pennsylvania Trails Program of the Bureau of State Parks as a guide for the development of high quality trails.
 - 3. The proposed alteration does not run coincidentally with a paved road intended for use by motorized vehicles.
- D. Trail location, design, and use shall be consistent with the Township Open Space and Recreation and Township Trail Plan.
- E. Where feasible, trails shall be located within common open space areas.
- F. No trail shall be designed with the intent to accommodate motorized vehicles.
- G. Trail easements for public use may be credited toward the open space requirements described in Section 615 of this Ordinance.
- H. An applicant may propose and develop a new trail. If said trail is available for use by the general public and connects with an existing trail, the easement for said trail may be

credited toward the open space requirement described in Section 615 of this Ordinance and shall be eligible for a discretionary density bonus as prescribed in Section 1906 of the Township Zoning Ordinance. The applicant shall be responsible to construct or install any new trail as part of the improvements for the development prior to the issuance of any use and occupancy permits. The costs of such trail improvements shall be included in the escrow agreement for the development.

- I. Where feasible, new trails shall connect to existing trails, open space, or recreation areas on adjacent tracts.
- J. Improvements to trails shall demonstrate adherence to principles of quality trail design, enhancing the enjoyment of the rural qualities of the Township. The costs of such improvements shall be included in the escrow agreement for the subdivision or development.
- K. If necessary, trails shall be screened from adjacent dwellings in accordance with the requirements contained in Section 2106.B. of the Township Zoning Ordinance. Such screening shall be completed as part of the improvements required of the subdivision or land development.
- L. Trails shall have a vertical clearance of no less than ten (10) feet.
- M. Trails shall be located in an easement or right-of-way with a minimum width of ten (10) feet.
- N. Width of the trail surface may vary depending upon type of use to be accommodated, but in no case shall be less than three (3) feet or greater than six (6) feet.
- O. Trails and their easements shall be dedicated to the public sector, donated to a land trust or private conservation organization, or placed under the care of a community association in order to assure continuing maintenance of the trail and trail easement. Alternatively, a trail may be maintained by the abutting property owner, but only upon the request of the said property owner and with the approval of the Board of Supervisors.
- P. The Township may, but shall not be required to, accept dedication of a trail easement, provided: (a) such trail is accessible to the residents of the Township; (b) there is no cost of acquisition (other than any costs incidental to the transfer of ownership); and (c) the Township agrees to and has access to maintain such trail. Trail easements accepted for dedication to the Township shall qualify the applicant for a discretionary density bonus in accordance with Section 1906 of the Township Zoning Ordinance.
- Q. All trail easements or rights-of-way shall be clearly shown on the approved subdivision plans and recorded on all lot deeds with the County Recorder of Deeds office.

SECTION 617 Historic Features

Historic features and other points of interest shall be preserved and may be credited toward greenway or open space requirements in accordance with the standards contained in Article XXIV of the Township Zoning Ordinance and under the following additional conditions:

- A. The feature being preserved shall be listed upon a Township, County, State, and/or National roster or inventory of features, monuments, or places of historic or general interest, or the applicant shall be some other means demonstrate to the satisfaction of the Board of Supervisors that the said feature is of sufficient public interest to warrant preservation. Features may include, but shall not necessarily be limited to: historically, culturally, or architecturally significant buildings, monuments, or sites; unique or historic landscape elements, such as historic gardens or Penn oaks; archaeological sites; and any other feature which shall be deemed by the Board of Supervisors to be of historic or cultural value to the Township.
- B. The feature shall be situated upon a tract of land of sufficient size to preserve an impression, although not necessarily the exact condition, of the environs of the said feature prior to construction of the proposed development. The amount of credit toward open space requirements shall be equivalent to the size of this tract.
- C. The feature shall not be moved unless deemed necessary by the Board of Supervisors to protect public safety and/or to facilitate preservation of the feature.
- D. The developer may be required to provide interpretive signage explaining the significance of the feature.
- E. The feature and the tract upon which it is located shall be maintained by the owner of the tract, a community association, a public agency, or a private conservation group which shall be responsible for the maintenance of the feature and its grounds.
- F. The developer shall be responsible for improvements to the site deemed necessary by the Board of Supervisors to protect public safety.
- G. The Township shall maintain a permanent record of all historic features which have been credited to open space requirements as well as the amount of land per feature so credited.
- H. If potential or actual archaeological resources have been identified, phase I and II archaeological studies shall be required or the area of the resource shall be deed restricted against any excavation or construction activities until such studies are completed.

**ARTICLE VII
RESOURCE CONSERVATION AND GREENWAY DELINEATION
STANDARDS**

SECTION 701 APPLICABILITY

The standards for Resource Conservation, as set forth in this Article, shall apply to all subdivisions and land developments in West Vincent Township, while the standards for Greenway delineation shall apply to all residential subdivisions within the West Vincent Township Zoning Ordinance.

SECTION 702 PLANNING AND DESIGN STANDARDS FOR RESOURCE CONSERVATION

A. General Standards to Minimize Adverse Impacts

All subdivisions and land developments shall avoid or minimize adverse impacts on the Township's natural, cultural and historic resources, as defined below.

B. Groundwater Resources

This section is intended to ensure that the Township's limited groundwater resources are protected for purposes of providing water supplies for its residents and businesses, and to protect the base flow of the Township's surface waters.

These regulations shall be applied in conjunction with those provided for in Section 403.I.2. of this Ordinance and Article XXIII of the Township Zoning Ordinance, dealing with groundwater protection. In cases where a perceived conflict may arise, the stricter regulation shall prevail (as interpreted by the Board).

1. The proposed subdivision and land development of any tract shall be designed to cause the least practicable disturbance to natural infiltration and percolation of precipitation to the groundwater table, through careful planning of vegetation and land disturbance activities, and the placement of streets, buildings and other impervious surfaces.
2. New development or expansion of existing development shall demonstrate a non-negative water balance after the development proposal occurs, as compared to predisturbance conditions. If the groundwater is used for water supply, a water balance analysis must include uses in its calculations, regardless of where the withdrawal occurs.
3. All new development or expansion of existing development in West Vincent Township shall be undertaken in a manner so as to guarantee a non-negative hydrologic balance, pre-and post-development. Any reduction in groundwater

recharge resulting from the construction of new impervious surfaces, alteration of grading and drainage, loss of vegetation, construction of sanitary and storm sewers, and/or modification from any other pre-development condition, plus any groundwater consumed for water supply or other purposes, shall be compensated for by the increased infiltration of precipitation and wastewater effluent into the soil mantle. This recharge system shall utilize design and engineering standards and techniques to be approved by the Supervisors upon recommendations after review by the Township Engineer.

4. Pre-development and post-development water balance calculations must be made to determine the resultant impact on groundwater resources. Typically, the impact of changed site conditions must be estimated by using average rainfall, total disturbance acreage, and appropriate soil cover factors as applied in the "Cover-Complex Method" developed by the USDA Natural Resources Conservation Service, or another method acceptable to the Township Engineer. This calculation will provide an estimate of increased stormwater runoff resulting from development and therefore the net reduction in groundwater recharge. The estimate shall be developed on an average annual basis, in inches and gallons. If groundwater withdrawals are being undertaken for water supply or other purposes, this quantity also must be considered as a debit for the groundwater system. The difference between the pre-development and post-development conditions equals the total debit which must be balanced through modifications to stormwater management techniques or to wastewater effluent application which mitigate the total loss of groundwater recharge.

C. **Stream Valleys, Swales, Springs, and Other Lowland Areas**

The Township's Potential Conservation Areas map and Open Space and Recreation Plan delineate stream valleys (which include stream channels and flood plains), swales, springs and other lowland areas as resources that warrant restrictive land use controls because of flooding hazards to human life and property, their ground water recharge functions, their importance to water quality and the health of aquatic communities, and their wildlife habitats. They are generally poorly suited for on-site subsurface sewage disposal systems.

1. Any encroachment on areas determined to be within 100-year floodplain or in wetland areas shall be regulated as per Section 2305 and 2307, and Article XVI of the Zoning Ordinance.
2. The following activities shall be minimized:
 - a. Disturbance to streams and drainage swales
 - b. Disturbance to wetlands, areas with seasonally high water tables, and areas of surface water concentration.
 - c. Because of their extreme limitations, stream valleys, swales and other

lowland areas warrant designation as Greenway lands. They may also require adjoining buffer lands to be included in the Greenway, to be determined by an analysis of the protection requirements of such areas on a case-by-case basis. In certain instances, seasonal high water table soils may be excluded from the Greenway where it can be demonstrated that they are suitable for low density residential uses and conventional on-site sewage systems.

D. **Woodlands**

Woodlands occur extensively throughout the Township, often in association with stream valleys and wet areas, poor and erodible agricultural soils, and moderate to steep slopes.

1. Woodland conditions within West Vincent Township vary with respect to species composition, age, stocking, and health. They range from relatively recent post-agricultural young stands to mature mixed-age forests. Most woodlands in the Township represent one or more of the following resource values:
 - a. As soil stabilizers, particularly on moderate to steep slopes, thereby controlling erosion into nearby streams, ponds, impoundments and roads. A closely related function is their enhancement of ground water recharge.
 - b. As a means of ameliorating harsh microclimatic conditions, in both summer and winter.
 - c. As a source of wood products (i.e. - poles, sawtimber, veneer and firewood).
 - d. As habitats for woodland birds, mammals and other wildlife.
 - e. As recreation resources for walkers, equestrians, picnickers and other related outdoor activities.
 - f. As visual buffers between areas of development and adjacent roads and properties.
2. Because of their resource values, all woodlands on any tract proposed for subdivision or land development shall be evaluated by the applicant to determine the extent to which such woodlands should be designated partly or entirely as Greenway or development lands. Evaluation criteria shall include:
 - a. Configuration and size.
 - b. Present conditions (i.e. - stocking, health and species composition).
 - c. Site potential (i.e. - the site's capabilities to support woodlands, based upon its topographic, soil and hydrologic characteristics).

- d. Ecological functions (i.e. - in protecting steep slopes, erodible soils, maintaining stream quality and providing for wildlife habitats).
 - e. Relationship to woodlands on adjoining and nearby properties and the potential for maintaining continuous woodland areas.
 - f. Presence of specimen trees.
3. The evaluation of the tract's woodlands shall be undertaken by a forester, landscape architect, horticulturist or another qualified professional acceptable to the Township. This evaluation shall be submitted as a report and made a part of the application for a preliminary plan. At a minimum, that report shall include one or more maps indicating boundaries and conditions of woodland areas accompanied by a report addressing the criteria in paragraph 2 above.
4. In designing a subdivision and land development plan for any tract, the applicant shall be guided by the following standards:
- a. Healthy woodlands exceeding one acre shall be preserved and designated as Greenway areas, to the maximum extent possible.
 - b. Proposed site improvements shall be located, designed and constructed to minimize the loss or degradation of woodland areas and specimen trees.
 - c. Subdivisions shall be designed to preserve woodlands along roadways, property lines and lines occurring within a site such as streams, swales, stone fences and hedgerows. Such lines and the native vegetation associated with them shall be preserved as buffers between adjacent properties and between areas being subdivided within a property. Preservation shall include ground, shrub, understory and canopy vegetation.
 - d. Disturbance or removal of woodlands occupying environmentally sensitive areas shall be undertaken only when approved by the Board and on a limited, selective basis to minimize the adverse impacts of such actions. This shall include but not necessarily be limited to, vegetation performing important soil stabilizing functions on wet soils, stream banks and sloping lands.
 - e. No clearing or earth disturbance (except for soil analysis for proposed sewage disposal systems) shall be permitted on a site before the completion of subdivision and land development agreements. The determination of sight distance clearances along roadways shall be made graphically and not by clearing on-site prior to Final Plan approval.

E. **Upland Rural-Agricultural Areas**

These areas comprise fields, pastures, meadows, and former agricultural areas in early stages of woodlands succession, with fences, stone walls, tree coppice and hedgerows, typically bordered by stream valleys and upland woodlands. These comprise the Township's historic working landscape, dotted with historic houses, barns and other structures. They give the Township much of its rural character. They also contain the greatest concentration of prime agricultural soils. Because of their openness and high visibility, development in these areas is likely to be most readily seen and disruptive to the historic landscape. They sometimes provide habitat for wildlife, in conjunction with nearby woodlands and stream valleys. However, it is recognized that these areas also frequently offer the fewest constraints for development.

1. Several elements of these working landscapes lend themselves to incorporation into the Township's Greenway network. These include prime agricultural soils and natural features which visually punctuate the landscape, such as hedgerows, tree coppice, stone walls, and visually prominent places such as knolls and hilltops.
2. These areas can also accommodate development, with preferred locations being the non-prime agricultural soils and lower topographic settings where development will be visually less obtrusive. Compact clustered residential designs, with coordinated architectural and landscape architectural themes, are encouraged in highly visible locations where future development cannot be avoided (such as at the far edge of open fields).

F. **Slopes**

Moderately sloping lands (15 to 25 percent) and steeply sloping lands (over 25 percent) are prone to severe erosion if disturbed. Erosion and the resulting overland flow of soil sediments into streams, ponds and public roads, are detrimental to water quality and aquatic life, and a potential hazard to public safety.

1. Areas of steep slope shall be preserved in accordance with Article XVII of the Zoning Ordinance and as required below.
2. All grading and earthmoving on slopes exceeding 15 percent shall be minimized.
3. No site disturbance shall be allowed on slopes exceeding 25 percent except grading for a portion of a driveway accessing a single family dwelling when it can be demonstrated that no other routing which avoids slopes exceeding 25 percent is feasible.
4. On slopes of 15 to 25 percent, the only permitted grading beyond the terms described above, shall be in conjunction with the siting of a single family dwelling, its access driveway and the septic system (which should typically be designed with a long, narrow drainage field or trenches following the land contours).

5. Grading or earthmoving on all sloping lands of 15 percent or greater shall not result in earth cuts or fills whose highest vertical dimension exceeds six feet, except where in the judgment of the Board no reasonable alternatives exist for construction of roads, drainage structures and other public improvements, in which case such vertical dimensions shall not exceed 12 feet. Roads and driveways shall follow the line of existing topography to minimize the required cut and fill. Finished slopes of all cuts and fills shall be as required to minimize disturbance of natural grades.

G. **Significant Natural Areas and Features**

Natural areas containing rare or endangered plants and animals, as well as other features of natural significance exist throughout the Township. Some of these have been carefully documented (e.g. - by the Pennsylvania Natural Diversity Inventory), whereas for others, only their general locations are known. Subdivision applicants shall take all reasonable measures to protect significant natural areas and features either identified by the Township's map of Potential Conservation Areas or by the applicant's Existing Resources and Site Analysis Plan (as required in Section 403D.) by incorporating them into proposed Greenway areas or avoiding their disturbance in areas proposed for development.

H. **Historic Resources**

Historic resources in the Township are listed in the Township Open Space and Recreation Plan and the Historic Site Inventory.

1. All subdivisions and land developments shall comply with Section 617 of this Ordinance and Article XXIV, Historic Preservation, of the Township Zoning Ordinance.
2. Plans requiring subdivision and land development approval shall be designed to protect existing historic resources of all classes. The protection of an existing historic resource shall include the conservation of the landscape immediately associated with and significant to that resource, to preserve its historic context. Where, in the opinion of the Board, a plan will have an impact upon an historic resource, the developer shall mitigate that impact to the satisfaction of the Board by modifying the design, relocating proposed lot lines, providing landscape buffers, or other approved means.
3. Township participation, review and approval of the applicant's submission to the Pennsylvania Historical and Museum Commission with regard to the preservation of historic resources, as required by the Pennsylvania Department of Environmental Protection prior to approval of proposed sewage disposal systems, shall be in accordance with Section 607 of this Ordinance.

I. **Scenic Road Corridors and Viewsheds**

The Township Open Space and Recreation Plan identifies scenic roads and visual resources in the Township. All applications for subdivision and land development shall attempt to preserve the scenic visual corridors along such roads by incorporating them into Greenway areas or otherwise providing for building setbacks and architectural designs to minimize their intrusion. In instances, where such designs fail to satisfactorily protect corridors, applicants will be required to provide naturalistic landscape buffers to minimize their adverse visual impacts. The species specified for such buffers shall be selected on the basis of an inventory of tree and shrub species found in existing hedgerows and along wooded roadside edges in the vicinity of the development proposal.

J. **Trails**

When a subdivision or land development proposal is traversed by or abuts an existing trail customarily used by pedestrians and/or equestrians, the Board may require the applicant to make provisions for continued recreational use of the trail in accordance with the standards contained in Section 616 of this Ordinance.

SECTION 703 DESIGN PROCESS FOR RESIDENTIAL SUBDIVISIONS WITH GREENWAY LANDS

A. **Resource Inventory and Analysis.** The tract's resources shall be delineated on an Existing Resources and Site Analysis Plan, as required in Section 403.D. of this Ordinance.

B. **Five Step Design Process.** Following the resource inventory and analysis, all residential subdivisions with Greenway lands shall generally follow a five-step design process as described below. Applicants will be required to document the design process as described in Section 403.F. of this Ordinance

1. **Step 1: Delineation of Greenway Lands and Development Areas**

Greenway lands and development areas shall be delineated according to the following procedure, as illustrated below, using as an example a hypothetical 50-acre subdivision parcel, of which 40 acres are considered to be net usable land (Adjusted Tract Area).

Total Tract Area	50 acres
Adjusted Tract Area (ATA)	40 acres
Minimum Greenway Requirements	
Primary conservation areas (land unsuitable for development)	10 acres
Secondary conservation areas (50% of ATA)	20 acres
Total	30 acres

Development Area (50% of ATA) 20 acres

- a. All lands deducted from the gross tract to determine adjusted tract size (i.e. - floodplains, wetlands and slopes over 25 percent) shall be delineated in their entirety as "Primary Conservation Areas", comprising 10 acres in the illustration.
- b. Additional minimum acreage requirements for Greenway areas consist of "Secondary Conservation Areas", to be calculated on the basis of the standards in Section 1903 of the West Vincent Zoning Ordinance. In the example, a minimum of 50% of the adjusted tract (or 20 acres) must be secondary conservation areas.
- c. Total Greenway area requirements are the sum of Primary Conservation and Secondary Conservation Areas which, in the example, comprise 30 acres.
- d. The locations and boundaries of Primary Conservation Areas shall follow the actual boundaries of floodplains, submerged lands, wetlands and slopes.
- e. The locations and boundaries of Secondary Conservation Areas shall be based upon the applicant's analysis of the tract's resource features, using the design standards in Section 403.D. The applicant shall also be guided by any written recommendations provided by the Township regarding the delineation of Secondary Conservation Areas, following the Site Inspection or the Pre-Sketch Conference.
- f. Development areas constitute the remaining lands of the tract outside of the designated Greenway areas, which in the above example consist of 20 acres, where house sites, streets and lots are to be delineated in accordance with steps 2, 3 and 4 below.

2. **Step 2: Location of House Sites**

Applicants shall identify house site locations in the tract's designated development areas, designed to: fit the tract's natural topography, served by adequate water and sewerage facilities, and provide views of and access to adjoining Greenway areas (without encroaching upon them in a manner visually intrusive to users of such areas). House sites should be located no closer than 100 feet and 50 feet from Primary Conservation Areas and Secondary Conservation Areas, respectively.

3. **Step 3: Alignment of Streets and Trails**

- a. With house site locations identified, applicants shall delineate a street system to provide vehicular access to each house in a manner conforming to the tract's natural topography and providing for a safe pattern of circulation and ingress and egress to and from the tract.

- b. Streets shall avoid or at least minimize adverse impacts on the Greenway areas. To the greatest extent practicable, wetland crossings and new streets or driveways traversing slopes over 15 percent shall be avoided.
- c. Street connections shall generally be encouraged to minimize the number of new cul-de-sacs to be maintained by the Township and to facilitate easy access to and from homes in different parts of the tract (and on adjoining parcels).
- d. A tentative network of trails shall also be shown, connecting streets with various natural and cultural features in the conserved greenway lands. Potential trail connections to adjacent parcels shall also be shown, in areas where a Township trail network is envisioned.

4. **Step 4: Location of Land-Based Water Management Facilities**

Preferred locations for the stormwater and wastewater management facilities will be identified using the Site Analysis Plan and proposed Greenway lands as the base maps. Opportunities to use these facilities as an additional buffer between the proposed greenways and development areas are encouraged. These facilities should generally be designed to improve the quality of stormwater runoff and wastewater effluent with emphasis placed on achieving maximum groundwater recharge. The facilities should be located in areas identified as groundwater recharge areas as indicated on the Site Analysis Plan. The design of the facilities should strive to use the natural capacity and features of the site to facilitate the management of stormwater and wastewater generated by the proposal.

5. **Step 5: Design of Lot Lines**

Lot lines for the subdivision should be drawn as the last step in the design procedure. They should follow the configuration of house sites and streets in a logical and flexible manner.

SECTION 704 GREENWAY DESIGN REVIEW STANDARDS

- A. In designating greenway lands within the subdivision or land development plan, such areas shall be consistent with the following:
 - 1. Township Comprehensive Plan, Open Space and Recreation Plan, and Zoning Ordinance.
 - 2. Article XIX of the Township Zoning Ordinance.
 - 3. Township Conservation Area Map.

B. **Resources to be Conserved.** The design of Greenway lands in any subdivision or land development plan shall reflect the standards set forth in Section 702 and 703 above and, to the fullest extent possible, incorporate any of the following resources if they occur on the tract:

1. Stream channels, floodplains, wetlands, swales, springs and other lowland areas, including adjacent buffer areas which may be required to insure their protection.
2. Areas where precipitation is most likely to recharge local groundwater resources because of topographic conditions and soils affording high rates of infiltration and percolation.
3. Class I, II and III agricultural soils as defined by the USDA Soil Conservation Service.
4. Moderate to steep slopes, particularly those adjoining water courses and ponds, where disturbance and resulting soil erosion and sedimentation could be detrimental to water quality.
5. Healthy woodlands, particularly those performing important ecological functions such as soil stabilization and protection of streams, wetlands and wildlife habitats.
6. Hedgerows, groups of trees, specimen trees or large individual trees of botanic significance, and other vegetational features representing the tract's rural past.
7. Significant natural areas of species listed as endangered, threatened, or of special concern, such as those listed in the Pennsylvania Natural Diversity Inventory.
8. Historic resources.
9. Visually prominent topographic features such as knolls, hilltops and ridges, and scenic viewsheds as seen from public roads (particularly those with historic features).
10. Existing trails connecting the tract to other locations in the Township.

C. **Other Design Considerations.** The configuration of proposed greenway lands set aside for common use in residential subdivisions shall comply with the following standards:

1. They shall be free of all structures except historic buildings, stone walls, and structures related to permitted greenway uses.
2. They shall generally not include parcels smaller than three acres, have a length-to-width ratio of less than 4 to 1, or be less than 75 feet in width, except for such lands specifically designed as neighborhood greens, or when part of a trail system or pathway network.

3. They shall be directly accessible to the largest practicable number of lots within the subdivision. Non-adjoining lots shall be provided with safe and convenient pedestrian access to greenway land.
4. They shall be suitable for active recreational uses to the extent deemed necessary by the Board, without interfering with adjacent dwelling units, parking, driveways, and roads.
5. They shall be interconnected to greenway lands or open space areas on abutting parcels wherever possible, including provisions for pedestrian pathways for general public use, to provide a continuous network of greenway lands within and adjoining the subdivision.
6. They shall provide buffers to adjoining parks, preserves or other protected lands.
7. Except in those cases where part of the greenway is located within private house lots, they shall provide for pedestrian pathways for use by the residents of the subdivision. Consideration shall be given to providing for public access on such trails if they are linked to other publicly-accessible pathway systems within the Township. Provisions should be made for access to the greenway lands, as required for land management and emergency purposes.
8. They shall be undivided by public or private streets, except where necessary for proper traffic circulation.
9. Provided with sufficient perimeter parking where necessary, and with safe and convenient access by adjoining street frontage or other rights-of-way or easements capable of accommodating pedestrian, bicycle, maintenance and vehicular traffic, and containing appropriate access improvements.
10. They shall be suitably landscaped either by retaining existing natural cover and wooded areas and/or according to a landscaping plan to protect greenway resources and which minimize maintenance costs.
11. Preserved from the removal or clearing of underbrush within woodland areas unless required or necessary for approved recreational uses.
12. Preserved from the removal or clearing of streamside buffers and provided with additional landscaping to create stream buffers in accordance with Section 2307 of the Township Zoning Ordinance, except for occasional and necessary stream access.
13. They shall be made subject to such agreement with the Township and such conservation easements duly recorded with each lot deed in the office of the County Recorder of Deeds as may be required by the Board for the purposes of preserving and guaranteeing management and maintenance of the greenway lands.

- C. Ownership and Maintenance. Applicants shall demonstrate compliance with Greenway ownership and maintenance standards in Article 1905 of the West Vincent Township Zoning Ordinance.

SECTION 705 RESOURCE CONSERVATION STANDARDS FOR SITE PREPARATION AND CLEANUP

- A. **Monitoring Construction Activities.** The Township Historical Commission shall have the right to monitor on-site construction activities relative to the preservation and protection of historic resources and to the possible discovery of unrecorded archeological resources.
- B. **Conservation Practices During Site Preparation and Clean-Up.**

1. **Protection of Vegetation from Damage.** Where earthwork, grading, or construction activities will take place in or adjacent to woodlands, old fields or other significant vegetation or site features, the Board may require that the limit of disturbance be delineated and vegetation protected through installation of temporary fencing or other approved measures. Such fencing shall be installed prior to commencing of and shall be maintained throughout the period of construction activity.
2. **Protection During Clean-up.** Fences and barriers placed around woody vegetation during construction shall be removed if they could impede the growth and maintenance of such vegetation.
3. **Protection of Vegetation from Grading Change.** Grade changes to occur at any location of the property shall not result in an alteration to soil or drainage conditions which would adversely affect existing vegetation to be retained following site disturbance, unless adequate provisions are made to protect such vegetation and its root systems.
4. **Protection of Vegetation from Excavations.**
 - a. When digging trenches for utility lines or similar uses, disturbances to the root zones of all woody vegetation shall be minimized.
 - b. If trenches must be excavated in the root zone, all disturbed roots shall be cut as cleanly as possible. The trench shall be backfilled as quickly as possible, avoiding soil compaction.
5. **Protection of Topsoil.**

Any activity resulting in the disturbance of topsoil shall comply with the soil erosion and sedimentation control regulations of the County Conservation District and the Pennsylvania Department of Environmental Protection, in addition to the following

standards:

- a. No topsoil shall be removed from the site.
- b. Prior to grading operations or excavation, topsoil in the area to be disturbed shall be removed and stored on site.
- c. Topsoil removed shall be redistributed and stabilized as quickly as possible following the establishment of required grades for a project or project phase. All exposed earth surfaces shall be stabilized by hydroseeding on slopes of less than ten (10) percent, and by sodding, hydroseeding, or rip-rap on slopes exceeding ten (10) percent.
- d. Grading and earthmoving operations shall be scheduled to minimize site disturbance during the period from November 1 to April 1, when revegetation of exposed ground is difficult.

**ARTICLE VIII
INSPECTIONS, GUARANTEES, AND ACCEPTANCE OF
IMPROVEMENTS**

SECTION 801 CONSTRUCTION REQUIRED

The developer shall construct all improvements, including streets, grading, paving, curbs, gutters, sidewalks, storm drainage facilities, sanitary sewers, landscaping, traffic control devices, open space and restricted areas, and erosion and sediment control measures in conformance with the final plan as approved, the provisions of this Ordinance, the applicable provisions of PennDOT specifications, and any other applicable regulations.

All markers as required by Section 603 of this Ordinance shall be installed by the developer prior to the sale, conveyance, or transfer of the first lot within the subdivision. Prior to the issuance of any building permits, any proposed roads providing access to the site shall be improved to at least completion of the base course as required by Section 612.A.1 through A.5. of this Ordinance. No use and occupancy permits will be issued until the road is paved with an all-weather surface or binder course per the standards of Section 612.A.6. of this Ordinance.

SECTION 802 INSPECTIONS

- A. The construction or installation of all improvements shall all times to subject to inspection by representatives of West Vincent Township. If such inspection reveals that work is not in accordance with approved plans and specifications, that construction is not being done in a workmanlike manner, or that erosion or sediment controls are failing to prevent accelerated erosion or waterborne sediment from leaving the site of construction, the said representative is empowered to require corrections to be made and/or the suspension of subdivision approval, and to issue a cease and desist order which may include any or all of the following sanctions:
1. That no lot in the subdivision shall be conveyed or placed under agreement of sale.
 2. That all construction on any lots for which a building permit has been issued shall cease.
 3. That no further building permits for any lots shall be issued.
- B. The said cease and desist order shall be terminated upon determination by the Township that the said defects or deviations from plan requirements have been corrected.
- C. No underground pipes, structures, subgrades, or base course shall be covered until inspected and approved by the Township Engineer or other qualified Township representative. These inspections shall be effected in accordance with Section 802.A. above, and shall occur at the following intervals:

1. Prior to clearing and rough grading.
 2. Upon completion of rough grading, but prior to placing top soil, installing permanent drainage or other site improvements or establishing covers.
 3. Upon excavation and completion of subgrade.
 4. Upon excavation, installation, and completion of drainage structures, community sewage systems, or water supply systems.
 5. Before placing stone base course, or before initial layer of screening.
 6. Before and during placement of binder course.
 7. Before and during placement of wearing course.
 8. Upon completion.
- D. The developer shall notify the Township Engineer at least twenty-four (24) hours in advance of commencement of any construction operations requiring inspection.

SECTION 803 RELEASE FROM PERFORMANCE GUARANTEE

- A. When the developer has completed all of the necessary and appropriate improvements, he shall notify the Board, in writing, by certified or registered mail, of the completion of the aforesaid improvements and shall send a copy thereof to the Township Engineer. The Board shall, within ten (10) days after receipt of such notice, direct and authorize the Township Engineer to inspect all of the aforesaid improvements. The Township Engineer shall file a report in writing with the Board, and shall promptly mail a copy of the same to the developer by certified or registered mail. The report shall be made and mailed within thirty (30) days after receipt by the Township Engineer of the notification from the Board. The report shall be detailed and shall indicate approval or rejection of improvements, either in whole or in part. If said improvements, or any portion thereof, shall not be approved or shall be rejected by the Township Engineer, said report shall contain a statement of reasons for such nonapproval or rejection.
- B. The Board shall notify the developer, within fifteen (15) days of receipt of the Township Engineer's report, in writing by certified or registered mail, of the action of the Board with regard to approval, nonapproval, or rejection of improvements.
- C. If any portion of the said improvements shall not be approved or shall be rejected by the Board, the developer shall proceed to complete those improvements and, upon completion, the same procedure of notification as outlined herein shall be followed.
- D. The developer shall be responsible for maintenance of all subdivision or land development

improvements until such improvements are offered for dedication and are accepted by the Township or have been placed under the control of a community association. In addition, ten (10) percent of the performance guarantee shall be held back by the Township until the developer has posted a maintenance guarantee, and as-build plans are verified and accepted by the Township. The maintenance guarantee shall total fifteen (15) percent of the total costs of the public improvements and shall be binding for a period of eighteen (18) months.

- E. Partial release of the performance guarantee during the period of construction shall be authorized as per Section 510 of this Ordinance.

SECTION 804 AS-BUILT PLANS

Within thirty (30) days after completion and Township approval of subdivision or land development improvements as shown on final plans, and before Township acceptance of such improvements, the developer shall submit to the Board a plan showing actual locations, dimensions, and conditions of streets and all other public improvements, including easements showing geometry and monument locations certified by a registered engineer to be in accordance with actual construction. As-built plans shall show elevations and inverts to all manholes, pipes, and roads. Plans shall also be submitted on computer diskettes in a form and format as determined by the Township.

SECTION 805 DEDICATION AND ACCEPTANCE OF PUBLIC IMPROVEMENTS

- A. Upon completion of any public improvements shown on an approved subdivision plan and within ninety (90) days after approval of such public improvements as herein provided, the developer shall submit written offer of such public improvements for dedication to the Township. Said offer shall include a deed of dedication covering said public improvements together with satisfactory proof establishing the developer's clear title to said property. Such documents are to be filed with the Township Secretary for review by the Township Solicitor.
- B. Deeds of dedication for public improvements may be accepted by resolution of the Board at a regular meeting thereof. The Supervisors may require that at least fifty (50) percent of the lots in any approved subdivision or land development (or phase thereof, if final plan approval has been in phases) have certificates of occupancy issued for buildings thereon prior to acceptance of dedication. Should the streets, even though constructed according to the specifications of this Ordinance, deteriorate before the said fifty (50) percent of the lots have certificates of occupancy issued, such streets shall be repaired, at the expense of the developer, in a manner acceptable to the Board before being accepted by the Township.
- C. The Board may require that certain subdivision and land development improvements remain undedicated, with maintenance the responsibility of individual lot owners, a community association, or an organization capable of carrying out maintenance responsibilities.

SECTION 806 MAINTENANCE GUARANTEE

- A. Where the Board of Supervisors accepts dedication of all or some of the required improvements following completion, the Board shall require the posting of financial security to secure the structural integrity of the improvements and the functioning of the improvements in accordance with the design and specifications as depicted on the final plan. The security shall be in the form as is authorized for the deposit of the performance guarantee, as described in Section 510, shall be for a term of at least eighteen (18) months from the date of the acceptance of dedication, and shall be in an amount equal to fifteen (15) percent of the actual costs of installation of the improvements so dedicated.

- B. If within the period specified, the improvements dedicated have proven defective, the Board is empowered to repair said improvements, and to take such action as is necessary for forfeit of the maintenance bond, cash, cash equivalent, or securities. If at the end of the period agreed upon by the developer and the Board of Supervisors, all improvements are functioning as intended, the Board shall release the developer from the maintenance guarantee and shall take such steps as may be necessary to release any funds or securities which may have been placed in escrow.

- C. Where maintenance of stormwater retention facilities or private streets is to be the responsibility of individual lot owners, a community association, or an organization capable of carrying out maintenance responsibilities, the Board shall require that maintenance responsibilities be set forth in perpetual covenants or deed restrictions binding on the landowner's successors in interest, and may further require that an initial maintenance fund be established in a reasonable manner.

ARTICLE IX
MOBILE HOME PARK REGULATIONS

SECTION 901 APPLICATION PROCEDURE

A. Permits Required.

1. All applications for a certificate of registration shall be made by the landowner or his authorized representative in accordance with the Rules and Regulations, Commonwealth of Pennsylvania, Department of Environmental Protection, Chapter 4, Article 415, Regulations for Mobile Home Parks, adopted October 30, 1959, as amended.
2. It shall be unlawful for any person to maintain, construct, alter, or extend any mobile home park within the limits of the Township, unless he holds a valid certificate of registration issued by the Pennsylvania Department of Environmental Protection in the name of such person and also a permit issued by the Township.
3. All mobile homes shall bear the Commonwealth of Pennsylvania's seal of approval.

B. Application for Initial Mobile Home Park Permit.

1. Application for development of a lot or parcel of land for mobile home park purposes shall be made and approved or approved as modified before any Zoning Permit for such use shall be issued.
2. Application for a mobile home park permit shall follow the requirements and procedures of a major subdivision plan submission as described in Article V of this Ordinance.
3. In addition to the requirements contained in Section 505 of this Ordinance, an application for preliminary or final approval of a mobile home park shall indicate by drawings, diagrams, maps, tests, affidavit or other legal instrument, the following:
 - a. The placement, location, and number of mobile home lots and mobile home pads on a layout map of the parcel at a scale of one (1) inch equals not more than forty (40) feet.
 - b. The location and dimension of all driveways, pedestrian ways, sidewalks, and access roads with notation as to type of impervious cover.
 - c. The location and dimension of all parking facilities.
 - d. The location, dimension, and arrangement of all areas to be devoted to

lawns, buffer strips, screen planting, and recreation.

- e. Location and dimension of all buildings existing or proposed to be built and all existing tree masses and trees of over six (6) inch caliper.
- f. Proposed provisions for handling of stormwater drainage, street and on-site lighting, water supply, and electrical supply in the form of written and diagrammatic analysis with calculations and conclusions prepared by a registered professional engineer.
- g. Three (3) copies of the application submitted to and approved by the Department of Environmental Protection.

C. **Permitting.**

- 1. Upon receipt of the final plan with the recommendations of the Planning Commission attached thereto, the Township Board of Supervisors shall review the final plan for compliance with the provisions of this Ordinance.
- 2. Upon approval of the final plan and payment of the required fees, the Board of Supervisors shall issue a mobile home park permit to the owner which shall be valid for a period of one (1) year thereafter.
- 3. Renewal permits shall be issued annually by the Board of Supervisors upon the furnishing of proof by the applicant that his park continues to meet the standards prescribed by the Pennsylvania Department of Environmental Protection and this Ordinance.
- 4. A building inspector or other Township officer may inspect a mobile home park at reasonable intervals and at reasonable times to determine compliance with this Ordinance.
- 5. The permit shall be conspicuously posted in the office or on the premises of the mobile home park at all times.

D. **Compliance of Pre-Existing Mobile Home Parks.**

- 1. Mobile home parks in existence at the date of the adoption of this Ordinance and being duly authorized to operate as same by the Department of Environmental Protection may be continued so long as they otherwise remain lawful.
- 2. Pre-existing mobile home parks shall be required to submit an existing lot plan, drawn to scale, when applying for a mobile home park permit as required under this Ordinance.
- 3. Any subsequent new construction, alteration, or extension of a pre-existing mobile

home park shall comply with the provisions of this Ordinance.

4. Any pre-existing mobile home park which in the opinion of the Board of Supervisors creates a fire, safety, or health hazard shall be required to comply with the applicable provisions of this Ordinance, within a reasonable period of time as determined by the same body.

E. **Individual Mobile Homes.**

1. Individual mobile homes not located in a mobile home park shall not be required to obtain a mobile home permit; however, they shall be required to obtain a building permit.
2. Individual mobile homes shall comply with all other applicable Township ordinances and regulations that govern single family homes.

SECTION 902 DEVELOPMENT STANDARDS

A. **Site Requirements.**

1. The minimum area requirement for mobile home parks shall be ten (10) acres.
2. The location of all mobile home parks shall comply with the following minimum requirements:
 - a. Free from adverse influence by swamps, marshes, garbage or rubbish disposal areas, or other potential breeding places for insects or rodents.
 - b. Not subject to flooding.
 - c. Not subject to hazards or nuisances such as excessive noise, vibration, smoke, toxic matter, radiation, heat, odor, or glare.

B. **Soil and Ground Cover Requirements.**

1. Unpaved and exposed ground surfaces in all parts of every park shall be 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.
2. Park grounds shall be maintained free of vegetative growth which is a nuisance or poisonous or which may harbor rodents, insects, or other pests in sufficient quantities as to be harmful to man.

C. **Areas for Non-Residential Use.**

1. No part of any park shall be used for non-residential purposes except such uses that are required for direct servicing or recreation for the residents of the park and for the management and maintenance of the park.
2. In the event that the landowner shall be in the business of selling or renting mobile homes, such business shall be conducted in the interior of and not at the edge of the mobile home park.

D. Mobile Home Lots or Sites.

1. Mobile home lots or sites within the park shall have a minimum gross area of five thousand (5000) square feet exclusive of walkways and streets or roads and shall be no less than fifty (50) feet wide, the corners of each such space to be indicated by markers, flush with the ground.
2. The area of the mobile home lots or sites shall be improved to provide an adequate foundation for the placement of the mobile home. The mobile home lot or site shall be designed so as not to heave, shift or settle unevenly under the weight of the mobile home because of frost action, inadequate drainage, vibration, or other forces acting on the superstructures.

E. Required Setbacks, Buffer Strips and Screening.

1. All mobile homes shall be located at least one hundred (100) feet from any park property boundary line, and at least fifty (50) feet from any recreational or park service buildings.
2. All mobile home parks shall be required to provide an attractive visual screen along the boundary of the mobile home park, in accordance with the standards of Section 614 of this Ordinance and additional requirements as follows:
 - a. Such screening shall consist of mixed evergreen plant material or varying native species.
 - b. At the time of planting, a sufficient amount of evergreen material to visually screen the property shall be at least six (6) feet in height (after planting). The remainder of plantings may be of varying lesser heights.
 - c. The plantings shall be maintained permanently and replaced within six (6) months in the event of death of any plant material. The plantings shall not be placed closer than three (3) feet from any property line.
 - d. All existing deciduous and evergreen trees above two (2) inches in caliper and/or six (6) feet in height shall be preserved in the buffer areas, except where clearance is required to insure sight distances.

- e. Generally, a minimum of thirty-five (35) percent of plant material shall be evergreen and ten (10) percent flowering material.

F. **Erection and Placement of Mobile Homes.**

1. Mobile homes shall be separated from each other and from service buildings and other structures by at least thirty (30) feet.
2. An accessory structure, which has a horizontal area exceeding twenty-five (25) square feet, is attached to a mobile home or located within ten (10) feet of any of its windows, and has an opaque or translucent top or roof that is higher than such window shall, for purposes of this Section be considered to be part of the mobile home.
3. An enclosure of compatible design and materials shall be erected around the base of each mobile home. Such enclosure shall provide sufficient ventilation to inhibit decay and deterioration of the structure.
4. The park management shall supervise the placement of each mobile home on its pad, placement to include securing the mobile home and the installation of all utility connections. All utility connections shall be within easy access of the pad and close enough to the mobile home to avoid splicing. In making connections, rubber gaskets shall be used and, under no circumstances, shall utility lines be taped together.

G. **Park Street or Road System.**

1. All park streets or roads shall be constructed to the standards specified for local access streets as described in Section 611 of this Ordinance.
2. At intervals of no more than one hundred fifty (150) feet on all such streets, the entire width thereof shall be raised by a bump of no less than three (3) inches.
3. **Storm Drainage.** Storm drainage shall be provided in accordance with Section 610 of this Ordinance.
4. No structure, fence, tree, shrub, or other planting shall be maintained between a plane two (2) feet above the street level and a plane seven (7) feet above the street level so as to interfere with traffic visibility across the corner within the triangle bounded by the intersecting street lines and a straight line drawn between points on each street twenty-five (25) feet from the intersection of said street lines.
5. No street light shall shine directly upon any mobile home unit or upon any adjacent property.

H. **Off-Street Parking Areas and Walks.**

1. Off-street parking for at least two (2) motor vehicles shall be provided at each mobile home site. Each parking stall shall be at least ten (10) feet by twenty (20) feet and shall be of either gravel or macadam construction, which shall be specified in the plan. Off-site common parking areas may be provided in lieu of parking stalls at each mobile home site; but, in such case, parking stalls shall be provided at the ratio of two (2) stalls for each mobile home site. The parking stalls shall be within one hundred (100) feet of the home site which they will serve.
2. Additional off-street parking spaces for vehicles of non-residents shall be provided at the rate of one (1) space for each two (2) units. On-street parking shall be prohibited on internal roads and it shall be the duty of the owner or operator of the mobile home park to enforce this provision.
3. All mobile home parks shall provide safe, convenient, asphalt or concrete pedestrian walkways of at least four (4) feet in width between the park streets and all community facilities provided for park residents.
4. All mobile home sites shall be connected to common walks, and to streets, driveways or parking spaces connecting to a paved street.

I. **Open Space Requirement.**

1. At least thirty (30) percent of the total land area of the mobile home park, exclusive of setback and buffer areas, shall be set aside for recreation and open space areas.
2. At least fifty (50) percent of the open space and recreation area shall be located in one (1) place and at least twenty-five (25) percent thereof shall be in an area not subject to flooding and shall be usable for active recreational purposes.
3. Selection of the area shall preserve in its natural state any watercourse or hilly or wooded area.
4. Areas shall provide recreation accessible to all residents of the mobile home park.
5. Areas shall be landscaped with a water absorbent surface except for recreational facilities and walkways which shall utilize a hard surface.
6. Areas shall be maintained by the mobile home park operator.

J. **Service Building and Other Community Service Facilities.**

1. All buildings shall be properly protected from damage by ordinary uses and by decay, corrosion, termites, and other destructive elements. Exterior portions shall be of such material and be so constructed and protected as to prevent entrance or

penetration of moisture and weather.

2. All structures containing laundry or toilet facilities shall have sound-resistant walls extending to the ceiling between male and female sanitary facilities. Walls and partitions in lavatory and other plumbing fixtures shall be constructed of dense, non-absorbent, waterproof material to prevent entrance or penetration of moisture and weather. All structures shall have at least one (1) window or skylight facing directly to the outdoors. The minimum aggregate gross area of windows for each required room shall be not less than ten (10) percent of the floor area served by them. For purposes of ventilation, at least one (1) window must be capable of being easily opened; if not, a mechanical device shall be required which will adequately ventilate the room.

K. **Water Supply and Distribution.**

1. **Source of Supply.**

- a. The water supply shall comply with the Township Well Ordinance and shall be capable of supplying a quantity of potable water meeting or exceeding the standards specified by the Pennsylvania Department of Environmental Protection at the time of construction. Public water supply shall be preferred.
 - b. The well or suction line of the water supply system shall be located and constructed in such a manner that neither underground nor surface contamination will reach the water supply from any source.
 - c. No well casings, pumps, pumping machinery or suction pipes shall be placed in any pit, room or space extending below ground level nor in any room or space above ground which is walled in or otherwise enclosed, unless such rooms, whether above or below ground, have free drainage by gravity to the surface of the ground.
 - d. Water supply treatment, if necessary, shall be in accordance with the requirements of the Pennsylvania Department of Environmental Protection.
2. All water storage facilities shall be covered, watertight and constructed of impervious material. Overflows and vents of such reservoirs shall be effectively screened. Manholes shall be constructed with overlapping covers, so as to prevent the entrance of contaminated materials. Reservoir overflow pipes shall discharge through an acceptable air gap.

3. **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 not less than twenty (20) pounds per square inch, under normal operating conditions, at service buildings and other locations requiring potable water supply.
- d. Where a public supply of water is provided, fire hydrants shall be installed as described in Section 608E.

4. **Individual Water-Riser Pipes and Connections.**

- a. Individual water-riser pipes shall be located within the confined area of the mobile home and stand at a point where the water connection will approximate a vertical position, thereby insuring 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 (0.75) inches 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 pipes and to protect risers from heaving 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 types of manufacture and their method of installation are approved by the Board of Supervisors.

L. **Sewage Disposal.**

- 1. An adequate and safe sewerage system shall be provided in all parks for conveying and disposing of sewage from mobile homes, service buildings, and other accessory facilities. Such system shall be connected to a public sewerage system if possible and shall be designed, constructed, and maintained in accordance with the health regulations of the Pennsylvania Department of Environmental Protection and the standards contained in the Township Water and Sewage Standards.

2. **Individual Sewer Connections.**

- a. Each mobile home shall be provided with at least a four (4) inch diameter sewer riser pipe. The sewer riser pipe will be located on each stand so that the sewer connection to the mobile home drain outlet will approximate a vertical position.
 - b. The sewer connection shall have a nominal inside diameter of not less than three (3) inches, and the slope of any portion thereof shall be at least one-quarter (0.25) 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 lot. Surface drainage shall be diverted away from the riser. The rim of the riser pipe shall extend at least one-half (0.5) inch above ground elevation.
3. **Sewer and Water Lines.** Sewer and water lines shall be laid in separate trenches with a horizontal distance of at least ten (10) feet from each other, except that these lines may be laid in the same trench by placing the water pipe on a shelf of undisturbed earth above and to one side of the caulked tight sewer line. All sewer lines shall be constructed of materials approved by the Pennsylvania Department of Environmental Protection and shall have watertight joints and shall conform to the Township Basic Plumbing Code.
 4. **Sewage Treatment and Discharge.** Where the sewer lines of the mobile home park are not connected to a public sewer, all proposed sewage disposal facilities shall be approved by the Pennsylvania Department of Environmental Protection and the Board of Supervisors prior to construction.

M. **Refuse Disposal.**

1. The storage, collection and disposal of refuse in the mobile home park shall be so managed as to minimize health hazards and air pollution.
2. All refuse shall be stored in flytight, watertight, rodent-proof containers, which shall be located not more than one hundred and fifty (150) feet away from any mobile home space. Containers shall be provided in sufficient number and capacity to properly store all refuse as required by the Pennsylvania Department of Environmental Protection. Rubbish shall be collected and disposed of as frequently as may be necessary to insure that the containers shall not overflow.

N. **Fuel Supply and Storage.**

1. **Liquefied Petroleum Gas Systems.**

- a. The design, installation, construction, and maintenance of containers and pertinent equipment for the storage and handling of liquefied petroleum gases shall conform to the provisions of the Act of December 27, 1951, P.L. 1793, as amended, and the regulations promulgated pursuant thereto by the Pennsylvania Department of Labor and Industry, its successors, or other governmental agency having jurisdiction thereof.
- b. 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 Pennsylvania Department of Labor and Industry and shall include the following:
 - (1). Systems shall be provided with safety devices to relieve excessive pressures and shall be arranged so that the discharge terminates at a safe location.
 - (2). Systems shall have at least one (1) accessible means for shutting off gas at each mobile home site. Such means shall be located outside the mobile home and shall be maintained in effective operating condition.
 - (3). All liquefied petroleum gas piping outside of the mobile home shall be well supported and protected against mechanical injury. Undiluted liquefied petroleum gas in liquid form shall not be conveyed through piping equipment or systems in mobile homes.
 - (4). Liquid petroleum gas vessels shall be no more than sixty (60) U.S. gallons gross capacity and shall be maintained in a vertical position and shall be securely, but not permanently, fastened to prevent accidental overturning. No vessel shall be placed any closer to a mobile home exit than five (5) feet and no closer to any window than three (3) feet.
 - (5). No liquefied petroleum gas vessel shall be stored or located inside or beneath any storage cabinet, carport, mobile home or any other structure.
 - (6). All pipe connections shall be of a flare type.

2. **Fuel Oil Supply Systems.**

- a. All fuel oil supply systems provided for mobile home, service buildings and other structures shall be installed and maintained in conformity with the

Township Building Code.

- 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 shut-off valves located within five (5) inches of storage tanks.
- d. All fuel storage tanks or cylinders shall be securely placed and shall not be less than five (5) feet from any mobile home exit, and not less than three (3) feet from any window.
- e. Storage tanks located in areas subject to traffic shall be protected against physical damage and screened from the street.

O. **Utility Distribution System.**

- 1. All utilities shall be installed and maintained in accordance with utility company specifications regulating such systems, and shall be underground.
- 2. **Power Distribution Lines.** All direct conductors or cables shall be buried at least eighteen (18) inches below the ground surface and shall be insulated and specifically designed for the purpose. Such conductors shall be located not less than one (1) foot radial distance from water, sewer, gas, or communications lines.
- 3. **Individual Electrical Connections.**
 - a. Each mobile home lot shall be provided with an approved disconnecting device and over-current protective equipment. The minimum service outlet shall be 120/240 volts AC, 100 amperes.
 - b. The mobile home shall be connected to the outlet receptacle by an approved type of flexible cable with connectors and a male attachment plug.
 - c. Where the calculated load of the mobile home is more than sixty (60) amperes either a second outlet receptacle shall be installed or electrical service shall be provided by means of permanently installed conductors.
- 4. **Required Grounding.** All exposed non-current carrying metal parts of mobile homes and all other equipment shall be grounded by means of an approved grounding conductor run with branch circuit conductors or other approved method of grounded metallic wiring. The neutral conductors shall not be used as an equipment ground for mobile homes or other equipment.

P. **Fire Protection.**

1. All mobile home parks shall be provided with fire hydrants to meet the specifications of the Township Fire Prevention Ordinance and the Insurance Services Office of Pennsylvania or successors, but in any case, in sufficient numbers to be within six hundred (600) feet of all existing and proposed structures and mobile homes, measured by way of accessible streets.
2. Portable hand operated fire extinguishers of a type suitable for use on oil fires and approved by the local fire company shall be kept in each service building under park control and shall be required by the mobile home park operator to be placed in each mobile home in the park, located inside the mobile home in a fixed location preferably near a door, but not in close proximity to cooking facilities.
3. No open fires shall be permitted anywhere in the park.

Q. **Landscaping.**

1. No portions of tree masses or trees with caliper of four (4) inches or greater shall be cleared unless obviously necessary for the proposed mobile home park development. Operator shall make all reasonable efforts to preserve existing trees.
2. In addition to plantings for buffered setbacks, a mobile home park shall be subject to the following landscaping requirements:
 - a. Disturbed topsoil shall be stockpiled and replaced after construction.
 - b. Deciduous trees of varying native species shall be planted in the mobile home park at the ratio of two (2) per mobile home. In the event that a substantial portion of the tract is wooded and a substantial number of trees remain after development, the governing body may modify this requirement. Shade trees shall be preferred in the interest of moderating unit temperature.
 - c. Deciduous or evergreen shrubs of varying species shall also be planted within the mobile home park at a ratio of at least four (4) per mobile home.
 - d. Planting of landscape material shall be in accordance with a plan prepared by a registered landscape architect, and shall be completed within six (6) months of approval of final plan. Failure to carry out the landscaping plan within such time shall warrant denial of the park's annual license under Section 903.A. hereof.

SECTION 903 PERMITS, LICENSES AND INSPECTIONS

A. Permits Required.

It shall be unlawful for any person, firm, corporation, or other entity to construct, maintain, alter, extend, or operate a mobile home park within West Vincent Township unless and until the following are obtained:

1. A valid permit issued by the Pennsylvania Department of Environmental Protection in the name of the landowner, for the specified construction, alteration, or extension proposed.
2. A license by West Vincent Township.

B. Annual Licenses.

In addition to the initial permit and license, the owner or operator of the mobile home park shall apply to the Zoning Officer of West Vincent Township on or no more than thirty (30) days prior to February 1 of each year for an annual license to continue operation of the mobile home park. The Zoning Officer shall issue the annual license upon satisfactory proof that:

1. The park continues to meet the standards prescribed by the Pennsylvania Department of Environmental Protection and any other State or County agency having jurisdiction.
2. The park is in compliance with the standards and provisions of this Ordinance.
3. The owner or operator holds a current and valid certificate of registration issued annually by the Pennsylvania Department of Environmental Protection for operation of the mobile home park.

C. Fees.

1. Fees for the initial application and preliminary and final approvals shall be set by resolutions of the West Vincent Township Board of Supervisors.
2. The fee for the annual license shall be set by resolution of the Board and shall be submitted to the Township Secretary with the application for the annual license.

D. Inspection.

1. A representative of West Vincent Township may inspect a mobile home park at any time to determine compliance with this Ordinance.
2. Upon receipt of the application for annual license and before issuing such annual

license, the Township Zoning Officer or other designated representative of West Vincent Township shall make an inspection of the mobile home park to determine compliance with this Ordinance. The Township Zoning Officer or designated representative shall thereafter notify the licensee of any instances of non-compliance with the Ordinance and shall not issue the annual license until the licensee has correct all such violations.

SECTION 904 MAINTENANCE

A. Responsibilities of Operator or Owner.

1. The operator or owner shall have the following responsibilities:
 - a. To maintain all common facilities including, but not limited to, roads, parking areas, sidewalks, pathways, common open space, water supply and sewage disposal systems, and service buildings, in a condition of proper repair, maintenance, and cleanliness in compliance with all applicable Township ordinances, codes, and regulations.
 - b. To notify the local office of the Pennsylvania Department of Environmental Protection and the Chester County Health Department immediately of any suspected communicable or contagious disease within the park.
2. If upon inspection by the Township Zoning Officer or his representative, it is determined that the mobile home park is not compliance with the provisions of this Section, the licensee shall be considered to be in violation of this Ordinance and the Township Zoning Officer shall notify the operator or licensee of the particulars of any such violation. The operator or licensee shall thereafter have thirty (30) days in which to correct any such violations, except that if the violation is determined by the Township Zoning Officer or his representative to constitute a hazard to the health or safety of the residents of the mobile home park or other residents of the Township, he shall order that the violation be corrected forthwith.

B. Maintenance Bond.

1. The licensee of a mobile home park shall, prior to issuance of any certificate of occupancy pursuant to final approval of an application, post with the Township a maintenance bond as described in Section 806 in an amount sufficient to cover for a period of two (2) years, the cost of maintenance of all common facilities as defined in Section 904.A.1.a., as determined by the Township Engineer or designated representative. The bond shall remain in effect for the duration of the operation of the mobile home park.

2. In the event of non-compliance with an order pursuant to Section 904.A.2., whether a thirty (30) day order or an order to correct violations forthwith, the Township may forfeit the maintenance bond and use the proceeds thereof to effect corrections of the violations.

C. **Registration of Occupants.**

The operator shall maintain a register of all occupants and notify the Township Secretary of the names and addresses of all new occupants and of occupants who have departed. All mobile home sites or lots shall be individually numbered so as to facilitate the identification and location of each such site or lot.

D. **Moving Mobile Home.**

No mobile home may be installed in or removed from a mobile home park unless the Township Zoning Officer has issued a building permit therefor. No such permit may be issued until the Township Zoning Officer receives a removal permit issued by the local tax collector demonstrating compliance with the Act of December 15, 1969, P.L. 362, S1, as amended.

E. **Construction Performance Bond.**

Before final approval is given for the construction of a mobile home park, the landowner must furnish a performance bond to the Township in accordance with Section 510 of this Ordinance and in the amount of one hundred ten (110) percent of the estimated construction costs for the construction of all common facilities and improvements, as determined by the Township Engineer.

ARTICLE X
ADDITIONAL REGULATIONS FOR LAND DEVELOPMENTS

SECTION 1001

- A. Individual lots for commercial purposes shall be avoided in favor of a comprehensive design of the land to be used for such purposes.
- B. Additional width of streets adjacent to areas proposed for non-residential use may be required by the Board of Supervisors to assure the free flow of through traffic from vehicles entering or leaving parking areas.
- C. When adjacent lots proposed for non-residential uses front on a minor arterial street, the applicant shall be required to provide a service road for ingress and egress.
- D. Alleys or service streets shall be required in commercial and industrial districts, except where other adequate provisions are made for off-street loading and parking consistent with the uses proposed.
- E. Dead end alleys are prohibited.
- F. Adjacent residential areas shall be protected from potential nuisances of the proposed non-residential developments, including the provisions of extra depths in parcels backing up on existing or potential residential developments and provisions for a permanently landscaped evergreen buffer strip.
- G. Streets carrying non-residential traffic may be extended to the boundaries of the adjacent existing or potential residential areas, or connected to streets intended for predominantly residential traffic, if such extension or connection promotes efficient design without creating unsafe conditions.
- H. Parking areas shall be located or designed in such a manner that they are visibly secluded from eye level in the surrounding area. Grading to depress the parking area, raised berms, landscaping, or fencing are satisfactory methods to create seclusion.
- I. All area, design, and parking requirements shall conform to the West Vincent Township Zoning Ordinance.

- J. Outdoor collection stations shall be provided for garbage and trash removal when indoor collection is not provided. Collection stations shall be located so as to avoid being offensive and shall be screened from view and landscaped. The storage, collection, and disposal of refuse in the non-residential development shall be managed to minimize health hazards and air pollution. All refuse shall be stored in flytight, watertight, rodent-proof containers. Containers shall be provided in sufficient number and capacity to properly store all refuse as required by the Pennsylvania Department of Environmental Protection. Rubbish shall be collected and disposed of as frequently as may be necessary to ensure that the containers shall not overflow.

**ARTICLE XI
AMENDMENTS**

SECTION 1101 AUTHORITY

The rules, regulations, and standards contained herein may be amended, modified, or repealed from time to time by the Board of Supervisors.

SECTION 1102 PROCEDURE

The following requirements shall be observed prior to making any amendment to this Ordinance:

- A. Proposed amendments must be submitted to the Township Planning Commission and the County Planning Commission for their recommendations before any further public action is taken.
- B. The recommendations of the Township Planning Commission and County Planning Commission shall be submitted to the Board of Supervisors in a written report. Failure to submit such report within thirty (30) days shall constitute an approval.
- C. Upon receipt of the report of the Planning Commission, a public hearing on the proposed amendment shall be held, at which time the parties in interest and citizens shall have an opportunity to be heard. Notice of the public hearing shall be given by publication of the place, time, and reason for the hearing in a newspaper of general circulation in the Township at least once each week for two (2) successive weeks prior to the hearing. The first publication shall not be more than thirty (30) days and the second publication shall not be less than seven (7) days from the date of the hearing.

ARTICLE XII ADMINISTRATION

SECTION 1201 ENFORCEMENT

Inspections revealing noncompliance with plans submitted under the provisions of this Ordinance, the attached Appendix, or any amendments of this Ordinance or the Appendix, shall be sufficient grounds for denial or withdrawal of building permits by the Township until correction thereof, or other penalties or remedies, including injunctive relief, as may be provided by law.

SECTION 1202 FEES AND COSTS

- A. No application for preliminary or final approval shall be deemed to have been submitted until the fee and escrow deposit, as set forth below, shall have been paid.

- B. A subdivision or land development application fee (non-refundable) and an escrow deposit shall be submitted with any application for preliminary or final plan approval to cover the costs of plan review and processing. Amounts of the application fee and escrow deposit shall be fixed by the Board of Supervisors by resolution. The escrowed funds shall be used to reimburse the Township for actual expenditures incident to these processes, including but not limited to fees of the Township Engineer, consultants, and legal fees. Any costs incurred by the Township in excess of the amount held in escrow shall be fully reimbursed by the applicant prior to the issuance of any permits. Any costs not paid within the time specified by the Township shall be assessed an interest penalty as established by the Board and may result in the suspension of reviews of the applicant's plans. Any unexpended balance in the escrow deposit shall become part of the second deposit required by Section 1202.C. below. In the event the applicant disputes the amount of any such review fees, the applicant shall, within fourteen (14) days of the applicant's receipt of the bill, notify the Township that such fees are disputed, in which case the Township shall not delay or disapprove a subdivision or land development application due to the applicant's request over disputed fees. In the event that the Township and the applicant cannot agree on the amount of review fees which are reasonable and necessary, then the applicant and the Township shall follow the procedure for dispute resolution set forth in Section 510(g) of the Municipalities Planning Code, provided that the professionals resolving such dispute shall be of the same profession or discipline as the consultants whose fees are being disputed.

- C. Following final plan approval and recording and the establishment of any required performance guarantee, a second escrow deposit shall be established to cover the cost of inspections of improvements construction, materials or site testing, or maintenance costs prior to the acceptance of improvements by the Township. Any costs incurred by the Township in excess of the amount held in escrow shall be fully reimbursed by the applicant prior to the acceptance of any public improvements. Any costs not paid within the time specified by the Township shall be assessed an interest penalty as established by the Board and shall result in the denial or withdrawal of any permits. Any unexpected balance in the

escrow deposit following acceptance of dedication of improvements to the Township shall be returned to the applicant. The amount of the escrow deposit shall be fixed by the Board of Supervisors by resolution.

SECTION 1203 WAIVERS AND MODIFICATIONS

The Board of Supervisors may grant a waiver or modification of the requirements of one or more mandatory provisions of this Ordinance if literal compliance is shown to the satisfaction of the Board to be unreasonable, to cause undue hardship because of peculiar conditions pertaining to the land in question, or when an alternative standard can be demonstrated to provide equal or better results, and provided that such modification will not be contrary to the public interest and that the purpose and intent of this Ordinance is observed. The process for considering waivers or modifications shall be as follows:

- A. All requests for a modification shall be in writing and shall accompany and be a part of the application for development in accordance with Section 403.O. of this Ordinance. 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.
- B. The request for modification may be referred to the Township Planning Commission for advisory comments.
- C. The Board of Supervisors shall keep a written record of all action on all requests for modifications.

APPENDIX A PLAN CONTENTS CHECKLIST

SKETCH PLAN

1. Name and address of owner/applicant;
2. Name and address of the applicant's engineer, surveyor, planner, architect, landscape architect, or site designer, if available;
3. Graphic scale (not greater than 1" = 200 ft.; however, dimensions on the plan need not be exact at this stage);
4. Approximate tract boundaries, sufficient to locate the tract on a map of the Township;
5. North arrow;
6. Location map, zoning district, 100-year floodplain limits, and approximate location of wetlands, if any;
7. Streets on and adjacent to the tract (both existing and proposed);
8. Topographical and physical features, including existing structures, wooded areas, hedgerows and other significant vegetation, topographic contours at an interval of five (5) feet, steep slopes (over 25%), soil types, ponds, streams within two hundred (200) feet of the tract, and existing rights-of-way and easements;
9. Schematic layout indicating a general concept for land conservation and development ("bubble" format is acceptable).
10. In the case of residential developments located in the RC, R-3, and R-2 Residential Districts; a comparison of the design options permitted in the applicable district.
11. In the case of land development plans, proposed general layout, including building locations, parking lots, and open spaces.

PRELIMINARY PLAN

Conceptual Preliminary Plan

Same as for Sketch Plans.

Detailed Preliminary Plan

1. Drafting Standards

- A. Scale of either 1"=100' or 1"=200', whichever would fit best on a standard size sheet (24" x 36").
- B. Sheets no larger than 34" x 44", nor smaller than 17" x 22".
- C. Signature blocks for West Vincent Township Planning Commission, Board of Supervisors, Township Engineer and Chester County Planning Commission on the right-hand side of the Title Plan, Improvement Construction Plan and Stormwater Management Plan.

2. Site Location and Context Plan

A plan showing the location of the proposed subdivision within its neighborhood context. For sites under 100 acres in area, scale not less than 1" = 200' showing natural and man-made features existing within 1,000 feet of the site. For sites of

100 acres or more, scale shall be 1" = 400' and show the above features within 2,000 feet of the site.

- A. Topography (from U.S.G.S. maps).
- B. Streams and water courses, drainage basins and sub-basins.
- C. Wetlands (from maps published by the U.S. Fish & Wildlife Service or the U.S.D.A. Natural Resources Conservation Service).
- D. Woodlands over one-half acre in area (from aerial photographs).
- E. Ridge lines.
- F. Public roads, trails, utility easements, pipelines, and rights-of-way.
- G. Public land and land protected under conservation easements.
- H. Zoning district lines and boundaries.
- I. Existing property lines.
- J. Names of owners of all properties and the names of all subdivisions.

3. **Existing Resources and Site Analysis Plan**

A comprehensive analysis of existing conditions, both on the proposed development site and within 500 feet of the site. Scale of 1"=100' or 1"=200', whichever would fit best on a single standard size sheet (24" x 36").

- A. Topography, at two-foot intervals (although 10-foot intervals are permissible beyond the parcel boundaries). Slopes between 15 and 25 percent and exceeding 25 percent shall be clearly indicated.
- B. Ponds, streams, and natural drainage swales, as well as the 100-year floodplains and wetlands.
- C. Pennsylvania Natural Diversity Inventory or the Chester County Natural Areas Inventory resources.
- D. Vegetative cover conditions.
- E. Soil series, types and phases, as mapped by the U.S. Department of Agriculture, Natural Resources Conservation Service. The following soil types shall be specifically identified:
 - (1). Alluvial soils.
 - (2). Seasonal high water table soils.
 - (3). Hydric soils.
 - (4). Class I and II agricultural soils
- F. Ridge lines and watershed boundaries.
- G. Viewshed analysis.
- H. Visual resources as delineated in the Township Open Space and Recreation Plan.
- I. Geologic formations.
- J. Existing streets, roads, buildings, utilities and other man-made improvements, including wells and sewer systems.
- K. Historic districts and resources on the tract and on any abutting tract.
- L. Trails.
- M. All recorded easements and other encumbrances of property.
- N. Areas within the French Creek Scenic River Corridor.

4. **Preliminary Impact Analysis and Resource Conservation Plan**
Prepared to categorize the impacts of the proposed subdivision or land development on those resources shown on the Existing Resources and Site Analysis Plan. Impact areas shall be mapped according to: (1) primary impact areas, (2) secondary impact areas, and (3) designated protected areas.

5. **Five-Step Design Process for Subdivisions in the RC, R-3 and R-2 Residential Districts**
 - A. Step 1: Delineation of Greenway Lands
 - B. Step 2: Location of House Sites
 - C. Step 3: Alignment of Streets
 - D. Step 4: Location of Land-Based Water Management Facilities
 - E. Step 5: Design of Lot Lines

6. **Preliminary Title Plan**
 - A. Key map (scale of not less than 800 feet to the inch) showing the tract and all streets and municipal boundaries existing within 1,000 feet.
 - B. Subdivision or land development name.
 - C. Name and address of the landowner.
 - D. Name and address of engineer or surveyor.
 - E. Applicable zoning district, lot area and bulk regulations, proof of any variance or special exception, and any zoning boundaries within 200 feet of the tract.
 - F. Tract boundaries.
 - G. Total acreage of the tract.
 - H. Original date of preparation, revision dates, north point, and graphic and verbal scale.
 - I. Names of all owners of all adjacent lands with appropriate deed references.
 - J. Existing street rights-of-way and paving widths, existing gas, electric, and petroleum transmission lines, water courses, buildings, structures, sources of water supply, easements, trails and any other significant features, man-made and natural within the property and within 200 feet of the tract (Existing Resources and Site Analysis Plan).
 - K. Proposed streets or other public rights-of-way or land.
 - L. Location of all parks, playgrounds, and other areas dedicated or reserved for public use.
 - M. Proposed lot layout with "Gross" and "Net" (i.e. - minimum lot area, acreage indicated). Location of areas to be subject to easements of any kind shall be shown. The plan shall include:
 - (1). Building envelope showing setback lines and yard area requirements.
 - (2). Proposed easements and rights-of-way.
 - (3). The location of all percolation tests and test pits approved by the Chester County Health Department.
 - (4). The plan for a land development shall show, where applicable, proposed building locations, location and size of parking lots,

provisions for access and traffic control, locations of loading docks, and provisions for landscaping and lighting of the site.

- N. When a tract is subdivided into parcels large enough to permit resubdivision of the parcels, a sketch layout shall be included showing future potential subdivision of the parcels.
- O. Notes regarding ownership, maintenance responsibilities, and any use restrictions for all rights-of-way and easements.

7. **Preliminary Improvements Construction Plan**

- A. Historic resources, trails and significant natural features, including topography, areas of steep slope, wetlands, 100-year floodplains, swales, rock outcroppings, vegetation, existing utilities, etc. (Existing Resources and Site Analysis Plan).
- B. Existing and approximate proposed lot lines, any existing easements and rights-of-way.
- C. All proposed streets and street rights-of-way; preliminary profiles for proposed streets.
- D. Proposed swales, drainage easements, stormwater and other management facilities.
- E. Where community sewage service is to be permitted, the conceptual layout of sewage systems, including sewer mains and sewage treatment plants.
- F. Where central water service is to be permitted, the conceptual layout of water distribution facilities including water mains, fire hydrants, storage tanks and, where appropriate, wells or other water sources.
- G. Location of all percolation tests, including all failed test sites or pits as well as those approved. All approved sites shall be clearly distinguished from unapproved sites.
- H. Limit of disturbance line.
- I. Location and dimensions of playgrounds, public buildings, public areas and parcels of land proposed to be dedicated or reserved for public use.
- J. If land to be subdivided lies partly in another municipality, information concerning the location and conceptual design of streets, layout and size of lots and provisions of public improvements on land within the adjoining municipalities.
- K. Where the proposed improvements are to be installed in phases beyond a five-year period, a delineation of the proposed sections.
- L. Typical street cross-section drawing(s) for all proposed streets, including details relating to thickness, crowning and construction materials.
- M. Proposed street, traffic, and other signs, including identification and entrance signs, indicating the type, material, and any lighting of such signs.
- N. Utilities and Easements.
 - (1). Utility easement locations.
 - (2). Layout of all water facilities, sanitary and storm sewers and location of all inlets and culverts, and any proposed connections with existing facilities.
 - (3). Location of on-site sewage and water facilities.

- O. Proposed shade trees and landscaping, plus locations of existing vegetation to be retained.
- P. Signature blocks for the West Vincent Township Planning Commission, Board of Supervisors and Chester County Planning Commission.

8. **Studies and Reports**

- A. Sewer and Water Feasibility Report
- B. Hydrogeology and Groundwater Protection Study
- C. Erosion and Sedimentation Control Plan
- D. Traffic Impact Study
- E. Fiscal Impact Analysis
- F. Preliminary Greenway Ownership and Management Plan

9. **Proof of Adjacent Property Owner Notification**

10. **Proof of Ownership**

11. **Title Report**

12. **Engineering Certification**

FINAL PLAN

- 1. **Drafting Standards**
Scale of either 1"=100' or 1"=50', at the discretion of the Board of Supervisors.
- 2. **Existing Resources and Site Analysis Plan**
- 3. **Final Impact Analysis and Resource Conservation Plan**
- 4. **Final Title Plan**
- 5. **Final Improvements Construction Plan**
- 6. **Final Stormwater Management and Erosion & Sedimentation Control Plan**
- 7. **Final Greenway Ownership and Management Plan**
- 8. **Final Landscape Plan**
- 9. **Community Association Document**
- 10. **Performance and Maintenance Guarantee**
- 11. **Additional Approvals, Certificates and Documents**

BOARD OF SUPERVISORS
 West Vincent Township
 729 Saint Matthews Road
 Chester Springs, PA 19425-3301
 (610) 458-1601
 FAX (610) 458-1603
 www.westvincentwp.org

KENNETH MILLER, JR., Chairman
 M. CLARE QUINN, Vice-Chairman
 ZOE PERKINS

JAMES R. WENDELGASS
 TOWNSHIP MANAGER

SUBDIVISION and/or LAND DEVELOPMENT APPLICATION
**MUST PURCHASE GREENWAY LANDS STEWARDSHIP GUIDE (\$55.00) IF ANY OPEN SPACE IS PLANNED*

PLAN TITLE _____ PLAN DATE _____

<input type="checkbox"/> Land Development	<input type="checkbox"/> Minor (3 lots/units or less)	<input type="checkbox"/> Sketch
<input type="checkbox"/> Subdivision	<input type="checkbox"/> Major (4 or more lots/units)	<input type="checkbox"/> Preliminary
	<input type="checkbox"/> Lot-Line Change	<input type="checkbox"/> Final

PROPERTY OWNER

Name _____
 Address _____

 Phone No. _____
 Fax No. _____

APPLICANT (if other than owner) *

Name _____
 Address _____

 Phone No. _____
 Fax No. _____

Applicant's Interest _____

TRACT DESCRIPTION

Location (Street Address) _____
 Tax Parcel No. (s) _____ Current Zoning _____
 Total Tract Acreage _____ Acreage In This Proposal _____

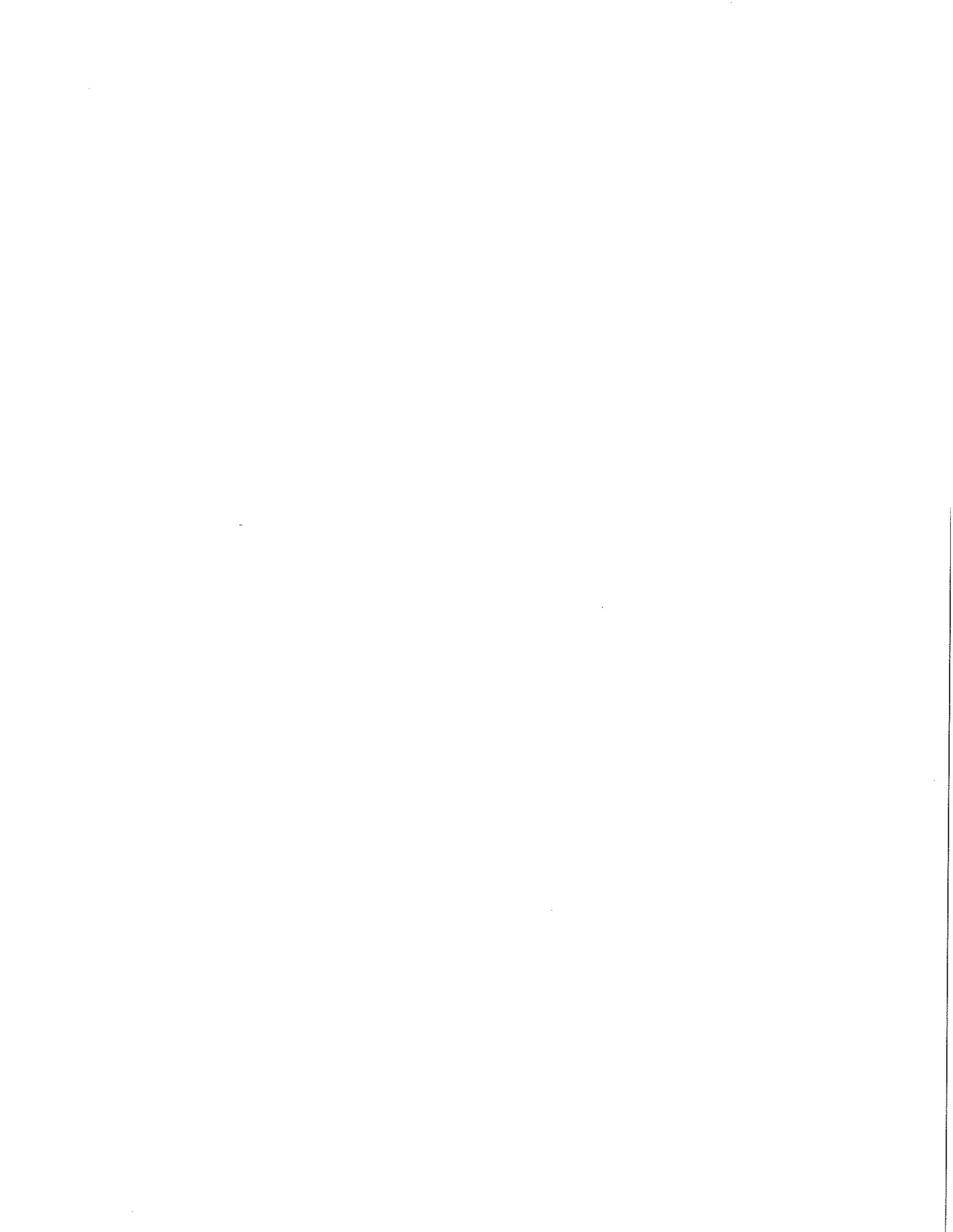
Zoning Action Necessary? No Yes: Amendment Special Exception
 Conditional Use Variance

To the best of your knowledge, has any subdivision or land development plan been previously submitted for this tract?

No Yes If Yes: _____
Date Name

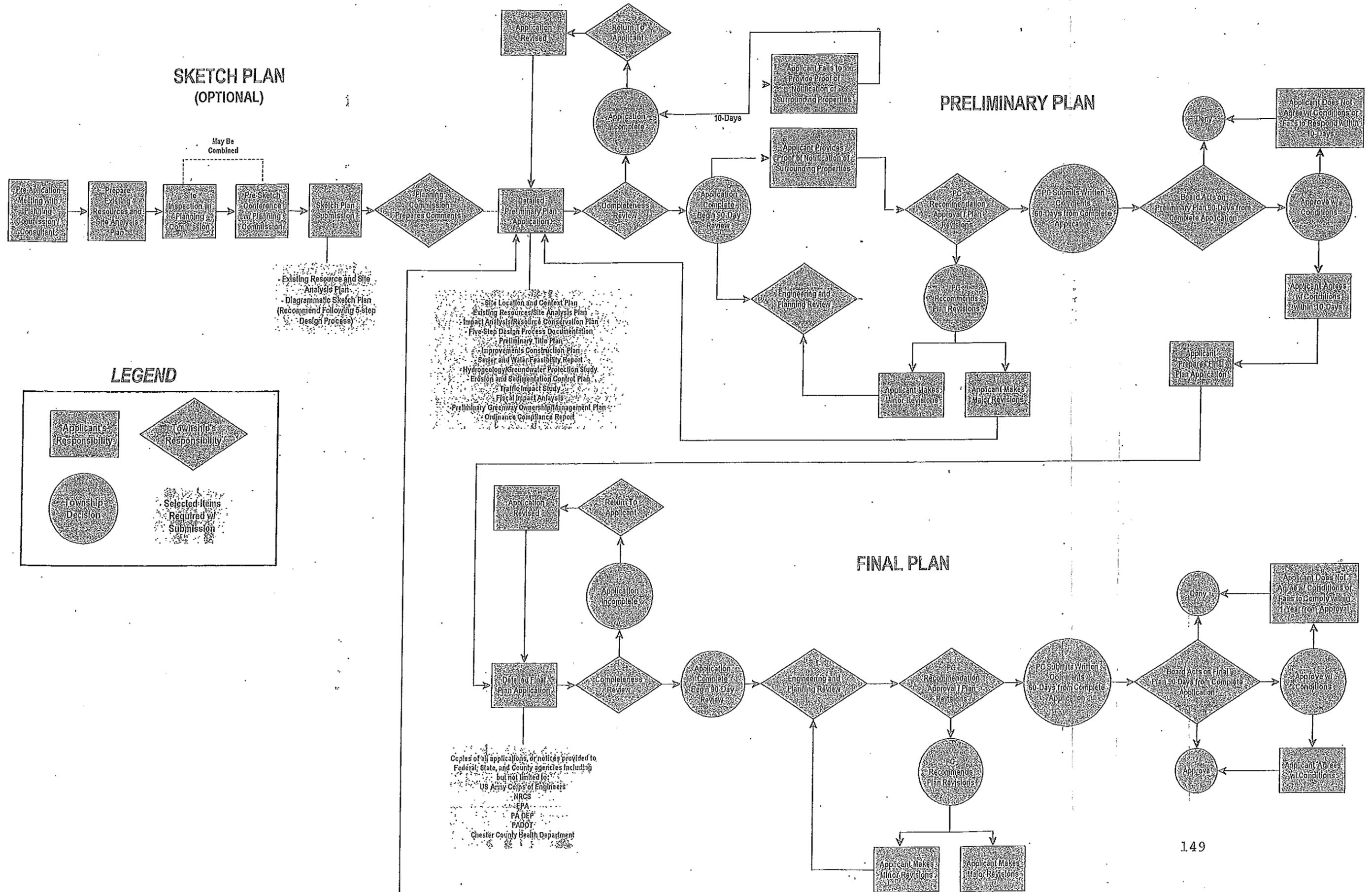
PROPOSAL DESCRIPTION

Engineer/Land Surveyor _____
 Number of Lots/Units _____ Number of Phases _____



SUBDIVISION / LAND DEVELOPMENT SUBMISSION AND REVIEW PROCESS

West Vincent Township, Chester County, Pennsylvania





ACCEPTABLE COMPUTATION METHODOLOGIES FOR STORMWATER
MANAGEMENT PLANS

METHOD	METHOD DEVELOPED BY	APPLICABILITY
TR-20 (or commercial package based on TR-20)	USDA NRCS	Applicable where use of full hydrology computer model is desirable or necessary.
TR-55 (or commercial computer package based on TR-55)	USDA NRCS	Applicable for land development plans within limitations described in TR-55.
HEC-1	US Army Corps of Engineers	Applicable where use of full hydrologic computer model is desirable or necessary.
PSRM	Penn State University	Applicable where use of a hydrologic computer model is desirable or necessary; simpler than TR-20 or HEC-1.
Rational Method (or commercial computer package based on Rational Method)	Emil Kuichling (1889)	For sites less than 200 acres, or as approved by the Municipality and Municipal Engineer.
Other Methods	Varies	Other computation methodologies approved by the Municipality and Municipal Engineer.



TABLE B-1
DESIGN STORM RAINFALL AMOUNT (INCHES)

RECOMMENDED ENGINEERING METHODS & PROCEDURES

TABLE 4.1 Pennsylvania Rainfall by Counties

COUNTY	24 HOUR RAINFALL FOR VARIOUS FREQUENCIES						
	1yr	2yr	3yr	10yr	25yr	50yr	100yr
ADAMS	2.5	3.0	3.9	4.8	5.3	6.0	6.7
ALLEGHENY	2.3	2.8	3.3	3.9	4.4	4.9	5.2
ARMSTRONG	2.3	2.8	3.3	3.9	4.4	4.9	5.2
BEAVER	2.3	2.8	3.3	3.9	4.4	4.9	5.2
BEDFORD	2.4	2.8	3.4	4.1	4.9	5.6	6.0
BERKS	2.5	3.1	4.1	4.9	5.5	6.1	6.9
BLAIR	2.4	2.8	3.5	4.3	4.8	5.3	5.8
BRADFORD	2.3	2.8	3.6	4.2	4.9	5.4	5.8
BUCKS	2.6	3.3	4.2	5.0	5.8	6.4	7.2
BUTLER	2.3	2.8	3.3	3.8	4.3	4.8	5.0
CAMBERTIA	2.4	2.8	3.4	4.2	4.8	5.2	5.7
CANON	2.3	2.7	3.4	4.0	4.5	5.0	5.4
CARBOY	2.5	3.0	4.0	4.8	5.3	6.0	6.7
CENTRE	2.3	2.8	3.6	4.3	4.8	5.4	5.8
CHESTER	2.6	3.2	4.2	5.0	5.6	6.3	7.1
CLAYTON	2.3	2.8	3.3	3.7	4.4	4.8	5.1
CLEARFIELD	2.3	2.7	3.5	4.0	4.5	5.1	5.5
CLINTON	2.3	2.8	3.6	4.2	4.8	5.3	5.7
COLUMBIA	2.4	2.9	3.7	4.6	5.1	5.7	6.2
CRAWFORD	2.2	2.5	3.1	3.8	4.2	4.7	4.8
CUMBERLAND	2.4	2.9	3.8	4.7	5.1	5.8	6.4
DAUPHIN	2.5	2.9	3.9	4.8	5.2	5.9	6.5
DELAWARE	2.6	3.3	4.2	5.0	5.7	6.4	7.3
ELK	2.3	2.7	3.4	3.9	4.5	4.9	5.3
ERIE	2.1	2.6	3.1	3.6	4.1	4.6	4.7
FAYETTE	2.4	2.7	3.4	4.1	4.6	5.1	5.6
FOREST	2.2	2.6	3.3	3.8	4.3	4.8	5.1
FRANKLIN	2.4	2.9	3.8	4.8	5.1	5.9	6.4
FULLYON	2.4	2.8	3.7	4.5	4.9	5.6	6.2
GREENE	2.3	2.8	3.4	3.9	4.4	4.9	5.3
HUNTINGTON	2.4	2.8	3.7	4.6	4.9	5.5	5.9
INDIANA	2.3	2.7	3.4	4.0	4.5	5.0	5.4
JEFFERSON	2.3	2.8	3.4	3.9	4.5	4.9	5.3
JUNIATA	2.4	2.9	3.7	4.5	4.9	5.6	6.1

COUNTY	24 HOUR RAINFALL FOR VARIOUS FREQUENCIES						
	1yr	2yr	3yr	10yr	25yr	50yr	100yr
LACAWANNA	2.3	2.9	3.9	4.7	5.2	6.0	6.5
LANCASTER	2.4	3.1	4.1	5.0	5.5	6.2	6.9
LAWRENCE	2.2	2.8	3.2	3.7	4.2	4.7	4.8
LEHIGH	2.3	3.0	4.0	4.8	5.3	6.0	6.7
LEHIGH	2.5	3.1	4.1	4.8	5.5	6.1	6.9
LUZERNE	2.4	2.9	3.9	4.7	5.2	6.0	6.5
LYCONING	2.4	2.8	3.8	4.3	4.9	5.5	5.9
MCLEAN	2.2	2.8	3.3	3.9	4.4	4.8	5.2
MERCER	2.2	2.8	3.2	3.7	4.2	4.7	4.8
MIFFLIN	2.4	2.8	3.6	4.4	4.8	5.5	6.0
MONROE	2.5	3.0	4.0	4.8	5.4	6.1	6.8
MONTGOMERY	2.6	3.2	4.2	5.0	5.7	6.4	7.1
MONTGOMERY	2.4	2.9	3.7	4.5	5.0	5.6	6.2
NORTHAMPTON	2.5	3.1	4.1	4.9	5.5	6.1	6.9
NORTHAMPTON	2.4	2.8	3.8	4.6	5.0	5.7	6.3
NORTHAMPTON	2.4	2.9	3.8	4.6	5.0	5.7	6.3
PERRY	2.4	2.9	3.8	4.6	5.0	5.7	6.3
PHILADELPHIA	2.6	3.3	4.3	5.0	5.7	6.4	7.3
PIKE	2.5	3.0	4.0	4.9	5.4	6.1	7.0
POTTER	2.3	2.7	3.4	4.0	4.6	5.0	5.4
SCHUYLKILL	2.5	3.0	3.9	4.7	5.3	5.9	6.5
SNYDER	2.4	2.9	3.7	4.5	5.0	5.6	6.1
SOMERSET	2.4	2.8	3.5	4.3	4.8	5.3	5.8
SULLIVAN	2.4	2.8	3.7	4.5	4.9	5.5	6.0
SUSQUEHANNA	2.4	2.9	3.8	4.6	5.0	5.7	6.2
TIGER	2.3	2.7	3.5	4.2	4.7	5.1	5.6
UNION	2.4	2.8	3.7	4.4	4.9	5.5	6.0
VERMONG	2.2	2.5	3.3	3.7	4.2	4.7	4.9
WARREN	2.2	2.5	3.2	3.8	4.3	4.8	4.9
WASHINGTON	2.3	2.8	3.3	3.9	4.4	4.9	5.3
WAYNE	2.4	2.9	3.9	4.7	5.2	6.0	6.7
WESTMORELAND	2.3	2.7	3.4	4.0	4.6	5.0	5.4
WYOMING	2.4	2.9	3.8	4.6	5.0	5.6	6.2
YORK	2.6	3.1	4.1	4.9	5.5	6.2	6.9

FIGURE B-1
NRCS (SCS) TYPE II RAINFALL DISTRIBUTION

Exhibit 4-II Unit peak discharge (q_u) for NRCS (SCS) type II rainfall distribution

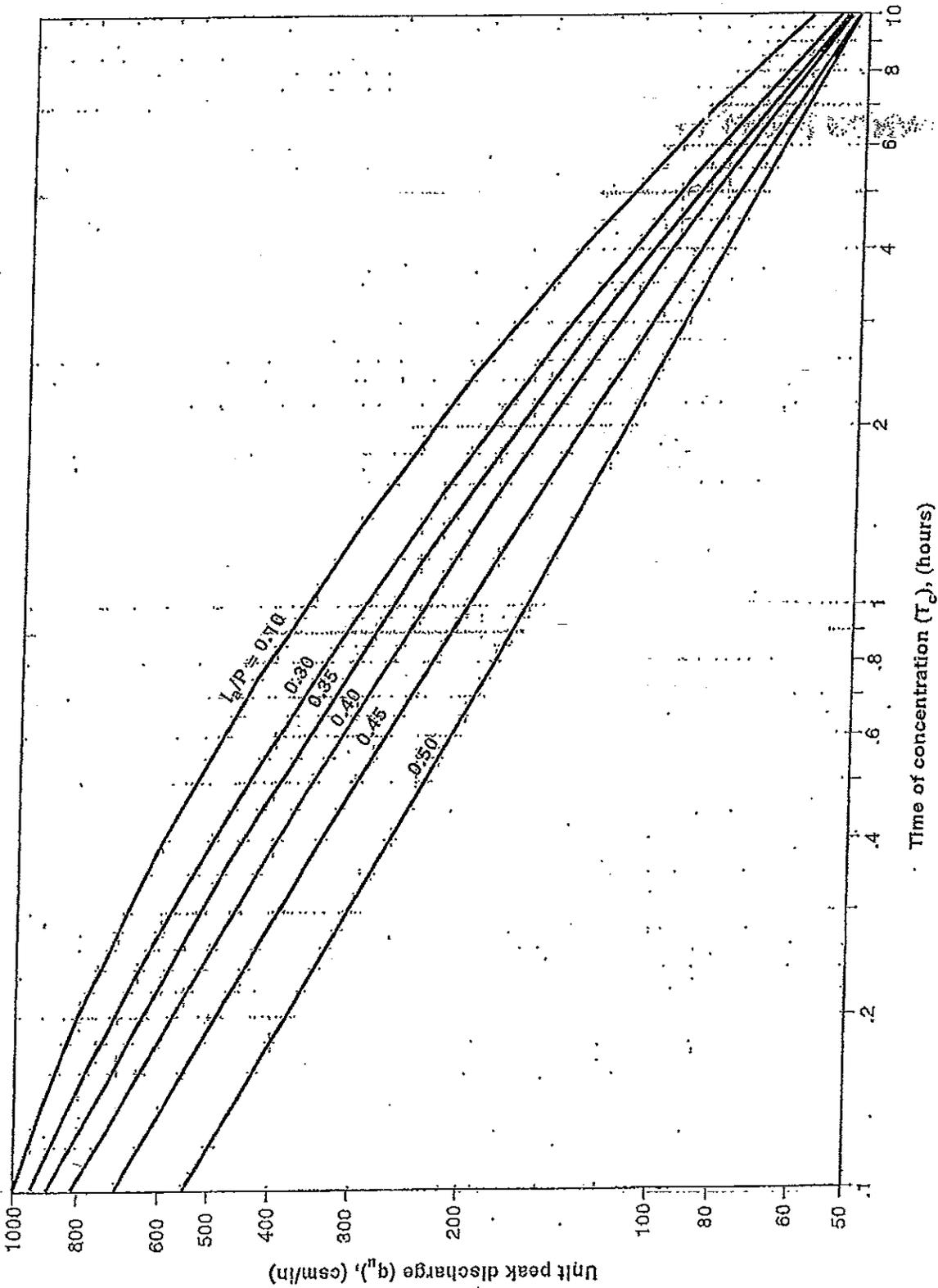


FIGURE B-2
PENNDOT STORM INTENSITY-DURATION-
FREQUENCY CURVE FOR REGION 5

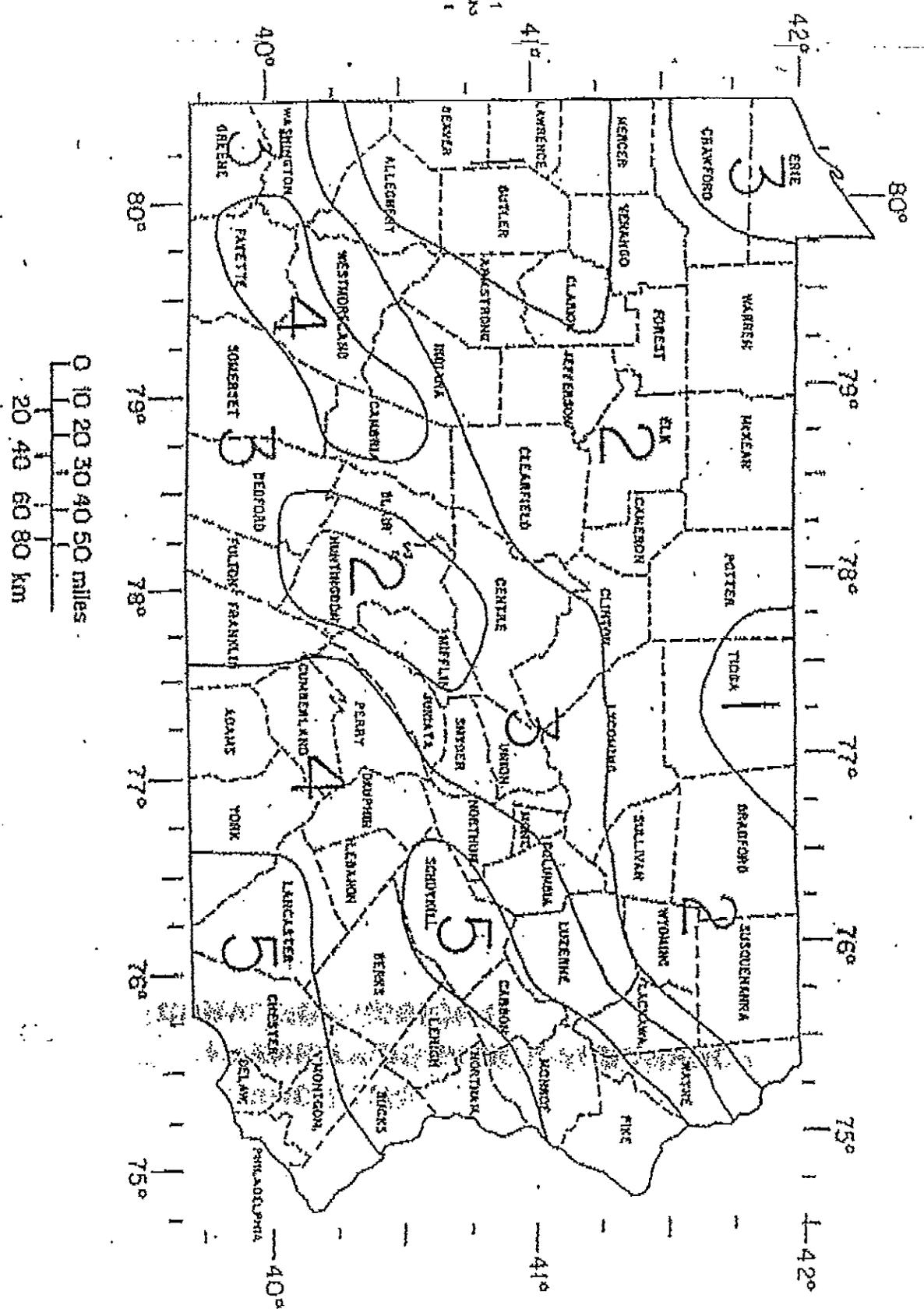


Figure 1. Delineated regions with uniform rainfall

REGION 5

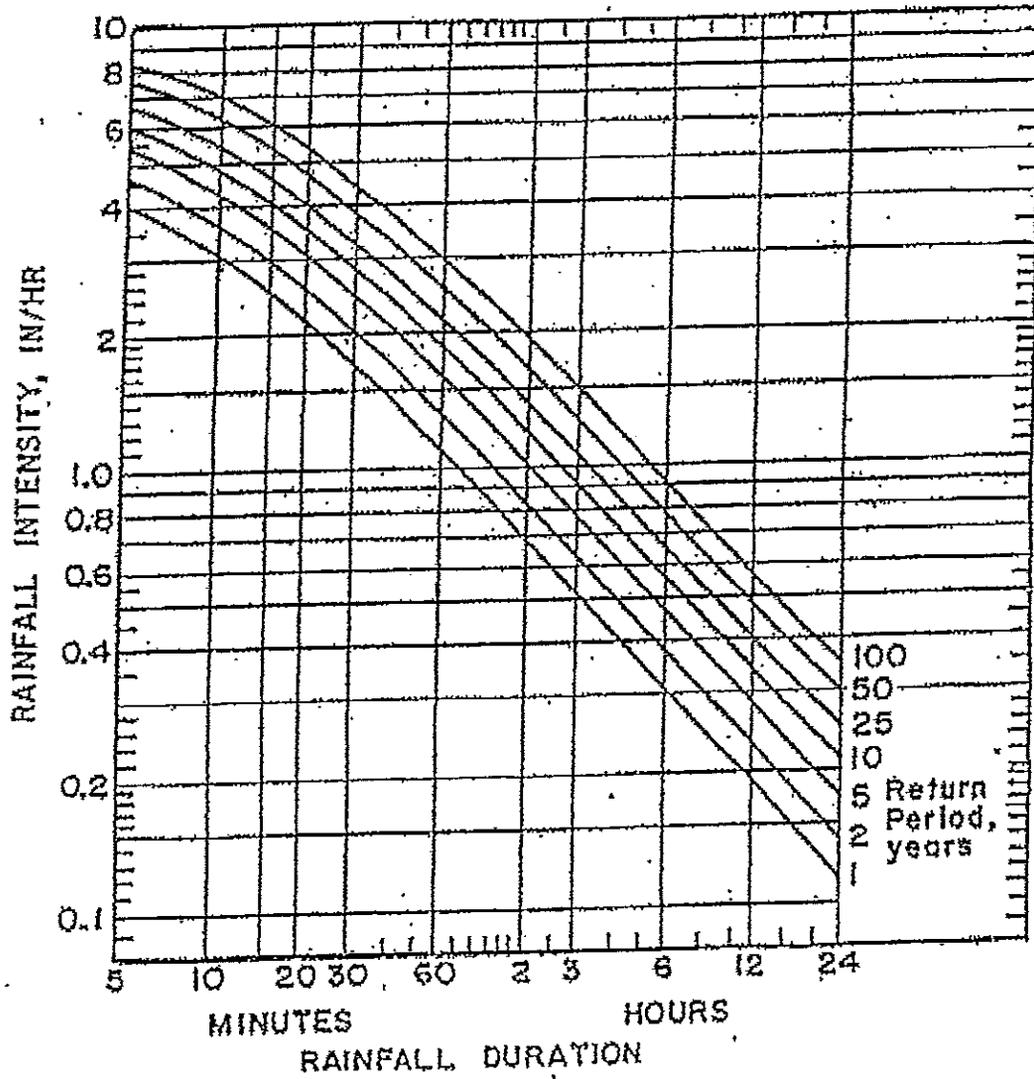


Figure 6. Storm intensity-duration-frequency curves for Region 5.



TABLE B-2
RUNOFF CURVE NUMBERS
(FROM NRCS (SCS) TR-55)

Table 2-2a Runoff curve numbers for urban areas ^{1/}

Cover description Cover type and hydrologic condition	Average percent impervious area ^{2/}	Curve numbers for hydrologic soil group			
		A	B	C	D
<i>Fully developed urban areas (vegetation established)</i>					
Open space (lawns, parks, golf courses, cemeteries, etc.) ^{3/} :					
Poor condition (grass cover < 50%)		68	79	86	89
Fair condition (grass cover 50% to 75%)		49	69	79	84
Good condition (grass cover > 75%)		39	61	74	80
Impervious areas:					
Paved parking lots, roofs, driveways, etc. (excluding right-of-way)		98	98	98	98
Streets and roads:					
Paved; curbs and storm sewers (excluding right-of-way)		98	98	98	98
Paved; open ditches (including right-of-way)		83	89	92	93
Gravel (including right-of-way)		76	85	89	91
Dirt (including right-of-way)		72	82	87	89
Western desert urban areas:					
Natural desert landscaping (pervious areas only) ^{4/}		63	77	85	88
Artificial desert landscaping (impervious weed barrier, desert shrub with 1- to 2-inch sand or gravel mulch and basin borders)		96	96	96	96
Urban districts:					
Commercial and business	85	89	92	94	95
Industrial	72	81	88	91	93
Residential districts by average lot size:					
1/8 acre or less (town houses)	65	77	85	90	92
1/4 acre	38	61	75	83	87
1/3 acre	30	57	72	81	86
1/2 acre	25	54	70	80	85
1 acre	20	51	68	79	84
2 acres	12	46	65	77	82
<i>Developing urban areas</i>					
Newly graded areas (pervious areas only, no vegetation) ^{5/}	77	86	91	94	
Idle lands (CN's are determined using cover types similar to those in table 2-2c).					

¹ Average runoff condition, and $I_a = 0.25$.² The average percent impervious area shown was used to develop the composite CN's. Other assumptions are as follows: impervious areas are directly connected to the drainage system, impervious areas have a CN of 98, and pervious areas are considered equivalent to open space in good hydrologic condition. CN's for other combinations of conditions may be computed using figure 2-3 or 2-4.³ CN's shown are equivalent to those of pasture. Composite CN's may be computed for other combinations of open space cover type.⁴ Composite CN's for natural desert landscaping should be computed using figures 2-3 or 2-4 based on the impervious area percentage (CN = 98) and the pervious area CN. The pervious area CN's are assumed equivalent to desert shrub in poor hydrologic condition.⁵ Composite CN's to use for the design of temporary measures during grading and construction should be computed using figure 2-3 or 2-4 based on the degree of development (impervious area percentage) and the CN's for the newly graded pervious areas.

Table 2-2b Runoff curve numbers for cultivated agricultural lands ^{1/}

Cover description			Curve numbers for hydrologic soil group			
Cover type	Treatment ^{2/}	Hydrologic condition ^{3/}	A	B	C	D
w	Bare soil	—	77	86	91	94
	Crop residue cover (CR)	Poor	76	85	90	93
		Good	74	83	88	90
crops	Straight row (SR)	Poor	72	81	88	91
		Good	67	78	85	89
	SR + CR	Poor	71	80	87	90
		Good	64	75	82	85
	Contoured (C)	Poor	70	79	84	88
		Good	65	75	82	86
	C + CR	Poor	69	78	83	87
		Good	64	74	81	85
	Contoured & terraced (C&T)	Poor	66	74	80	82
		Good	62	71	78	81
	C&T + CR	Poor	65	73	79	81
		Good	61	70	77	80
small grain	SR	Poor	65	76	84	88
		Good	63	75	83	87
	SR + CR	Poor	64	75	83	86
		Good	60	72	80	84
	C	Poor	63	74	82	85
		Good	61	73	81	84
	C + CR	Poor	62	73	81	84
		Good	60	72	80	83
	C&T	Poor	61	72	79	82
		Good	59	70	78	81
	C&T + CR	Poor	60	71	78	81
		Good	58	69	77	80
close-seeded broadcast legumes or station meadow	SR	Poor	66	77	85	89
		Good	58	72	81	85
	C	Poor	64	75	83	86
		Good	55	69	78	83
	C&T	Poor	63	73	80	83
		Good	51	67	76	80

^{1/} Average runoff condition, and $I_a=0.2s$

^{2/} Crop residue cover applies only if residue is on at least 5% of the surface throughout the year.

^{3/} Hydraulic condition is based on combination factors that affect infiltration and runoff, including (a) density and canopy of vegetative areas, (b) amount of year-round cover, (c) amount of grass or close-seeded legumes, (d) percent of residue cover on the land surface (good ≥ 20%), and (e) degree of surface roughness.

Poor: Factors impair infiltration and tend to increase runoff.

Good: Factors encourage average and better than average infiltration and tend to decrease runoff.

Table 2-2c Runoff curve numbers for other agricultural lands ^{1/}

Cover type	Hydrologic condition	Curve numbers for hydrologic-soil group			
		A	B	C	D
Pasture, grassland, or range—continuous forage for grazing. ^{2/}	Poor	68	79	86	89
	Fair	49	69	79	84
	Good	39	61	74	80
Meadow—continuous grass, protected from grazing and generally mowed for hay.		30	58	71	78
Brush—brush-weed-grass mixture with brush the major element. ^{3/}	Poor	48	67	77	83
	Fair	36	56	70	77
	Good	30 ^{4/}	48	65	73
Woods—grass combination (orchard or tree farm). ^{5/}	Poor	57	73	82	86
	Fair	43	65	76	82
	Good	32	58	72	79
Woods. ^{6/}	Poor	45	66	77	83
	Fair	36	60	73	79
	Good	30 ^{4/}	55	70	77
Farmsteads—buildings, lanes, driveways, and surrounding lots.		59	74	82	86

¹ Average runoff condition, and $I_a = 0.2S$.

² *Poor*: <50% ground cover or heavily grazed with no mulch.

Fair: 50 to 75% ground cover and not heavily grazed.

Good: >75% ground cover and lightly or only occasionally grazed.

³ *Poor*: ≤50% ground cover.

Fair: 50 to 75% ground cover.

Good: >75% ground cover.

⁴ Actual curve number is less than 30; use CN = 30 for runoff computations.

⁵ CN's shown were computed for areas with 50% woods and 50% grass (pasture) cover. Other combinations of conditions may be computed from the CN's for woods and pasture.

⁶ *Poor*: Forest litter, small trees, and brush are destroyed by heavy grazing or regular burning.

Fair: Woods are grazed but not burned, and some forest litter covers the soil.

Good: Woods are protected from grazing, and litter and brush adequately cover the soil.

Table 2-1 --- Runoff depth for selected CN's and rainfall amounts ^{1/}

Rainfall	Runoff depth for curve number of--													
	40	45	50	55	60	65	70	75	80	85	90	95	98	
0.1	.00	.00	.00	.00	.00	.00	.00	.03	.08	.17	.32	.46	.74	.99
1.2	.00	.00	.00	.00	.00	.02	.05	.11	.20	.34	.52	.76	1.11	1.38
1.4	.00	.00	.00	.00	.01	.05	.11	.20	.34	.52	.76	1.11	1.38	1.65
1.6	.00	.00	.00	.00	.01	.05	.11	.20	.34	.52	.76	1.11	1.38	1.65
2.0	.00	.00	.00	.02	.06	.14	.24	.38	.56	.80	1.09	1.48	1.77	2.06
2.5	.00	.00	.02	.03	.17	.30	.40	.60	.89	1.18	1.53	1.96	2.29	2.62
3.0	.00	.02	.09	.19	.33	.51	.71	.96	1.25	1.59	1.98	2.45	2.77	3.10
3.5	.02	.08	.20	.31	.48	.75	1.01	1.30	1.64	2.02	2.47	2.99	3.27	3.55
4.0	.06	.18	.33	.53	.76	1.03	1.33	1.67	2.04	2.46	2.92	3.43	3.77	4.10
4.5	.11	.30	.59	.74	1.02	1.33	1.67	2.05	2.46	2.91	3.40	3.92	4.26	4.59
5.0	.24	.44	.69	.98	1.30	1.65	2.04	2.45	2.89	3.37	3.88	4.42	4.76	5.10
6.0	.50	.80	1.14	1.52	1.92	2.35	2.83	3.25	3.73	4.20	4.67	5.14	5.70	6.05
7.0	.84	1.24	1.68	2.12	2.60	3.10	3.62	4.15	4.69	5.25	5.82	6.41	6.76	7.10
8.0	1.20	1.74	2.28	2.73	3.31	3.89	4.47	5.04	5.63	6.21	6.80	7.40	7.76	8.10
9.0	1.71	2.29	2.88	3.49	4.10	4.72	5.33	5.95	6.57	7.18	7.79	8.40	8.76	9.10
10.0	2.22	2.89	3.50	4.23	4.90	5.58	6.22	6.88	7.52	8.10	8.78	9.40	9.76	10.10
11.0	2.78	3.52	4.26	5.00	5.72	6.43	7.13	7.81	8.48	9.13	9.77	10.39	10.76	11.10
12.0	3.38	4.19	5.00	5.79	6.56	7.32	8.06	8.76	9.45	10.11	10.76	11.39	11.76	12.10
13.0	4.00	4.89	5.76	6.61	7.42	8.21	8.98	9.71	10.42	11.10	11.76	12.39	12.76	13.10
14.0	4.66	5.52	6.51	7.41	8.30	9.12	9.91	10.67	11.39	12.08	12.76	13.39	13.76	14.10
15.0	5.33	6.36	7.35	8.29	9.19	10.04	10.85	11.63	12.37	13.07	13.74	14.39	14.76	15.10

^{1/}Interpolate the values shown to obtain runoff depths for CN's or rainfall amounts not shown.

TABLE B-3
RATIONAL RUNOFF COEFFICIENTS

Table 2. • Runoff coefficients for use with the Rational Equation

Description of Area	Runoff Coefficients
Business	
Downtown areas	0.70-0.95
Neighborhood areas	0.50-0.70
Residential	
Single-family areas	0.30-0.50
Multiunits, detached	0.40-0.60
Multiunits, attached	0.60-0.75
Residential (suburban)	0.25-0.40
Apartment dwelling areas	0.50-0.70
Industrial	
Light areas	0.50-0.80
Heavy areas	0.60-0.90
Parks, cemeteries	0.10-0.25
Playgrounds	0.20-0.35
Railroad yard areas	0.20-0.40
Unimproved areas	0.10-0.30
Streets	
Asphaltic	0.70-0.95
Concrete	0.80-0.95
Brick	0.70-0.85
Drives and walks	0.75-0.85
Roofs	0.75-0.95
Lawns: Sandy soil	
Flat 2%	0.05-0.10
Average 2-7%	0.10-0.15
Steep 7%	0.15-0.20
Lawns: Heavy soil	
Flat 2%	0.13-0.17
Average 2-7%	0.18-0.22
Steep 7%	0.25-0.35

From ASCE (1972) and Viessman et al. (1977).

TABLE B-4
MANNING ROUGHNESS COEFFICIENTS

Table 3. - Values of Manning Coefficient for Various Materials

Conduit Material (1)	Manning n (2) ^a
Closed conduits	
Asbestos-cement pipe	0.011-0.015
Brick	0.013-0.017
Cast iron pipe	
Cement-lined & seal coated	0.011-0.015
Concrete (monolithic)	
Smooth forms	0.012-0.014
Rough forms	0.015-0.017
Concrete pipe	0.011-0.015
Corrugated-metal pipe (1/2-in. x 2 1/2-in. corrugations)	
Plain	0.022-0.026
Paved invert	0.018-0.022
Spun asphalt lined	0.011-0.015
Plastic pipe (smooth)	0.011-0.015
Vitrified clay	
Pipes	0.011-0.015
Liner plates	0.013-0.017
Open Channels	
Lined channels	
a. Asphalt	0.013-0.017
b. Brick	0.012-0.018
c. Concrete	0.011-0.020
d. Rubble or riprap	0.020-0.035
e. Vegetal	0.030-0.40 ^b
Excavated or dredged	
Earth, straight and uniform	0.020-0.030
Earth, winding, fairly uniform	0.025-0.040
Rock	0.030-0.045
Unmaintained	0.050-0.14
Natural channels (minor streams, top width at flood stage < 100 ft)	
Fairly regular section	0.03-0.07
Irregular section with pools	0.04-0.10

^aDimensional units contained in numerical term in formula

^bSee References 2, 5, 16. (Varies with depth and velocity.)

Note 1 in. = 2.54 cm; 1 ft. = 0.305 m.

From - ASCE, 1982

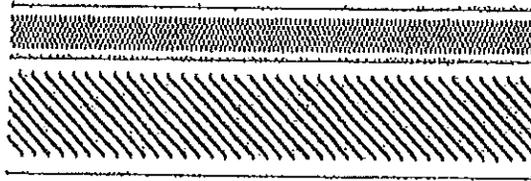
APPENDIX C
WEST VINCENT TOWNSHIP SUBDIVISION
AND LAND DEVELOPMENT ORDINANCE

STREET CLASSIFICATION OF EXISTING STREETS

Major Arterial	Route 100 (SR 0100)
Major Collector	Route 401 (SR 0401)
Minor Collector	Birchrun Road (SR 1030) Hollow Road (SR 1033) Kimberton Road (T 561) Pughtown Road (SR 1028) St. Matthews Road (SR 1031)
Local Access	All roads not listed above.

DRIVEWAYS

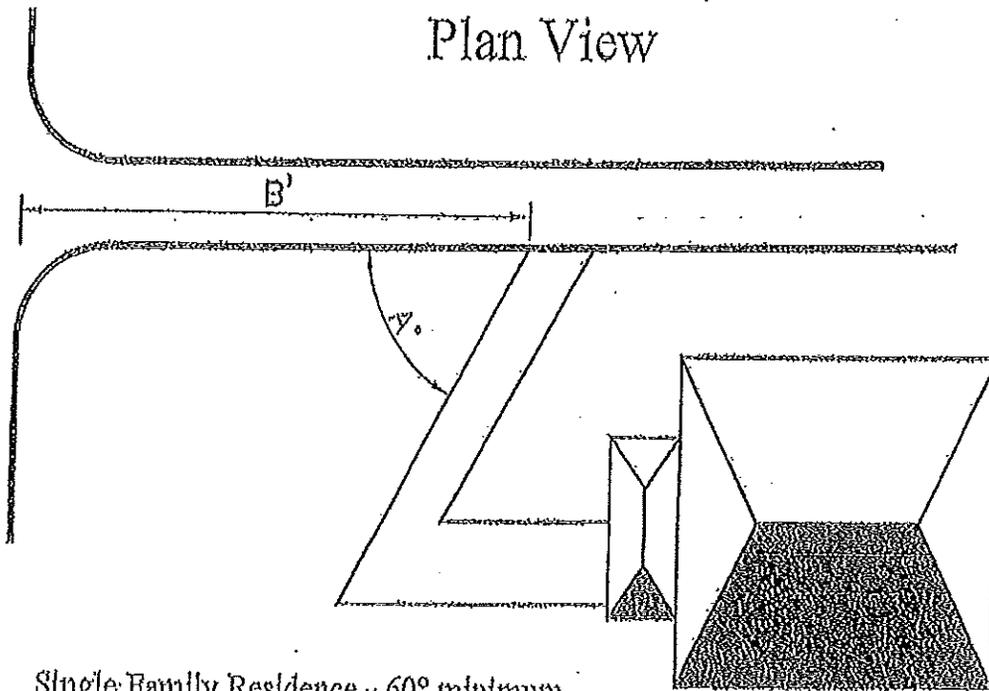
Pavement Cross-Section



A = Super Pave Asphalt mixture design, HMA wearing course, PG 64-22,
0.0 to 0.3 million ESAL's, 9.5 mm mix SRL H

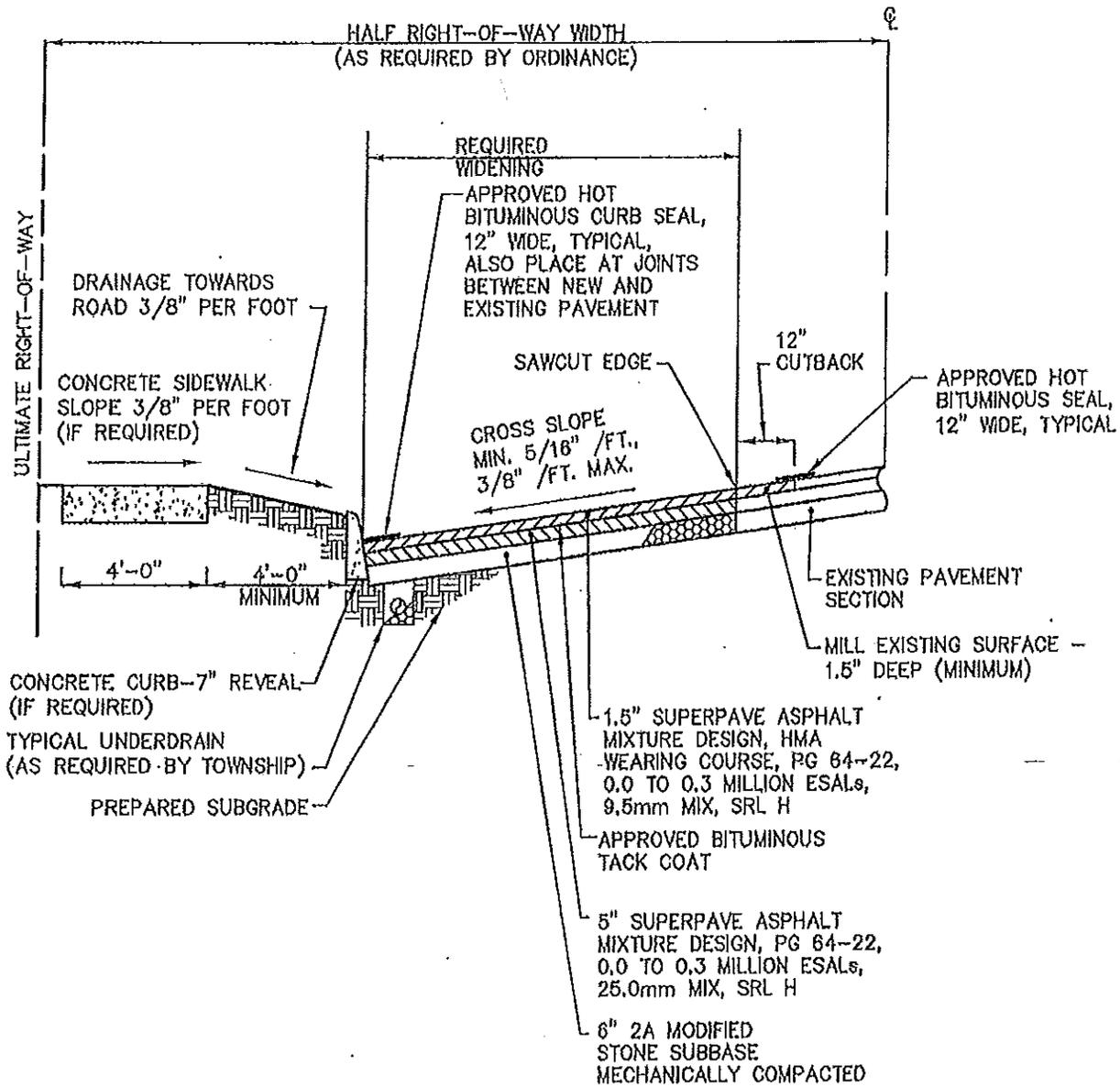
B = 3A Modified Stone (compacted)

Plan View



A: Single Family Residence - 60° minimum
Non-Residential Drive - 75° minimum

B: Local Access Street - 50 feet minimum
Collector Street - 75 feet minimum
Arterial Street - 150 feet minimum



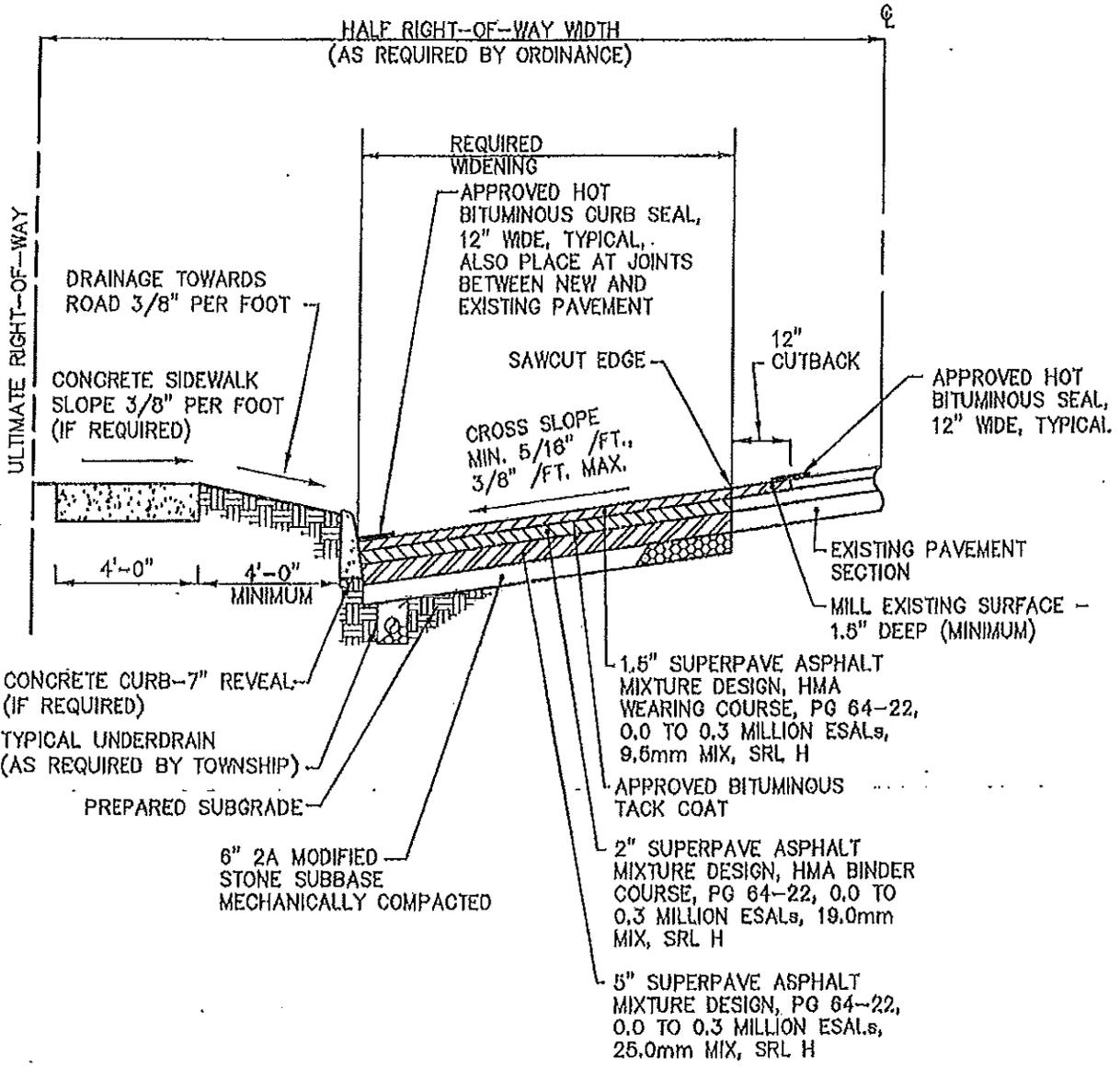
**TYPICAL ROAD WIDENING SECTION
LOCAL AND RESIDENTIAL ROADS**
NTS



TYPICAL ROAD WIDENING SECTION
LOCAL AND RESIDENTIAL ROADS
PREPARED FOR
WEST VINCENT TOWNSHIP
SITUATED IN
CHESTER COUNTY, PENNSYLVANIA

DATE	09-28-07
JOB NO.	07-0100
SCALE	N.T.S.
DWG. NO.	0701000027

0701000027



*FOR ALL STATE REGULATED ROADS, PENNDOT STANDARDS SHALL APPLY

**TYPICAL ROAD WIDENING SECTION FOR
ARTERIAL, COLLECTOR AND
NON-RESIDENTIAL ROADS**

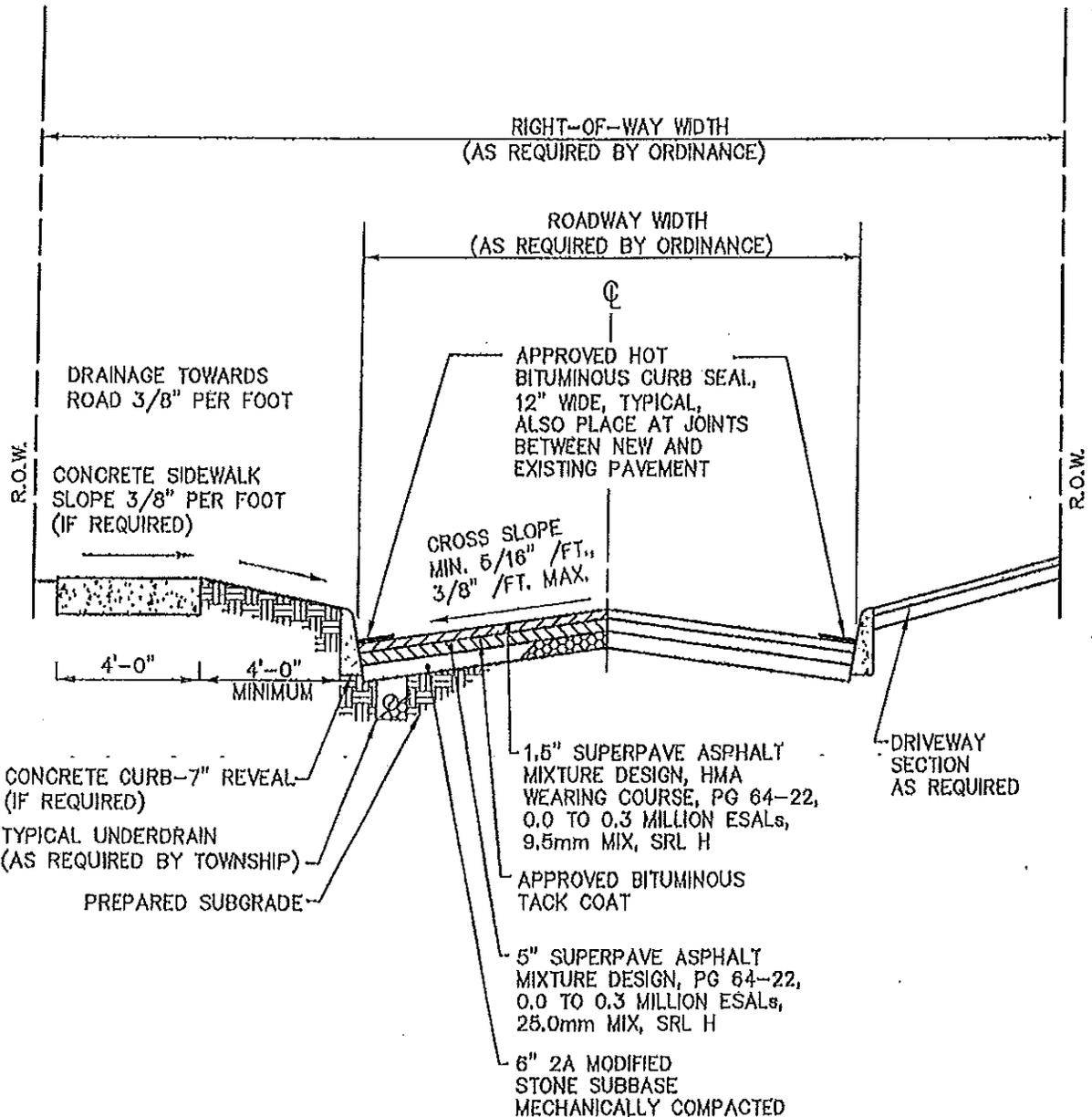
NTS



TYPICAL ROAD WIDENING SECTION FOR ARTERIAL,
COLLECTOR AND NON-RESIDENTIAL ROADS
PREPARED FOR
WEST VINCENT TOWNSHIP
SITUATED IN
CHESTER COUNTY, PENNSYLVANIA

DATE 09-28-07
JOB NO. 07-0100
SCALE N.T.S.
DWG. NO. 0701000028

0701000028



**TYPICAL ROADWAY SECTION FOR
RESIDENTIAL AND LOCAL ROADS AND
COMMERCIAL PARKING AREAS**

NTS

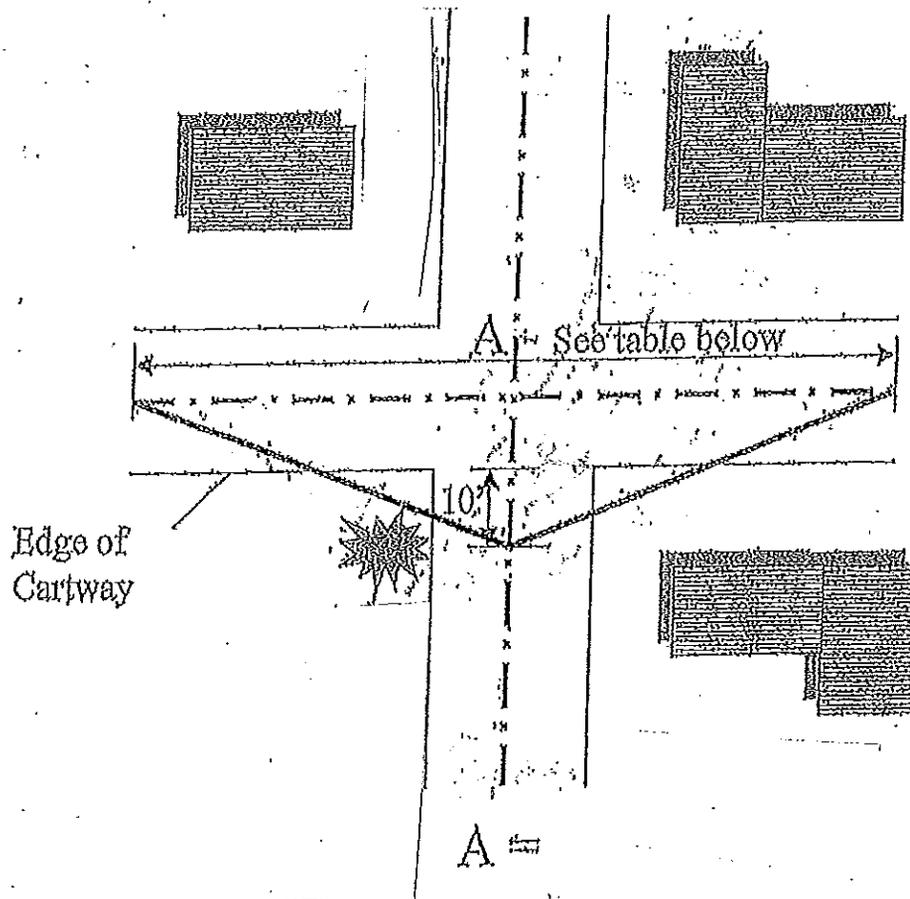


TYPICAL ROADWAY SECTION FOR RESIDENTIAL AND
LOCAL ROADS AND COMMERCIAL PARKING AREAS
PREPARED FOR
WEST VINCENT TOWNSHIP
SITUATED IN
CHESTER COUNTY, PENNSYLVANIA

DATE 09-28-07
JOB NO. 07-0100
SCALE N.T.S.
DWG. NO. 0701000029

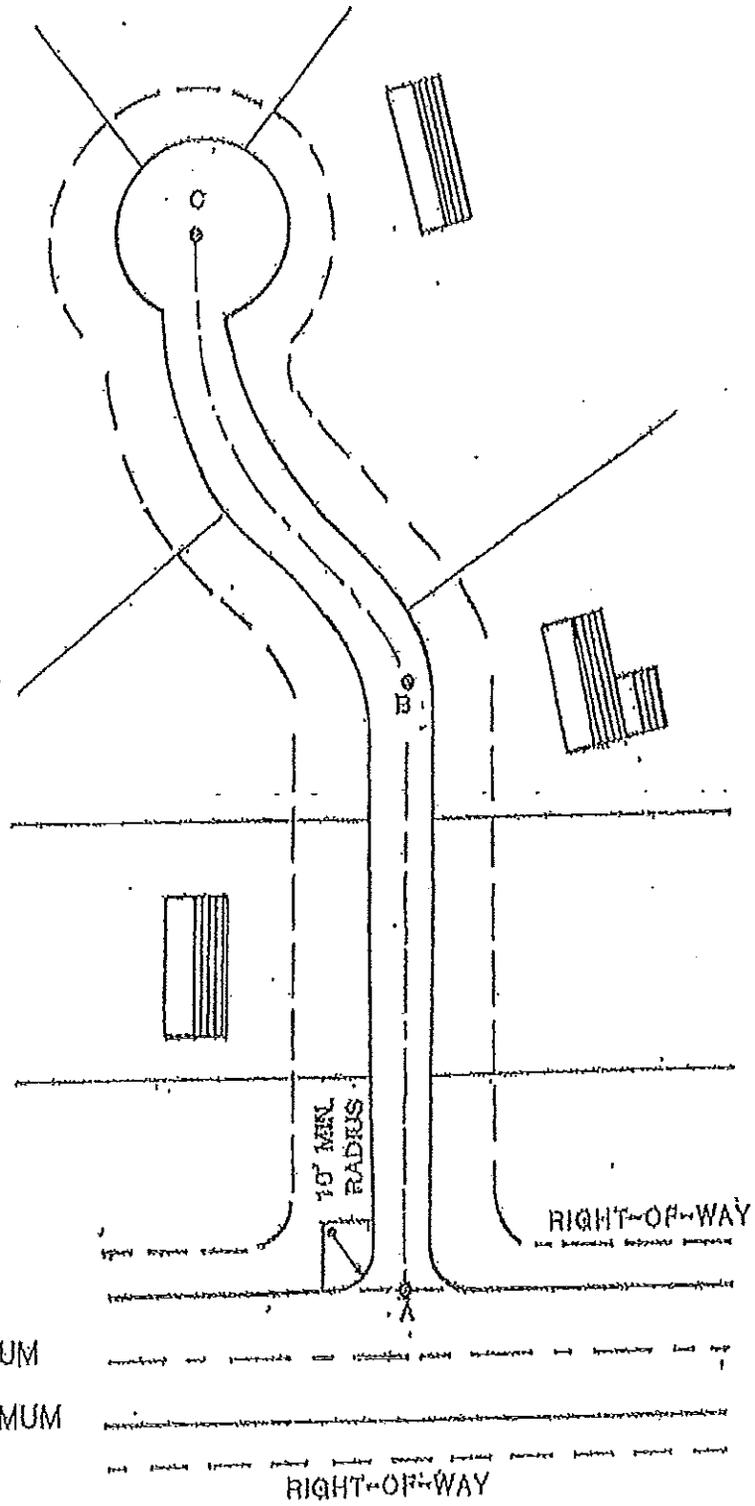
0701000029

CLEAR SITE TRIANGLE



Posted Speed	Minimum Site Distance
20	200
25	250
30	300
35	350
40	400
45	450
50	500
55	550

SINGLE ACCESS STREET

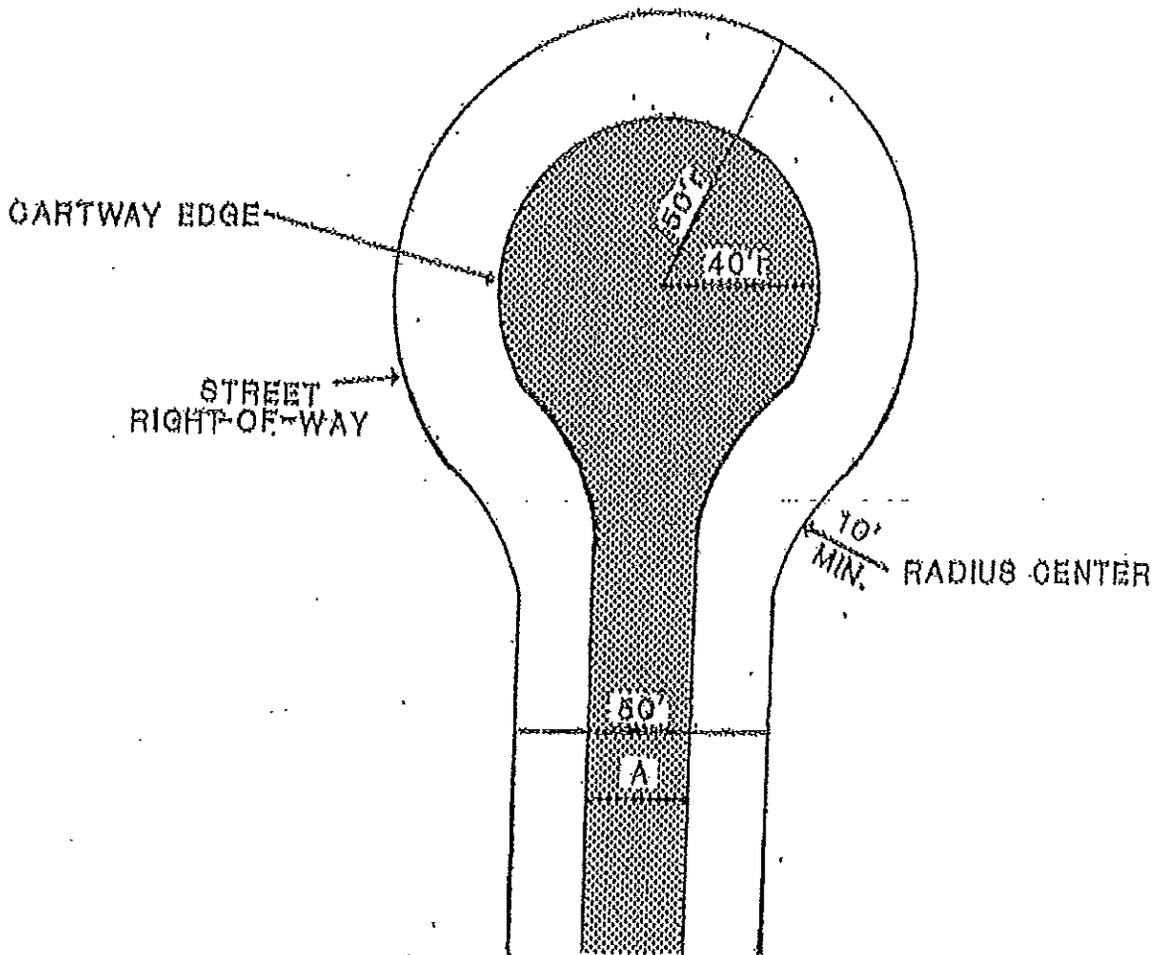


AB-400' MAXIMUM

AC-1000' MAXIMUM

RIGHT-OF-WAY

CUL-DE-SAC DETAIL

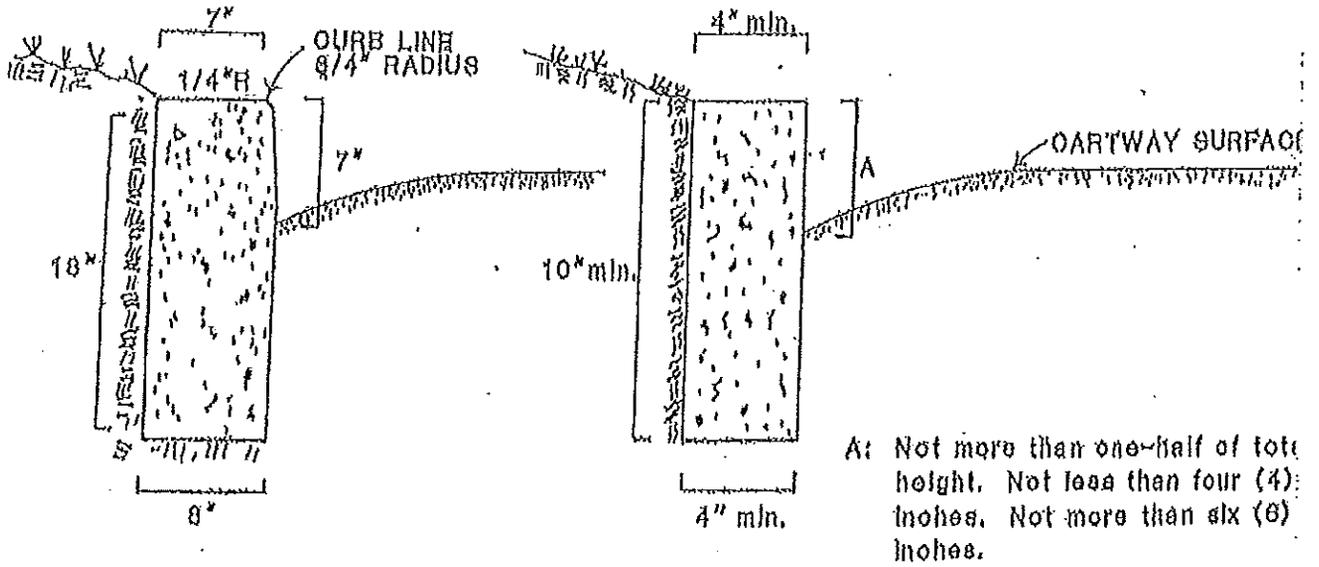


A: 20' WITHOUT ON-STREET PARKING
26' WITH ON-STREET PARKING

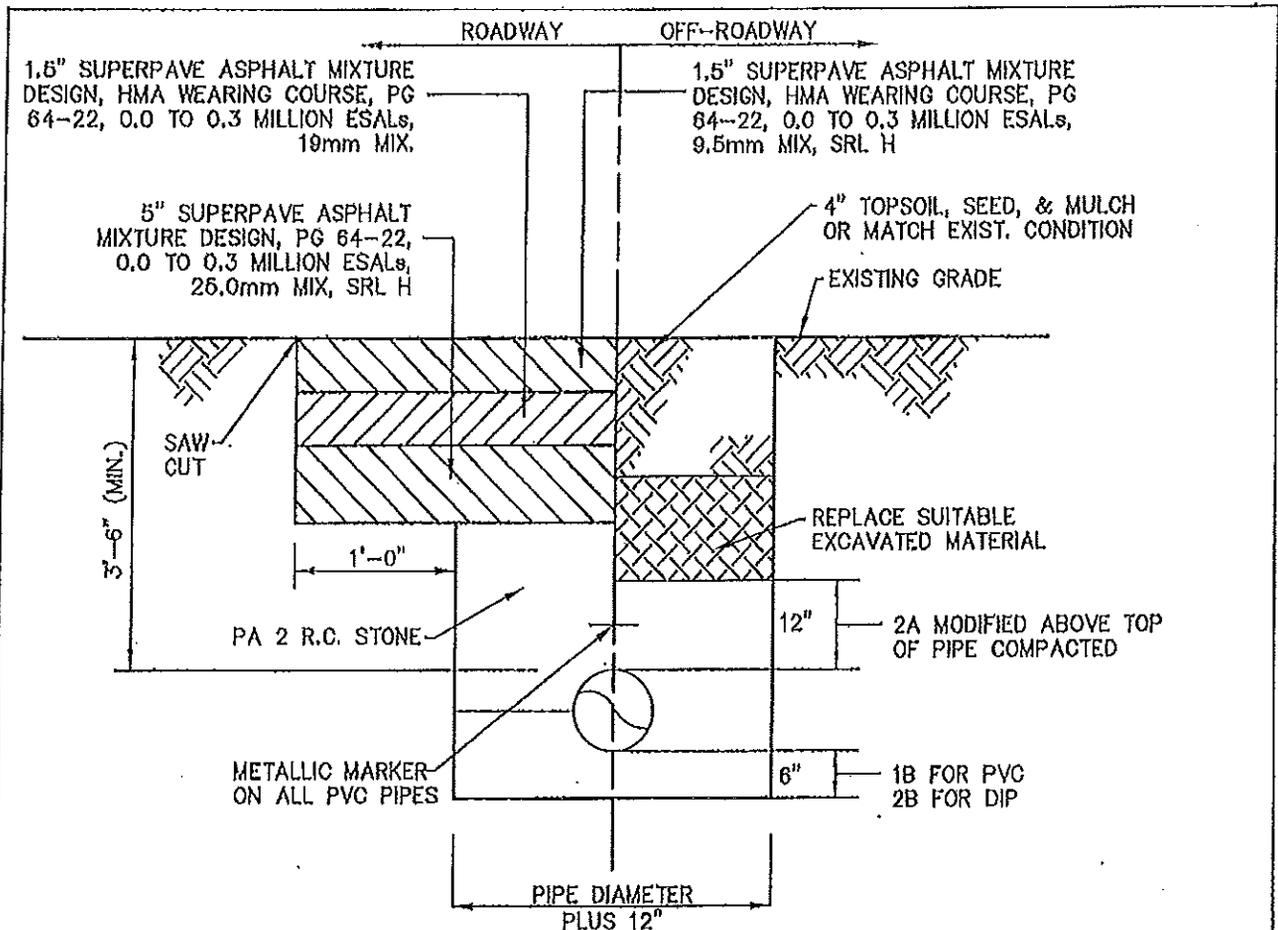
CURB DETAIL

STANDARD STRAIGHT CURB

GRANITE CURB



SOURCE: Urban Planning and Design, 2nd ed.,
DeChiara and Koppelman, 1978.



TRENCH BACKFILL FOR PIPES:

1. ALL BACKFILL OVER PIPES SHALL BE DEVOID OF STONES LARGER THAN 2" IN ANY DIMENSION, LARGE DEBRIS, TRASH, WOOD, OR OTHER SIMILAR MATERIALS.
2. AFTER THE PIPE HAS BEEN INSTALLED ON A FIRM FOUNDATION, BACKFILL SHALL BE CAREFULLY PLACED AND CONSOLIDATED UNDER THE PIPE HAUNCH TO PROVIDE ADEQUATE SIDE SUPPORT. THE HAUNCHING BACKFILL SHALL BE PLACED IN SUCH A MANNER AS NOT TO DISTURB THE PIPELINES. THIS EARTH SHALL BE TAMPED WITH A NON-MECHANICAL TAMPER.
3. A LAYER OR INITIAL BACKFILL SHALL BE HAND PLACED ABOVE THE SPRING LINE OF THE PIPE UNTIL A PROTECTIVE CUSHION OF 6" OF COVER OVER THE PIPE IS REACHED. THE INITIAL BACKFILL SHALL NOT BE TAMPED AFTER PLACEMENT.
4. THE REMAINDER OF THE TRENCH SHALL BE BACKFILLED IN UNIFORM LAYERS NOT MORE THAN 12" THICK AND COMPACTED TO ACHIEVE 85% MODIFIED PROCTOR DENSITY. THE MOISTURE CONTENT OF THE MATERIAL BEING COMPACTED SHALL BE WITHIN +/-3 PERCENTAGE POINTS OF OPTIMUM DETERMINED BY AASHO DESIGNATION T-99. FILL MATERIAL WHICH IS TOO DRY TO BE COMPACTED SHALL BE WETTED.
5. ALL OFF-ROAD EXCAVATIONS SHALL BE RESTORED TO THE CONDITION THAT EXISTED PRIOR TO BEGINNING WORK.

NOTE:

1. COMPACT ALL BACKFILL TO 95% STANDARD PROCTOR (ASTM D 690).
2. ALL CONSTRUCTION IN ROADWAYS SHALL MEET PA D.O.T. REQUIREMENTS.

TYPICAL TRENCH DETAIL

NTS



TYPICAL TRENCH DETAIL
PREPARED FOR
WEST VINCENT TOWNSHIP
SITUATED IN
CHESTER COUNTY, PENNSYLVANIA

DATE 05-12-08
JOB NO. 07-0100
SCALE N.T.S.
DWG. NO. 0701000038

0701000038

West Vincent Road Trenching Requirements

All cartway trenching within West Vincent Township is to be done in accordance with the following guidelines. In addition to the following the Township reserves the right to require additional repairs to a cartway if pavement is damaged outside of a trench area as a result of the construction activity. The attached Trench Restoration Detail shall supersede that found in Title 67, paragraph 459.8 below.

Notice is to be given to the Township forty eight (48) hours prior to the start of the work.

§ 459.8. Special conditions—subsurface operations.

(a) *Drilling, boring, driving or tunneling across improved area.* Drilling, boring, driving or tunneling across improved areas shall comply with the following conditions:

(1) When crossing under an improved area, the opening for a utility facility shall be drilled, bored, driven or tunneled a minimum depth of 3 feet from the surface to the top of the opening.

(i) If the facility or its casing is 30 inches or greater in diameter, the bored cylindrical space surrounding either an uncased facility or a facility casing shall be filled with grout, in a manner authorized by the district office.

(ii) Jet or other nonmechanical boring methods are prohibited. Water may be used under low pressure only to cool the drill bit and to facilitate removal of cuttings from the bore opening, if retrievable liquid is immediately removed from the boring pit.

(2) No openings for the purpose of placing utility facilities or other structures under the improved area by drilling, boring, driving or tunneling may be made closer than 3 feet to the edge of the shoulder, unless the permit authorizes a lesser clearance.

(3) A facility or other structure crossing under the improved area shall be constructed to assure the safety of the traveling public and to preclude the necessity of entering upon the improved area to effect future maintenance or replacement. The facilities shall comply with Design Manual, Part 5.

(b) *Trenching across the improved area.* Trenching across an improved area may be performed only when specifically authorized by the permit, in accordance with the following:

(1) The top of every utility facility shall be installed at least 3 feet beneath the surface.

(2) Trenching across the improved area may be authorized by the permit where drilling, boring, driving or tunneling are:

(i) Not feasible because:

(A) The subsurface is solid rock, as documented with satisfactory evidence such as drill records, or where boring was attempted without success.

(B) There are other facilities located longitudinally under the improved area and their location precludes methods other than trenching, as documented with a detailed plan.

(C) Adjacent development in a very congested urban area makes the construction of a tunneling or boring shaft impossible.

(ii) Not required because of one of the following:

(A) The highway is unpaved.

(B) The Department's wearing course is older than 10 years, and the highway average daily traffic--ADT--does not exceed 500.

(3) When trenching is authorized by the permit, the trenching operation shall be performed by one of the following methods:

(i) Utility facility placed in one piece across highway.

(A) Traffic shall be routed over 1/2 of the pavement width.

(B) The closed half of the pavement shall be opened to the required depth and bridged with steel plates.

(C) Traffic shall be shifted to the bridged half of the pavement.

(D) The remaining half of the pavement shall be opened to the required depth.

(E) The facility shall be placed full width.

(F) The open trench shall be backfilled and restored half-width in accordance with this section.

(G) Traffic shall be shifted to the restored half of the pavement.

(H) The bridging shall be removed and the remaining half of the trench shall be backfilled and restored in accordance with this section.

(ii) Utility facility placed in more than one piece across highway.

(A) Traffic shall be routed over 1/2 of the pavement width.

(B) The closed half of the pavement shall be opened to the required depth, the facility placed and the trench backfilled and restored in accordance with this section.

(C) Traffic shall be shifted to the restored half of the pavement.

(D) The remaining half of the pavement shall be opened to the required depth, the facility placed and the trench backfilled and restored in accordance with the provisions of this section.

(4) The permittee shall protect its openings to provide for the safety of the traveling public, including motorists, bicyclists and pedestrians.

(5) The permit may authorize the placement at depths less than 3 feet of traffic signal detectors or other highway facilities which are not capable of operating more than 3 feet below the surface.

(c) *Openings parallel to the highway.* Requirements for openings parallel to the highway are as follows:

(1) A utility facility shall be placed outside the pavement and shoulder unless there is no feasible space outside the pavement and shoulder for placing the facility, in which case occupancy within the pavement or shoulder may be authorized by the permit.

(2) The top of a utility facility shall be installed at least 3 feet beneath the surface.

(3) On an unpaved highway, the near edge of the opening shall be at least 12 feet from the general center line of the traveled highway, or as authorized in paragraph (1).

(4) No opening may be made for more than 200 linear feet at one time, unless authorized by the permit.

(5) The permittee shall protect its openings to provide for the safety of the traveling public, including motorists, bicyclists and pedestrians.

(d) *Daily stoppage of work requirements.* Daily stoppage of work requirements include the following:

(1) Except for emergency repairs of utility facilities, work within the pavement or shoulder shall be stopped prior to peak traffic hours that may exist on a particular highway on a particular day and as specified in the permit.

(2) At the end of each workday, an opening in the right-of-way shall be one of the following:

(i) Covered with steel plates or bridging over openings which are less than 6 feet in either length or width. The plates or bridging shall be extended a minimum of 18 inches from each edge of the opening and shall be secured in a safe manner.

(ii) Backfilled under subsection (g) to the bottom elevation of the pavement or base course, or to the original surface elevation if outside the pavement and shoulder, and protected under Chapter 203 (relating to work zone traffic control) and an approved traffic control plan until the surface is restored to its former condition.

(iii) Protected under Chapter 203 and an approved traffic control plan, if the permittee has delivered certificates of insurance under § 459.7(12) (relating to general conditions).

(3) The permittee shall protect its openings to provide for the safety of the traveling public, including motorists, bicyclists and pedestrians.

(e) *Plowing operations.* Plowing operations shall comply with the following:

(1) No plowing will be permitted within the right-of-way, unless authorized by the permit.

(2) Plowing operations will not be authorized in the pavement or paved shoulders.

(3) Plowing operations in unpaved shoulders are not allowed from December through March inclusive or at other times when there is frost in the top 3 feet beneath the surface.

(4) No plowing is authorized within 3 feet from the edge of the pavement. A greater distance shall be attained wherever possible.

(5) The opening shall be a minimum depth of 3 feet. If this depth cannot be consistently maintained, the proper depth shall be achieved by trenching.

(6) The utility facility shall be installed under any structures that are less than 3 feet deep. Disturbed structures shall be repaired or replaced by the permittee.

(7) The disturbed area shall be restored in conjunction with the plowing operation. Heaved surfaces shall be scarified to a depth of at least 4 inches, extending at least 1 foot on either side of the heaved area for the entire length of the heaved area. The disturbed area shall then be graded, backfilled where necessary, and compacted until the disturbed area is restored to a condition at least equal to that which existed before plowing. Disturbed shoulders shall also be restored under subsection (j).

(f) *Disposition of materials.* The responsibility of the permittee for disposition of materials is as follows:

(1) The permittee shall keep the improved area free of material which may be deposited by vehicles traveling upon or entering onto the highway during the performance of work authorized by the permit.

(2) The permittee is responsible for controlling dust conditions created by its own operations.

(3) Excess material and material that is not suitable for backfill shall be promptly removed and properly disposed of outside the right-of-way as the work progresses.

(4) Other material shall be stored under § 203.9(b) (relating to general requirements), and so that there will be no interference with the flow of highway drainage.

(5) The permittee is not authorized to close a portion of the pavement or shoulder to traffic for the primary purpose of storing material. If the permittee stores material on the pavement or shoulder, the permittee thereby acknowledges its obligation and commitment to repair or reconstruct the pavement and shoulder, if damaged, to its former condition, in a manner authorized by the district office. Delivered material may not be stored overnight on the pavement.

(6) The district office may authorize the permittee to restore the pavement or shoulder from superficial surface damage with a seal coat or surface treatment.

(g) *Backfilling.* An opening shall be backfilled by the permittee in accordance with the following:

(1) The opening may first be backfilled with fine aggregate material, meeting the requirements of section 703.1 of Publication 408, or granular material to protect the facility, placed to a height not to exceed 1 foot over the top of the facility, if the material is compacted in not more than 4-inch loose layers or as authorized under Publication 408. To help protect its facility from future excavations, the permittee is encouraged to place a permanent ribbon colored under subsection (1) at least 1 foot above its facility. If the facility is nonmetallic, the permittee is also encouraged to place a metallic ribbon at a depth from which the ribbon can be sensed by typical metal locating instruments.

(2) The opening shall then be backfilled with select granular material, unless retained suitable material—as defined in § 459.1 (relating to definitions)—is authorized or other coarse aggregate material meeting the requirements of section 703.2 of Publication 408 is specified in the permit. Select granular material or other aggregate material will be required for use as backfill of openings in pavements, paved shoulders and improved (for example, oil and chip) shoulders as well as unimproved (for example, stabilized or earth surface) shoulders within 3 feet of the edge of pavement. Retained suitable material will normally be authorized for use as backfill of openings outside shoulders and in unimproved shoulders more than 3 feet outside the edge of pavement and up to within 3 feet of the surface.

(3) Backfill shall be compacted as follows:

(i) *General rule.* Except as provided in subparagraph (ii) backfill material shall be placed in loose layers not to exceed 8 inches if vibratory compaction equipment is used or as authorized under Publication 408. Each layer shall be thoroughly compacted to preclude subsidence, under section 601.3(e) of Publication 408.

(ii) *Compaction outside pavement and shoulders.* At least 15 days prior to the start of work, the applicant may submit its written compaction plan to the district office requesting backfill in an opening outside the pavement and shoulder to be placed in layers thicker than 8 inches prior to compaction. The compaction plan shall include full details on equipment, materials and work methods as well as the permittee's acknowledgment of its obligation and commitment to regularly monitor the restored surface until 2 years after the acknowledged completion of the permitted work and to promptly correct failure or subsidence of the highway. The district may condition its approval of a compaction plan on the execution of a bond under § 459.5(b) (relating to issuance of permits), if a part of the opening is within the improved area.

(iii) *Existing pavement elevation.* Compaction shall be completed to the bottom elevation of the existing pavement.

(4) The Department may require the permittee to have material proposed for use as backfill and compacted material tested, at the expense of the permittee, for conformance to the applicable gradation and compaction requirements of Publication 408.

(5) Openings made in the pavement or shoulder under § 459.6 (relating to emergency work) may be immediately backfilled with excavated material that is treated with a recognized chemical soil stabilizer at a minimum rate of 100 pounds stabilizer per cubic yard of backfill, if the stabilized backfill is compacted under paragraph (3).

(6) Test holes shall be backfilled, as soon as safely possible, with existing type material or other material authorized by the Department, and sealed under subsection (e). The district office may authorize test holes in the pavement or shoulder to be restored without a 1 foot outback of the surrounding surface.

(h) *Restoration of flexible base pavements.* Base and surface restoration of flexible base pavements shall be performed under this subsection and as specified in the permit. Prior to replacement of the base course, 1 foot outside of each edge of the opening shall be sawed, in a neat straight line, to the top elevation of the existing aggregate subbase or stone base course, and the detached material shall be removed. Other surface opening methods such as cutting may be authorized if the methods result in the opened pavement having a neat straight vertical line. See subsection (k).

(1) Exposed vertical and horizontal surfaces shall be prepared under section 401.3(f) of Publication 408.

(2) The base course shall consist of bituminous concrete meeting the requirements of section 305 of Publication 408 or other base course material authorized by the district office. The base course material shall have a minimum depth of 5 inches or a depth equal to the existing base course, whichever is greater.

(3) If required, the binder course shall consist of ID-2 material meeting the requirements of section 421 of Publication 408. The binder course shall have a minimum depth of 2 inches or a depth equal to the existing binder course, whichever is greater.

(4) The wearing course shall consist of ID-2 material meeting the requirements of section 420 of Publication 408 or FJ-1 material meeting the requirements of section 422 of Publication 408. The wearing course shall have a minimum depth of 1-1/2 inch ID-2, or 1 inch FJ-1, or a depth equal to the existing wearing course, whichever is greater.

(i) *Restoration of plain or reinforced cement concrete pavements.* Base and surface restoration of plain or reinforced cement concrete pavements shall be performed under this subsection and as specified in the permit. Drilling is not permitted where sawing or cutting is required. See subsection (k).

(1) Prior to replacement of the pavement, 1 foot outside of each edge of the opening shall be sawed the full depth of pavement in a neat straight line. The detached material shall be removed without damaging the adjacent pavement. The use of a pavement breaker is prohibited. The permittee may partially saw out the pavement to a depth of at least 3 inches and cut the remaining pavement with a jackhammer weighing no more than 90 pounds, if:

(i) The restored opening does not exceed 6 feet in either length or width.

(ii) The restored opening is at least 2 feet from a pavement edge or joint.

(iii) The highway average daily traffic—ADT—does not exceed 5,000.

(2) The replacement pavement shall consist of high early strength concrete equal in depth to the original concrete pavement or to a depth of 8 inches, whichever is greater.

(3) On existing reinforced cement concrete pavements that are opened for more than 6 feet in either length or width, reinforcing steel, expansion tie bolts and load transfer devices shall be placed in accordance with Roadway Construction Standard RC-26 (relating to concrete pavement maintenance).

(4) The permittee may be required to restore the structural integrity of a damaged cement concrete pavement by:

(i) Replacing the opened pavement transversely the full lane width.

(ii) Replacing the opened pavement longitudinally to a transverse joint or opening within 6 linear feet of the opening.

(5) The surface shall be restored as follows:

(i) After surface corrections have been completed and before the concrete becomes nonplastic, the surface shall be given a textured finish that matches the existing adjacent surface. The surface shall be cured under section 501.3(k) of Publication 408.

(ii) Restoration of the binder and wearing courses of a cement concrete pavement which has a bituminous surface shall be done under subsection (h).

(j) *Shoulder restoration.* Shoulder restoration shall be performed under this subsection and as specified in the permit. See subsection (k).

(1) *Paved shoulders.* Paved shoulders shall be reconstructed and restored to a serviceable condition, of the same type as existed before the start of work, under section 651, 653, 654, 656, 657 or 658 of Publication 408, and Roadway Construction Standard RC-25.

(2) *Other shoulders.* Other shoulders shall be restored as follows:

(i) The surface shall be restored with at least 2 inches of select granular material, or as authorized by the district office.

(ii) If the length of the open shoulder exceeds 100 linear feet, the shoulder shall be graded, rolled and—unless excused—penetrated with bituminous material specified in section 461 of Publication 408, at a minimum rate of .20 gallon per square yard and chipped or lightly sanded to prevent tracking of oil onto the pavement.

(3) *Outside existing shoulder.* If the disturbed area extends outside the existing shoulder, the disturbed area outside the restored shoulder shall be properly graded and a ditch line shall be constructed wherever necessary to maintain highway drainage.

(k) *Temporary pavement restoration.* Temporary restoration of a pavement or paved shoulder may be required by the district office prior to permanent restoration, under the following:

(1) The base shall consist of compacted select granular material with a surface of 2-inch bituminous material. If the existing pavement structure includes a course of subbase material, it shall be replaced to a depth equal to the existing course depth with material meeting the requirements of section 350.2 of Publication 408.

(2) Temporary pavement restoration shall be completed before traffic is allowed to travel on the disturbed area. The temporary pavement may be kept in place for up to 6 months or as specified in the permit, if it is properly maintained.

(3) The temporary pavement shall be removed and permanent restoration performed under subsection (h), (i) or (j).

(l) *Paint identification.* Upon completion of pavement or paved shoulder restoration, the restoration date shall be painted immediately adjacent to the restored cut but not in an area where tires normally contact the pavement. The painted date shall indicate the month and year numerically. The numerals shall be 6 to 9 inches in height. The paint shall be color coded as follows: blue (water), yellow (gas-petroleum), red (electric), orange (communications) and green (sewer). The paint shall be maintained for 2 years after the acknowledged completion of the permitted work. If the pavement or shoulder is being overlaid for more than 100 linear feet, the district office may, upon request, exempt the permittee from complying with this subsection.

(m) *Appurtenances to underground installations.* Requirements relating to appurtenances to underground installations shall include:

(1) The top of every manhole, valve box or other access to the facility shall be at the same elevation as the surface in which it is located.

(2) The surface surrounding manhole covers located in paved shoulders shall be paved with 4 inches bituminous concrete base course a distance of at least 1 foot around the structure to prevent washouts.

(3) A manhole, including those cast-in-place, shall be constructed in compliance with current industry standards and section 713.2(o) of Publication 408.

(n) *Additional restoration.* Additional restoration shall be required as follows:

(1) Disturbed portions of the highway, including, but not limited to, slopes and appurtenances and structures such as guide rails, curbs, signs, markings, drain pipes, driveways and vegetation, shall be restored by the permittee to a condition at least equal to that which existed before the start of work authorized by the permit, if the restoration is consistent with the "Roadway Construction Standards". Additional restoration may also be required, upon written notification, to restore the structural integrity of the pavement or shoulder.

(2) If the permittee opens pavement having a bituminous concrete surface and the Department's wearing course is less than 5 years old, the permittee shall, in addition to the restoration conditions outlined in the permit and in this section, overlay the pavement in accordance with the following conditions:

(l) When a longitudinal opening longer than 100 linear feet has been made in the pavement, the permittee shall overlay the traffic lanes in which the opening was made, for the entire length of highway that was opened, in a manner authorized by the Department.

(ii) When two or more transverse openings have been made within 100 linear feet of pavement, the permittee shall overlay traffic lanes in which the openings were made, for the entire length of highway between the openings, in a manner authorized by the Department.

(iii) When 4 or more emergency openings have been made by the same permittee within 100 linear feet of pavement, the permittee shall overlay traffic lanes in which the openings were made, for the entire length of highway between the openings, in a manner authorized by the Department.

(iv) If disturbed lanes adjacent to undisturbed lanes are overlaid, the edge of the disturbed lane shall be saw out or milled to a depth of 1-1/2 inch or the depth of the existing surface course, whichever is less, for the length of the opening to insure a smooth joint, with proper elevation and cross section. A full width overlay may be authorized on various highways instead of saw cutting or milling the disturbed lane.

(v) If disturbed lanes adjacent to shoulders are overlaid, the shoulder shall be raised, with material and in a manner authorized by the Department for the type of existing shoulder, so that the overlaid pavement and shoulder edges are at the same elevation.

(3) Regardless of the age of the wearing course:

(i) If more than 100 linear feet of longitudinal or transverse openings, or both, are made in the pavement, the Department may require the permittee to overlay traffic lanes in which the openings were made, for the entire length of highway that was opened, if the district office determines that the rideability or structural integrity of the pavement has been impaired by the openings.

(ii) If four or more openings are made by the same permittee within 100 linear feet of pavement, the district office may require the permittee to restore the entire disturbed pavement between the openings by milling, planing or other authorized method and overlaying the entire disturbed pavement.

(4) Aggregate used in a bituminous overlay wearing course shall comply with skid resistance level (SRL) criteria specified in Design Manual, Part 2, Chapter 11.

(5) If an opening is made in a bituminous concrete pavement within 3 feet from the edge of pavement or other longitudinal joint or opening, the surface restoration shall be extended to the edge of pavement or other longitudinal joint or opening.

(6) At each end of an overlay, the permittee shall install a paving notch, under Roadway Construction Standard RC-28, by milling, planing or other authorized method and provide a minimum 10-foot transition.

(7) The transition areas at each end of an overlay shall follow the contour of the surrounding surface.

(8) When pavement markings on more than 100 linear feet of highway are covered or destroyed by the permitted work, including overlays, they shall be replaced with temporary pavement markings, under § 203.72 (relating to temporary pavement markings) before opening the disturbed pavement to traffic. When the pavement surface is restored, pavement markings that were covered or destroyed shall be replaced in their former location.

(o) *Sealing.* Restored openings in the pavement or paved shoulder shall be sealed under section 401.3(j)(3) of Publication 408 in the case of bituminous concrete or section 501.3(n) of Publication 408 in the case of cement concrete.

Authority

The provisions of this § 459.8 amended under sections 411, 420 and 702 of the State Highway Law (36 P. S. § § 670-411, 670-420 and 670-702).

Source

The provisions of this § 459.8 adopted July 13, 1979, effective August 13, 1979, 9 Pa.B. 2338; amended August 7, 1981, effective August 8, 1981, 11 Pa.B. 2779; amended January 20, 1989, effective March 22, 1989, 19 Pa.B. 241. Immediately preceding text appears at serial pages (91848) and (63777) to (63782).

Cross References

This section cited in 67 Pa. Code § 459.1 (relating to definitions); 67 Pa. Code § 459.6 (relating to emergency work); and 67 Pa. Code § 459.7 (relating to general conditions).

HYDRIC SOILS

The following list shows soils which have been determined by the United States Soil Conservation Service to be indicators of the presence of wetlands. This list is only a guide. An area which is covered by one of these soil types is very likely to be a wetland according to the definition of the United States Army Corps of Engineers, although not definitely. Conversely, the absence of all of these soil types does not guarantee that a given area is not deemed a wetland; occurrence of hydric soils is only one of three criteria used to determine the existence of a wetland. Analysis of the Corps is the only legally valid determination of the presence of wetlands.

Hydric soils commonly found in West Vincent Township have been marked with an asterisk (*).

* Jb	Bowmansville silt loam
CaA	Calvert silt loam, 0 - 3% slope
CaB	Calvert silt loam, 3% - 8% slope
CaB2	Calvert silt loam, 3% - 8% slope, moderate erosion
CrA	Croton silt loam, 0% - 3% slope
* CrB	Croton silt loam, 3% - 8% slope
Gc	Guthrie silt loam
Mn	Melvin silt loam
ObA	Othello silt loam, 0 - 3% slope
Tm	Tidal marsh
WaA	Watchung silt loam, 0 - 3% slope
WaB2	Watchung silt loam, 3% - 8% slope, moderate erosion
WcB	Watchung very stony silt loam, 0 - 8% slope
* We	Wahadkae silt loam
* WoA	Worsham silt loam, 0 - 3% slope
* WoB	Worsham silt loam, 3% - 8% slope
* WoB2	Worsham silt loam, 3% - 8% slope, moderate erosion
* WoC2	Worsham silt loam, 8% - 15% slope, moderate erosion
* WaB	Worsham very stony silt loam, 0 - 8% slope