Marshall Township Allegheny County, PA

DRAFT

Marshall Township SUBDIVISION and Land Development Ordinance

Chapter 174 of the Code of the Township of Marshall

ENACTED:

EFFECTIVE:

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ARTICLE 100 GENERAL PROVISIONS

Section 174.100 Short Title

This Chapter shall be known and may be cited as the "Marshall Township Subdivision and Land Development Ordinance".

ENACTED: [SPECIFY DATE OF ENACTMENT]

EFFECTIVE: [SPECIFY EFFECTIVE DATE OF ORDINANCE]

Section 174.101 Repealer

- A. Any TOWNSHIP ordinance or part thereof inconsistent herewith is hereby repealed to the extent of such inconsistency.
- B. Upon adoption of this Chapter, Ordinance No. 383A, adopted by the BOARD on January 3, 2008, and as subsequently amended, is hereby repealed.
- C. Nothing in this Chapter hereby adopted shall be construed to affect any suit or legal proceeding now pending in any court, or any rights accrued, or liability incurred, or any cause of action accrued or existing under any ordinance hereby repealed; nor shall any right or remedy of any character be lost, impaired or affected.

Section 174.103 Jurisdiction

- A. This Chapter shall apply to all properties and uses located within the corporate limits of the TOWNSHIP.
- B. TOWNSHIP Exemption. All uses, STRUCTURES, BUILDINGS, land, and activities owned and/or operated by the TOWNSHIP are exempt from the regulations contained within this Chapter.

Section 174.104 Purpose and Scope

A. Purpose.

- This Chapter has been designed and adopted to provide uniform standards and procedures for the regulation of SUBDIVISION and LAND DEVELOPMENT within the TOWNSHIP. The provisions of this Chapter shall be administered to ensure harmonious DEVELOPMENT in the TOWNSHIP.
- 2. It shall further be the intent of this Chapter to:
 - (a) Assure the greater health, safety, convenience and welfare to the citizens of the TOWNSHIP;
 - (b) Assuring sites are suitable for BUILDING purposes and human habitation;
 - (c) Coordinating proposed streets and other proposed IMPROVEMENTS;

- (d) Assuring that adequate EASEMENTS and rights-of-way are provided for DRAINAGE facilities, utilities, streets, and other IMPROVEMENTS;
- (e) Assuring equitable and uniform handling of SUBDIVISION and LAND DEVELOPMENT PLAT applications;
- (f) Assuring coordination of intra, and inter-municipal public IMPROVEMENT plans and programs;
- (g) Assuring the efficient and orderly extension of community facilities and services at minimum cost and maximum convenience;
- (h) Regulating the SUBDIVISION and LAND DEVELOPMENT of land within any FLOOD HAZARD AREA or FLOODPLAIN (FP) OVERLAY DISTRICT in order to promote the health, safety and welfare of the citizens of the TOWNSHIP;
- (i) Requiring that each LOT in the FLOODPLAIN (FP) OVERLAY DISTRICT includes a safe BUILDING site with adequate access, and that public facilities which serve such uses be designed and installed to minimize FLOOD damage;
- (j) Assuring that reservations, if any, by the DEVELOPER of any area designated for use as PUBLIC GROUNDS shall be suitable in size and location for their designated uses;
- (k) Guiding the future growth and DEVELOPMENT of the TOWNSHIP in accordance with the TOWNSHIP COMPREHENSIVE PLAN;
- (I) Assuring that documents prepared as part of a land ownership transfer fully and accurately describe the parcel of land being subdivided and the new parcel(s) thus created;
- (m) Assuring the orderly and efficient integration of SUBDIVISIONS into the DEVELOPMENT of the TOWNSHIP;
- (n) Assuring the safe and efficient movement of traffic;
- (o) Assuring the conservation, protection and wise use of the natural resources and features, including but not limited to water, WOODLANDS, SLOPES, vegetation, soils, WETLANDS, natural DRAINAGE SYSTEMS and geology; and
- (p) Assuring the protection of water resources and DRAINAGE ways.
- B. Scope. This Chapter contains regulations which include, but are not limited to the following:
 - Provisions for the submittal and processing of PLATS, including the charging of review fees, and specifications for such PLATS, including certification as to the accuracy of PLATS and provisions for preliminary and final approval and for processing of final approval by stages or sections of DEVELOPMENT.

- 2. Design standards and guidelines for the overall layout, configuration, and placement of LOTS, streets, open space, parks, public facilities, and other physical IMPROVEMENTS on property to promote orderly DEVELOPMENT within the TOWNSHIP.
- Engineering and technical standards, including appropriate financial guarantees, governing the manner by which various IMPROVEMENTS including streets, BRIDGES, COMMON FACILITIES, water supply and sewage facilities infrastructure, STORMWATER MANAGEMENT FACILITIES, walkways, lighting, PARKING LOTS, and other IMPROVEMENTS are properly constructed.

Section 174.105 Enabling Law and Authorities

A. Enabling Law. This Chapter is enacted pursuant to the authority conferred upon the TOWNSHIP by the Pennsylvania General Assembly in the Pennsylvania Municipalities Planning Code, Act 247 of July 31, 1968, 53 P.S. §10101 et seq., as amended, hereinafter referred to as "MPC."

B. Authorities

- 1. The BOARD shall have the authority to approve or disapprove all preliminary and final SUBDIVISION or LAND DEVELOPMENT PLAN applications as required herein.
- The PLANNING COMMISSION is hereby designated as the agency which shall review and make recommendations on all SUBDIVISION and LAND DEVELOPMENT PLAN applications as required herein, prior to action on the same by the BOARD.

Section 174.106 Review of Plans by County

- A. Applications for SUBDIVISION and LAND DEVELOPMENT located within the TOWNSHIP that have been determined complete shall be forwarded to the COUNTY PLANNING AGENCY for its review.
- B. The BOARD shall not approve such applications until the COUNTY PLANNING AGENCY'S recommendation is received or until the expiration of forty-five (45) days from the date the application was forwarded to the COUNTY PLANNING AGENCY.

Section 174.107 Application of Regulations

- A. No SUBDIVISION or LAND DEVELOPMENT of any LOT, tract or parcel of land located in the TOWNSHIP shall be effected, and no STREET, 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 thereon, unless and until a final SUBDIVISION PLAT has been approved by the BOARD and publicly recorded and a DEVELOPER'S AGREEMENT executed in the manner prescribed herein, nor otherwise, except in strict accordance with the provisions of this Chapter.
- B. No LOT in a SUBDIVISION may be sold, no permit to erect or alter any BUILDING upon land in a SUBDIVISION or LAND DEVELOPMENT may be issued and no BUILDING may be erected or altered in a SUBDIVISION or LAND DEVELOPMENT unless and until a final SUBDIVISION PLAT has been approved by the BOARD and recorded, and until CONSTRUCTION of the IMPROVEMENTS required in the manner prescribed herein.

- C. UNIT or CONDOMINIUM of real property is included within the meaning of LAND DEVELOPMENT as defined in this chapter and must comply with these regulations. Such compliance shall include but not be limited to the filing of preliminary and FINAL PLANS, payment of established fees and charges, location of each STRUCTURE and clear definition of each UNIT, EASEMENTS, common areas, IMPROVEMENTS and all EASEMENTS appurtenant to each UNIT.
- D. Preliminary and final PLANS shall indicate the location of existing STRUCTURE(s), clearly define each UNIT and shall indicate all EASEMENTS, COMMON OPEN SPACES, ENVIRONMENTALLY SENSITIVE AREAS, and IMPROVEMENTS.
- E. All SUBDIVISION and LAND DEVELOPMENT PLANS are subject to the requirements of this Chapter and all other provisions of the TOWNSHIP Code of Ordinances (hereinafter referred to as the "Township Code"), including but not limited to Chapter 208 of the Township Code, Zoning.

Section 174.108 Administration

- A. The BOARD shall have the duty and authority for the administration and enforcement of the provisions of this Chapter, as specified or implied herein.
- B. As directed by the BOARD, officials of the TOWNSHIP having regulatory duties and authorities connected with or appurtenant to a SUBDIVISION, or LAND DEVELOPMENT shall have the duty and authority for the controlling enforcement of the provisions of this Chapter, as specified or implied herein or in other ordinances of the TOWNSHIP.
- C. Permits required by the TOWNSHIP for the erection or alteration of BUILDINGS, the installation of sewers or SEWAGE DISPOSAL SYSTEMS or for other appurtenant IMPROVEMENTS to or use of the land shall not be issued by any TOWNSHIP official responsible for such issuance until it has been ascertained that the SITE for such BUILDING, alteration, improvement or use is contained in a SUBDIVISION or LAND DEVELOPMENT PLAN approved and publicly recorded in accordance with the provisions of this Chapter and other applicable provisions of the Township Code.
- D. The approval of a SUBDIVISION or LAND DEVELOPMENT PLAN or of any improvement installed, or the granting of a permit for the erection or use of a BUILDING or land therein, shall not constitute a representation, guaranty or warranty of any kind or nature by the TOWNSHIP or any official, employee or appointee thereof of the safety of any land, improvement, property or use from any cause whatsoever, and shall create no liability upon or a cause of action against the TOWNSHIP or such official, employee or appointee for any damage that may result pursuant thereto.

Section 174.109 Interpretation

- A. In interpreting and applying the provisions of this Chapter, they shall be held to be minimum requirements for the promotion of public health, safety, comfort, convenience, and greater welfare.
- B. In any case where a provision of this Chapter is found to be in conflict with any provision of the Township Code or any statute, ordinance or regulation of the COUNTY, the Commonwealth or the

- United States of America, the provision which establishes the higher standard for the promotion and protection of the health and safety of the people shall prevail.
- C. In the event the MPC is amended to establish mandatory provisions which would be inconsistent herewith, those mandatory provisions shall be deemed to be incorporated herein by reference thereto without further amendment of this Chapter.

Section 174.110 Modifications of Requirements

- A. General Provisions. If a mandatory requirement of this Chapter is shown by the APPLICANT, to the satisfaction of the BOARD, to be unreasonable, to cause undue hardship, and that an alternate standard can provide better or equal results, the BOARD may grant a modification to that requirement. A modification may be granted provided it will not be contrary to the public interest and provided the purpose and intent of this Chapter is maintained.
- B. Application Submission. All requests for a modification of requirements of this Chapter shall be submitted, in writing, by the APPLICANT at the time the application for PRELIMINARY PLAN or FINAL PLAN is filed with the TOWNSHIP. The application shall state in full the grounds and facts of reasonableness or hardship upon which the request is based, the particular provision(s) of this Chapter involved, and the minimum modification necessary.
- C. Proof of Hardship. It is not sufficient proof of hardship to show that greater profit would result if the modification were granted. Furthermore, a hardship cannot be one personal to the APPLICANT; it must be from the application of this Chapter; it must be suffered directly by the property in questions; and evidence or a modification granted under similar circumstances shall not be considered.
- D. Advisory Request. The BOARD shall request an advisory opinion from the PLANNING DIRECTOR and the TOWNSHIP ENGINEER on the modification request.
- E. Conditions. In granting a modification, the BOARD may impose such conditions as will, in its judgment, secure substantially the objectives of the standards or requirements so modified.
- F. Reference in Plan Decision. If a modification is granted, it shall be referenced in the conditions of approval of the PLAN, and shall only apply to that PLAN.
- G. Recording of Decision. The BOARD shall record its action and the grounds for granting or denying any modification in its minutes. The BOARD shall notify the APPLICANT, in writing, of its decision within fifteen (15) business days of the date of the BOARD's decision.
- H. An APPLICANT for modification shall be required to pay a fee as specified in the fee resolution of the TOWNSHIP.

Section 174.111 Amendments

The BOARD may from time to time amend, add to, change or repeal all or portions of this Chapter. Such amendments to this Chapter shall be enacted in accordance with applicable provisions of the MPC. Applicability of any such amendment to a pending or approved PLAN shall be governed by the MPC.

Section 174.112 Enforcement Remedies and Preventive Remedies

- A. Any PERSON, partnership or corporation, who or which has violated the provisions of this Chapter, upon being found liable therefore in a civil enforcement proceeding commenced by the TOWNSHIP, shall be subject to the enforcement remedies of the MPC. In addition, the TOWNSHIP may utilize the preventative remedies authorized by the MPC.
- B. The description by metes and bounds in the instrument of transfer or other documents used in the process of selling or transferring shall not exempt the seller or transferor from such penalties or from the remedies herein provided. The TOWNSHIP may enjoin such transfer or sale by action for injunction brought in any court having jurisdiction of the subject matter and the parties.
- C. As an additional condition for issuance of a permit of the granting of an approval to any OWNER of record, 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 174.113 Fees

A. General.

- The BOARD shall establish by resolution a schedule setting forth the fees to be paid and escrows
 to be deposited by the APPLICANT at the time of filing a PRELIMINARY or FINAL PLAN. Said
 schedule shall be available in the TOWNSHIP office and in such other places as the TOWNSHIP
 may designate.
- 2. At the time of filing, all PLANS shall be accompanied by a certified check or other form of payment acceptable by the TOWNSHIP, payable to "Marshall Township," in the amounts specified in the schedule to defray the cost of the necessary professional consultant(s) required to review the applicable information of the proposed PLANS and required data and their adherence to the requirements of this Chapter and other applicable TOWNSHIP ordinances and requirements. No PLAN shall be considered by the BOARD or PLANNING COMMISSION unless all fees are paid, and escrows deposited in full.
- 3. If determined by the TOWNSHIP that the fees are not sufficient to cover the costs of the professional consultant services, the APPLICANT shall replenish the review fee escrow in the amount specified in the aforementioned fee schedule.

B. Fee Dispute.

Any dispute by the APPLICANT as to any fees invoiced in connection with the administration of this Chapter shall be resolved in accordance procedures set forth in the MPC.

C. Professional Consultant Fees.

- 1. The TOWNSHIP's professional consultant fees shall be reasonable and in accordance with the ordinary and customary charges for similar service in the TOWNSHIP, but in no event shall the fees exceed the rate or cost charged for comparable services to the TOWNSHIP for services which are not reimbursed or otherwise imposed on the APPLICANT. However, such fees shall be sufficient to cover the costs of the following services:
 - (a) Reviewing the PLAN's engineering details;
 - (b) Inspecting the SITE layout for conformance with the PLAN;
 - (c) Preparing or reviewing cost estimates of required IMPROVEMENTS (as applicable);
 - (d) Inspecting required IMPROVEMENTS during installation;
 - (e) Final inspection on completion of installation of required IMPROVEMENTS;
 - (f) Other engineering verifications and/or administrative work required by this Chapter;
 - (g) Engineering and legal review of the PLAN's compliance with this Chapter, the Township Code and other applicable COUNTY, Commonwealth and United States ordinances, statutes and regulations.
 - (h) Preparing or reviewing any agreements related to the PLAN; and
 - (i) Other professional consultant services required by this Chapter.

D. Other Applicable Fees.

- Fees for all other permits required for and by the TOWNSHIP, including but not limited to, opening STREETS, connecting to municipal sewers, BUILDING CONSTRUCTION, MANUFACTURED HOME PARKS, shall also be paid to the TOWNSHIP. At the time of filing, all PLANS shall be accompanied by a check payable to the applicable MUNICIPAL SEWER AUTHORITY in an amount established by the authority to defray the cost of reviewing the design and CONSTRUCTION specifications of the proposed sanitary sewers and appurtenances.
- 2. The APPLICANT at the time of application shall agree to pay any cost associated with the advertising of any ordinance which may be required to be adopted as a result of approval of the PLAN, or the cost of recording any resolution, agreement or other document associated with the acceptance of any deed of dedication of any IMPROVEMENTS required by the approved PLAN.

Section 174.114 Severability

Should a court of competent jurisdiction declare any section, subsection, or provision of this Chapter invalid or unconstitutional, this decision shall not affect the validity or constitutionality of this Chapter as a whole, or any part thereof, other than the part so declared to be invalid or unconstitutional.

ARTICLE 200 PLAN SPECIFICATIONS AND PROCESSING PROCEDURES

Section 174.201 General Requirements

Whenever a SUBDIVISION of land or LAND DEVELOPMENT is desired to be affected in the TOWNSHIP, a PLAN of the layout of such SUBDIVISION or LAND DEVELOPMENT shall be prepared, filed, and processed according to the requirements of this chapter as follows.

Section 174.202 Classification of Applications

Applications for SUBDIVISION or LAND DEVELOPMENT shall be classified based upon the following criteria and definitions and shall be processed according to the provisions contained within this section.

- A. Preliminary and Final Approval. The APPLICANT shall be required to submit a PRELIMINARY PLAN application for all projects categorized as a MAJOR SUBDIVISION unless the APPLICANT elects to combine the preliminary and final approval procedures for one approval process by meeting submission requirements for both based upon the review of this submission, the PLANNING COMMISSION may recommend final approval, provided that the application meets all the prescribed requirements of this section for granting of such approval.
- B. Fast Track Approval Process. Certain SUBDIVISION and LAND DEVELOPMENT applications, see Sections 174-202.E.3, are eligible for a fast-track approval process.
 - 1. Said applications shall bypass the PLANNING COMMISSION and go directly to the BOARD for approval.
 - (a) The following SUBDIVISIONS are eligible for fast-track approval:
 - (i) A LOT (LOTS) consolidation (reverse SUBDIVISION).
 - (ii) A SUBDIVISION involving a LOT LINE change between two existing LOTS that will result in only two LOTS, where all LOTS lie within the same ZONING DISTRICT, where the resulting LOTS conform to ZONING ORDINANCE requirements in terms of minimum LOT size and setbacks, and where the size of no LOT increases or decreases by more than the minimum LOT size of the respective ZONING DISTRICT in which it is situated.
 - (iii) A subdivision illustrating as-built utility easements or changes to any utility, sanitary sewer, STORM SEWER easement that does not result in any changes to open space, road placement, or LOT configuration/sizes.
 - (iv) The final SUBDIVISION of DWELLING UNIT LOTS, whether Condominium or townhouse CONSTRUCTION, the finalization of which relies on as-built surveys and results in no material change. Each newly formed LOT must conform to the bulk and area requirements of the ZONING DISTRICT in which it is situated.
 - (b) The following LAND DEVELOPMENTS are eligible for fast-track approval:
 - (i) An addition that is 1,000 square feet or less than or equal to 10% of the principal STRUCTURE shown on the most recent SITE plan approved by the BOARD, whichever is less.

- (ii) Expansion of a PARKING LOT that is 10% or less than the parking approved through the last LAND DEVELOPMENT approved by the BOARD, where no change is proposed in terms of SITE access and circulation.
- (iii) Revisions to the landscaping or SITE plan approved by the BOARD.
- No application is eligible for fast-track approval if it is involved in a conditional use, does not
 meet the requirements of the ZONING ORDINANCE or requires a variance from the TOWNSHIP
 Zoning Hearing Board.
- 3. When filing the application, the APPLICANT must specify that the APPLICANT is filing for a fast-track approval.
- 4. The PLANNING DIRECTOR shall have exclusive discretion to decide whether an application is eligible for fast-track approval. If the application is not eligible for fast-track approval, it will be forwarded to the PLANNING COMMISSION for consideration in accordance with the otherwise applicable requirements of this chapter.
- 5. Application and Filing Requirements. All application and filing requirements of in this chapter are applicable.

Section 174.204 Preapplication Conference

- A. The purpose of the preapplication conference is to:
 - 1. Foster informal plan review between the APPLICANT and the TOWNSHIP;
 - 2. Reduce SUBDIVISION SITE plan design and DEVELOPMENT costs for the APPLICANT; and
 - 3. Expedite the TOWNSHIP's review and approval process.
- B. A preapplication conference shall be held with TOWNSHIP staff and/or the TOWNSHIP ENGINEER.
- C. The APPLICANT shall have prepared a concept plan which shall include the following:
 - 1. Name and address of the legal OWNER, the equitable OWNER, and/or the APPLICANT;
 - 2. Name and address for the PERSON responsible for preparing the plan;
 - 3. North arrow;
 - 4. Approximate tract boundaries, provided in sufficient detail to locate the subject tract(s) on a map of the TOWNSHIP;
 - 5. Location map;
 - 6. Applicable ZONING DISTRICT(S);
 - 7. Streets on and adjacent to the tract;
 - 8. Approximately 100-year FLOODPLAIN limits;
 - 9. Existing resources and SITE conditions. Topographic, physical, and cultural features including soil types, wooded areas, ditches, drains, dumps, storage tanks, ponds, STREAMS within two hundred (200) feet of the tract, and existing rights-of-way and EASEMENTS; cultural features such as all STRUCTURES, foundations, walls, wells, trails, and abandoned Streets; and
 - 10. Proposed methods of water supply, sewage disposal, and stormwater management.

- D. The APPLICANT may be charged reasonable fees as specified under Section 174.114 of the Chapter.
- E. Due to the informal nature of the preapplication conference, the APPLICANT or the TOWNSHIP shall not be bound by any discussions at the preapplication conference.

Section 174.205 Preliminary Plan Procedure

- A. The APPLICANT shall submit to the TOWNSHIP PLANNINF DIRECTOR or their designee the appropriate filing fees and correct number of physical copies of the plan and one (1) electronic (PDF) copy of the proposed SUBDIVISION or LAND DEVELOPMENT and other required data and maps. The PRELIMINARY PLAN shall be submitted not less than twenty-one (21) calendar days prior to the regular meeting of the PLANNING COMMISSION at which consideration is desired. The APPLICANT shall submit concurrently, with the PRELIMINARY PLAN, one (2) physical and one (1) electronic copy of the Sewage Plan Revision Module for LAND DEVELOPMENT, and other required reports, if applicable.
- B. Action on Preliminary Plan.
 - Upon filing of the PRELIMINARY PLAN with the TOWNSHIP, the TOWNSHIP PLANNING DIRECTOR shall determine it for completeness. Once the application has been determined complete and satisfies the requirements under Section 174.206, the PLANNING DIRECTOR, within seven (7) business days, shall forward a copy with the appropriate review fee to the COUNTY PLANNING AGENCY and to the TOWNSHIP ENGINEER and may, as appropriate, forward copies to affected PUBLIC UTILITIES, school district, COUNTY Conservation District, fire departments, emergency response agencies and other governmental agencies for review and report to the TOWNSHIP.
 - 2. The BOARD, upon the recommendation of the PLANNING COMMISSION, shall act on any such PRELIMINARY PLAN and communicate its decision to the APPLICANT not later than ninety (90) days following the date of the regular meeting of the PLANNING COMMISSION (whichever first reviews the application) following the date the application is filed. Should the next regular meeting of the PLANNING COMMISSION occur more than thirty (30) days following the filing of the application with the BOARD OF SUPERVISORS, said ninety-day period shall be measured from the thirtieth (30th) day following the day the application has been filed with the Township.
 - 3. In the event that any modification of requirements from this Chapter is requested by the APPLICANT or is deemed necessary for approval in accordance with Section 174.110 of this Chapter, the modification request, the provision(s) involved, the hardship upon which the requirement is based and the minimum modification necessary shall be entered in the records of the PLANNING COMMISSION and/or BOARD.
 - 4. Before taking final action on any submitted PRELIMINARY PLAN, the TOWNSHIP PLANNING DIRECTOR or their designee shall submit copies of the PRELIMINARY PLAN and accompanying data to the TOWNSHIP ENGINEER, who shall advise the BOARD and the PLANNING COMMISSION as to the suitability of all engineering details and specifications as per this chapter.

- C. The BOARD shall approve, approve with conditions, or disapprove the PLAN application. The decision of the BOARD shall be in writing and shall be communicated to the APPLICANT personally or mailed to him as his last known address not later than fifteen (15) calendar days following the decision. If the plan is approved with conditions, the APPLICANT shall respond to the BOARD indicating acceptance or rejection of such conditions. Such response shall be in writing, signed by the APPLICANT, and shall be received by the TOWNSHIP PLANNING DIRECTOR or their designee within twenty (20) calendar days of receipt by the APPLICANT of the BOARD'S decision to approve the plan with conditions. Approval of the plan shall be rescinded automatically upon the APPLICANT's failure to accept or reject such conditions in the manner and within the timeframe noted above.
- D. Before acting on any SUBDIVISION plan, the BOARD may hold a PUBLIC HEARING thereon after proper PUBLIC NOTICE.
- E. When the application is not approved in terms as filed, the decision shall specify the defects found in the application and shall, in each case, cite the applicable provisions of this chapter.
- F. All conditional use issues shall be identified, hearing applied for and hearing held before the BOARD concurrently with review of the PRELIMINARY PLAN by the PLANNING COMMISSION.
- G. Approval of the PRELIMINARY PLAN constitutes approval of the proposed SUBDIVISION or LAND DEVELOPMENT with respect to the general design, the approximate dimensions and other planned features. Preliminary approval binds the DEVELOPER to the general scheme of the plan as approved and any conditions thereof. Preliminary approval does not authorize the recording, sale or transfer of LOTS.

Section 174.206 Preliminary Plan Specifications

- A. The PRELIMINARY PLAN shall be submitted and processed as required by Section 174.205, PRELIMINARY PLAN Procedure, and contain the following data and plan specifications:
 - Physical copies of the plan and one (1) electronic (PDF) copy shall be prepared by a PROFESSIONAL LAND SURVEYOR or PROFESSIONAL ENGINEER on sheets twenty-four (24) inches by thirty-six (36) inches and eleven (11) inches by seventeen (17) inches. clearly labeled "PRELIMINARY PLAN." The number of copies shall be as determined by the TOWNSHIP PLANNING DIRECTOR.
 - 2. The PRELIMINARY PLAN shall be submitted containing the following information:
 - (a) A separate drawing titled "Existing Conditions," depicting the outline of the property from which the LOT or LOTS are being subdivided at a minimum scale of one (1) inch equals four hundred (400) feet.
 - (b) A location map, taken from the Township Zoning Map, on the plan having a minimum scale one (1) inch equals one thousand two hundred (1,200) feet titled "Location Map," showing

- property location, Streets and other pertinent information, in sufficient detail to adequately identify the property location.
- (c) If applicable, a separate drawing having a minimum scale of one (1) inch equals fifty (50) feet horizontal and one (1) inch equals five (5) feet vertical titled "DRIVEWAY Profile," depicting the DRIVEWAY profile, DRAINAGE conditions and entry to the STREET.
- (d) The SUBDIVISION and/or LAND DEVELOPMENT PLAN. A separate drawing of the proposed LOT(s) having a minimum scale one (1) inch equals fifty (50) feet, with LOT AREA, LOT number, proposed LOT dimensions, proposed LOT lines, existing STREET right-of- way, dedicated RIGHT-OF-WAY, proposed STREET name and number and front yard SETBACK LINES.
- (e) The SUBDIVISION PLAN or Land DEVELOPMENT PLAN shall show the following information if phasing of the DEVELOPMENT and IMPROVEMENTS is proposed:
 - (i) Reference outlining and/or indicating all LOTS in each phase.
 - (ii) Each phase, except the last phase, must contain a minimum of twenty-five (25) percent of the total number of LOTS or DWELLING UNITS.
 - (iii) A schedule indicating the intended deadlines for filing a FINAL PLAN for each phase. The schedule shall be updated annually by the APPLICANT or before the anniversary date of the PRELIMINARY PLAN approval, until final approval of the final phase is granted. Schedule modifications shall be subject to the approval of the BOARD OF SUPERVISORS.
- (f) Location of any proposed SITE IMPROVEMENTS such as CURBS, SIDEWALKS, STREET trees, fire hydrants and, when the proposed DEVELOPMENT includes other than individual residences, the type of LAND USE and the location of STRUCTURES and parking facilities. This shall also identify the location of and proposed connections to PUBLIC SIDEWALKS, trails, parks, bikeways, and RIGHTS-OF-WAYS.
- (g) The DEVELOPMENT or property name.
- (h) The ZONING DISTRICT(s) in which the SITE is located.
- (i) The proposed LAND USE and purpose for which SITES, other than residential LOTS or parcels within UNIT, COOPERATIVE or CONDOMINIUM SUBDIVISIONS are dedicated or reserved.
- (j) Date of plan preparation.
- (k) The adjacent LANDOWNERS' names, addresses and parcel numbers.
- (I) Reference to recorded SUBDIVISION plans of adjoining platted land by record name, date, and number.
- (m) Tax parcel number.

- (n) North arrow and scale for all drawings or maps.
- (o) Name, address, telephone number, and e-mail address of the OWNER or APPLICANT.
- (p) Name, address, telephone number, e-mail address and seal of the PROFESSIONAL ENGINEER certifying engineering aspects and the PROFESSIONAL LAND SURVEYOR certifying the accuracy of the plan survey (as defined herein).
- (q) Certification of ownership and dedicatory statement signed by the OWNER.
- (r) Notary public and recording statement.
- (s) Approval blocks to be signed by the PLANNING COMMISSION and the BOARD.
- (t) Location of existing buildings, streets, SEPTIC SYSTEM(S), stormwater facilities, CULVERTS, fire hydrants, sanitary sewers, well(s) and other significant man-made features located on or adjacent to the proposed LOTS.
- (u) Existing natural features such as alluvial soils, FLOODPLAIN (100-year FLOOD elevations), rock outcrops, steep SLOPES delineated for 15% 25% and over 25%, and wooded areas, WATERCOURSES, WETLANDS delineated in accordance with Section 174.309 of this chapter, and other natural features.
- (v) Location and description of survey monuments shown on the plan.
- (w) The primary control point.
- (x) Proposed protective covenants running with the land, if any.
- (y) Existing public or PRIVATE EASEMENTS, such as but not limited to utility, stormwater, EROSION control, access, conservation, and the location of any PUBLIC UTILITIES.
- (z) An indication of the general location of proposed water mains, sanitary sewers and stormwater catch basins and lines. The preliminary size of each line should be shown as well as the locations of or distances to any existing line to be connected to, with the size of such existing lines indicated.
- (aa) The source of the proposed water supply should be identified; location of proposed wells.
- (bb) Approved percolation and probe sites when on-SITE facilities are planned.
- (cc) Existing contours and proposed grading plan in compliance with Chapter 88 of the Township Code, Grading and Excavating, drawn at vertical intervals of two (2) feet, except in areas where the SLOPE is greater than fifteen (15) percent, in which case the contour interval shall be five (5) feet.
- (dd) Existing and proposed DRIVEWAY locations in accordance with Section 174.307 of this chapter.

- (ee)Modifications of requirements shall be submitted, in writing, at time of submission indicating the applicable section(s) of this chapter, the subject of modifications requested, and reasons for the undue hardship.
- (ff) Such other data as may be required by the PLANNING COMMISSION, BOARD, TOWNSHIP PLANNING DIRECTOR, and TOWNSHIP ENGINEER in the enforcement of this Chapter.
- 3. The PRELIMINARY PLAN shall also be accompanied by the following ancillary data, as applicable, and may be approved as a condition upon the APPLICANT's written acceptance of the condition(s):
 - (a) Preliminary STORMWATER MANAGEMENT PLAN as specified in Chapter 165 of the Township Code, Stormwater Management (except for MINOR SUBDIVISIONS).
 - (b) Preliminary EROSION and SEDIMENTATION Plan as specified in Chapter 165 of the Township Code, Stormwater Management (except for MINOR SUBDIVISIONS).
 - (c) Applicable state highway occupancy permits.
 - (i) Where the proposed SUBDIVISION or LAND DEVELOPMENT ABUTS a state highway (Pennsylvania Route or United States Route), the application shall begin preparation of a highway occupancy permit to be submitted to the Pennsylvania Department of Transportation ("PennDOT") for review.
 - (ii) The TOWNSHIP ENGINEER shall certify, in writing, that the SIGHT DISTANCE standards specified under Section 174.304 of this Chapter have been met.
 - (d) TOWNSHIP ROADWAY Occupancy Permits. Where the proposed SUBDIVISION or LAND DEVELOPMENT ABUTS a TOWNSHIP STREET, the APPLICANT should verify that property SIGHT DISTANCE is available for each proposed LOT in accordance with Section 174.304 of this chapter.
 - (e) When any portion of the tract proposed for SUBDIVISION or LAND DEVELOPMENT is located within an identified FLOODPLAIN (FP) OVERLAY DISTRICT or FLOODPLAIN area, the information required in Section 174.303 of this Chapter shall be provided as part of the PRELIMINARY PLAN and shall be prepared by a PROFESSIONAL LAND SURVEYOR or PROFESSIONAL ENGINEER.
 - (f) General plans for DRAINAGE and stormwater management which may include but not be limited to the collection, detention or retention of RUNOFF of surface water and its outfall, together with design analyses and other supporting data for the TOWNSHIP ENGINEER's review. (See Article 4 of this chapter).
 - (g) Water service. If water is to be provided by means than by the individual owners of LOTS within the SUBDIVISION, the DEVELOPER shall present evidence that the SUBDIVISION is to be supplied by a certificated PUBLIC UTILITY, a bona fide COOPERATIVE ASSOCIATION of LOT owners or by a municipal corporation, authority or utility.

- (h) A preliminary WETLANDS analysis in accordance with Section 174.309 of this Chapter.
- (i) Total acreage, number of LOTS, minimum LOT AREAS, density, use of land, and setback lines in tabular form. The APPLICANT shall be required to delineate the various phased sections (if applicable) and sequence of FINAL PLAN submissions.
- (j) Parcels of land intended to be dedicated or reserved for schools, parks, playgrounds, PARKING AREAS, COMMON OPEN SPACE or other public, semipublic or community purposes.
- (k) A traffic impact study, if required, in accordance with Section 174.209 of this Chapter.
- (I) If PUBLIC SEWERS are proposed, a certification letter from the applicable MUNICIPAL SEWER AUTHORITY indicating that there is sufficient capacity available for the SUBDIVISION or LAND DEVELOPMENT.
- (m) All SUBDIVISION proposals and LAND DEVELOPMENT proposals in FLOOD must comply with all provisions of Chapter 83, Floodplain Management Ordinance.

Section 174.207 Final Plan Procedure

- A. The APPLICANT shall, not later than one (1) year after the date of approval of the PRELIMINARY PLAN for that portion intended to be developed, file with the TOWNSHIP PLANNING DIRECTOR or designee a FINAL PLAN. Such filing shall include, as part of the formal submission, all the material and other ancillary data required under the FINAL PLAN specifications as listed in Section 174.208 of this Chapter. Failure to comply with the time limitation herein provided shall render the approval of the PRELIMINARY PLAN null and void.
- B. The FINAL PLAN shall incorporate all the changes and modifications required by the BOARD; otherwise it shall conform to the approved PRELIMINARY PLAN, and it may constitute only that portion of the approved PRELIMINARY PLAN which the APPLICANT proposes to record and develop at the time, provided that such portion conforms with all of the requirements of this Chapter and the phasing requirements of the MPC.
- C. All required COMMON OPEN SPACE to be dedicated by the SUBDIVISON must be included within the first phase of the plan.
- D. The APPLICANT shall submit to the TOWNSHIP PLANNING DIRECTOR the appropriate filing fees and the required number of physical copies of the FINAL PLAN and one (1) electronic (PDF) copy shall be prepared by a PROFESSIONAL LAND SURVEYOR or PROFESSIONAL ENGINEER on sheets at a minimum size of seventeen (17) inches by eleven (11) inches and no larger than twenty-two (24) inches by thirty-four (34) inches clearly labeled "FINAL PLAN."
- E. The FINAL PLAN shall be submitted to the TOWNSHIP PLANNING DIRECTOR not less than twentyone (21) calendar days prior to the regular meeting of the PLANNING COMMISSION at which consideration is desired. The APPLICANT shall submit concurrently, with the FINAL PLAN, and one (1)

physical and one (1) electronic copy of the Sewage Plan Revision Module for LAND DEVELOPMENT, and other required reports, as applicable. Upon receipt of the completed plan, the TOWNSHIP Planning Director shall forward a copy of the plan to the COUNTY PLANNING AGENCY and shall likewise forward a digital copy to the TOWNSHIP ENGINEER and may, as appropriate, forward a digital copy to affected PUBLIC UTILITIES and MUNICIPAL SEWER AUTHORITITIES, school districts, fire departments, emergency response agencies and other public agencies for review and report to the TOWNSHIP.

- F. Completion of IMPROVEMENTS or guaranty thereof prerequisite to FINAL PLAN approval shall be in accordance with Article 2 of this Chapter.
- G. Before acting on any SUBDIVISION PLAN the BOARD may hold a PUBLIC HEARING thereon after PUBLIC NOTICE.
- H. The BOARD, upon the recommendation of the PLANNING COMMISSION, shall act on any such FINAL PLAN and communicate its decision to the APPLICANT not later than ninety (90) days following the date of the regular meeting of the PLANNING COMMISSION (whichever first reviews the application) following the date the application is filed. Should the next regular meeting of the PLANNING COMMISSION occur more than thirty (30) days following the filing of the application with the BOARD OF SUPERVISORS, said ninety-day period shall be measured from the thirtieth (30th) day following the day the application has been filed with the Township.
- I. The BOARD OF SUPERVISORS shall determine whether the FINAL PLAN shall be approved, approved with conditions acceptable to the APPLICANT or disapproved. The decision of the BOARD shall be in writing and shall be communicated to the APPLICANT personally or mailed to such APPLICANT at their last known address not later than fifteen (15) calendar days following the decision. If the plan is approved with conditions, the APPLICANT shall respond to the BOARD indicating acceptance or rejection of such conditions. Such response shall be in writing, signed by the APPLICANT, and be received by the TOWNSHIP Planning Director or designee within twenty (20) calendar days of receipt by the APPLICANT of the BOARDS' decision to approve the plan with conditions. Approval of the plan shall be rescinded automatically upon the APPLICANT's failure to accept or reject such conditions in the manner and within the time frame noted above.
- J. No changes, erasures, modifications or revisions shall be made on any FINAL PLAN after approval has been given by the BOARD and endorsed in writing on the PLAN, unless the PLAN is first resubmitted to the BOARD,
- K. Substantial revisions to an approved SUBDIVISION or LAND DEVELOPMENT plan shall require resubmission of the plan to the PLANNING COMMISSION and BOARD for review. Any increase in number of LOTS, decrease in LOT sizes of more than 10%, relocation of STREETS, decrease in open space, and other basic design features constitute substantial revisions. Other substantial revisions shall be determined by the BOARD with recommendation of the PLANNING COMMISSION.
- L. Recordation of Approved Plan; Digital Submission Requirements. Within ninety (90) calendar days after the date of approval of a FINAL PLAN by the BOARD and upon all conditions being met, the APPLICANT shall record the approved FINAL PLAN in the COUNTY Department of Real Estate and return a digital submission and one (1) paper copy of the plan to the TOWNSHIP for its records, with the instrument number and date recorded indicated on the plan.

- 1. Digital Submission Requirements. All plans and AS-BUILT DRAWINGS submitted digitally shall meet the following standards:
 - (a) All data submitted shall comply with the Manual of Practice for PROFESSIONAL LAND SURVEYORS in the Commonwealth.
 - (b) All digital files submitted shall be based on accurate geometric calculations.
 - (c) Digital submissions shall have all layers clearly and separately represented. Included with all digital submissions, a metadata file shall be included outlining the following:
 - (i) A list of all layers, with a description of what those layers represent; and
 - (ii) A list of all point files and break lines, with a description of any abbreviations.
- 2. All plans must be in Pennsylvania State Plane Coordinate System South Zone, utilizing the North American Datum of 1983 (NAD83) and the North American Vertical Datum of 1988 (NAVD88). Units shall be in U.S. survey feet.

All plans must be submitted electronically in Adobe PDF format and one the following drawing file formats, AutoCAD drawing (.dwg), AutoCAD interchange (.dxf), ArcView Shapefile (.shp), or ESRI GeoDatabase format or other agreeable format acceptable to the TOWNSHIP.

3. Whenever PLAN approval by the BOARD, the COUNTY Department of Real Estate shall not accept any PLAN for recording unless such PLAN officially notes the approval of the BOARD and review by the COUNTY PLANNING AGENCY.

Section 174.208 Final Plan Specifications

- A. The FINAL PLAN shall be submitted and processed as required by Section 174.207, FINAL PLAN Procedure, of this Chapter and contain the following data and plan specifications:
- B. The FINAL PLAN shall be submitted containing the following information:
 - 1. A separate drawing titled "The Original Property Description," depicting the outline of the property from which the LOT or LOTS are being subdivided at a minimum scale of one (1) inch equals four hundred (400) feet.
 - 2. A location map, taken from the zoning map, on the plan having a minimum scale of one (1) inch equals 1,200 feet titled as follows:
 - "Location Map," showing property location, streets and other pertinent information, in sufficient detail to adequately identify the property location."
 - 3. If applicable, a separate drawing having a minimum scale of one (1) inch equals fifty (50) feet horizontal and one (1) inch equals five (5) feet vertical titled "DRIVEWAY Profile," depicting the DRIVEWAY profile, DRAINAGE conditions and entry to the STREET.

- The SUBDIVISION PLAN and/or Land DEVELOPMENT PLAN. A separate drawing of the proposed LOT(s) having a minimum scale one (1) inch equals one hundred (100) feet, with LOT AREA, LOT number, LOT dimensions, bearings and distances of LOT lines, existing STREET RIGHT-OF-WAY, dedicated RIGHT-OF-WAY, STREET name and number and BUILDING SETBACK LINES.
- 5. The SUBDIVISION PLAN or LAND DEVELOPMENT PLAN name.
- 6. The ZONING DISTRICT(S) in which the SITE is located.
- 7. The proposed LAND USE and purpose for which SITES, other than residential LOTS or parcels, within UNIT, COOPERATIVE or CONDOMINIUM SUBDIVISIONS are dedicated or reserved.
- 8. Date of PLAN preparation.
- 9. Adjacent LANDOWNWERs' names, addresses and parcel numbers.
- 10. Reference to recorded SUBDIVISION plans of adjoining platted land by record name, date and Deed Book Volume number.
- 11. Tax parcel number.
- 12. North arrow and scale for all drawings or maps.
- 13. Name, address, telephone number and e-mail address for OWNER or APPLICANT.
- 14. Name, address, telephone number, e-mail address and seal of the PROFESSIONAL ENGINEER certifying engineering aspects and the PROFESSIONAL LAND SURVEYOR certifying the accuracy of the plan survey (as defined herein
- 15. Certification of ownership and dedicatory statement signed by the OWNER.
- 16. Notary public and recording statement.
- 17. Approval blocks to be signed by the COMMISSION and the BOARD.
- 18. Location of existing buildings, streets, SEPTIC SYSTEM(S), stormwater facilities, CULVERTS, fire hydrants, sanitary sewers, well(s) and other significant man-made features located on or adjacent to the proposed LOTS.
- 19. Existing natural features such as alluvial soils, FLOODPLAIN (one-hundred-year FLOOD elevations), rock outcrops, steep SLOPES, and wooded areas, WATERCOURSES, WETLANDS delineated in accordance with Section 174.309 of this Chapter, and other natural features.
- 20. Location and description of survey monuments shown on the plan.
- 21. The primary control point.

- 22. Existing and proposed protective covenants running with the land, if any.
- 23. Existing public or PRIVATE EASEMENTS, such as but not limited to utility, stormwater, EROSION control, access and conservation, and the location of any PUBLIC UTILITIES.
- 24. The source of the proposed water supply should be identified; location of proposed wells.
- 25. COUNTY Health Department approved percolation test sites when on-LOT sewage disposal facilities are planned.
- 26. Existing contours at vertical intervals of two (2) feet.

Existing and proposed DRIVEWAY locations depicting SIGHT DISTANCE and sight triangle.

- 27. Streetlighting facilities, as applicable.
- 28. Requests for modifications of requirements shall be submitted in writing indicating the applicable section(s) of this chapter, the subject of the modifications requested, and reasons for undue hardship.
- 29. Place the following as a conspicuous stand-alone note on the cover sheet:

"The DEVELOPER or contractor shall schedule a pre-CONSTRUCTION conference with the TOWNSHIP ENGINEER to be held at least four (4) days prior to the start of any SITE CONSTRUCTION, earth disturbance, clearing or grubbing, at which conference the DEVELOPER and TOWNSHIP shall coordinate the inspection schedule with the CONSTRUCTION schedule."

- 30. Such other data as may be required by the COMMISSION, BOARD, TOWNSHIP PLANNING DIRECTOR, and TOWNSHIP ENGINEER in in the enforcement of this Chapter.
- 31. Legal descriptions and RIGHT-OF-WAY dedication exhibits (8.5" x 11") for STREETS are to be prepared and submitted prior to final approval. The RIGHT-OF-WAY exhibits shall show the pavement and provide the total road pavement length and square yardage of proposed pavement.
- C. The FINAL PLAN shall also be accompanied by the following ancillary data, as applicable, and may be approved as a condition upon the APPLICANT'S written acceptance of the condition(s):
 - 1. A final EROSION and SEDIMENTATION control plan as required by the Pennsylvania Clean Streams Law, and Pennsylvania Department of Environmental Protection ("PADEP") Erosion and Sediment Pollution Control Program Manual (March 2012): (Title 25, Part I, Subpart C, Article II, Chapter 102 - Erosion Control).
 - 2. Final profiles, cross sections and specifications (See Sections 174-311 and 174-312 and Chapter 165, Stormwater Management, of the Township Code).
 - 3. State Highway Occupancy Permits. Where the proposed SUBDIVISION or LAND DEVELOPMENT ABUTS a state highway (Pennsylvania Route or United States Route), the following two notes shall be added to the plan:

- a. Note 1: "A highway occupancy permit is required pursuant to Section 420 of the Act of June 1, 1945 (P.L. 1242, No. 428)."
- b. Note 2: "No BUILDING permit will be issued for any LOT or parcel which will require access to a state highway until authorized by a Pennsylvania Department of Transportation highway occupancy permit."
- 4. TOWNSHIP STREET Occupancy Permits. Where the proposed SUBDIVISION or LAND DEVELOPMENT ABUTS a TOWNSHIP STREET, each LOT must be approved by the TOWNSHIP ENGINEER that proper SIGHT DISTANCE and other safety requirements contained in this chapter have been met. A note shall be added to the plan as follows:

"No BUILDING permit will be issued until the TOWNSHIP ENGINEER has verified the SIGHT DISTANCE."

- 5. When any portion of the tract proposed for SUBDIVISION or LAND DEVELOPMENT is located within an identified FLOODPLAIN (FP) OVERLAY DISTRICT or FLOODPLAIN area, the information required in Section 174.303 of this chapter shall be provided as part of the FINAL PLAN and shall be prepared by a PROFESSIONAL ENGINEER or PROFESSIONAL LAND SURVEYOR.
- 6. A TOWNSHIP ENGINEER-approved final STORMWATER MANAGEMENT PLAN prepared pursuant to Chapter 165, Stormwater Management, of the Township Code, including appropriate permit transfer, or permit terminations and access EASEMENTS prior to TOWNSHIP acceptance.
- 7. If water is to be provided by means other than PRIVATE wells owned and maintained by the individual owners of LOTS within the SUBDIVISION or DEVELOPMENT, APPLICANTS shall present evidence to the BOARD that the SUBDIVISION is to be supplied by a certified PUBLIC UTILITY, a bona fide COOPERATIVE ASSOCIATION of LOT owners or by a municipal corporation, authority, or utility. A copy of a certificate of public convenience from the Pennsylvania Public Utility Commission or an application for such certificate, a COOPERATIVE agreement or a commitment or agreement to service the area in question, whichever is appropriate, shall be acceptable.
- 8. A final WETLANDS study in accordance with Section 174.309 of this Chapter.
- 9. Parcels of land intended to be dedicated or reserved for schools, parks, playgrounds, PARKING AREAS, COMMON OPEN SPACE or other public, semipublic or community purposes.
- 10. A final traffic impact study in accordance with Article 2 of this Chapter.
- 11. A plan for parking and traffic control within all newly proposed public and PRIVATE STREETS. The plan shall include traffic control signage location and identification of all areas designated for parking.
- 12. An entranceway plan for lighting and amenities for entrances into subdivisions. Proposed lighting at entrances, the design and location for all community or bluster mailboxes, and drop-off/waiting areas for bus stops shall be included in the entranceway plan.

- 13. If public SEWERS are proposed, a certification letter from the applicable MUNICIPAL SEWER AUTHORITY indicating that there is sufficient capacity available for the SUBDIVISION or LAND DEVELOPMENT. If applicable, the professional services and review escrow agreement shall be submitted with the application.
- 14. Profiles of streets, trails and ALLEYS showing grades.
- 15. Typical cross sections of each type of STREET, SIDEWALK or TRAIL showing the width of RIGHT-OF-WAY, width of CARTWAY, location and width of SIDEWALKS, if required.
- 16. Plans and profiles of proposed sanitary and stormwater sewers, with grades and pipe size indicated, and a plan of any proposed water distribution system showing pipe sizes and location of valves and fire hydrants.
- 17. Certificates of agreement to provide service from applicable utility companies.
- 18. All required permits and documentation from the PADEP, any other permitting federal or state authority and local MUNIPALITY where any alteration or relocation of a STREAM or WATERCOURSE is proposed.
- 19. Such other certificates, affidavits, endorsements or dedications as may be required by the BOARD or COMMISSION in the enforcement of this chapter.
- 20. All SUBDIVISION proposals and DEVELOPMENT proposals in FLOOD hazard areas shall meet the requirements of Chapter 83, of the Township Code, Floodplain Management. Submittal requirements and processing fees shall be the responsibility of the APPLICANT

Section 174.209 Transportation Impact Study or Transportation Impact Assessment

- A. A TRANSPORTATION IMPACT STUDY ("TIS") or TRANSPORTATION IMPACT ASSESSMENT ("TIA") shall be conducted under the supervision of a PERSON who possesses a current PROFESSIONAL ENGINEER'S (P.E.) license issued by the Pennsylvania Department of State. All costs of traffic studies shall be borne by the APPLICANT.
 - 1. A TIS shall be required for:
 - (a) All commercial and residential SUBDIVISIONS or LAND DEVELOPMENTS, including new STRUCTURES at additions to STRUCTURES, generating 3,000 or more average daily TRIPS, or 100 or more vehicle TRIPS entering the DEVELOPMENT or 100 or more vehicle trips exiting the DEVELOPMENT during any one-hour time period any day of the week.
 - (b) Any change or modification in commercial LAND USE and conditional uses in residential ZONING DISTRICTS resulting in 100 or more vehicle TRIPS entering the DEVELOPMENT or 100 or more vehicle TRIPS exiting the DEVELOPMENT during any one-hour time period any day of the week.
 - 2. If the warrants in (1) or (2) for a TIS are not met, the TOWNSHIP may still require a TIA. The purpose of a TIA is to assess the impact of the SUBDIVISION or land DEVELOPMENT on specific intersection(s) and SITE DRIVEWAY(s) for the year after completion of the project.

- 3. A TIS or TIA will be required if, in the opinion of the TOWNSHIP Engineer, the DEVELOPMENT, change, modification or conditional use is expected to have a significant impact on highway safety or traffic flow.
- B. The procedure for the preparation and content of a TIS or TIA shall adhere to the following:
 - 1. For SITES with access to State highways, a TIS scoping meeting application shall be completed in accordance with PENNDOT requirements.
 - 2. For SITES with access to TOWNSHIP STREETS or COUNTY STREETS only, the APPLICANT shall submit projected TRIP generation data and a SKETCH PLAN. The TOWNSHIP Traffic Consultant, with input from TOWNSHIP staff, shall determine the scope of the TIS or TIA and respond to the APPLICANT or APPLICANT's consultant. The APPLICANT is encouraged to discuss potential traffic impacts in the pre-application conference discussed in Section 174-204.
 - 3. Collect data in accordance with the TIS scoping meeting or TOWNSHIP traffic consultant's scope, which will define the study area, if using data from previous studies, data cannot be greater than three years old.
 - 4. Use appropriate traffic engineering software. This may include the Highway Capacity Software, Synchro and Sim Traffic. Project background growth for the study area in accordance with the traffic growth rate obtained from the Southwestern Pennsylvania Commission. In addition to background growth, planned and permitted DEVELOPMENTS in the area that will impact the transportation study area should be evaluated.
 - 5. Reference the most current Institute of Transportation Engineers ("ITE") Trip generation manual for use in calculating the SITE TRIP generation. When the SITE is not compatible with an ITE LAND USE code, or insufficient data exists in the ITE manual, local data may be needed. TRIP generation needs to also account for pass-by, diverted link, internally captured and redevelopment TRIP credits.
 - 6. PENNDOT policy for "standard assumptions" of modal split can be adopted.
 - 7. A gravity model is the preferred method of arrival and departure distribution. The APPLICANT must provide a description of how SITE TRIPS were assigned to the study ROADWAYS and intersections including diagrams.
 - 8. The capacity analysis shall incorporate PennDOT's level of service ("LOS") and ten second variance criteria.
 - 9. LOS has been established as the minimum acceptable LOS for intersections to be signalized and for new intersections established to serve as SITE access.
 - 10. Incorporate PENNDOT TIS format guidelines. TIS to be submitted to PennDOT and/or COUNTY only when PennDOT and/or COUNTY roads are impacted.
- C. If LOS criteria are not met due to impractical or infeasible mitigation, APPLICANT should refer to the strategies specified in PennDOT's Policies and Procedures for Transportation Impact Studies for Condition 1: Marginal LOS Degradation and Condition 2: Significant LOS Degradation.
- D. As part of the Chapter 101, Impact Fee, of the Township Code, a Transportation Capital IMPROVEMENTS Plan (including amendments) has been adopted. Future transportation capital IMPROVEMENTS included in this plan pertinent to the TIS shall be identified.

Section 174.210 Developer's Agreement

- A. Approval of the APPLICANT'S FINAL SUBDIVISION or LAND DEVELOPMENT PLAN shall be conditioned upon the APPLICANT'S execution of the TOWNSHIP'S standard DEVELOPER'S AGREEMENT, as the same may be approved from time to time by the BOARD, in a form acceptable to the TOWNSHIP Solicitor. In connection therewith, the DEVELOPER shall either complete or post-performance security for all IMPROVEMENTS required by this Chapter, and post maintenance security for any IMPROVEMENTS to be dedicated to the TOWNSHIP or other public entity. Said security shall in a form authorized by and in an amount required by Article V of the MPC.
- B. The conditions of the DEVELOPER'S AGREEMENT shall run with the land and bind all successors, heirs, and assignees of the DEVELOPER.

Section 174.211 Requirements for Performance and Maintenance Security

- A. Prior to the commencement of any grading or other work, the APPLICANT shall post-performance security in a form and amount required by the MPC and this Chapter to guarantee completion of all IMPROVEMENTS required by this Chapter and the approved PLAN. No performance security shall be required for IMPROVEMENTS, security for which has been posted by the APPLICANT with PennDOT, and the applicable PUBLIC UTILITY, MUNICIPAL SEWER AUTHORITY or MUNCIPAL WATER AUTHORITY.
- B. Prior to the TOWNSHIP'S acceptance of any PUBLIC IMPROVEMENTS, the APPLICANT shall post maintenance security in a form and amount required by the MPC and this Chapter to guarantee maintenance of the same. Prior to the TOWNSHIP'S acceptance of any PUBLIC IMPROVEMENTS, the APPLICANT shall also comply with the requirements of Section 174.213 of this Chapter.
- C. The following requirements shall apply to any surety bond posted as security in accordance with this Chapter:
 - 1. The bond shall be obtained from surety incorporated in the United States and authorized to do business in Commonwealth of Pennsylvania.
 - 2. The surety shall have a current A.M. Best's rating of no less than "A" and an underwriting capacity as stated in Best's equal to or greater than the amount of bond written by that surety, or in the alternative be listed on the current United States Department of the Treasury's Annual list of "Companies Holding Certificates of Authority as Acceptable Sureties on Federal Bonds and as Acceptable Reinsuring Companies" as published in the Federal Register and have an underwriting capacity in said list equal to or greater than the amount of the bond written by that surety.
 - 3. The bond shall be substantially in the form attached as Exhibit ____.

- D. The following requirements shall apply to any letter of credit posted as security in accordance with this Chapter:
 - 1. The letter of credit shall be issued by a Federal or Commonwealth chartered lending institution having an office located within 30 miles of the boundaries of the TOWNSHIP at which a draft on site can be presented during regular business hours.
 - The letter of credit shall have an expiration date of no earlier than 90 days after the required completion date of any IMPROVEMENTS in the case of performance security and no earlier than 18 months from the date of acceptance of any IMPROVEMENTS to be dedicated to the TOWNSHIP or other public entity in the case of maintenance security. The TOWNSHIP, at its discretion, may accept a letter of credit having an earlier expiration date, provided the letter of credit states it will automatically be renewed for a period of at least one year from any present or future expiration date unless the TOWNSHIP receives notice in writing from the issuer at least 60 days prior to the expiration date that the issuer elects to not further extend the letter of credit and that if such notice is given the TOWNSHIP may draw on the letter of credit up to the amount of its unused balance on or before the relevant expiration date.
 - 3. Multiple draws on the letter of credit shall be permitted.
 - 4. Draws shall be permitted at sight at the issuer's office in a location as set forth in subparagraph (i), and by overnight mail.
 - 5. The letter of credit shall be substantially in the form attached as Exhibit ____.

E. All financial security tendered by an APPLICANT pursuant to this Chapter shall be subject to review and approval by the TOWNSHIP'S Solicitor with respect to the form, source and sufficiency of the same.

Section 174.212 Inspection of IMPROVEMENTS.

- A. The DEVELOPER or contractor shall schedule a pre-CONSTRUCTION conference with the TOWNSHIP ENGINEER to be held at least four (4) days prior to the start of any SITE CONSTRUCTION, earth disturbance, clearing or grubbing, at which conference the DEVELOPER and TOWNSHIP shall coordinate the inspection schedule with the CONSTRUCTION schedule.
- B. The provisions stated herein shall be construed as mandating periodic inspections, and the undertaking of periodic inspections shall not be construed as an acceptance of the work during CONSTRUCTION or as a final inspection of the CONSTRUCTION.
- C. The DEVELOPER shall reimburse the TOWNSHIP for the reasonable and necessary expenses incurred for the inspection of IMPROVEMENTS. Such reimbursement shall be based upon time and material costs for the referenced inspections.

- D. The TOWNSHIP, at the expense of the DEVELOPER, reserves the right to require tests of the improvement to determine whether the improvement complies in all respects with the requirements of the TOWNSHIP.
- E. The TOWNSHIP will invoice the DEVELOPER for costs incurred by the TOWNSHIP for the inspection of IMPROVEMENTS. IMPROVEMENTS shall not be finally approved until the invoice is paid.
- F. A final inspection report by the TOWNSHIP ENGINEER shall be presented to the BOARD indicating that the IMPROVEMENTS have been installed as proposed on the approved FINAL PLAN.

Section 174.213 Conditions for acceptance of PUBLIC IMPROVEMENTS.

- A. Prior to the acceptance of any PUBLIC IMPROVEMENTS, the following shall be submitted to the TOWNSHIP:
 - A written report certified by the TOWNSHIP ENGINEER that all required PUBLIC IMPROVEMENTS
 are completed according to the approved PLAN and all requirements of the DEVELOPER'S
 AGREEMENT for acceptance of the same have been met.
 - 2. Maintenance security in the amount of 15% of the actual cost of the installation of the PUBLIC IMPROVEMENTS for a period of 18 months from the date of acceptance, in a form and source required by this Chapter.
 - 3. Additional performance guarantee for any remaining SIDEWALKS.
- B. It is the policy of the TOWNSHIP that it will withhold all services including snowplowing and the maintenance of STREETS from all SUBDIVISIONS which have not been approved and from all areas in an approved SUBDIVISION dedication for which has not been accepted by the BOARD in the manner prescribed herein.

Section 174.214 Record Plans.

- A. Submission. Upon completion of all required IMPROVEMENTS and prior to final inspection of IMPROVEMENTS, the APPLICANT shall submit a plan labeled "RECORD PLAN," showing the location, dimension and elevation of all IMPROVEMENTS. In addition, the plan shall indicate that the IMPROVEMENTS are in substantial conformance with the previously approved drawings and specifications. The plan shall note all deviations from the previously approved drawings. Three (3) copies of the plan (two paper prints and one digital submission) shall be submitted to the TOWNSHIP, which shall distribute the paper print to the TOWNSHIP ENGINEER and retain one (1) paper print and the digital submission for the TOWNSHIP files. RECORD PLANS including AS-BUILT DRAWINGS shall be recorded at the Allegheny COUNTY Department of Real Estate.
- B. Digital Submission Requirements. All plans, including RECORD PLAN and AS-BUILT DRAWINGS and AS-BUILT DRAWINGS submitted digitally shall meet the following standards:

- C. All data submitted shall be in compliance with the Manual of Practice for PROFESSIONAL LAND SURVEYORS in the Commonwealth.
- D. All digital files submitted shall be based on accurate geometric calculations.
- E. Digital submissions shall have all layers clearly and separately represented. Included with all digital submissions, a metadata file shall be included outlining the following:
 - 1. A list of all layers, with a description of what those layers represent; and
 - 2. A list of all point files and break lines, with a description of any abbreviations.
- F. All plans must be in Pennsylvania State Plane Coordinate System South Zone, utilizing the North American Datum of 1983 (NAD83) and the North American Vertical Datum of 1988 (NAVD88). Units shall be in U.S. survey feet.
- G. All plans must be submitted in Acrobat PDF format, AutoCAD drawing (.dwg), AutoCAD interchange (.dxf), ArcView Shapefile (.shp), or ESRI GeoDatabase format on CD-ROM or other agreeable format acceptable to the TOWNSHIP.

ARTICLE 300 DESIGN STANDARDS

Section 174.301 General Provisions

- A. Minimum Standards. The standards and requirements contained in this article shall apply as minimum design standards for SUBDIVISIONS and/or LAND DEVELOPMENTS in the TOWNSHIP.
- B. Zoning Compliance Required. Whenever the ZONING ORDINANCE provides that the use proposed by the APPLICANT for SUBDIVISION or LAND DEVELOPMENT approval shall constitute a use by conditional use or when a variance from the terms of the ZONING ORDINANCE is required to develop in accordance with the PLAN, the APPLICANT shall obtain such conditional use approval from the BOARD or variance approval from the TOWNSHIP Zoning Hearing Board prior to the submission of the PRELIMINARY PLAN. The PLAN shall be designed and developed in accordance with any conditions which have been imposed upon the grant of such conditional use by the BOARD or variance by the TOWNSHIP Zoning Hearing Board.

Section 174.302 SITE Design Standards

- A. Purpose. The design standards and requirements outlined in this Article will be utilized by the PLANNING COMMISSION and the BOARD in determining the adequacy of all plans for proposed SUBDIVISIONS and LAND DEVELOPMENTS. To promote this purpose, the SUBDIVISION and/or LAND DEVELOPMENT shall reflect and consider the following standards which are designed to result in a well-planned community without adding unnecessarily to DEVELOPMENT costs.
- B. SITE Design Standards.
 - 1. The location and design of the SUBDIVISION and/or LAND DEVELOPMENT should conform to the TOWNSHIP COMPREHENSIVE PLAN with respect to design standards, STREETS, traffic circulation, public sites, proposed utilities and natural features.
 - 2. Land shall be subdivided or developed only in conformance with all other ordinances and regulations in effect in the TOWNSHIP.
 - 3. SUBDIVISION and/or LAND DEVELOPMENT design shall consider the natural features and FLOODPLAIN and RIPARIAN BUFFER as specified in Section 174.319. H.
 - 4. Hazardous conditions. Land with unsafe or hazardous conditions, such as open quarries, abandoned oil and gas wells, unconsolidated FILL, FLOODPLAINS or STEEP SLOPES, shall not be subdivided or developed unless the SUBDIVISION plan or LAND DEVELOPMENT PLAN provides for adequate safeguards which are approved by the BOARD.
 - 5. A LAND DEVELOPMENT must be coordinated with existing LAND DEVELOPMENT in the neighborhood so that the entire area may be developed harmoniously within the permitted uses of each ZONING DISTRICT.

- 6. All portions of a parcel being subdivided or developed shall be taken up in LOTS, STREETS, COMMON OPEN SPACE lands or other proposed uses so that remnants and landlocked areas are not created.
- 7. Provide documentation that the design standards of this Section have been reviewed and addressed.

Section 174.303 Floodplain Areas

- A. Purpose. The specific purposes of these provisions are:
 - To regulate the SUBDIVISION of land within any designated FLOODPLAIN in order to promote
 the general health, welfare and safety of the community. DEVELOPMENT within a FLOODPLAIN
 area is permitted only in accordance with the FLOODPLAIN (FP) OVERLAY DISTRICT regulations
 specified in the ZONING ORDINANCE and the standards and requirements of Chapter 83 of the
 Township Code, Floodplain Management.
 - To require that each SUBDIVISION LOT in FLOODPLAIN areas includes a safe BUILDING SITE with adequate access; and that public facilities which serve such uses be designed and installed to minimize FLOOD damage.
 - 3. To protect individuals from buying lands which are unsuitable for use because of flooding by prohibiting the improper SUBDIVISION and/or DEVELOPMENT of unprotected lands within the FLOODPLAIN (FP) OVERLAY DISTRICT.
- B. Municipal Liability. The grant of a permit or approval of a PLAN for any proposed SUBDIVISION and/or LAND DEVELOPMENT to be located within any identified FLOODPLAIN OVERLAY (FP) DISTRICT shall not constitute a representation, guaranty, or warranty of any kind by the TOWNSHIP or by any official or employee thereof of the practicability or safety of the proposed use, and shall create no liability upon the TOWNSHIP, its officials or employees.

C. General.

- 1. DEVELOPMENT within identified FLOODPLAIN OVERLAY (FP) DISTRICT shall be consistent with the requirements of the ZONING ORDINANCE and Chapter 83 of the Township Code, Floodplain Management.
- 2. All FLOODPLAINS and FLOODWAYS shall be identified in accordance with FLOODPLAIN (FP) OVERLAY DISTRICT regulations specified in the Marshall Township ZONING ORDINANCE.

Section 174.304 Street Systems

- A. General. All streets proposed to be constructed within the TOWNSHIP shall conform to the following general design requirements:
 - 1. Proposed streets shall be planned with regard to the existing STREET system, public convenience in terms of fire protection and pedestrian traffic, probable volumes of traffic, existing and

- proposed use of land on abutting properties and future DEVELOPMENT extensions of the STREET system.
- 2. The arrangement of streets shall provide for the continuation of existing or platted streets and for proper access to adjoining undeveloped parcels suitable for future DEVELOPMENT. RIGHT-OF-WAY access for future streets is required where PRACTICABLE.
- 3. STREETS shall be logically related to TOPOGRAPHY so as to produce reasonable grades, satisfactory DRAINAGE and suitable BUILDING SITES.
- 4. The finished elevation of proposed streets shall not be more than one foot below the REGULATORY FLOOD ELEVATION. The TOWNSHIP may require profiles and elevations of STREETS to determine compliance with this requirement.
- 5. The STREETS must be properly located and constructed with regard to the proposed traffic functions, including the minimization of through traffic on MINOR STREETS and the protection of MAJOR STREET capacities from excessive marginal access.
- 6. The arrangement, character, extent, width, grade and location of all STREETSs must conform to the COMPREHENSIVE PLAN as amended.
- B. STREET Layout. In general, all STREETS shall compose a convenient system to ensure circulation of vehicular and pedestrian traffic, with the exception that MINOR STREETS may be laid out so that their use by through traffic will be discouraged. STREETS to be dedicated to the TOWNSHIP shall meet PennDOT standards.
 - 1. Dead-end STREETS. Dead-end STREETS shall be permitted as follows:
 - (a) Temporary STREETS with a circular turnaround (fifty (50) feet RIGHT-OF-WAY and forty (40) feet pavement radius) in multi-phased DEVELOPMENT to permit future STREET extension into adjoining phases.
 - (b) Temporary turnarounds shall be installed in multi-phased DEVELOPMENTS at phase boundaries designed as circular turnarounds having a minimum radius to the outside edge of the paving or CURB of forty (40) feet and a RIGHT-OF-WAY having a minimum radius of fifty (50) feet. Temporary reservation of the excess RIGHT-OF-WAY from abutting LOT owners shall require an EASEMENT on these LOTS (denoted on the FINALSUBDIVISION PLAN) which shall automatically vacate when the turnaround is removed, and the STREET is connected to the next phase.
 - (c) If the phase boundary occurs at an intersection, a tee/hammerhead turnaround may be installed in lieu of a circular turnaround, with a minimum RIGHT-OF-WAY length of eighty (80) feet across the top of the "T", a minimum CARTWAY length of fifty (50) feet across the top of the "T", a minimum RIGHT-OF-WAY width of fifty (50) feet across the side of the "T", and a minimum CARTWAY width of twenty-two (22) feet across the side of the "T".
 - 2. When designed as PUBLIC STREETS or PRIVATE STREETS containing more than four LOTS with CUL-DE-SACS:
 - (a) PUBLIC STREETS must be at least three hundred (300) feet in length;

- (b) Any individual dead-end STREET shall serve no more than thirty (30) LOTS. A linkage of deadend STREETS that connect to an existing STREET shall serve no more than sixty (60) LOTS. A DEVELOPMENT exceeding sixty (60) LOTS will require two accesses from existing STREET(S).
- (c) The terminus of a CUL-DE-SAC shall be a circular turnaround having a minimum radius to the outside edge of the paving or CURB of forty (40) feet and a RIGHT-OF-WAY having a minimum radius of fifty (50) feet.
- When designed as PRIVATE STREETS containing no more than four LOTS;
 - (a) A tee/hammerhead with a minimum RIGHT-OF-WAY length of eighty (80) feet across the top of the "T", a minimum CARTWAY length of fifty (50) feet across the top of the "T", a minimum RIGHT-OF-WAY width of fifty (50) feet across the side of the "T", and a minimum CARTWAY width of eighteen (18) feet across the side of the "T", or
 - (b) A circular turnaround having a minimum radius to the outside edge of the CARTWAY of 35feet and a RIGHT-OF-WAY having a minimum radius of forty-five (45) feet.
- 4. Where adjoining areas are not subdivided, the arrangement of STREETS in a new SUBDIVISION shall make provision for the proper projection of STREETS. Where a new SUBDIVISION adjoins unsubdivided land susceptible of being subdivided and for the proper projection of STREETS, then the new STREETS shall be carried to the boundaries of the tract proposed to be subdivided.
- 5. STREETS shall be laid out to intersect as nearly as possible at right angles; in any event, no STREET shall intersect another at an angle of less than sixty (60°) degrees. Intersections of more than two STREETS shall be prohibited. STREETS entering opposite sides of another STREET shall be laid out directly opposite one another or be separated by the standard for spacing required by PennDOT

C. STREET classifications.

1. Table 1 reflect the functional Classification of all PUBLIC STREETS within the Township.

Table 1 Functional Classification of Streets

Road Number/Name	Classification
Pennsylvania Turnpike	Freeway
I-79	Freeway
Route 19 (Perry Highway)	Arterial – Principal
Pleasant Hill Road, Mingo Road, Warrendale-Bayne	
Road (Red Belt), Warrendale-Bakerstown Road (Red	Arterial – Minor
Belt), Wexford-Bayne Road (Route 910, Orange Belt)	
Wexford Run Road, Brush Creek Road, Knob Road,	Collector Major
Freeport Road, Thorn Hill Road, Commonwealth Drive	Collector – Major
S.R. 2026/Green Hill Road	Collector – Minor
All other Township streets are classified as Minor, Margin	nal Access, ALLEY or PRIVATE.

2. Arterial STREET.

(a) Arterial, Minor—STREETS that carry a high volume of traffic for intra-county and intercommunity travel. These STREETS normally serve the higher classification STREETS (Interstates and Principal Arterials).

(b) Arterial, Principal—STREETS that carry a high volume of traffic for intra-state, inter-county and inter-city travel. Traffic on this type of STREET normally has the RIGHT-OF-WAY except in areas of high hazard, where controls are used.

3. Collector STREET.

- (a) Collector, Major—STREETS that serve intra-county and inter-community travel, but at a lower volume than arterials. They usually connect to an arterial to provide access to the surrounding land. Access is generally not directed from this STREET but from a sub-STREET connected to the collector. They may serve community shopping centers, schools, parks and cluster DEVELOPMENTS.
- (b) Collector, Minor—STREETS that serve intra-community travel at a volume below the major Collector. Minor collectors provide access to the land using lower order STREETS and sometimes direct access from itself.
- 4. MINOR STREETS. MINOR STREETS shall be those identified below:
 - (a) Residential STREETS. Residential STREETS shall be those STREETS which are used to provide access to properties and connect with other residential STREETS and/or STREETS of a higher classification.
 - (b) MARGINAL ACCESS STREETS. MARGINAL ACCESS STREETS are STREETS parallel to an arterial STREET to provide access to abutting properties and separation from through traffic. They serve to reduce the number of access points which intersect the larger STREET, thereby increasing the efficiency and safety of traffic flow along the MAJOR STREET while providing access to abutting DEVELOPMENT.
 - (i) The BOARD reserves the right to require MARGINAL ACCESS STREETS along any STREET where local vehicular access to individual LOTS would create congestion and/or hazards to traffic flow and safety by reason of STREET GRADES, land forms, vegetation, frequency of DRIVEWAY intersection, limited SIGHT DISTANCES, heavy traffic volumes and/or high speed traffic flows.
 - (ii) Location of a MARGINAL ACCESS STREET shall be essentially parallel to the STREET along whose margin it is located.
- 5. PRIVATE STREETS. PRIVATE STREETS may be permitted by the BOARD, upon recommendation of the PLANNING COMMISSION. PRIVATE STREETS are generally intended to be used as permanent CUL-DE-SAC STREETS rather than as THROUGH STREETS connecting two PUBLIC STREETS. PRIVATE STREETS shall comply with the following:
 - (a) PRIVATE STREETS shall be constructed with a forty 940) foot RIGHT-OF-WAY and when in a dead-end STREET configuration shall have a ninety (90)-foot diameter CUL-DE-SAC RIGHT-OF-WAY. No more than four LOTS or DWELLING UNITS shall be permitted on any PRIVATE STREET or linkage of PRIVATE STREETS that connect to an existing STREET. When serving more than four LOTS or DWELLING UNITS, PRIVATE STREETS shall be subject to the same requirements as PUBLIC STREETS, with the exception of existing PRIVATE STREETS as of the effective date of this Chapter. No SUBDIVISION plan containing an existing PRIVATE STREET as of the effective date of this Chapter, is permitted to be resubdivided to exceed four LOTS unless the STREET meets the restrictions for PUBLIC STREETS. PRIVATE STREETS must be constructed with a minimum surface width of eighteen (18) feet and have a pavement section having a

minimum of eight (8) inches of 2A stone, (two and one-half) (2.5) inches asphalt binder and a one and one-half (1.5) inch asphalt wearing course.

- (i) The TOWNSHIP shall have no maintenance obligation for approved PRIVATE STREETS; maintenance of such PRIVATE STREETS shall be the full and sole responsibility and subject to the criteria below:
- (ii) An ASSOCIATION or other legally binding organization of LANDOWNERS with access rights on the PRIVATE STREET shall be formed and administered for the purpose of maintenance of the PRIVATE STREET. The ASSOCIATION shall remain in perpetuity to ensure proper maintenance of the PRIVATE STREET.
- (iii) All PROPERTY OWNERs in such an ASSOCIATION shall have an equal share in the rights and bear an equal share of the costs of maintaining the PRIVATE STREETS.
- (iv) Documents governing such ASSOCIATION shall be in a form approved by the TOWNSHIP Solicitor.
- (v) All properties depending on a PRIVATE STREET for access shall be guaranteed an irrevocable right to that access under the terms of a RIGHT-OF-WAY access EASEMENT agreement or other legal covenant. Such access right shall be clearly noted on the SUBDIVISION and/or LAND DEVELOPMENT PLANS that create a PRIVATE STREET, shall be included in deeds for all properties with access rights and shall be recorded at the COUNTY Department of Real Estate.
- (vi) Documents governing maintenance ASSOCIATIONS for PRIVATE STREETS shall be recorded with each deed for properties with access rights.
- (vii) Provision shall be made for PRIVATE STREETS for emergency vehicles only as approved and seen as necessary by TOWNSHIP officials.
- (b) STREET GRADES and horizontal and vertical curve design of PRIVATE STREETS shall be consistent this Section.

D. STREET WIDTHS.

- STREETS RIGHTS-OF-WAY shall be fifty (50) feet in width. The BOARD may require a lesser or greater width due to special conditions or TOPOGRAPHY or traffic circulation. The Developer may request EASEMENTS from abutting LANDOWNERS for grading purposes, although those LANDOWNERS are under no obligation to do so.
- 2. Intersecting RIGHT-OF-WAY shall be connected by a curve with a minimum radius of twenty-five (25) feet.
- 3. When a property to be subdivided borders on an existing STREET containing less than the required fifty (50)-foot RIGHT-OF-WAY, the TOWNSHIP may request that the DEVELOPER dedicate the portion of his or her property within twenty-five (25) feet of the centerline of the STREET (i.e., half of the remaining portion of the STREET needed to comply with the required RIGHT-OF-WAY width.)
- E. STREET names. Proposed STREETS which are in alignment with other already existing and named STREETS shall bear the names of the existing STREETS. In no case shall the name of a proposed STREET duplicate or be similar in sound and spelling to an existing STREET name in the TOWNSHIP and corresponding communities within the Northern Regional Police Department service area, or the postal districts of the TOWNSHIP, irrespective of the use of the suffix "STREET," "avenue,"

"boulevard," "drive," "place," "court," "lane," etc. All STREET names shall be subject to the approval of the BOARD.

F. STREET GRADES.

- 1. No local STREET shall have a grade in excess of twelve (12%) percent or less than one (1%) percent.
- 2. STREETS shall have a grade not to exceed four (4%) percent for a distance within forty (40) feet from the edge of pavement of any intersecting STREET.
- 3. Center line grade at a CUL-DE-SAC shall not exceed five (5%) percent.
- G. Horizontal and vertical curve design.
 - Vertical curves in profile design. For main thoroughfares, profile grades shall be connected by vertical curves of a minimum length equivalent to (twenty) 20 times the algebraic difference between the rates of grade, expressed in feet per hundred; and for secondary and MINOR STREETS fifteen (15) times.
 - 2. Horizontal curves. A minimum center-line radius of one hundred twenty-five (125) feet will be required for all horizontal curves on local STREETS.
 - 3. All center-line changes in direction shall be joined by a horizontal curve of appropriate radius.

Section 174.305 STREET Improvements

A. General. All PUBLIC STREETS shall be paved to a minimum of a twenty-two (22) foot CARTWAY and, in addition, shall have a twenty-four (24)-inch width of integral wedge CURB and gutter, constructed in accordance with TOWNSHIP standards and placed on both sides of the paved STREET.

B. Grading.

- The full width of the RIGHT-OF-WAY of each STREET in a proposed SUBDIVISION shall be graded and suitably prepared for the installation of paving, DRAINAGE STRUCTURES, CURBS, gutters and SIDEWALKS in accordance with the appropriate standards for the class of STREET.
- 2. The subgrade shall be free of sod, vegetation matter or other similar material. Where poor subsurface DRAINAGE conditions exist, adequate DRAINAGE shall be installed as recommended by the TOWNSHIP ENGINEER. The subgrade shall be rolled with a roller of not less than ten tons in weight. The subgrade shall not vary more than one inch from the approved grade.
- 3. Grading, filling and excavating shall be in accordance with the provisions of Chapter 88 of the Township Code, [New title of this Chapter], which is incorporated herein by reference.

C. STREET cross section design.

- 1. All components of the pavement STRUCTURE shall be designed and constructed in accordance with PennDOT Publication 408, latest edition.
- 2. Minimum requirements. The following shall be considered to be minimum standards for STREET CONSTRUCTION and be consistent with the TOWNSHIP CONSTRUCTION details (See Appendix) as prepared by the TOWNSHIP ENGINEER.
 - (a) An aggregate base course consisting of six inches of No. 4 Aggregate (limestone and three inches of No. 2A aggregate (limestone) shall be placed and compacted on the prepared subgrade for STREETS and ALLEYS.

- (b) Flexible pavement consisting of a four (4)-inch Superpave twenty-five (25-mm)-millimeter binder course (fine grade mix design) and one-half (1/2)-inch FJ-1 course shall be placed and compacted on the prepared aggregate base course.
- (c) When permitted by Subsection D below, final asphalt wearing courses shall be applied on the STREET. The wearing courses shall consist of a one and one-half (1 ½)-inch Superpave nine and one half (9.5-mm) millimeter course (fine grade mix design).
- 3. CURBS shall be provided on all PUBLIC STREETS and parking compounds located within NON-RESIDENTIAL, multifamily and apartment building DEVELOPMENTS. CURBS or other DRAINAGE controls shall be installed to properly control surface DRAINAGE and protect the STREETS from EROSION. CURBS shall be asphalt wedge type CURB and constructed with a two (2)-foot width.
- 4. Minimum requirements for collector and arterial STREETS shall meet the minimum standards for LOCAL STREET CONSTRUCTION with the exception as follows:
 - (a) Pavement lanes and widths shall be designed pursuant to a traffic impact study and as approved by the TOWNSHIP traffic ENGINEER.
 - (b) Plain cement concrete CURB gutter and pavement base drains, pursuant to PENNDOT standard drawings, shall be required on all roads within the Planned Industrial Park (PIP) and Residential, Research and Technology Park (RRTP) ZONING DISTRICTS.
 - (c) An aggregate base course consisting of eight inches of No. 4 aggregate (limestone or slag) and four (4) inches of No. 2A aggregate (limestone only) shall be placed and compacted on the prepared subgrade.
 - (d) Flexible pavement consisting of a six-inch Superpave twenty-five (25-mm) millimeter binder course shall be placed and compacted on the prepared aggregate base course.

D. Timing of CONSTRUCTION.

- 1. This section shall only apply to asphalt STREETS.
- 2. No asphalt paving shall occur between the dates of October 31st and April 1st, unless otherwise approved by the TOWNSHIP ENGINEER. Asphalt paving shall only be performed during weather conditions approved by the TOWNSHIP ENGINEER.
- 3. Crushed or base aggregate course for new STREETS must be paved with asphalt prior to October 31st, and therefore will not be permitted to remain uncovered during the winter months.
- 4. Asphalt STREETS in a SUBDIVISION shall be prepared in accordance with Subsection C(1), except that after the asphalt binder is applied, the STREET shall be covered with one-half (1/2) inch of FJ-1 asphalt.
- 5. After ninety (90%) percent of the homes are constructed in all phases planned, if CONSTRUCTION is in phases, or three-years' time has lapsed from the date of the performance guarantee, an asphalt wearing course as specified in Subsection C(2) shall be applied as specified in Subsection C(1). The term "constructed," as used above, shall mean when the TOWNSHIP Building Inspector has inspected and approves the foundation and framing. The TOWNSHIP may grant a one-month waiver and permit the application of the asphalt wearing course after thirty-five (35) months due to the pending expiration of the performance guarantee.

- 6. After the asphalt wearing course has been applied and the STREETS inspected by the TOWNSHIP, the STREET, if desired by the DEVELOPER and constructed in accordance with this Chapter and any other applicable ordinance, law, rule or regulation, may be accepted by the TOWNSHIP.
- E. Acceptance. STREETS not constructed or installed in accordance with this Chapter shall not be accepted by the TOWNSHIP.
- F. Combination CURB and gutter. Minimum CURB or pavement edge radii at STREET intersection shall be fifteen (15) feet for intersections of a MINOR STREET with another MINOR STREET or a MINOR STREET with a collector STREET or a MINOR STREET with an ALLEY; twenty-five (25) feet for other intersections or such greater radius as is suitable to the specific intersection.
- G. Walls, SLOPES and traffic guide rails. Where the grade of the STREET is three (3) feet or more above the grade of the adjacent land, guide rails shall be built to protect travel if recommended by the TOWNSHIP ENGINEER.
- H. Fire hydrants. Fire hydrants shall be installed in a manner to satisfy standards established by the Fire Marshal

Section 174.306 Sidewalks and TRAILS

A. SIDEWALKS.

- 1. SIDEWALKS shall be provided:
 - (a) On all existing and proposed STREETS and parking compounds located within or abutting multifamily and apartment building DEVELOPMENTS.
 - (b) On all existing and proposed STREETS within or abutting SUBDIVISIONS or LAND DEVELOPMENTS in which the average LOT size of all LOTS containing houses is one acre or less or as an extension of an existing network.
 - (c) In all NON-RESIDENTIAL LAND DEVELOPMENTS.
 - (d) On any change of use for a building, whether from a RESIDENTIAL USE to a NONRESIDENTIAL USE or from a NON-RESIDENTIAL USE to another NONRESIDENTIAL USE.
 - (e) SIDEWALKS shall be located in multifamily apartments, nonresidential and other areas so as to provide safe and efficient access between PARKING AREAS and residential buildings and between PARKING AREAS and nonresidential buildings.
- 2. Minimum requirements. The following shall be considered to be minimum standards for SIDEWALK CONSTRUCTION:
 - (a) Minimum width for SIDEWALKS shall be five (5) feet. The BOARD may determine that a greater width is necessary due to an anticipated high volume of pedestrian traffic.
 - (b) SIDEWALKS shall not extend outside the legal RIGHT-OF-WAY LINE of PUBLIC STREETS or PRIVATE STREETS unless EASEMENTS are recorded in the COUNTY Recorder of Deeds or the Department of REAL ESTATE guaranteeing public pedestrian access. All pedestrian EASEMENTS shall be a minimum of fifteen (15) feet in width.
 - (c) A tree lawn of a minimum of six (6) feet in width must be provided in one of the two following ways:

- (i) If the tree lawn is to be located between the STREET and the SIDEWALK, a STREET tree shall be planted no more than forty (40) feet on center.
- (ii) If the tree lawn is to be located outside the back edge of the SIDEWALK, a STREET tree shall be planted no more than forty (40) feet on center with a continuous row of flowering or evergreen shrubs for the length of the SIDEWALK. If the tree lawn is to be located outside the back edge of the SIDEWALK, the SIDEWALK can be located no closer than five feet from the edge of the CURB.]
- (d) All SIDEWALKS shall be constructed in accordance with the typical detailed drawings in Appendix A for CONSTRUCTION of SIDEWALKS as exist at the time of CONSTRUCTION.
- 3. SIDEWALKS shall not exceed twelve (12%) percent grade. Should a twelve (12%) percent grade not be obtainable, then steps or ramps may be used after approval of the BOARD.
- 4. A non-slip surface texture shall be used on all SIDEWALKS.
- 5. At all corners and pedestrian crossings, SIDEWALKS shall be extended to the STREET curbline.
- 6. The grades and paving of SIDEWALKS shall be continuous across DRIVEWAYS.
- 7. Where required in MAJOR SUBDIVISIONS, SIDEWALKS shall be installed by the DEVELOPER on all vacant LOTS within three years of completion of initial STREET CONSTRUCTION including final wearing course, unless performance security consistent with the requirements of this Chapter and approved by the Solicitor is provided by the DEVELOPER for all uncompleted sections of the SIDEWALK.

B. TRAILS.

- 1. TRAILS shall be required:
 - (a) On one side of all proposed STREETS and on all existing STREETS within or abutting SUBDIVISIONS in which the average LOT size of all LOTS containing houses is greater than one acre.
 - (i) A SIDEWALK meeting the requirements of Subsection 174-306(A)(2) of this Chapter may be substituted for a TRAIL required in this Subsection (a).
 - (ii) MINOR SUBDIVISIONS shall be required to provide a TRAIL EASEMENT in accordance with this Section instead of constructing a TRAIL only if there is not an existing or approved TRAIL or SIDEWALK within two hundred (200) feet of the property.
 - (b) On all SUBDIVISIONS or LAND DEVELOPMENTS that contain TRAILS shown on the master TRAIL map in the TOWNSHIP'S Parks, Recreation, and Open Space Plan.
- 2. Minimum requirements. The following shall be considered to be minimum standards for TRAIL CONSTRUCTION:
 - (a) TRAILS shall be constructed at a width of six (6) feet.
 - (b) TRAILS shall not extend outside the legal RIGHT-OF-WAY LINE of PUBLIC STREETS or PRIVATE STREETS unless EASEMENTS are recorded in the COUNTY Recorder of Deeds or Department of REAL ESTATE which guarantee public pedestrian access. Access EASEMENTS for any TRAIL shall be granted to the TOWNSHIP of at least fifteen (15) feet in width.
 - (c) For all TRAILS that are located adjacent to a RIGHT-OF-WAY, a tree lawn of a minimum of six (6) feet in width must be provided in one of the two following ways:

- (i) If the tree lawn is to be located between the STREET and the TRAIL, a STREET tree shall be planted no more than forty (40) feet on center.
- (ii) If the tree lawn is to be located outside the back edge of the TRAIL, a STREET tree shall be planted no more than forty (40) feet on center with a continuous row of flowering or evergreen shrubs for the length of the TRAIL. If the tree lawn is to be located outside the back edge of the SIDEWALK, the TRAIL can be located no closer than five (5) feet from the edge of the cut.]
- (d) Minimum requirements: the following shall be considered to be minimum standards for trail CONSTRUCTION:
 - (i) A geotextile fabric shall be installed for the full width and length of the prepared subgrade of the trail, if condition warrant and or as directed by the Township Engineer
 - (ii) An aggregate subbase consisting of six inches of No. 2A aggregate (limestone) shall be placed and compacted.
 - (iii) Flexible pavement consisting of a three (3)-inch Superpave nineteen (19-mm) millimeter modified binder course (fine graded material added to binder).
 - (iv) All edges of the trail shall be properly backfilled, seeded and mulched.
 - (v) Provide cross drains at intervals necessary to ensure integrity of the trail.
 - (vi) Provide underdrain where required to address ground water conditions.
- 3. Where required in SUBDIVISIONS, TRAILS shall be installed by the DEVELOPER on all vacant LOTS within three (3) years of completion of initial road CONSTRUCTION including final wearing course. unless performance security consistent with the requirements of this Chapter and approved by the Solicitor is provided by the DEVELOPER for all uncompleted sections of the SIDEWALKS or TRAILS.

Section 174.307 Driveways

- A. All entrance and exit DRIVEWAYS shall be located to afford maximum safety to traffic, to provide for safe and convenient ingress and egress to and from the SITE and to minimize conflict with the flow of traffic.
- B. DRIVEWAY design for internal access to LAND DEVELOPMENTS.
 - 1. At the discretion of the BOARD DRIVEWAYS may be permitted for access for commercial DEVELOPMENTS where all ownership is under one entity.
 - Grade. The DRIVEWAY within the legal RIGHT-OF-WAY of any TOWNSHIP or state STREET or road shall not exceed a grade of five (5%) percent. The remaining DRIVEWAY beyond the RIGHT-OF-WAY shall not exceed a grade of twelve (12%) percent.
 - 3. <u>Material</u>. The minimum required paved area of the DRIVEWAY shall consist of one of the following materials and be in accordance with the ZONING ORDINANCE.

- a. Bituminous surface constructed with six (6) inches of 2A subbase and Superpave asphalt mix design, hot mix asphalt wearing course, PG 64-22, 0.3 to < 3 million ESALs, 9.5 mm mix, 2.5 inches depth, SRL-L (minimum).
- b. Brick paver designed for single-axle trucks. CONSTRUCTION specifications must be submitted and approved by the TOWNSHIP ENGINEER.
- c. Reinforced pavement systems, such as GeoBlocks, designed for single-axle traffic. CONSTRUCTION specifications must be submitted and approved by the TOWNSHIP ENGINEER.
- d. At a minimum the pavement within the RIGHT-OF-WAY shall match the existing road pavement.
- 4. <u>Width</u>. No DRIVEWAY shall be less than twelve (12) feet wide within the limits of the legal RIGHT-OF-WAY.
- 5. <u>Drainage</u>. The gutter line, wherever possible, shall be maintained as a paved SWALE and shall have a minimum depth of four (4) inches and a minimum width of twenty-four (24) inches. Where required by the TOWNSHIP, CULVERTs or pipes shall be installed under DRIVEWAYS to provide unobstructed flow of water in SWALES and shall be approved by the TOWNSHIP ENGINEER. Also, DRIVEWAY longitudinal DRAINAGE shall be provided as needed.
- 6. Angle of Intersection. The desirable intersection angle of the center line of the DRIVEWAY and the STREET shall be ninety (90) degrees. However, when ninety (90) degrees is not PRACTICABLE, the minimum angle between the DRIVEWAY and the STREET shall be not less than seventy-five (75) degrees.
- 7. <u>Curbs</u>. All DRIVEWAYS in CURB areas must have a depressed CURB at the DRIVEWAY entrance in accordance with RC-64M, PennDOT Publication 72.
- C. Sight distances. Any exit DRIVEWAY or DRIVEWAY lane shall be designed in conformance with PennDOT standards and specifications.
- D. Where a site occupies a corner of two intersecting roads, no DRIVEWAY entrance or exit shall be located nearer to the intersection than a point, as measured along the traveled CARTWAY center line, a distance of eighty (80) feet from the intersection point of the center lines of the traveled CARTWAYS, unless otherwise approved by the BOARD. In the case of four (4)-lane ROADWAYS, measurement shall be made from the center line of the lanes traveling one direction (i.e., center line of northbound lanes).
- E. No entrance or exit DRIVEWAY shall be located on a rotary, a ramp of an interchange or within twenty (20) feet of the beginning of any ramp or other portion of an interchange.
- F. In any nonresidential DISTRICT, where two or more DRIVEWAYS or two or more access points (CURB CUTS) for a single DRIVEWAY connect a single site to any one STREET, a minimum clear distance of two hundred (200) feet measured along the RIGHT-OF-WAY LINE shall separate the closest edges of any two (2) such DRIVEWAYS or access points. Where such DEVELOPMENT fronts on an Arterial

- STREET, access to PARKING and service areas, where PRACTICABLE, shall be provided by a single access to the Arterial STREET.
- G. In any residential District, where DEVELOPMENT fronts on any Arterial or Collector STREET and two (2) or more DRIVEWAYS or two (2) or more access points (CURB CUTS) for a single DRIVEWAY connect a single site to any one road, a minimum clear distance of two hundred (200) feet measured along the RIGHT-OF-WAY LINE shall separate the closest edges of such DRIVEWAYS or points of access.
- H. All DRIVEWAYS shall be constructed in such a manner as not to impair DRAINAGE within the RIGHT-OF-WAY, alter the stability of the STREET or ROADWAY subgrade or materially change the DRAINAGE of adjacent areas. Where open shoulders or berms exist, the grade of a paved ACCESS DRIVEWAY(S) shall SLOPE away from the highway pavement at the same rate as the existing shoulder (unless advised to the contrary by the TOWNSHIP ENGINEER) for the prevailing width of the shoulder. The gradient of a DRIVEWAY beyond this point (within the STREET or ROADWAY RIGHT-OF-WAY) shall not be less than one-half (½) inch per foot.
- I. DRIVEWAY ramps may extend from the face of the CURB up to the outer edge of the SIDEWALK area in those cases where a planted area occurs between multiple DRIVEWAYS. The rate of SLOPE for such DRIVEWAY ramps preferably should not exceed one (1) inch per foot. Where conditions are such that the one (1) inch per foot SLOPE is not obtainable, the SIDEWALK area of the DRIVEWAY may be lowered sufficiently to obtain the allowable ramp SLOPE and the SIDEWALK may be warped up to meet the normal SIDEWALK grade at a rate of SLOPE not to exceed three-eighths (3/8's) inch per foot.
- J. Where a DRAINAGE ditch or SWALE exists, adequate pipe shall be installed under the DRIVEWAY (by the permittee) in accordance with PENNDOT specifications. Minimum diameter of such DRAINAGE pipe shall be fifteen (15) inches unless otherwise specified by the TOWNSHIP ENGINEER. Under no circumstances shall the diameter of such DRAINAGE pipe be less than twelve (12) inches.
- K. In residential DISTRICTS, where a LOT ABUTS two (2) or more STREETS, access to the LOT shall be provided to the STREET where there is lesser potential for traffic congestion.
- L. DRIVEWAY angle.
 - 1. Two-way operation. DRIVEWAYS used for two-way operation shall intersect the road at an angle to as near 90° as SITE conditions will permit and in no case will be less than seventy-five (75°) degrees.
 - 2. One-way operation. DRIVEWAYS used by vehicles in one direction of travel (right turn only) shall not form an angle smaller than forty-five (45°) degrees with a road unless acceleration and deceleration lanes are provided.

Section 174.308 Monuments and Markers

A. Specifications. Monuments and markers must be constructed as specified in Table 2.

Table 2 Monument and Marker Specifications

	Material	Minimum Size		
Monument	Concrete with iron pin	4 inches by 4 inches by 30 inches		
Marker Iron pipes or iron or steel bars		15 inches by 3/4 inch (diameter)		

- B. Placement and Marking. Monuments and markers must be placed by a PROFESSIONAL LAND SURVEYOR so that the scored or marked point coincides exactly with the point of intersection of the lines being monumented. They must be set so that the top of the monument or marker is level with the surface of the surrounding ground. The monument must be permanently marked on top.
- C. Location of Monuments. Monuments must be set:
 - 1. At the intersection of lines forming angles in the boundaries of the original tract of the DEVELOPMENT or SUBDIVISION.
 - 2. On the RIGHT-OF-WAY LINES of the streets at the following locations:
 - (a) At least one (1) monument at each intersection.
 - (b) At changes in direction of STREET LINES, excluding CURB arcs at intersections.
 - (c) At each end of CURBED STREET LINE, excluding CURB arcs at intersections.
 - (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.
 - 3. The concrete monuments must be installed and inspected by the TOWNSHIP ENGINEER prior to FINAL PLAN approval. However, a modification of requirements can be requested to post financial security in lieu of installing monuments if it is determined that the monuments would be disturbed by CONSTRUCTION activities.
 - 4. Location of Markers. Markers must be set:
 - (a) At the beginning and ending of curves along STREET property lines.
 - (b) At points where LOT lines intersect curves either front or rear.
 - (c) At angles in property lines of LOTS.
 - (d) At all other LOT corners.
 - 5. Removal. Any monuments or markers that are removed must be replaced by a PROFESSIONAL LAND SURVEYOR at the expense of the LOT OWNER or PERSON removing them.

Section 174.309 Wetlands, Lakes and Stream Frontage

A. The APPLICANT must determine if WETLANDS exist on the property in the proposed SUBDIVISION or LAND DEVELOPMENT. The APPLICANT must also determine if any WETLANDS will be impacted off-

- SITE from the property. This determination shall be made in accordance with the current requirements of the PADEP and the United States Army Corps of Engineers.
- B. Lake and STREAM frontage shall be preserved as open space whenever possible. In MINOR SUBDIVISIONS and LAND DEVELOPMENTS lake and STREAM FRONTAGE may be preserved through CONSERVATION EASEMENTS
- C. Access points to the water and maintenance EASEMENT areas shall be provided at intervals of no more than one-half mile. These access points shall be no less than twenty-five (25) feet in width.
- D. No disturbance is permissible within twenty-five (25) feet of the edge of any flowing STREAM, lake or WETLANDS.

Section 174.310 Natural Features

A. Topography.

- The natural terrain of all proposed SUBDIVISION or LAND DEVELOPMENT tracts will be retained wherever possible. CUT and FILL should be kept to a minimum necessary to achieve acceptable STREET GRADES, PARKING AREAS or BUILDING SITES where no feasible alternative exists or where it will be used to enhance the SITE, such as berms or SWALES, which add visual interest or perform a function such as DRAINAGE or screening. Topographic alterations shall be in accordance with Chapter 88 of the Township Code, [new title].
- B. TOPSOIL shall be removed from the areas of CONSTRUCTION and stored separately. The TOPSOIL shall be stabilized to minimize EROSION during storage. Upon completion of initial road CONSTRUCTION including final wearing course, the TOPSOIL must be uniformly redistributed on the SITE at a depth not less than four inches and the SITE shall be seeded and mulched in a manner that is deemed appropriate by the TOWNSHIP.
 - 1. Such provisions regarding restoration of LOTS shall apply to LOTS within MAJOR SUBDIVISIONS.
 - 2. Such restoration, seeding, and mulching shall occur on vacant LOTS within three years of the completion of initial road CONSTRUCTION including final wearing course.

Section 174.311 Water Supply

- A. Each new DWELLING created within the TOWNSHIP shall be individually self-sufficient for water supply, and the water supply system shall be public, community or individually owned, maintained, and operated by the owners of each DWELLING.
- B. The provisions of this Section are intended to ensure that each DWELLING UNIT and each commercial or industrial BUILDING in all SUBDIVISIONS and LAND DEVELOPMENTS hereafter granted approval shall have an adequate supply of potable water for domestic use and, where feasible, for fire protection.
- C. On-LOT Water Supply. Where there is no existing PUBLIC WATER supply and a connection to a public WATER supply system and a central community system is not feasible, each LOT in the DEVELOPMENT must be provided with an individual on-LOT water supply system in accordance with minimum standards approved by the PADEP.

- D. PUBLIC WATER Supply. Where connection to a PUBLIC WATER supply is possible or feasible, the plan for the installation of such water supply system must be prepared for the DEVELOPMENT with cooperation of the applicable PUBLIC WATER AUTHORITY or PUBLIC UTILITY and approved by the TOWNSHIP ENGINEER. Upon completion of the water supply system, a reproducible as-built plan of the system must be filed with the TOWNSHIP pursuant to Section 174.606, RECORD PLANS, of this chapter.
- E. Central Community Water Supply.
 - 1. The design and installation of central community water supply systems shall be subject to the approval of the BOARD and of the PADEP, and such system shall be further subject to satisfactory provisions for its maintenance. Standards and materials for the CONSTRUCTION of any central water supply system shall meet or exceed those requirements described in the PADEP's Public Water Supply Manual and shall be subject to the approval of the TOWNSHIP ENGINEER. Where a permit is required by PADEP, it shall be presented as evidence of such review and approval before CONSTRUCTION commences.
 - 2. Ownership and maintenance of a central community water supply and distribution systems shall be the responsibility of an organization formed and operated in accordance with the provisions in Section 174.313.
 - 3. Wherever a central community water supply system is proposed for a DEVELOPMENT, a distribution system shall be designed to furnish an adequate supply of water to each LOT, with adequate water main sizes and fire hydrant meeting minimum specifications.
 - 4. Wherever a central community water system is provided, fire hydrants suitable for the coupling of equipment serving the TOWNSHIP shall be installed as specified by the TOWNSHIP ENGINEER.

Section 174.312 Sewage Service Facilities

- A. Acceptable types of systems. Each new DWELLING created within the TOWNSHIP shall be provided with sewage service acceptable to the TOWNSHIP. The DEVELOPER shall provide the most effective type of sanitary sewage disposal consistent with the natural features, location and proposed DEVELOPMENT SITE. The following types of sanitary sewage disposal are listed in order of preference:
 - 1. Connection to a PUBLIC SEWAGE DISPOSAL SYSTEM.
 - 2. Provision by the DEVELOPER of a community sanitary SEWAGE DISPOSAL SYSTEM capable of being tied into a public system in accordance with the requirements of the PADEP. and acceptable to the TOWNSHIP.
 - 3. Capped sewers with temporary, approved ON-LOT SEWAGE DISPOSAL SYSTEM facilities.
 - 4. ON-LOT SEWAGE DISPOSAL SYSTEMS consisting of SEPTIC TANKS with tile fields or other approved system.
- B. Connection to a PUBLIC SEWAGE DISPOSAL SYSTEM. Connection to a PUBLIC SEWAGE DISPOSAL SYSTEM shall be required where such a system can feasibly be provided to adequately fulfill the sewage disposal needs of the proposed SUBDIVISION or LAND DEVELOPMENT.

- C. Installation of capped sewers. Where a PUBLIC SEWAGE DISPOSAL SYSTEM is not yet accessible to the SITE, but has been scheduled and a preliminary design has been prepared for such an extension to the SUBDIVISION or LAND DEVELOPMENT within a ten-year period, the DEVELOPER shall install sewer lines, including lateral connections as may be necessary to provide adequate service to each LOT when connection with the sewer system is made. The sewer lines shall be suitably capped at the STREET RIGHT-OF-WAY LINE. When capped sewers are provided, on-SITE disposal facilities shall also be provided. Design of the capped system shall be in accordance with the standards of the PADEP and subject to the approval of the BOARD.
- D. Provision of COMMUNITY SEWAGE DISPOSAL SYSTEM.
 - Where a PUBLIC SEWAGE DISPOSAL SYSTEM cannot feasibly be provided to the proposed SUBDIVISION or LAND DEVELOPMENT tract or is not planned for extension to the proposed SUBDIVISION or LAND DEVELOPMENT tract, the BOARD, upon recommendation by the TOWNSHIP ENGINEER, may require the submission of a COMMUNITY SEWAGE DISPOSAL SYSTEM feasibility report.
 - 2. When a sewage feasibility report is required, it must be prepared by a PROFESSIONAL ENGINEER and submitted to the TOWNSHIP, the COUNTY and the PADEP.
- E. Provision of ON-LOT SEWAGE DISPOSAL SYSTEM. In SUBDIVISIONS or LAND DEVELOPMENTS where neither connection to a PUBLIC SEWAGE DISPOSAL SYSTEM nor a COMMUNITY SEWAGE DISPOSAL SYSTEM is required, sewage disposal consisting of SEPTIC TANKS and absorption fields shall be provided on individual LOTS. The physical features of the tract on which ON-LOT disposal is provided shall meet the criteria established by the PADEP, the COUNTY Health Department and the TOWNSHIP for ON-LOT SEWAGE DISPOSAL SYSTEMS.
- F. All sewage service facilities shall be constructed and maintained in compliance with the standards of the applicable MUNICIPAL SEWER AUTHORITY.

Section 174.313 Common Facilities

- A. Ownership Standards. Facilities to be held in common, such as PRIVATE STREETS, GREENWAY LAND, COMMON OPEN SPACE, COMMUNITY SEWAGE DISPOSAL SYSTEM, COMMUNITY WATER SYSTEM shall be held using one of the following methods of ownership subject to the approval of the BOARD:
 - HOMEOWNERS' ASSOCIATION. The facilities may be held in common ownership by a
 HOMEOWNERS' ASSOCIATION organized pursuant to the Uniform Planned Community Act (68
 Pa C.S. §§ 5101—5414). The ASSOCIATION shall be formed and operated in accordance with the
 provisions of Subsection B of this section.
 - 2. CONDOMINIUM. The facilities may be held as common element under a CONDOMINIUM agreement. Such agreement shall be in conformance with the Pennsylvania Uniform CONDOMINIUM Act (68 Pa. C.S. §§ 3101—3414).
- B. HOMEOWNERS' ASSOCIATION Regulations. The following regulations shall be considered minimum standards governing the HOMEOWNERS' ASSOCIATION:

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- 1. Bylaws describing the formation and the duties of the ASSOCIATION, including the responsibilities for maintenance of the common open areas, shall be defined and presented to the TOWNSHIP for review and approval as part of the FINAL PLAN submission.
- 2. Membership shall be mandatory for all residents served by the facility. Membership and voting rights shall be defined.
- 3. Rights and duties of the TOWNSHIP and members of the ASSOCIATION, in the event of a breach of the covenants and restrictions, shall be defined.
- 4. The bylaws shall include a statement which grants to the ASSOCIATION the legal authority to place liens on the properties of members who are delinquent in the payment of their dues. The bylaws shall also grant the TOWNSHIP such power, but not the duty, to maintain THE COMMON FACILITIES, and to assess the cost of the same as provided within the MPC.

C. Maintenance Standards.

- 1. The COMMON FACILITIES shall be operated and maintained by a professional organization specializing in the required services and approved by the BOARD. The agreement between the ASSOCIATION or CONDOMINIUM and the professional organization shall be subject to review by the TOWNSHIP Solicitor and approval by the BOARD.
- The TOWNSHIP shall, upon request, be given access to all records of the ASSOCIATION or CONDOMINIUM and all records of the professional organization relating to operation and maintenance of the COMMON FACILITIES.

Section 174.314 Utilities

A. Underground Wiring.

- All electric, telephone, television and other communication facilities, both main and service lines servicing new DEVELOPMENTS, shall be provided by underground wiring within EASEMENTS or dedicated public RIGHTS-OF-WAY unless special conditions require otherwise. Utilities shall be installed in accordance with the prevailing standards and practices of the utility or other companies providing such services.
- 2. LOTS which ABUT existing EASEMENTS or public RIGHTS-OF-WAY where overhead electric or telephone distribution supply lines and service connections have been previously installed may be supplied with electric and telephone service from those overhead lines, but the service connections from the utilities' overhead lines shall be installed underground. In the case of existing overhead utilities, should a road widening or an extension of service or other such condition occur as a result of the SUBDIVISION and necessitate the replacement or relocation of such utilities, such replacement or relocation shall be underground.
- 3. Where overhead lines are permitted as the exception, the placement and alignment of poles shall be designed to lessen the visual impact of overhead lines as follows:

- (a) Alignments and pole locations shall be carefully routed to avoid locations along horizons;
- (b) Clearing swaths through tree areas shall be avoided by selective cutting and a staggered alignment;
- (c) Trees shall be planted in open areas and at key locations to minimize the view of the poles and the alignments; and
- (d) Alignments shall follow rear LOT lines and other alignments where possible.
- 4. Buffer Planting Strip A screening in accordance with Section 174.319 of the ZONING ORDINANCE, of any utility apparatus appearing above the surface of the ground, other than utility poles, shall be required.
- 5. All underground utilities shall be put in place, connected 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 utility.
- B. Underground Utility Notifications. In accordance with the provisions of the Underground Utility Line Protection Act (73 P. S. § 176 et. seq), also known as the "PA One Call Law", as amended, any APPLICANT shall contact all applicable utilities and accurately determine and show the location and depths of all underground utilities within the boundaries of the tract proposed for DEVELOPMENT and in the vicinity of any proposed off-SITE IMPROVEMENT, prior to EXCAVATION. A list of all the applicable utilities, their telephone numbers and the PA One Call Service Number shall appear on the cover page of plans submitted for review.
- C. Aboveground Utilities. Notwithstanding vertical separation distance required by the utilities, no line shall sway closer than fifteen (15) feet above the ground directly below the wire at any point along the line.

Section 174.315 Utility, Conservation, and Drainage Easements

- A. Width and Location. EASEMENTS with a minimum width of twenty (20) feet shall be provided for poles, wires, conduits, storm and sanitary sewers, gas, water, and heat mains and/or other utility lines intended to service the abutting LOTS and for access to facilities. EASEMENTS with a minimum width of twenty (20) feet shall be provided for pedestrian paths. Also, EASEMENTS shall be provided for all STORMWATER MANAGEMENT FACILITIES. Whenever possible, such EASEMENTS shall be centered on the side or rear LOT lines or along the front lines.
- B. Petroleum, Gas, and Electric Transmission Lines. Where any petroleum, petroleum products, natural gas or electric transmission line traverses a SUBDIVISION or a LAND DEVELOPMENT, the DEVELOPER shall confer with the applicable transmission or distribution company to determine the minimum distance which shall be required between each STRUCTURE and the center line of such transmission line. However, the minimum distance from a high pressure gas line shall be a minimum of twenty-five (25) feet Additionally, a letter from the OWNER of the transmission line stating any conditions on the use of the parcel and the RIGHT-OF-WAY width, or a copy of the recorded agreement which shall contain the above data, shall be required to be submitted with a PRELIMINARY PLAN application.

C. WATERCOURSE, DRAINAGE Channel, STREAM, Pond or Lake. A DRAINAGE EASEMENT shall be provided where a SUBDIVISION and/or LAND DEVELOPMENT is traversed by a WATERCOURSE, DRAINAGE channel, STREAM, pond or lake. The EASEMENT width shall be determined by the TOWNSHIP ENGINEER, and it shall conform substantially with the line of the WATERCOURSE, DRAINAGE channel, STREAM, pond or lake, and its width shall be adequate to preserve the unimpeded flow of natural DRAINAGE or for the purpose of widening, deepening, relocating, improving or protecting such DRAINAGE facilities or for the purpose of installing a stormwater sewer. Under no circumstances shall the EASEMENT be less than twenty (20) feet.

Section 174.316 Parkland and Recreation Requirements

A. General standards.

- 1. The TOWNSHIP has determined that, in order to promote the best interest of residents of the TOWNSHIP and individuals working in the TOWNSHIP, adequate and usable land for parks and active recreation purposes shall be provided to serve the needs of the public at large. The TOWNSHIP's goals of promoting and utilizing land for parks and active recreation purposes are set forth at length in the TOWNSHIP's Comprehensive Recreation, Park and Open-Space Plan, as amended and updated. It is acknowledged and recognized that both residential and NON-RESIDENTIAL USES of land in the TOWNSHIP create a demand for facilities which require and utilize land for active recreation. NON-RESIDENTIAL DEVELOPMENT, whether stand-alone or part of a mixed-use DEVELOPMENT, creates its own demands for usable land for parks and active recreation purposes as individuals employed in the TOWNSHIP couple their work activities with non-work recreational activities within the TOWNSHIP. As a result of NON-RESIDENTIAL DEVELOPMENT, there is also an influx of business invitees and others who, due to the proximity and availability of TOWNSHIP recreation facilities, utilize and will in the future utilize parks and active recreation facilities. It is a vital TOWNSHIP objective to ensure that as residential and NON-RESIDENTIAL DEVELOPMENT continue, usable and adequate land for parks and active recreation purposes which meet the TOWNSHIP's design standards is developed and that existing facilities located within the TOWNSHIP are maintained and upgraded as needed.
- 2. The dedication of land or fees in lieu thereof set forth in this Section shall not apply to public schools, or buildings associated therewith, or to the TOWNSHIP any other TOWNSHIP agency, MUNICIPAL SEWER AUTHORITY OR MUNICIPAL WATER AUTHORITY on the basis that schools and local government agencies serve an overriding public interest which warrants an exemption from dedication of land or NON-RESIDENTIAL recreation fees in lieu thereof.
- 3. The TOWNSHIP has established this dedication of land and fee-in-lieu thereof requirement with the intent to promote the retention and utilization of land for parks and active recreation purposes within the TOWNSHIP for use by future inhabitants of new DEVELOPMENTS, including TOWNSHIP residents and individuals employed in or visiting the TOWNSHIP. The dedication requirement or the amount of the applicable fee corresponds to the gross building size of the relevant NON-RESIDENTIAL DEVELOPMENT and should bear a reasonable relationship to the typical expected increase in employee and business invitee traffic within the TOWNSHIP and reduction of available land for parks or recreation purposes within the TOWNSHIP. In the event that the TOWNSHIP staff determines, in its sole discretion, that application of the NON-RESIDENTIAL dedication of land requirement or fee in lieu thereof would be grossly disproportionate to the impact of a NON-RESIDENTAIL DEVELOPMENT and in violation of

applicable Pennsylvania law, the TOWNSHIP'S staff shall be empowered to recommend any modification it deems necessary to carry out the intent of this chapter.

- B. Mandatory dedication of land for parks and active recreation purposes.
 - As a condition precedent to final approval of any SUBDIVISION or LAND DEVELOPMENT intended
 for residential use, the APPLICANT shall dedicate land for parks and active recreation purposes
 meeting the design standards in this section, or upon agreement with the TOWNSHIP, pay a fee
 in lieu of mandatory dedication.
 - 2. As a condition precedent to final approval of any LAND DEVELOPMENT intended for NON-RESIDENTIAL USE, the APPLICANT shall dedicate land for parks and active recreation purposes meeting the design standards in this section, or upon agreement with the TOWNSHIP, pay a fee in lieu of mandatory dedication.
 - 3. The NON-RESIDENTIAL dedication of land for parks and active recreation purposes or the fee in lieu thereof set forth in this section shall not apply to *de minimus* NON-RESIDENTIAL DEVELOPMENT. "De minimus" NON-RESIDENTIAL DEVELOPMENT shall be defined as CONSTRUCTION of a NON-RESIDENTIAL building of one thousand five hundred (1,500) square feet or less of gross NON-RESIDENTIAL building area.
 - 4. For residential DEVELOPMENTS, the APPLICANT shall provide for a minimum of 0.056 acres of land for parks and active recreation purposes for each DWELLING UNIT and also construct the active recreation facilities. For NON-RESIDENTIAL DEVELOPMENTS, the APPLICANT shall provide for a minimum contiguous area of land for parks and active recreation purposes equal to five (5%) percent of the total square feet of gross NON-RESIDENTIAL building area. Required sidewalks shall not count toward the calculated amount of land for either residential or NON-RESIDENTIAL DEVELOPMENTS.
 - 5. Within the area determined for residential DEVELOPMENTS by this section, at least the (10%) percent of the acreage shall be dedicated to the PUBLIC for passive recreational purposes.
 - 6. Within the area determined for residential DEVELOPMENTS by this section, at least ninety (90%) percent of the acreage shall be dedicated to the PUBLIC for active recreation. All such land proposed for active recreation open space shall be suitable for the use intended.
 - 7. The DEVELOPER shall install active recreation facilities on the dedicated land that are appropriate to the needs of the inhabitants of the proposed SUBDIVISION or LAND DEVELOPMENT.
 - 8. The type of active recreation facilities proposed shall be subject to approval by the BOARD. In determining the facilities' appropriateness, the BOARD shall consider the safety of the general PUBLIC and future liability and maintenance costs to the TOWNSHIP.
 - All land proposed for active recreation use shall be seeded and ready to be used for the purpose intended within twelve (12) months of occupancy of the first DWELLING UNIT or NON-RESIDENTIAL building in that phase of the SUBDIVISION or LAND DEVELOPMENT.
 - 10. All CONSTRUCTION for active recreation shall be subject to the requirements of Section 509 of the MPC for posting financial security to guarantee the completion of required PUBLIC IMPROVEMENTS.
 - 11. The APPLICANT or DEVELOPER shall offer land for parks and active recreation purposes subject to approval by the BOARD and the execution of legal agreements between the APPLICANT or DEVELOPER and the BOARD for CONSTRUCTION of active recreational facilities on said land by the

- APPLICANT or DEVELOPER. Dedication and CONSTRUCTION of facilities shall be subject to posting of the performance and maintenance bonds required for PUBLIC IMPROVEMENTS to be accepted by the TOWNSHIP.
- 12. The APPLICANT or DEVELOPER shall prepare a legal description with metes and bounds of the land being offered for dedication.
- 13. The APPLICANT may transfer land for parks and active recreation purposes by:
 - (a) Dedicating said land to the TOWNSHIP.
 - (b) Dedicating said land to a land trust, acceptable to the TOWNSHIP.
 - (c) Conveying ownership to the HOMEOWNER'S ASSOCIATION consistent with the provisions of Section 174-402.F of this Chapter.
- 14. A maintenance agreement to be recorded in the COUNTY Department of Real Estate may be required by the BOARD for the ownership and management of any PRIVATE recreational facilities and COMMON OPEN SPACE. The TOWNSHIP shall have the right to make annual inspection of any PRIVATE recreational facilities and COMMON OPEN SPACE and may institute the procedures for maintenance of such facilities authorized by Section 705(f) of the MPC.
- 15. The PLAN for recording shall set forth the location of any park and active recreational land and shall reflect either the dedication or the method by which the perpetual administration and maintenance of the land and facilities is to be accomplished.
- 16. A sign with a map identifying future recreational facilities, parks, or COMMON OPEN SPACE shall be prominently posted along the perimeter at public access points and other locations determined by the TOWNSHIP. Said sign shall be visible, weatherproof, a minimum of six and a maximum of thirty-two (32) square feet.
- C. Criteria for land to be dedicated to the TOWNSHIP.
 - The land for parks and active recreation purposes shall be easily, safely, and legally accessible
 from all areas of the DEVELOPMENT to be served, shall have safe ingress and egress, and shall
 have a minimum of one hundred (100) feet of frontage on a PUBLIC road. Land set aside for active
 recreational facilities shall be located within two thousand (2,000) feet of all inhabitants of the
 proposed DEVELOPMENT with no major physical impediments or barriers to cross.
 - 2. The land for parks and active recreation purposes shall have suitable TOPOGRAPHY and soil conditions for use as a park and active recreation area. At least one half (½) of any land proposed as open space shall be above the one hundred (100)-year-FLOOD elevation. No area to be dedicated shall be comprised of WETLANDS.
 - 3. At least one half (½) of the area to be dedicated shall have SLOPES less than ten (10%) percent which are suitable for active and passive recreation. SLOPES greater than ten (10%) percent shall be accepted for passive recreation only.
 - 4. The size, shape and location of land for parks and active recreation purposes shall be suitable for DEVELOPMENT as a park to provide active recreation. No single side of a property with a rectangular configuration shall amount to more than forty (40%) percent of the perimeter of the entire tract provided for recreational purposes.
 - 5. The land for parks or recreation purposes shall be easily accessible to essential utilities, including power, water, sewage and telephone. If any of these facilities are placed underground, no part of

- them or their supportive equipment shall protrude above ground level, except as may be authorized by the BOARD after a determination that there will be no adverse impact on the health, safety or welfare of the general public.
- 6. The FINISHED GRADE of the land for parks or recreation purposes shall have a SLOPE of three (3%) or less.
- Land for active recreation purposes dedicated to the TOWNSHIP in each SUBDIVISION and LAND DEVELOPMENT shall be contiguous in order to avoid small, remote, or unusable areas. The BOARD may waive, at its sole discretion, this contiguous acreage requirement.
- 8. Land for active recreation purposes shall include the following amenities and features, which shall be in compliance with the applicable provisions of the Americans with Disabilities Act, 42 U.S.C. §12101 et seq. (as amended) to be constructed at the sole expense of the APPLICANT or DEVELOPER:
- 9. A pavilion with restrooms and utilities, at least ten (10) feet by twenty (20) feet in total size;
- 10. At least one (1) sports field or sports court;
- 11. At least one (1) water fountain;
- 12. An asphalt-paved PARKING AREA to provide four parking stalls per acre; and
- 13. A playground STRUCTURE with a use zone at least five hundred (500) inches by five hundred (500) inches.
- D. Fees in lieu of mandatory dedication.
 - 1. Where the APPLICANT or DEVELOPER elects not to offer to dedicate land for active recreation purposes or the BOARD determines, after review, that as a result of size, shape, location, TOPOGRAPHY or other physical features of the land offered for dedication that the setting aside of land as required by this section is impractical, not feasible or inconsistent with the goals of the TOWNSHIP Comprehensive Recreation, Parks and Open-Space Plan, the APPLICANT or DEVELOPER shall be required to pay a fee in lieu of dedication, in order to finance the provision by the TOWNSHIP of parks and active recreation facilities for use by future inhabitants of the SUBDIVISION or LAND DEVELOPMENT.
 - 2. The fees in lieu of mandatory dedication are as follows:
 - (a) Residential: One thousand two hundred (\$1,200) dollars per DWELLING UNIT.
 - (b) Residential (Conservation SUBDIVISION): One thousand (\$1,000) dollars per DWELLING UNIT.
 - (c) Non-residential: Forty (\$0.40) cents per square foot of gross NON-RESIDENTIAL building square footage.
 - (d) Mixed Use: In mixed DEVELOPMENT projects involving any combination of single-family, multi-family and/or NON-RESIDENTIAL USE, the APPLICANT shall calculate the recreation open space requirements for the residential portion first, and then calculate the fee for the NON-RESIDENTIAL USE. The total fee shall be a combination of the residential fee and the NON-RESIDENTIAL fee.
 - 3. The fee authorized by this Section shall be payable at the time of application for a building permit and, upon receipt by the TOWNSHIP, shall be deposited in the TOWNSHIP Recreation Capital Reserve Fund under an interest-bearing account. All fees collected shall be clearly identified as to the plan from which they were collected and the specific recreational purpose accessible to the Section 174.316 Parkland and Recreation Requirements | 53

future inhabitants of the plan for which they are intended to be expended. Interest earned on such accounts shall become funds of that account. Funds from such accounts shall be expended only in properly allocable portions of the cost incurred for providing, acquiring, operating or maintaining park or recreational facilities. The TOWNSHIP Manager shall maintain such financial records for the Recreation Capital Reserve Fund to show the source and disbursement of all revenues and ensure that moneys are expended in accordance with the requirements of the MPC.

4. The fees in lieu of the mandatory dedication of land for parks or recreation purposes shall be used, unless the PERSON paying such fee shall agree otherwise, only for the purpose of providing, acquiring, operating or maintaining park and recreational facilities accessible to the SUBDIVISION or LAND DEVELOPMENT for which such fees are paid. Upon request of any PERSON who paid any fee under this section, the TOWNSHIP shall refund such fee, plus interest accumulated thereon from the date of payment, if the TOWNSHIP had used the fee paid for a purpose other than the purposes set forth in Section 503(11) of the MPC.

Section 174.317 Lots

- A. Land shall be reasonably suited to the purpose for which it is to be subdivided, whether for residential, business, industrial or recreational use.
- B. The LOT arrangement and design shall be such that all LOTS will provide satisfactory and desirable building sites properly related to TOPOGRAPHY and the character of surrounding DEVELOPMENT.
- C. All CORNER LOTS, whether they are located at the intersection of the RIGHTS-OF-WAY of two (2) STREETS or of an ALLEY and a STREET shall have a curve with a minimum radius of twenty-five (25) feet adjoining the two side lines of said RIGHTS-OF-WAY.
- D. Business or industrial LOTS shall conform to the requirements of the ZONING ORDINANCE, and also shall be of such size and shape as may be suitable for their prospective use and to provide sufficient space for off-STREET parking and loading and water supply and sanitary sewage disposal (if either or both are to be provided by individual on-LOT facilities).
- E. General standards.
 - 1. Within the requirements of the ZONING ORDINANCE the size, shape and orientation of LOTS shall be appropriate for the type of DEVELOPMENT and use contemplated.
 - Insofar as practical, side LOT LINES shall be at right angles to straight lines or radial to curved STREET LINES. Acute angles or small projections should be avoided. However, different LOT shapes will be permitted if they can be shown to be necessary or desirable to relate building sites to the terrain or to provide better site utilizations and building relationships.
 - 3. Where feasible, LOT LINES shall follow rather than cross TOWNSHIP boundaries in order to avoid jurisdictional problems.
 - 4. Depth and width of parcels intended for nonresidential uses shall be adequate for the use proposed and sufficient to provide satisfactory space for on-site parking, loading, unloading, setbacks, landscaping, etc.

F. LOT FRONTAGE.

1. All SUBDIVISIONS shall have LOT frontage on an existing or proposed public or PRIVATE STREET.

- 2. Where a CORNER LOT OR DOUBLE FRONTAGE LOT fronts on a PUBLIC residential STREET, a note on the plan must indicate that LOTS must access interior residential STREETS; access to arterial or collector STREETS is prohibited.
- G. Lot Access. Residential LOTS having direct access to an arterial STREET shall be avoided whenever possible.
- H. FLAG LOTS. Flag LOTS are permitted subject to the following:
 - 1. The "flagpole" shall maintain a width of at least 50 feet from the front LOT LINE to the front edge of the "flag".
 - 2. The flagpole shall not be a PRIVATE STREET but shall be an integral portion of the LOT.
 - 3. The flagpole shall remain free of any STRUCTURES, and a note is included on the Final SUBDIVISION Plan that this area is non-buildable.
 - 4. The front LOT LINE of the FLAG LOT is at the end of the flagpole so that front yards for FLAG LOTS must not include the flagpole and must ABUT the rear yard of the front LOT.
 - 5. No more than two FLAG LOTS are permitted in any SUBDIVISION.
 - 6. The area of the LOT located within the flagpole shall not be counted toward meeting the minimum LOT requirement size for the district in which the FLAG LOT is located.

Section 174.318 Woodland Preservation

- A. Purpose. The purpose of this Section is to protect and preserve existing CANOPY AND UNDERSTORY TREES and natural vegetation associated with LAND DEVELOPMENT to protect the TOWNSHIP's water and soil resources.
- B. Furthermore, it is the intent of these regulations to meet the following objectives.
 - 1. To preserve the existing natural systems and features of the TOWNSHIP, particularly existing plant communities, habitats and wildlife.
 - 2. To maintain visual buffers of natural vegetation between areas of new DEVELOPMENT and adjacent roads and properties.
 - 3. To buffer the impacts of man-made DEVELOPMENTS from air POLLUTION, NOISE POLLUTION, bright lights and glare.
 - 4. To assist in the control of surface stormwater RUNOFF across lawn and other open areas by preserving existing vegetation, hedgerows and buffer areas of natural vegetation to slow and retain such surface RUNOFF.
 - 5. To preserve and strengthen the existing green space character of the TOWNSHIP by preserving interconnected buffer areas of natural vegetation between developed areas.
 - 6. To minimize EROSION and stabilize sloped areas on the DEVELOPMENT SITE.
 - 7. To protect mature trees as assets of the SITE.
 - 8. To minimize the cost of providing and maintaining new landscaping.
- C. Applicability.
 - 1. This Section applies to all LAND DEVELOPMENT and MAJOR SUBDIVISION projects equaling ten (10) acres or more as defined, except those activities listed under Subsection C.2.
 - 2. Exceptions. This Section does not apply to any of the following activities:

- (a) MINOR SUBDIVISIONS
- (b) Any AGRICULTURE OPERATION as defined under Article 900 of the ZONING ORDINANCE.
- (c) Any TIMBER HARVESTING or CLEARCUTTING as defined under Article 900 of the ZONING ORDINANCE.
- (d) Cutting or clearing trees in a utility or road RIGHT-OF-WAY, provided that such operations shall be performed in a manner that minimize loss of tree cover.
- (e) Routine or emergency maintenance of an existing STORMWATER MANAGEMENT FACILITY, including an existing access road, or other emergency as designated by the TOWNSHIP.
- (f) Removal of noxious or invasive trees and vegetation.
- D. Preservation, Establishment, and Protection of WOODLANDS.
 - 1. Preservation. No more than forty-five (45%) percent of any WOODLAND may be cleared or developed as part of a LAND DEVELOPMENT project. The remaining fifty-five percent (55%) shall be maintained as permanent COMMON OPEN SPACE.
 - 2. The DEVELOPER may clear or develop more than the area of WOODLANDS otherwise permitted to be disturbed by this section, provided that no more than seventy (70%) of WOODLANDS may be disturbed. Should the DEVELOPER clear or develop more than forty-five (45%) percent of a WOODLAND AREA then:
 - (a) The DEVELOPER shall designate a new WOODLAND area on an unforested part of the SITE.
 - (b) The new WOODLAND area shall consist of one and five-tenths (1.5) times the surface acreage of the WOODLAND area disturbed for that portion of the area of disturbance which exceed the forty-five percent (45%) area of disturbance for WOODLANDS.
 - (c) No clearing or timbering of any WOODLAND may occur unless connected with an approved SITE plan.
 - (d) Native CANOPY AND UNDERSTORY TREES with a DIAMETER at BREAST HEIGHT (DBH) of six (6) inches or larger shall not be removed unless they are located:
 - (i) Within an area approved for grading, or the area to be occupied by a BUILDING; and
 - (ii) Within the proposed CARTWAY or SIDEWALK portion of the STREET RIGHT-OF-WAY;
 - 3. No PERSON may, for the purpose of increasing or enhancing the visibility of any sign, damage, trim, destroy or remove any native trees, shrubs or other vegetation located:
 - (a) Within the RIGHT-OF-WAY of any PUBLIC STREET or BUFFER PLANTING STRIP unless the work is done pursuant to the express written authorization of the TOWNSHIP or other agency having jurisdiction over the STREET.
 - (b) On property that is not under the ownership or control of the PERSON doing or responsible for such work, unless the work is done pursuant to the express authorization of the PERSON owning the property where such trees or shrubs are located.
 - (c) In any area where such trees or shrubs are required to remain under a permit issued under this Chapter.
- E. Establishment and Maintenance of New WOODLANDS. The DEVELOPER may designate a new WOODLAND area on an unforested part of the site as required under Subsection D. above. The ESTABLISHMENT of a new WOODLAND area shall conform to the following standards:

- 1. The new WOODLAND area shall consist of one and five-tenths (1.5) times the surface acreage of the WOODLAND area disturbed for that portion of the area of disturbance which exceed the forty-five percent (45%) area of disturbance for WOODLANDS.
- 2. No area of WOODLAND shall be less than fifty (50) feet wide.
- 3. The following plant material shall be provided per acre of WOODLAND when required to be established. Fractional requirements (resulting from fractions of acres to be established) shall be rounded up to the nearest whole number.

Table 1	Woodlan	d Plant N	Material Sizes
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	Minimum Size
WOODLAND Plant Materials Required per Acre	,
5 slower growing CANOPY TREES	3-inch caliper
10 CANOPY TREES	2-inch caliper
20 faster growing CANOPY TREES	1-inch caliper
30 slower growing CANOPY TREES	5 feet high
10 UNDERSTORY TREES	1-inch caliper
100 SHRUBS	3 feet high

Section 174.319 Sustainable Landscaping

- A. Purpose. The purpose of the landscaping regulations contained in this section is to enhance health and safety, as well as the scenic and environmental quality of the TOWNSHIP. These regulations are designed to promote sustainable landscapes; to provide visual screening between dissimilar LAND USEs; to conserve and restore healthy soils; to reduce the use of irrigation for landscapes; to improve water quality; to provide wildlife habitat; and to restore and protect NATIVE PLANT species.
- B. Landscape plan.
 - 1. A landscape plan consistent with the provisions of this Section shall be required as a component of all MAJOR SUBDIVISION and all LAND DEVELOPMENT applications. The landscape plan shall be submitted with the PRELIMINARY PLAN in accordance with Section 174-205 of this Chapter.
 - 2. The landscape plan shall include all land areas within a SUBDIVISION or LAND DEVELOPMENT not containing existing BUILDINGS or STRUCTURES, IMPERVIOUS SURFACE or other IMPROVEMENTS that preclude landscaping.
 - 3. The landscape plan shall be drawn at a scale of not less than one (1)-inch equals forty (40) feet (1" = 40'). It may display required information on multiple drawing sheets if required for graphic clarity. It shall contain the following information in addition to all other inclusions required by this Chapter:
 - (a) Certification, including signature, seal and date, by a landscape architect licensed in the Commonwealth.
 - (b) All existing and proposed STRUCTURES and SITE IMPROVEMENTS including but not limited to fences and walls; STREETS; PARKING AREAS; loading areas; utilities; walks and paved areas; SITE furnishings; outdoor trash and receptacle areas; lighting; RIGHTS-OF-WAY; and property lines and EASEMENTS.

- (c) Existing and proposed TOPOGRAPHY and grading with a minimum 2-foot contour interval.
- (d) Adjacent LAND USEs and zoning classifications.
- (e) The location and general type of existing vegetation. The plan shall note any existing vegetation to be removed.
- (f) The location and type of proposed plantings. The plan shall include a plant schedule, listing all proposed plants with scientific and common names, required and proposed quantities, spacing, NATIVE PLANT status, and size at the time of planting, as well as the expected mature size (width and height) of each plant. The plant schedule must also include any plant symbols used on the plan drawing.
- (g) Existing soil types shall be shown.
- (h) Proposed protection of existing trees to remain and details of the protection measures, in accordance with Sec. 174.318Woodland Protection of this Chapter.
- (i) Planting and installation details as necessary to ensure compliance with the standards of the Penn State publication "Planting and After Care of Community Trees."

C. Plants.

Unless otherwise specified, nursery-grown plant materials shall conform to requirements listed in the "American Nursery Stock Standard," Z-60.1, (2014), published by American Hort. The following guidelines are the minimum required for all nursery-grown plant materials as required in this Section:

- 1. Plants for landscaping shall be hardy in United States Department of Agriculture ("USDA") Hardiness Zone 6a.
- 2. All trees, shrubs, and plants shall be sound, healthy and vigorous, and shall be free from disease, insects, insect eggs and larvae.
- 3. No invasive plants, including "watch list" species listed in the most recent edition of the Pennsylvania Department of Conservation and Natural Resources ("PADCNR") publications "Invasive Plants in Pennsylvania" and "Invasive Plant Fact Sheets," shall be utilized. No plants listed in the Pennsylvania Department of Agriculture ("PADA") "Noxious Weeds List" shall be planted.
- 4. Plants used to fulfill the requirements for a NATIVE PLANT must conform to the definition provided in this Chapter.
- 5. The type(s) of plantings shall be limited to species that will not create conditions hazardous to public safety within PUBLIC STREET RIGHTS-OF-WAY, underground and aboveground utilities, and clear SIGHT DISTANCES including at all intersections of STREETS and/or DRIVEWAYS. Such hazards shall include, but are not limited to, low-hanging branches, excessive shallow root mass, poisonous or toxic plants, and plants with thorns.
- 6. The locations, dimensions and spacing of required plantings shall be adequate for their proper growth and maintenance, considering the sizes of such plantings at maturity and their present and future environmental requirements, such as soil moisture and sunlight.
- 7. The species planted shall be as listed in the Approved Plant List (Appendix B) unless otherwise approved by the TOWNSHIP. To allow for design flexibility, plant material substitutions from the requirements may be permitted at the discretion of the TOWNSHIP. In such cases, the

- APPLICANT must demonstrate to the satisfaction of the TOWNSHIP that the general intent of this Section is achieved.
- 8. SHADE TREES for all requirements, except RIPARIAN BUFFERS, shall have a minimum caliper of two inches (2") at installation. SHADE TREES for RIPARIAN BUFFERS shall have a minimum caliper of one inch (1") at installation.
 - (a) A minimum of seventy-five (75%) percent of SHADE TREES shall be NATIVE PLANTS.
 - (b) Acceptable SHADE TREE species are listed in the Approved Plant List (Appendix A).
- 9. Large STREET TREES shall have a minimum caliper of two inches (2") at installation, and a mature height of greater than thirty (30) feet.
 - (a) A minimum of seventy-five (75%) percent of the large STREET TREES shall be NATIVE PLANTS.
 - (b) Acceptable large STREET TREE species are listed in the APPROVED PLANT LIST (Appendix A).
- 10. Small STREET TREES shall have a minimum caliper of one and one-half inches (1.5") at installation, and a mature height of less than thirty (30) feet. These trees may be used in areas with overhead utilities.
 - (a) Multiple-trunk trees should be identified as such in the plant list. Multiple-trunk trees shall be counted as one (1) tree.
 - (b) A minimum of fifty (50%) percent of all small STREET TREES shall be NATIVE PLANTS.
 - (c) Acceptable SMALL STREET TREE species are listed in the APPROVED PLANT LIST (Appendix A).
- 11. EVERGREEN TREES shall have a minimum height of six (6) feet at installation.
 - (a) A minimum of fifty (50%) percent of EVERGREEN TREES shall be NATIVE PLANTS.
 - (b) Acceptable EVERGREEN TREE species are listed in the Approved Plant List (Appendix A).
- 12. Shrubs shall be spaced according to their mature size, growth characteristics, and intended use. shrubs shall comply with the following requirements:
 - (a) Large shrubs are defined as shrubs or cultivated varieties of SHRUBS with a mature height of more than four (4) feet; and shall be a minimum size of two 2) feet in height at planting.
 - (i) A minimum of fifty (50%) percent of the large shrubs shall be NATIVE PLANTS.
 - (b) Small shrubs are defined as shrubs or cultivated varieties of shrubs with a mature height of less than four (4) feet; and shall be a minimum size of fifteen (15) inches in height or fifteen (15) inches in spread at planting, depending on variety.
 - (i) A minimum of fifty (50%) percent of the small shrubs shall be NATIVE PLANTS.
 - (ii) Acceptable shrub species are listed in the Approved Plant List (Appendix A).
- 13. Ground Covers include both woody and herbaceous perennials that have a mature height of eighteen (18) inches or less, excluding lawn and herbaceous annuals These plants can be used to prevent soil EROSION.
 - (a) Ground cover plants shall be installed with spacing appropriate for their mature size.
 - (b) Ground cover plants shall be spaced so that one hundred (100%) precent of the planting area is covered after three (3) years' growth.
 - (c) Herbaceous perennials, including grasses, may be installed as seed, plugs, or plants.

- 14. A variety of plant species are encouraged to avoid monocultures, to encourage long-lived species, and to promote wildlife habitat. Of the required tree and shrub plantings, no more than thirty-three (33%) percent may be of one species.
- D. STREET TREES. STREET TREES shall be planted along all proposed STREETS. In redevelopment projects STREET TREES shall also be planted along all existing STREETS. STREET TREE standards include:
 - 1. Trees must meet the requirements of Sec. 174.319.C(Plants) of this Chapter, for large and small STREET TREES.
 - 2. Tree staking is not required but may be performed at the DEVELOPER'S discretion. Any trees that are leaning within twelve (12) months of planting shall be corrected by the DEVELOPER at its cost.
 - 3. Large STREET trees shall be spaced a maximum of fifty (50) feet on center. Small STREET TREES shall be spaced a maximum of thirty (30) on center. Minimum spacing should be based on the mature width of the species being planted.
 - 4. STREET TREES shall be planted between the RIGHT-OF-WAY LINE and the BUILDING SETBACK LINE STREET TREES shall be not more than twelve (12) feet from the edge of STREET, and at least three (3) feet from SIDEWALKS.
 - 5. USE of multiple species is encouraged in STREET TREE plantings for biodiversity and resilience.
 - 6. Trees shall be planted so as not to interfere with the installation and maintenance of SIDEWALKS, lights, and utilities. STREET TREES shall be set back ten (10) feet from underground utilities; tree canopies or crowns at maturity shall not interfere with overhead utilities. Small STREET TREES may be placed beneath overhead utilities if the mature size of the tree will not interfere with the lines.
 - 7. Existing trees to remain may count towards the number of STREET TREES required in this Section if the trees are between the RIGHT-OF-WAY LINE and the BUILDING SETBACK LINE, are at least four (4) inches in diameter, measured twelve (12) inches above the ground, and are limbed up at least eight (8) feet in height.
 - 8. STREET TREES are the property and responsibility of the LOT OWNER. Maintenance of STREET TREES, including watering, pruning, pest control, and removal, if necessary, is the responsibility of the LOT OWNER. If a STREET TREE dies, it shall be removed and replaced by the LOT OWNER, with the same size and species of tree indicated on the DEVELOPMENT plan, or alternate size and species acceptable to the TOWNSHIP.
- E. PARKING LOT landscaping.
 - 1. All PARKING LOTS with six (6) or more spaces shall be designed and effectively landscaped with trees and SHRUBS to:
 - (a) Reduce the visual impact of glare, headlights, and PARKING LOT lighting.
 - (b) Facilitate vehicular circulation by delineating driving lanes and defining rows of parking.
 - (c) Provide shade to reduce the amount of reflected heat.
 - (d) Facilitate pedestrian circulation and safety.
 - (e) Provide filtering of IMPERVIOUS SURFACE RUNOFF to one or more Stormwater Infiltration Best Management Practices (BMP) contained in the Pennsylvania Stormwater Best Management Practices Manual.

- 2. Quantities and types of SHADE TREES required for PARKING LOTS are as follows:
 - (a) SHADE TREES appropriate for PARKING LOT plantings are indicated in the Approved Plant List (Appendix A).
 - (b) Provide one (1) SHADE TREE within the PARKING LOT for every ten (10) car PARKING SPACES in the LOT, or portion thereof. These trees count toward the requirements of island, perimeter, and divider strip landscaping and are not in addition to those requirements. Decimal values shall be rounded up; for example, a LOT with twenty-five (25) car PARKING SPACES would require three (3) trees.
 - (c) Provide one (1) SHADE TREE for every five (5) truck, RECREATIONAL VEHICLE, or semitrailer PARKING SPACES in the LOT, or portion thereof. The location shall be approved by the TOWNSHIP. To accommodate turning maneuvers of large vehicles, trees may be located outside of the PARKING LOT in groups, infiltration areas, or fence rows.
- 3. Planting islands (see diagram below) shall conform to the following standards:
 - (a) Planting islands shall be distributed throughout the PARKING LOT, so that one (1) planting island, a minimum of ten (10) feet wide by eighteen (18) feet long, shall be located at the end of each parking row and at intervals of no greater than ten (10) PARKING SPACES. A planting island shall separate the last PARKING SPACE from the drive aisle at the end of each interior parking row.
 - (b) In a ninety (90°) degree double bay parking row, the islands shall be a minimum of ten (10) feet wide and thirty-six (36) feet long. Angled PARKING LOT islands must have a minimum of ten (10) feet width.
 - (c) Each planting island shall contain at least one (1) SHADE TREE and ground cover to cover the entire planting area at maturity. A minimum of fifty (50%) percent of all trees and ground cover shall be NATIVE PLANTS.
 - (d) The placement of light standards shall be coordinated with the landscape plan to avoid a conflict with electric lines and provide adequate lighting.
- 4. Divider strips shall conform to the following standards:
 - (a) Divider strips shall be placed every other bay of parking, running the length of the rows of parking, and landscaped with plantings of SHADE TREES, shrubs, and ground cover to cover the entire planting area at maturity. A bay of parking is the width of pavement needed to accommodate either one (1) or two (2) rows of parking stalls plus one (1) access lane. The use of Stormwater Infiltration BMPs is strongly recommended in divider strips, where geologic conditions are appropriate, and in accordance with Chapter 165 of the Township Code, Stormwater Management.
 - (b) Divider strips shall be a minimum of ten (10) feet wide unless a sidewalk is proposed within the divider strip. If a sidewalk is proposed within the strip, the sidewalk must be placed to one side. The divider strip width shall be increased to a minimum of five (5) feet to accommodate the sidewalk.
 - (c) A minimum of one (1) SHADE TREE shall be required for each thirty (30) feet of divider strip. The trees need not be spaced evenly apart; however, the maximum spacing between trees (on center) shall be fifty (50) feet. Trees, shrubs, and ground covers shall be at least fifty (50%) percent NATIVE PLANTS. Ground cover, perennials, or shrubs shall be installed over Section 174.319 Sustainable Landscaping | 61

- the remainder of the divider island to stabilize the soil and cover the entire planting area at maturity. Shrubs within six (6) feet of the ends of divider islands shall not exceed two (2) feet in height at maturity so as not to block visibility. This shall not preclude the use of taller shrubs elsewhere within the divider strip.
- 5. PARKING LOT perimeter landscaping shall be provided to visually screen PARKING LOTS, limit glare from headlights, and enhance the community streetscape character. Such landscaping shall conform to the following standards:
 - (a) The PARKING LOT perimeter landscape strip shall have a minimum width of ten (10) feet measured from the STREET RIGHT-OF-WAY LINE or property line. PARKING LOTS set back more than fifty (50) from the property line shall have the perimeter landscaping width measured from the edge of the PARKING LOT.
 - (b) Within the landscape strip, the screening shall consist of a combination of trees, shrubs, ground cover or earthen berms to provide a minimum four (4)-foot height screen along property lines, and a minimum three (3)-foot height screen along STREETS.
 - (c) PARKING LOT perimeter landscaping shall be broken only at points of vehicular or pedestrian access and shall comply with height limitations in clear sight triangles.
 - (d) The plants shall provide an immediate visual screen of fifty (50%) percent opacity, and an effective visual screen of seventy-five (75%) percent opacity within three (3) years of installation.
 - (e) Plantings shall be placed between PARKING LOTS and BUILDINGS to break up long stretches of façade, shade the BUILDING and provide a more comfortable pedestrian environment.
 - (i) Plantings are required for all sides of a BUILDING facing PARKING LOTS. Planting is not required along the sides of BUILDINGS containing service or loading areas. If part of a side of the BUILDING faces parking, only that portion is subject to these requirements. loading areas must be appropriately screened according to the requirements of Section 174.319.G (Screening) of this Chapter.
 - (ii) The minimum planting requirement shall be one (1) tree, and ten (10) shrubs per fifty (50) feet of BUILDING façade.
 - (iii) At least forty (40%) percent of the plantings shall be evergreen and at least fifty (50%) percent shall be NATIVE PLANTS.
 - (iv) Acceptable PARKING LOT species are listed in the Approved Plant List (Appendix A).
- F. Zoning and USE BUFFERS.
 - 1. General BUFFER requirements. BUFFERS must include landscaping and may include berms, walls and fences. BUFFERS are adjacent to property lines.
 - (a) Existing plants may be used to meet BUFFER requirements, as long as the BUFFER width, opacity, and minimum evergreen requirements are met.
 - (b) STORMWATER MANAGEMENT FACILITIES and related STRUCTURES may be maintained within a BUFFER, but the existence of such stormwater management facilities and related STRUCTURES shall not be a basis for a failure to meet the landscaping requirements.
 - (c) A BUFFER may contain pedestrian, bike, or equestrian trails, provided that the total width of the BUFFER is maintained, and all other regulations of this section are met. In no event, however, shall swimming pools, tennis courts or other IMPERVIOUS SURFACES for

- recreation purposes be permitted in BUFFERS. In no case shall this relieve the OWNER of the obligation to provide the required plantings.
- (d) Plants shall be installed so that at maturity they do not encroach on neighboring properties. SHADE TREES shall be installed at least ten feet (10) feet from property lines. Plants may be grouped into beds as long as each neighboring property has a substantial visual screen to the area with more intensive use.
- (e) Plants shall meet the requirements of Sec. 174.319.C (Plants) of this Chapter.
- (f) BUFFER areas not planted with trees and shrubs shall be stabilized with ground cover or MEADOW. MEADOW areas shall meet the requirements of Sec. 174.319.I (Meadows) of this Chapter.
- (g) BUFFERS adjacent to agricultural uses shall provide a MEADOW that meets the requirements of Sec. 174.319.I (Meadows) of this Chapter.
- (h) Berms are encouraged and shall conform to the following standards:
 - (i) Berms shall be a minimum of two (2) feet in height and shall not be steeper than three (3) foot horizontal distance to one (1) foot vertical distance (3:1).
 - (ii) Berms should be located to work in conjunction with vegetation, fences, and/or natural features to provide an effective buffer. They shall be laid out to replicate naturally occurring landforms.
 - (iii) Stormwater flows onto adjacent property shall not be created, increased, decreased, relocated or otherwise altered without written consent of the adjacent property OWNER(s).
 - (iv) Berms shall not be constructed within the root zones of existing trees.
- 2. Types of BUFFER STRIPS:
 - BUFFER PLANTING STRIP A is designed to block fifty (50%) percent of the view at a six (6)-foot height during the summer months at maturity using trees and shrubs. At least twenty-five (25%) percent of the plants must be evergreen. This BUFFER STRIP is a minimum of twenty (20) feet wide, and must contain a minimum the following plants per one hundred (100) feet of BUFFER length or portion thereof:
 - (i) Two (2) SHADE TREES, and;
 - (ii) One (1) EVERGREEN TREE, and:
 - (iii) 20 large shrubs.
 - (b) BUFFER PLANTING STRIP B is designed to block seventy-five (75%) percent of the view at a six (6)-foot height at maturity using trees and shrubs. At least fifty (50%) of the plants must be evergreen. This BUFFER STRIP is a minimum of twenty-five (25) feet wide, and must contain the following plants per one hundred (100) feet of BUFFER length or portion thereof:
 - (i) Three (3) SHADE TREES, and;
 - (ii) Five (5) EVERGREEN TREES, and;
 - (iii) 25 large shrubs.
 - (c) BUFFER PLANTING STRIP C is designed to block one hundred (100%) percent of the view at a six (6)-foot height using shrubs and trees or other structural elements, within five (5) years of installation. At least fifty (50%) of the plant material must be evergreen. The use of higher Section 174.319 Sustainable Landscaping | 63

berms or a fence or masonry wall is recommended. The BUFFER STRIP is a minimum of forty (40) feet wide, and must contain the following plants per one hundred (100) feet of BUFFER length or portion thereof:

- (i) Three (3) SHADE TREES, and;
- (ii) Three (3) SMALL STREET TREES, and;
- (iii) Eight (8) EVERGREEN TREES, and;
- (iv) 30 large shrubs.
- (d) BUFFER PLANTING STRIP D is designed to block one hundred (100%) percent of the view at a six (6)-foot height using a six (6)-foot height fence or masonry wall and dense plantings of trees and shrubs on the side of the fence or wall facing neighboring property. At least fifty (50%) percent of the plant material must be evergreen. The plants shall be located to produce the greatest reduction of light, noise and views. This BUFFER STRIP is twenty (20) feet wide and must contain the following plants per one hundred (100) feet of BUFFER length or portion thereof:
 - (i) Two (2) SHADE TREES, and;
 - (ii) Eight (8) EVERGREEN TREES, and;
 - (iii) 24 large shrubs.
- 3. BUFFERS are required between ZONING DISTRICTS and dissimilar uses. BUFFER STRIPS shall be installed along ZONING DISTRICT boundaries or property lines, based on the following matrix which references the four (4) types of buffers listed above.

			J	able 3	2 Buii	eryara	Matrix			
Proposed	Adjacent ZONING DISTRICT or USE									
USE	CR*	SR	MDR	TC	RB	HC	PORBP	RRTP	RTO	OSPC
AGRICULTURE	-	-	-	-	ı	ı	-	-	1	
DWELLING,										
SINGLE-FAMILY								,		
DETACHED	Α	-	-	-	-	-	-	/-	-	-
and/or TWO-										
FAMILY							/			
DWELLING, all										
other types,										
including	Α	Α	_	_	_		_	_	_	_
mixture with					_				_	
SINGLE-FAMILY										
DETACHED										
MIXED USE	С	С	С	-	/-	-	-	-	-	В
INSTITUTIONAL	В	В	В	В	_	ı	-	-	-	В
COMMERCIAL*	С	С	С	/-	-	-	-	-	-	В

Table 32 Rufferward Matrix

D D D C C

- **BUFFER STRIP not required**
- 4. Special Conservation Residential (CR) ZONING DISTRICT BUFFER.
 - (a) Any MAJOR SUBDIVISION and/or LAND DEVELOPMENT in the Conservation Residential (CR) ZONING DISTRICT shall maintain a one hundred fifty (150)-foot BUFFER from all external STREET or ROADWAYRIGHTS-OF-WAY and a fifty (50)-foot BUFFER along all other tract boundaries. Notwithstanding the foregoing, the special BUFFER required by this Subsection (4) shall not be required to exceed thirty (30%) percent of the gross area of a parcel.
 - (i) Existing vegetation in this BUFFER shall not be disturbed, other than the removal of dead or diseased trees or other vegetation, except that any area within a STREET RIGHT-OF-WAY or EASEMENT may be disturbed to the extent necessary to provide STREETS, public utilities, access drives, essential services, or STORMWATER MANAGEMENT FACILITIES.
 - (ii) The quantity and type of required vegetation within this BUFFER is set forth in this Subsection and Appendix A. This shall be required along any property line or portion thereof adjoining property in a residential zoning district.
 - (iii) Should a STORMWATER MANAGEMENT FACILITY be proposed within this BUFFER, a detailed landscaping plan for said facility must be submitted to and approved by the TOWNSHIP.

^{*}The greater of this requirement vs. applicable requirements in D, Special bufferyard, shall apply

^{**} Uses proposed in the Route 910 Transitional Overlay adjacent to residential neighborhoods must show BUFFER PLANTING STRIP D in the landscape plan or greater SCREENING as required by the TOWNSHIP to mitigate impacts such as NOISE and glare.

- (b) When the width of a required BUFFER specified in this Subsection (4)I is in conflict with the minimum setback requirements of this Chapter, or any other applicable TOWNSHIP ordinance, the greater distance shall apply. The OWNER and/or DEVELOPER shall adhere to the BUFFER planting requirement regardless of the yard requirements.
- (c) In instances where an existing STRUCTURE houses the principal use of the property and is located within any required BUFFER, a BUFFER of not less than the minimum distance from the existing STRUCTURE to the property line shall be required. This reduced BUFFER width shall apply only to the yard area which the existing STRUCTURE encroaches upon. If the existing STRUCTURE is located within the required BUFFER on one side of the BUILDING, the required BUFFER as determined by this Subsection shall apply on all other yard areas. All landscaping requirements shall be adhered to regardless of the BUFFER width unless approved by TOWNSHIP.

Table 43 Special Bufferyard Standards

Special Conservation Bufferyard

Any MAJOR SUBDIVISION or LAND DEVELOPMENT in the Conservation Residential (CR) ZONING DISTRICT shall maintain a one hundred (150)-foot BUFFER from all external ROADWAY RIGHTS-OF-WAY and a fifty (50)-foot BUFFER along all other tract boundaries. The BUFFER must contain the following plants **per one hundred (100) feet of buffer length** or portion thereof.

the following	the following plants per one hundred (100) feet of buffer length of portion thereof.					
Quantity	Plant Type	Specifications				
7	SHADE TREES	Min. 2.5" caliper with 5' diameter mulch ring				
5	Evergreen Trees	Min. 7' tall with 5' diameter mulch ring				
6	Ornamental Tree (Small STREET	Min. 1.5" caliper or 6' height with 5' diameter				
	TREE)	mulch ring				
50	Whip Trees (Shade Trees or	Min. 3' tall, spaced 10' on center, with 5'				
	Evergreen Trees)	diameter mulch ring, should be a mix of species				
50	SHRUBS (Small or Large	Min. 3 gallon or equivalent, plant in random				
	SHRUBS)	groups with continuous mulch beds				
As	MEADOW Seed Mix*1	Seed mixes should contain only native species				
needed to		and be selected based on SITE conditions. Mix				
infill		must contain a minimum of 10 wildflower				
between		species and a minimum of 3 grass species.				
trees and		Cutting 1-2 times per year is suggested.				
SHRUBS						
As	Slope Seed Mix*2	Seed mixes should be non-invasive, grow				
needed		enough to stabilize slopes in one growing				
on slopes		season, and need minimal maintenance. Cutting				
to		1-2 times per year is suggested.				
stabilize						
soils						

^{*} Suitable seed mixes are available through online seed catalogs such as Ernst Conservation Seeds.

¹ Possible seed mixes from Ernst include: ERNMX-230-1 PA Valley & Ridge Province UPL Meadow; ERNMX-221 PA South Allegheny Plateau Province FACW; ERNMX PA Southern Allegheny Plateau Province OBL; ERNMX-223 PA Southern Allegheny Plateau Province Riparian Mix

² Possible seed mixes from Ernst include: ERNMX-111 Ernst Native Habitat for Strip Mines Mix; ERNMX-181 Native Steep Slope Mix with Annual Ryegrass; ERNMX-181-1 Native Steep Slope Mix with Grain Oats; ERNMX-181-2 Native Steep Slope Mix with Grain Rye; ERNMX-194 Flight 93 Memorial Steep Slope Mix

G. Screening.

- 1. Screening CREENING is required for OUTDOOR STORAGE, off-STREET loading, trash collection areas, and outdoor mechanical and fuel equipment. Screening shall provide a reduction of views, light, and noise.
- 2. Screening may include evergreen landscape plantings, berms, walls, and fences.
- 3. Existing plants may be used for the screening, as long as the height, opacity and evergreen requirements are met.
- 4. Screens shall provide a one hundred (100%) percent visual barrier to the element at a height of four (4) feet at the time of installation. Screens shall provide a one hundred (100%) visual barrier to the element at a height of six (6) feet within two (2) years of installation. Landscape plants shall be placed in multiple staggered rows.

H. RIPARIAN BUFFERS.

- (i) At a minimum, a fifty (50)-foot RIPARIAN BUFFER is required adjacent to all watercourses including STREAMS, creeks, lakes, ponds, and WETLANDS. The RIPARIAN BUFFER width is measured from the top of bank on each side of the WATERCOURSE. When these watercourses are part of a parcel or parcels of land being subdivided, developed or redeveloped, the buffer shall be planted or maintained as WOODLANDS in accordance with the following:
- 2. Existing trees may be used to meet buffer requirements, as long as the trees provide a continuous canopy or are spaced less than twenty-five (25) feet apart.
- 3. Plant material shall conform to Section. 174.319.C (Plant material) of this Chapter.
- 4. Within fifty (50) feet of a WATERCOURSE, the area shall be planted with SHADE TREES at a spacing not to exceed twenty-five (25) feet on center. Plantings shall not be precisely arranged in geometric rows but shall be arranged to allow periodic mowing to control invasive species. Utilize the Pennsylvania Stormwater Best Management Practices Manual for guidance on NATIVE PLANT selection. No permanent STRUCTURES or pavement are allowed within this fifty (50)-foot buffer, except for permitted road crossings and STORMWATER MANAGEMENT FACILITIES. Areas of utility RIGHTS-OF-WAY and clear sight triangles may be planted as MEADOW, provided that woody plants are restricted or prohibited.
- I. MEADOWS. MEADOWS may be used in place of ground cover (see Section. 174.319.C (Plant material) of this Chapter) or turf in any area required to be landscaped, according to the following standards:
 - 1. One hundred (100%) percent of the plants installed in a MEADOW shall be NATIVE PLANTS. No plants on the PADCNR "Invasive Species List" including Watch List species, or the PADA "Noxious Weeds List", shall be allowed to grow in the MEADOW.
 - 2. MEADOWS shall consist of a minimum of three (3) grass species and four (4) flowering perennial species. MEADOWS may be installed using seeds, plugs, or plants.

- 3. A MEADOW planting shall have a minimum four (4)-foot wide mown turf border along any road, sidewalk, or property line. A minimum four (4)-foot tall visual barrier, such as shrubs, fence, or masonry wall, may be used in place of the turf border between the MEADOW and a property line.
- 4. The mature height of a MEADOW must meet all requirements for plant material in a clear sight triangle and adhere to any other size and species requirements noted for the specific application.
- 5. MEADOWS may not be mown more than twice per year; once in March or April to cut stems that were left standing through the winter, and once more during the growing season if needed to control invasive species.
- J. Guarantee and maintenance. The estimated, or if known, the actual cost of all landscape materials depicted on the approved landscape plan and installation costs shall be provided and be financially secured, guaranteed and maintained consistent with the following subsections.
 - 1. IMPROVEMENTS. Planting and maintenance of vegetation shall include, as appropriate, but not necessarily limited to, provisions for surface mulch, staking, tree straightening, irrigation, fertilization, insect and disease control, pruning, mulching, weeding and watering.
 - 2. The APPLICANT shall make arrangements acceptable to the TOWNSHIP that all landscape IMPROVEMENTS installed in accordance with this Chapter shall be guaranteed and maintained in a healthy and/or sound condition, or otherwise be replaced by equivalent IMPROVEMENTS, for a period of eighteen (18) months following TOWNSHIP acceptance of a STREET, except as may otherwise be required by this Subsection.
 - 3. After installation and prior to commencement of the guarantee period required above, the TOWNSHIP shall perform an inspection of the finished SITE for compliance with the approved landscape plan. Following this inspection, an as-built landscape plan shall be furnished to the TOWNSHIP by the APPLICANT. Provided the finished SITE is found to be in compliance, the first twelve (12)-month guarantee period shall commence five (5) days from the date of inspection. All plants shall be in a vigorous and thriving condition at the end of the twelve (12)-month period as determined above. A final inspection of the SITE following the twelve (12)-month period will be made by the TOWNSHIP. It is recommended that trees and shrubs be planted between September 15 and November 1 or between March 1 and May 15.
 - 4. Plants found to be in poor health during the twelve (12)-month guarantee period shall be replaced with nursery-grown plants, in accordance with the approved landscape plan, within thirty (30) days of being notified by the TOWNSHIP. If notification is made out of season, replacements shall be made during the next planting season. If the original plants declined due to poor species selection, substitute plants, determined by the TOWNSHIP to be more suitable for the SITE's environmental conditions or planting scheme, shall be used, and a modified landscape plan shall be filed with the TOWNSHIP. Replacement plants shall be inspected by the TOWNSHIP after installation. All replacement plants shall be subject to a new twelve (12)-month guarantee period and inspections by the TOWNSHIP as prescribed in Subsections 2. and 3. above.

- 5. Where accidental damage or vandalism of plants occurs, the APPLICANT shall replace the damaged plant material in accordance with the original or an approved modified landscape plan.
- 6. The TOWNSHIP may require an APPLICANT to post financial security for the maintenance and/or replacement of the proposed vegetation, including compensatory plantings, during the twelve (12)-month guarantee period. The amount of the financial security shall be equal to 110% of the amount of the cost estimate submitted with the approved landscape plan. Financial security is not required for existing preserved trees outside the CONSTRUCTION limits or for plants not being used to satisfy the minimum requirements of this ordinance.
- 7. The APPLICANT shall make arrangements acceptable to the TOWNSHIP for the long-term landscape maintenance of COMMON OPEN SPACE and other COMMON FACILITIES. Landscape IMPROVEMENTS required by this Chapter may be the subject of suitable restrictive covenants and, if PRACTICABLE, rules and regulations governing the use and maintenance of COMMON OPEN SPACE and other COMMON FACILITIES, which covenants, rules and regulations shall be in form and substance acceptable to the TOWNSHIP and, in the case of covenants, recorded as encumbrances running with the land on which the IMPROVEMENTS are installed. The covenants, rules and regulations shall, without limiting the forgoing, require the maintenance and replacement, and prohibit the destruction or removal, of all landscape materials and IMPROVEMENTS depicted on the approved landscape plan, empower the TOWNSHIP to enforce said obligations, and prohibit the amendment or termination of any of the mandatory terms thereof without the express joiner of the TOWNSHIP.

ARTICLE 400 CONSERVATION SUBDIVISION PROCEDURES AND REQUIREMENTS

Section 174.401 General Regulations.

A. Applicability of Regulations. All applications for CONSERVATION SUBDIVISIONS, as specified in Section 208.402.Q of the ZONING ORDINANCE shall comply with all other provisions of this Chapter and those of Section 208.402.Q of the ZONING ORDINANCE, unless otherwise specified by this Article.

Section 174.402. Application Submission Requirements.

- A. Applicability of this Chapter. The APPLICANT shall follow all requirements for application and approval of a PRELIMINARY and FINAL SUBDIVISION pursuant to Article 200 of this Chapter, in addition to the requirements of this Article.
- B. Plan and Map Requirements. The following plans and maps shall bear the name, signature, address, and telephone number of the PROFESSIONAL ENGINEER, PROFESSIONAL LAND SURVEYOR, or landscape architect responsible for preparing the PLAN or map.
- C. Existing Resources and Site Analysis Map. For all SUBDIVISIONS, the DEVELOPER shall prepare an Existing Resources and Site Analysis Map to provide a comprehensive analysis of EXISTING CONDITIONS both on the proposed DEVELOPMENT site and within five hundred (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 map to assess its accuracy, conformance with municipal ordinances, and likely impact upon the natural and cultural resources on the property. Such maps shall generally be prepared at the scale of 1 inch =100 feet or 1 inch = 200 feet, whichever would fit best on a single standard size sheet (24 inches × 36 inches). The following information shall be included on this map:
 - 1. TOPOGRAPHY, the contour lines of which shall generally be at two (2)-foot intervals, determined by photogrammetry (although ten (10)-foot intervals are permissible beyond the parcel boundaries, interpolated from United States Geological Service published maps). SLOPES between fifteen (15%) percent and twenty-five (25%) and those exceeding twenty-five (25%) percent shall be clearly indicated.
 - 2. The location and delineation of ponds, STREAMS, ditches, drains, and natural DRAINAGE SWALES, as well as the one hundred (100)-year FLOODPLAINS and WETLANDS.
 - 3. Vegetative cover conditions on the property according to general cover type, including cultivated land, permanent grassland, meadow, pasture, hedgerow, WOODLANDS and WETLANDS, trees with a caliper in excess of fifteen (15) inches, the actual canopy line of existing trees and WOODLANDS. Additional areas of WETLANDS on the proposed DEVELOPMENT parcel shall also be indicated, as evident from testing, visual inspection, or from the presence of WETLANDS vegetation.
 - 4. Soil series and types for the subject tract as mapped by the USDA, Natural Resources Conservation Service, and accompanying data published for each soil relating to its suitability for CONSTRUCTION (and, in unsewered areas, for septic suitability).

- 5. Ridge lines and watershed boundaries shall be identified.
- 6. A viewshed analysis showing the location and extent of views into the property from public ROADWAYS and STREETS and from public parks, public forests, and state game lands.
- 7. Geologic formations on the proposed DEVELOPMENT parcel, including rock outcroppings, cliffs, and areas of slide-prone soils, such as Pennsylvania Red Beds, based on available published information or more detailed data obtained by the APPLICANT.
- 8. All existing man-made features including but not limited to STREETS, DRIVEWAYS, buildings, foundations, walls, wells, DRAINAGE fields, dumps, utilities, fire hydrants, and storm and sanitary sewers.
- 9. Locations of all historically significant sites or STRUCTURES on the tract, including but not limited to cellar holes, stone walls, earthworks, and graves.
- 10. Locations of TRAILS that have been in public use (pedestrian, equestrian, bicycle).
- 11. All EASEMENTS and other encumbrances of property which are or have been filed of record with the COUNTY Recorder of Deeds or Department or Real Estate shall be shown on the plan.
- 12. Total acreage of the tract, the adjusted tract area and the constrained land area with detailed supporting calculations from formulas included in Section 208.402.Q of the ZONING ORDINANCE.
- D. Four-Step Design Process for CONSERVATION SUBDIVISIONS The application for preliminary approval for a CONSERVATION SUBDIVISION shall include documentation of a four-step design process, as described below, in determining the layout of proposed GREENWAY LANDS, house sites, and STREETS and LOT LINES.
 - 1. Step 1—Delineation of GREENWAY LANDS:
 - (a) The minimum percentage and acreage of required GREENWAY LAND as determined by Article 400, Chapter 208-402.Q of the ZONING ORDINANCE lands shall be calculated by the APPLICANT and submitted as part of the PRELIMINARY PLAN in accordance with the provisions of this ordinance.
 - (b) GREENWAY LAND shall include all PRIMARY CONSERVATION AREAS and those SECONDARY CONSERVATION AREAS with the highest resource significance.
 - (c) The TOWNSHIPS Natural Resource Composite Map in the COMPREHENSIVE PLAN shall also be referenced and considered. The APPLICANT shall prioritize natural and cultural resources on the tract in terms of their highest to least suitability for inclusion in the proposed COMMON OPEN SPACE, in consultation with the PLANNING COMMISSION.
 - (d) On the basis of those priorities and practical considerations given to the tract's configuration, its context in relation to resource areas on adjoining and neighboring properties, and the APPLICANT'S SUBDIVISION objectives, SECONDARY CONSERVATION

AREAS shall be delineated to meet at least the minimum area percentage requirements for GREENWAY LAND and in a manner clearly indicating their boundaries as well as the types of resources included within them.

- 2. Step 2—Alignment of STREETS and TRAILS: A STREET plan shall be designed to provide vehicular access to each house, complying with the standards within this Article 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).
- 3. Step 3—Location of House SITES: Potential house SITES shall be tentatively located along the proposed STREETS House SITES should generally be located not closer than 100 feet from PRIMARY CONSERVATION AREAS and 50 feet from SECONDARY CONSERVATION AREAS, taking into consideration the potential negative impacts of residential DEVELOPMENT on such areas as well as the potential positive benefits of such locations to provide attractive views and visual settings for residences.
- 4. Step 4—Drawing in the LOT LINES: Upon completion of the preceding three steps, LOT LINES shall be drawn as required to delineate the boundaries of individual residential LOTS.
- E. Preliminary IMPROVEMENTS Plan. This plan shall include the following items:
 - 1. Existing and approximate proposed LOT LINES, LOT AREAS, any existing EASEMENTS and rights-of-way.
 - 2. The boundaries of GREENWAY LANDS shall be indicated.
 - 3. Delineation of the proposed phases and a schedule of deadlines within which applications for final approval of each phase are intended to be filed.
 - 4. Typical STREET cross-section drawing(s) for all proposed STREETS shall be shown, including details relating to thickness, crowning, and CONSTRUCTION materials.
 - Exact locations of existing utility EASEMENTS and approximate locations of proposed utility EASEMENTS.
 - 6. Approximate layout of all proposed 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.)
 - 7. Approximate location of proposed shade trees, plus locations of existing vegetation to be retained.
- F. HOMEOWNERS ASSOCIATION Document. A HOMEOWNER ASSOCIATION document or a CONDOMINIUM ASSOCIATION document, shall be provided for all SUBDIVISION and LAND

DEVELOPMENT applications that 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. The elements of the COMMUNITY ASSOCIATION Document shall include but shall not necessarily be limited to the following:

- 1. A description of all lands and facilities to be owned by the ASSOCIATION. This description shall include a map of the proposal highlighting the precise location of those lands and facilities.
- 2. Statements setting forth the powers, duties, and responsibilities of the ASSOCIATION, including the services to be provided.
- 3. A Declaration of Covenants, Conditions, and Restrictions, granting perpetual EASEMENT(S) to the lands and facilities owned by the ASSOCIATION. The Declaration shall be a legal document that 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.
- 4. Statements prescribing the process by which ASSOCIATION decisions are reached and setting forth the authority to act.
- 5. Statements requiring each OWNER within the SUBDIVISION or LAND DEVELOPMENT to become a member of the ASSOCIATION. Statements setting cross covenants or contractual terms binding each OWNER to all other owners for mutual benefit and enforcement.
- 6. Requirements for all owners to provide a pro rata share of the cost of the operations of the ASSOCIATION.
- 7. A process of collection and enforcement to obtain funds from owners who fail to comply.
- 8. A process for transition of control of the ASSOCIATION from the DEVELOPER to the UNIT owners.
- 9. Statements describing how the lands and facilities of the ASSOCIATION will be insured, including limit of liability.
- G. GREENWAY LAND Ownership and Management Plan. Using the Conceptual PRELIMINARY PLAN as a base map, the boundaries, acreage, and proposed ownership of all proposed GREENWAY LAND areas shall be shown. In addition, the APPLICANT shall also submit a GREENWAY LAND Ownership and Management Plan detailing the entities responsible for maintaining various elements of the property and describing management objectives and techniques for each part of the property.

ARTICLE 500 MANUFACTURED HOME COMMUNITIES

Section 174.501 Grant of Power

A. Individual Manufactured Homes. Individual Manufactured Homes, as defined in Article 8, Definitions, of this chapter, and as permitted under the ZONING ORDINANCE, may be erected on any LOT where the use is permitted in compliance with the ZONING ORDINANCE, all provisions of this Chapter applying to SUBDIVISION and LAND DEVELOPMENT of SINGLE-FAMILY DETACHED DWELLINGS, and Chapter 88 of the Township Code, Uniform Construction Code.

В.

Section 174.502 Purpose

- A. The purpose of this Article is to establish standards of performance and promote the desirable benefits that planned MANUFACTURED HOME communities may have upon the TOWNSHIP. It is further the intent of this Article to ensure the interdependency and compatibility of such planned MANUFACTURED HOME communities with essential utilities, amenities, and surrounding LAND USES in the TOWNSHIP.
- B. It shall further be the intent of this Article to:
 - Reflect the changes in the technology of home BUILDING and LAND DEVELOPMENT so that
 resulting economies may convey the benefits derived therefrom to those who need affordable
 homes;
 - 2. Further the general welfare by extending greater opportunities for better and more affordable housing to all present and prospective residents of the TOWNSHIP;
 - Provide for better quality and greater variety in type, design and layout of planned MANUFACTURED HOME communities than has been evident in many planned MANUFACTURED HOME communities in the past by enforcing uniform standards, desirable design criteria, and encouraging innovative SITE design approaches;
 - 4. Encourage a diversity in MANUFACTURED HOUSING types and prices; and
 - 5. Encourage planned MANUFACTURED HOME communities that are beneficial rather than detrimental to property values and the general welfare of the area in which they are proposed.

Section 174.503 Plan Requirements and Processing Procedure

The plan requirements and processing procedure for a MANUFACTURED HOME park as a LAND DEVELOPMENT shall be in accordance with the requirements contained in Article 2 of this Chapter, in addition to applicable provisions of the Marshall Township MANUFACTURED HOME Ordinance and/or ZONING ORDINANCE.

Section 174.504 Design Standards and Other Requirements

- A. The arrangement and other design standards and IMPROVEMENTS shall be in accordance with the requirements contained in this Chapter except as otherwise specified in ZONING ORDINANCE.
 - 1. SITE Location and Design Standards.
 - (a) Layout of Lots.
 - (i) All LOTS shall ABUT a STREET. Side LOT LINES laid out in rectangular BLOCKS should be perpendicular or diagonal to the STREET at angles not less than thirty (30) degrees from perpendicular. Front and rear Lot lines in rectangular BLOCKs shall be straight and continuous.
 - (ii) In CUL-DE-SAC arrangements, the side LOT LINES shall be radial to the STREET LINES.
 - (b) Lot Dimensions and Area. The LOT size shall be not less than fifty (50) feet wide at the BUILDING SETBACK LINE for INTERIOR LOTS. LOT AREA shall be in accordance with Article3 of the Marshall Township ZONING ORDINANCE, Chapter 208 of the Township Code, nor less than five thousand (5,000) square feet in area for all Lots. In addition, each MANUFACTURED HOME LOT size shall:
 - (i) Fit dimensions of manufactured homes anticipated; and
 - (ii) Provide for MANUFACTURED HOME appurtenant STRUCTURES and appendages.
 - (c) CORNER LOTS. CORNER LOTS for MANUFACTURED HOME use shall have the MANUFACTURED HOME situated to permit appropriate building setback from both streets and allow proper SIGHT DISTANCE.
 - (d) BUILDING SETBACK LINES. Notwithstanding the setback requirements specified under Article 2 of the ZONING ORDINANCE, the minimum setbacks from the LOT LINE shall be as follows:
 - (i) Park Boundary Property Line. Ten (10) feet.
 - (ii) Front Yard. Fifteen (15) feet.
 - (iii) Side Yards.
 - () Minimum Side Yard. Five (5) feet.
 - () Total of Both Side Yards. Twenty (20) feet.
 - () Rear Yard. Fifteen (15) feet.
 - (iv) Buffering and Screening. Where a MANUFACTURED HOME PARK ABUTS an interstate, principal arterial, minor arterial, collector, local collector and/or local roads or is located adjacent to industrial or commercial properties or districts, screening shall be provided within a BUFFER yard twenty-five (25) feet in width along the abutting RIGHT-OF-WAY

or property separating the MANUFACTURED HOME PARK from the adjacent LAND USES and ROADWAYS. Screening shall be provided in accordance with Section 174.319.

- B. MANUFACTURED HOME PARK STREET System. The arrangement and other design standards of streets shall be in accordance with the requirements contained in Article VI of this Chapter, except as specified below.
 - (a) General Requirements.
 - (i) A safe and convenient vehicular access shall be provided from abutting PUBLIC STREETS.
 - (ii) STREETS shall be privately owned unless LOTS are intended for sale.
 - (b) Design and Construction Requirements. The streets or roads in a MANUFACTURED HOME PARK shall be located and built in accordance with Section 174.304 of this Chapter.
 - SIDEWALKS and Pedestrian Pathways. Pedestrian interior SIDEWALKS and pathways may be required where essential to assist circulation or pedestrian movement and safety to common or important facilities in the MANUFACTURED HOME park. These facilities shall be constructed in accordance with Section 174.306 of this Chapter.
 - 3. EASEMENTS shall be provided in accordance with Section 174.315 of this Chapter.
 - 4. Mailboxes. The OWNER shall provide and maintain a central location for all mailboxes for persons living in the park.
 - 5. Landscaping. Planting is required to the extent needed to provide for:
 - (a) Screening in accordance with the ZONING ORDINANCE.
 - (b) STREET trees in accordance with the ZONING ORDINANCE.
 - 6. Parking.
 - (a) A minimum of two (2) off-STREET PARKING SPACES shall be required per MANUFACTURED HOME LOT.
 - (b) One (1) off-STREET PARKING SPACE shall be located on the MANUFACTURED HOME LOT.
 - (c) Common PARKING LOTS shall be a minimum of one hundred (100) feet from a MANUFACTURED HOME LOT.
 - (d) Parking shall meet the requirements of § 195-418of Chapter 208, Zoning.
 - 7. COMMON OPEN SPACE. Open space shall be provided in accordance with Section 195-419 of the ZONING ORDINANCE.

8. Skirting. Skirting shall be required around the entire perimeter of the manufactured home. Skirting shall be installed in accordance with the 2021 International Residential Code.

Section 174.505 Fuel Supply and Storage

A. Natural Gas System.

- 1. Natural gas piping systems, when installed in MANUFACTURED HOME PARKS, shall be maintained in conformity with accepted engineering practices and the Uniform Commercial Code.
- 2. Each MANUFACTURED HOME LOT provided with piped gas shall have an approved shutoff valve installed upstream of the gas outlet. The outlet shall be equipped with an approved cap to prevent accidental discharge of gas when the outlet is not in use.
- B. Liquefied Petroleum Gas Systems.
 - 1. Liquefied petroleum gas ("LPG") systems provided for MANUFACTURED HOMES, service buildings or other STRUCTURES when installed shall be maintained in conformity with the rules and regulations of the authority having jurisdiction and shall include the following:
 - (a) Systems shall be provided with safety devices to relieve excessive pressures and shall be arranged so that the discharge terminates at a safe location.
 - (b) Systems shall have at least one accessible means for shutting off gas. Such means shall be located outside the manufactured home and shall be maintained in effective operating condition.
 - (c) All LPG piping outside of the manufactured homes shall be well-supported and protected against mechanical injury. Undiluted liquefied petroleum gas in liquid form shall not be conveyed through piping equipment and systems in manufactured homes.
 - (d) Vessels of more than twelve (12) and less than sixty (60) U.S. gallons' gross capacity may be installed on a MANUFACTURED HOME LOT and shall be securely but not permanently fastened to prevent accidental overturning.
 - (e) No LPG vessel shall be stored or located inside or beneath any storage cabinet, carport, manufactured home or any other STRUCTURE unless such installations are specially approved by the authority having jurisdiction.
 - (f) Liquefied petroleum gas systems shall be installed in accordance with the Uniform Commercial Code.
- C. Fuel Oil Supply Systems.

- 1. All fuel oil supply systems provided for manufactured homes, service buildings and other STRUCTURES shall be installed and maintained in conformity with the rules and regulations of the authority having jurisdiction when provided.
- 2. All piping from outside fuel storage tanks or cylinders to manufactured homes shall be securely, but not permanently, fastened in place.
- 3. All fuel oil supply systems provided for manufactured homes, service buildings and other STRUCTURES shall have shutoff valves located within five inches of storage tanks.
- 4. All fuel storage tanks or cylinders shall be securely placed and shall not be less than five feet from any manufactured home exit.
- 5. Storage tanks located in areas subject to traffic shall be protected against physical damage.
- 6. Fuel oil supply systems shall be installed in accordance with the Uniform Commercial Code.

Section 174.506 Water Supply Facilities

- A. A potable water supply shall be supplied to all DWELLINGS within a MANUFACTURED HOME PARK. The MANUFACTURED HOME PARK shall be served by PUBLIC WATER, or one central community water supply as defined by this chapter. Such systems shall be installed according to the requirements and standards of the PADEP. In addition to such requirements, the water distribution system shall be constructed in accordance with the following:
 - 1. Individual water-riser pipes shall be located within the confined area of the manufactured home stand at a point where the water connection will approximate a vertical position.
 - 2. The water-riser pipe shall extend at least four inches above ground elevation. The pipe shall be at least three quarter of one (3/4) inch. The water outlet shall be capped when a manufactured home does not occupy the LOT.
 - 3. Adequate provisions shall be made to prevent freezing of service lines, valves, and riser pipe and to protect risers from heaving and thawing actions of the ground during freezing weather. Surface DRAINAGE shall be diverted from the location of the riser pipe.
 - 4. A shutoff valve below the frost line shall be provided near the water-riser pipe of each MANUFACTURED HOME LOT.
 - 5. Underground stop and waste valves shall not be installed on any water service.

Section 174.507 Sewage Service Facilities

A. MANUFACTURED HOME PARKS shall be served by a PUBLIC SEWER as defined by this Chapter. For community systems, the OWNER of the MANUFACTURED HOME PARK shall prepare an evaluation of the various sewage disposal alternatives which addresses the following and shall provide financial assurances for the repair or replacement of the community system, providing:

- The cost of extending existing PUBLIC SEWERS to the SITE. This shall address the length of the
 extension, potential methods of conveyance and the ability of the existing PUBLIC SEWER
 SYSTEM to accommodate flows from the SITE.
- The cost of the community sewer system, including installation, operation and maintenance
 costs, in comparison to the costs associated with the extension of existing sewer lines to the
 SITE. This shall also provide adequate justification for the selection of the community sewer
 system.

Section 174.508 Required Approvals of Public Sewer System

All PUBLIC SEWER SYSTEMS require approval and permitting by the PADEP. In addition, the design of a COMMUNITY SEWER SYSTEM for a MANUFACTURED HOME PARK shall be subject to the approval of the BOARD following the review of the design by the TOWNSHIP ENGINEER. The design of a PUBLIC SEWER SYSTEM which represents an extension of an existing PUBLIC SEWER SYSTEM shall be subject to the approval of the applicable MUNICIPAL SEWER AUTHORITY following the review of that entity's engineer.

Section 174.509 Keeping of Animals

No animals, including fowl, except domestic household pets, shall be permitted within the park, and then only such animals as will not create a nuisance or disturb other people.

Section 174.510 Improvement and Construction Requirements

- A. All IMPROVEMENTS, CONSTRUCTION requirements and ENGINEERING SPECIFICATIONS for the IMPROVEMENTS required shall be provided in accordance with Article 300 of this Chapter and the ZONING ORDINANCE.
 - (a) Streetlights. STREET- or on-SITE lights shall be provided to illuminate streets, DRIVEWAYS, and walkways for the safe movement of vehicles and pedestrians at night. Their type and location shall be shown on the SUBDIVISION or land DEVELOPMENT PLAN in accordance with Article 500, Section 208.504.H. of the ZONING ORDINANCE.
- B. Underground Utilities. Electric, telephone and all other utilities facilities shall be installed underground.

Section 174.511 Park Rules and Regulations

The OWNER shall provide each occupant of the park with a copy of the pertinent laws applicable to occupiers of MANUFACTURED HOME PARKS.

Section 174.512 Permits, Fees, and Licenses

- A. MANUFACTURED HOME PARK Permits. Any PERSON intending to develop a tract of land as a MANUFACTURED HOME PARK shall obtain a permit from the TOWNSHIP for each such park, issued in accordance with the requirements contained in the ZONING ORDINANCE.
- B. Fees.

- At the time of filing the PRELIMINARY PLAN and the FINAL PLAN for the DEVELOPMENT of a tract of land for a MANUFACTURED HOME PARK, the APPLICANT shall be required to pay to the TOWNSHIP processing and inspection fees as required for a SUBDIVISION or LAND DEVELOPMENT in accordance with Section 174.113 of this Chapter.
- 2. The fee shall be required for each MANUFACTURED HOME LOT to be altered or added to the MANUFACTURED HOME PARK and shall accompany all applications for alteration or extension in accordance with Section 174.113 of this Chapter.
- 3. Upon final approval of the application by the BOARD, when it has been ascertained that the proposed plan meets the requirements of this Chapter and regulations issued hereunder, a license and permit shall be issued.
- C. Licenses. Any PERSON intending to operate a MANUFACTURED HOME PARK within the TOWNSHIP shall have a license from the TOWNSHIP for each such park as follows:
 - 1. It shall be unlawful for any PERSON to operate any MANUFACTURED HOME PARK within the TOWNSHIP unless said PERSON holds a valid license, in the name of such PERSON, for the specific MANUFACTURED HOME PARK. All license applications shall be made to the TOWNSHIP, who shall issue a license upon compliance by the APPLICANT with provisions of this chapter and regulations issued hereunder and other applicable legal requirements.
 - Every PERSON holding a license shall give notice, in writing, to the TOWNSHIP within ten (10)
 days after having sold, transferred, or otherwise disposed of interest in or control of any
 MANUFACTURED HOME PARK. Such notice shall include the name and address of the PERSON
 succeeding to the ownership or control of such MANUFACTURED HOME PARK.
 - 3. Upon application, in writing, for transfer of the license and deposit of a fee established by resolution, the license shall be transferred if the MANUFACTURED HOME PARK is in compliance with all applicable provisions of this chapter and regulations issued hereunder.
 - 4. Application for original licenses shall be in writing, signed by the APPLICANT, accompanied by an affidavit of the APPLICANT as to the truth of the application and by the deposit established by resolution, and shall contain:
 - (a) The name and address of the APPLICANT.
 - (b) The location and legal description of the MANUFACTURED HOME PARK.
 - (c) The plan of the MANUFACTURED HOME PARK, approved by the BOARD, showing all MANUFACTURED HOME LOTS, manufactured home stands, STRUCTURES, roads, walkways, service facilities, stormwater DRAINAGE facilities and other pertinent information required under Article 2 of this Chapter.
 - 5. The license shall be valid for a period of one year unless revoked by the TOWNSHIP. Licensing fees shall be calculated, billed and collected in January of each year. Fees for licenses shall be prorated.

- 6. Applications for renewal of licenses shall be made in writing by the holders of the licenses and shall be accompanied by the fee required by resolution for each MANUFACTURED HOME in the PARK during the previous year; the latter shall be due and payable at the end of each year regardless of whether or not a renewal application is submitted. The application shall contain any change in the information submitted since the original license was issued or the latest renewal granted.
- 7. Whenever, upon inspection of any MANUFACTURED HOME PARK, the TOWNSHIP finds that conditions or practices exist which are in violation of any provision of this Chapter or regulations issued hereunder, the TOWNSHIP shall give notice, in writing, in accordance with Subsection (A) of this section, to the PERSON to whom the license was issued that unless such conditions or practices are corrected within a reasonable period of time as specified in the notice by the TOWNSHIP, the license shall be suspended. At the end of such period the TOWNSHIP shall reinspect the MANUFACTURED HOME PARK and, if such conditions or practices have not been corrected, the license shall be suspended and notice given, in writing, of such suspension to the PERSON to whom the license is issued. Upon receipt of notice of such suspension, such PERSON shall cease operation of such MANUFACTURED HOME PARK, except as provided in Section 174.514. of this Chapter.
- 8. Suspended License.
 - (a) Any PERSON whose license has been suspended, or who has received notice from the TOWNSHIP that his license will be suspended unless certain conditions or practices at the MANUFACTURED HOME PARK are corrected, may request and shall be granted a hearing on the matter before the BOARD pursuant to the procedures provided by Section 174.514 of this Chapter.
 - (b) Provided that, when no petition for such hearing shall have been filed within ten (10) days following the day on which notice of suspension was served, such license shall be deemed to have been automatically revoked at the expiration of such tenday period.
- 9. A temporary license, upon written request therefor, may be issued by the BOARD for every MANUFACTURED HOME PARK in existence at the effective date of this Chapter, permitting the MANUFACTURED HOME PARK to be operated during the period ending one hundred eighty (180) days after the effective date of this Chapter in accordance with such conditions as the TOWNSHIP may require.
- 10. The term of the temporary license shall be extended, upon written request, for not to exceed one additional period of one hundred eighty (180) days, if:
 - (a) The licensee shall have filed application for a license in conformity with Subsection (C) of this section within ninety (90) days after the effective date of this chapter;
 - (b) The plans and specifications accompanying the application for license comply with all provisions of this chapter and all other applicable ordinances and statutes;

- (c) The licensee shall have diligently endeavored to make the existing MANUFACTURED HOME PARK conform fully to the plans and specifications submitted with the application; and
- (d) Failure to make the existing MANUFACTURED HOME PARK conform fully to such plans and specifications shall have been due to causes beyond the control of the licensee.

Section 174.513 Inspection of Manufactured Home Communities

- A. The TOWNSHIP is hereby authorized to make such inspections as are necessary to determine satisfactory compliance with this chapter and regulations issued hereunder.
- B. The TOWNSHIP shall have the power to enter at reasonable times upon any PRIVATE or public property for the purpose of inspecting and investigating conditions relating to the enforcement of this Chapter and regulations issued hereunder.
- C. The TOWNSHIP shall have the power to inspect the register containing a record of all residents of the MANUFACTURED HOME PARK.
- D. It shall be the duty of the owners or occupants of the MANUFACTURED HOME PARK and manufactured homes contained therein, or of the PERSON in charge thereof, to give the TOWNSHIP access to such premises at reasonable times for the purpose of inspection.
- E. It shall be the duty of every occupant of the MANUFACTURED HOME PARK to give the OWNER thereof or his agent or employee access to any part of such MANUFACTURED HOME PARK or its premises at reasonable times for the purpose of making such repairs or alterations as are necessary to effect compliance with this chapter and regulations issued hereunder, or with any lawful order issued pursuant to the provisions of this chapter.

Section 174.514 Notices, Hearings, and Orders

- A. Notices. Whenever the TOWNSHIP determines that there are reasonable grounds to believe that there has been a violation of any provision of this chapter or regulations issued hereunder, notice shall be given of such alleged violation to the PERSON to whom the permit or license was issued, as hereafter provided. Such notice shall:
 - 1. Be in writing.
 - 2. Include a statement of the reasons for issuing the violation notice.
 - 3. Allow a reasonable time for the performance of any act the violation notice requires.
 - 4. Be served upon the OWNER or his agent as the case may require; provided that such notice or orders shall be deemed to have been properly served upon such OWNER or agent when a copy thereof has been sent by certified mail to his last known address, or when he has been served by such notice by any method authorized or required by the laws of the Commonwealth.
 - 5. Contain an outline of remedial action which, if taken, will affect compliance with the provisions of this chapter and regulations issued hereunder.

B. Hearing.

- 1. Any PERSON affected by any notice which has been issued in connection with the enforcement of any provisions of this Chapter, or regulation issued hereunder, may request a hearing on the matter before the BOARD; provided that such a PERSON file in the office of the TOWNSHIP written petition requesting such hearing and setting forth a brief statement of the grounds therefor within ten (10) days after the day the notice was served.
- 2. The filing of the request for a hearing shall operate as a stay of the notice and of the suspension except in the case of an order issued under Subsection C(3) of this section. Upon receipt of such petition, the BOARD shall set a time and place for such hearing and shall give the petitioner written notice thereof. At such hearing, the petitioner shall be given an opportunity to be heard and to show why such notice should be modified or withdrawn.
- 3. The hearing shall be commenced not later than ten (10) days after the day on which the petition was filed; provided that, upon application of the petitioner, the BOARD may postpone the date of the hearing for a reasonable tie beyond such ten-day period when, in its judgment, the petitioner has submitted good and sufficient reasons for such postponement.

C. Order.

- After such hearing, the BOARD shall make findings as to compliance with the provisions of this
 chapter and regulations issued hereunder and shall issue an order, in writing, sustaining,
 modifying or withdrawing the notice which shall be served as provided in Subsection (A) of this
 section. Upon failure to comply with any order sustaining or modifying a notice, the license of
 the MANUFACTURED HOME PARK affected by the order shall be revoked.
- 2. The proceedings at such a hearing, including the findings and decision of the BOARD and together with a copy of every notice and order related thereto, shall be entered as a matter of public record of the BOARD. However, the transcript of the proceedings need not be transcribed unless judicial review of the decision is sought as provided by this section. Any PERSON aggrieved by the decision of the BOARD body may seek relief therefrom in any court of competent jurisdiction, as provided by the laws of the Commonwealth.
- 3. Whenever the TOWNSHIP finds that an emergency exists which requires immediate action to protect the public, it may, without notice or hearing, issue an order reciting the existence of such an emergency and requiring that such action be taken as it may deem necessary to meet the emergency, including the suspension of the permit or license. Notwithstanding any other provisions of this Chapter, such order shall be effective immediately. Any PERSON to whom such an order is directed shall comply therewith immediately but, upon a petition to the BOARD, shall be afforded a hearing as soon as possible. The provisions of Subsection (B)1., (B) 2., and (B)3., of this section shall be applicable to such hearing and the order issued thereafter.

Section 174.515 Manufactured Home Removal Permit

A. It shall be unlawful for the OWNER, tenant or custodian of a manufactured home to remove or attempt to remove from the TOWNSHIP a manufactured home without first obtaining a removal

permit from the TOWNSHIP. A removal permit shall be granted upon payment of a fee established by resolution and submission of the following information:

- (a) The STREET address of the manufactured home.
- (b) Names of the owners and of the occupants of the manufactured home.
- B. Evidence of payment of all taxes duly assessed by the TOWNSHIP, the COUNTY and the North Allegheny Area School District.

ARTICLE 700 DEFINITIONS

Section 174.701 Rules of Interpretation.

Unless otherwise expressly stated, the following words shall, for the purpose of this Chapter, have the meaning herein indicated. Words expressed in the plural include their singular meanings and vice versa; the present tense shall include the future; words used in the masculine gender shall include the feminine and the neuter; the words "shall" and "will" are mandatory; the words "should" and "may" are permissive. It is the intent of this Chapter to parallel the MPC. Therefore, if a definition is not included herein, reference should be made thereto.

Section 174.702 Defined Words and Terms

ABUT — To physically touch or border upon; or to share a common property line.

ACCESS DRIVE — A paved surface, other than a STREET, which provides vehicular access from a PUBLIC STREET or PRIVATE STREET to a LOT.

ALLEY — A public thoroughfare, other than a STREET or side STREET, which affords only secondary means of access to abutting properties and not intended for general traffic circulation.

APPLICANT — A Developer or Landowner, as hereinafter defined, who has filed an application for the SUBDIVISION or DEVELOPMENT of a tract of land, including his heirs, successors, and assigns.

ASSOCIATION — The UNIT owners ASSOCIATION organized under the Uniform Planned Community Act (UPCA) (68 Pa. C.S. § 5301 (relating to organization of Homeowners' ASSOCIATION).

BASE FLOOD ELEVATION — The elevation shown on the Flood Insurance Rate Map (FIRM) for Zones AE, AH, A1-30 that indicates the water surface elevation resulting from a FLOOD that has a 1-percent or greater chance of being equaled or exceeded in any given year. Marshall

BLOCK — An area bounded by STREETS.

BOARD — The TOWNSHIP Board of Supervisors.

BRIDGE — A STRUCTURE having a clear span of more than 20 feet designed to convey vehicles and/or pedestrians over a WATERCOURSE, railroad, public or PRIVATE RIGHT-OF-WAY or any depression.

BUFFER — An area within a property or SITE generally adjacent to and parallel with the property line, either consisting of natural existing vegetation or created by the use of trees, shrubs, fences and/or berms, designed to limit continuously the view, sound and/or light from the SITE to adjacent SITEs or properties.

BUILDING — Any STRUCTURE having a roof supported by columns or walls and intended for the shelter, housing or enclosure of persons, animals or property, including covered porches or bay windows and chimneys.

CARTWAY or ROADWAY — That improved portion of a STREET or ALLEY within which vehicles are permitted, including travel lanes, but not including parking areas, shoulders, CURBs, SIDEWALKS or SWALES.

CLEARCUTTING. Removing all or a majority of TREES from the TIMBER HARVESTING area.

COMMISSION — The Marshall Township Planning Commission.

COMMON FACILITIES — Any REAL ESTATE within a planned community which is owned by the ASSOCIATION, leased to the ASSOCIATION or designated as COMMON FACILITIES, common area or open space or other similar term intended to identify a parcel in the declaration, or the PLATs and plans recorded or referenced in the declaration. The term does not include a unit.

COMPREHENSIVE PLAN — An official document adopted by the BOARD OF SUPERVISORS in accordance with the MPC, Act 247, 2 setting forth its policies regarding the long-term DEVELOPMENT of the TOWNSHIP; the preparation of which is based on careful studies of EXISTING CONDITIONS and prospect for future growth of the TOWNSHIP. The plan shall include but need not be limited to plans for the use of land, transportation of goods and people, community facilities and services, and a map and statement indicating the relationship of the TOWNSHIP and its proposed DEVELOPMENT to adjacent municipalities.

CONDOMINIUM — A BUILDING or group of BUILDING s in which units are owned individually, and the STRUCTURE, common areas and facilities are owned by all the owners on a proportional, undivided basis. Real estate is not a CONDOMINIUM unless the undivided interests in the common elements are vested in the unit owners.

CONSERVATION AREAS, PRIMARY — Those lands identified within conservation SUBDIVISIONS that, due to their environmental sensitivity, are required to be set aside as GREENWAY LANDS. These lands are: WETLANDS, FLOODPLAINS and, STEEP SLOPES 25% or greater.

CONSERVATION AREAS, SECONDARY — Those lands identified within conservation SUBDIVISIONS of important environmental value that are added to PRIMARY CONSERVATION AREAS to make up the required amount of GREENWAY LAND. These lands consist of WOODLANDS; slopes 15% to 25%; significant wildlife habitats; historic, archaeological or cultural features; groundwater recharge areas; important viewsheds and other significant natural areas as identified by the TOWNSHIP.

CONSTRUCTION — The CONSTRUCTION, re, renovation, repair, extension, expansion, alteration or relocation of a BUILDING or STRUCTURE.

COOPERATIVE — Ownership in common with others of a parcel of land and of a BUILDING or BUILDINGS thereon which would normally be used by all occupants, together with individual rights of occupancy of a particular unit or apartment in such BUILDING or BUILDINGS or on such parcel of land, and may include DWELLINGS, offices and other types of space in commercial BUILDINGS or on property and where the lease, sale or exchange of a unit is subject to the agreement of the group of persons having common ownership.

COUNTY — County of Allegheny, Pennsylvania.

COUNTY PLANNING AGENCY. The Allegheny County Department of Economic Development or its successor.

COVERAGE — That portion or percentage of the LOT area covered by impervious materials, to include BUILDING s and paved surfaces.

CUL-DE-SAC — An access STREET open at one end for vehicular and pedestrian access and terminating at the opposite end by a vehicular turnaround. This is an example of, or may be part of, a SINGLE-ACCESS STREET.

CULTURAL ATTRIBUTE — A historical SITE, either by STRUCTURE, remnants of a STRUCTURE, or a significant documented historical event that took place on a given piece of ground.

CULVERT — A drain, pipe or conduit not incorporated in a closed system, that carries DRAINAGE water under a DRIVEWAY, roadway, railroad, pedestrian walk or public way.

CURB — A stone or concrete boundary usually marking the edge of the roadway or paved area.

CURB CUT — The opening along the CURB line at which point vehicles may enter or leave the roadway.

CUT — An EXCAVATION; the difference between a point on the original ground and designated point of lower elevation of the final grade; also, the material removed in EXCAVATION.

DEVELOPER — A LANDOWNER, agent of such LANDOWNER or tenant with permission from such LANDOWNER who makes or seeks to under undertake SUBDIVISION of land, LAND DEVELOPMENT or any regulated earth disturbance activities at a project SITE in the TOWNSHIP.

DEVELOPER'S AGREEMENT. Any agreement entered into between the DEVELOPER and the TOWNSHIP addressing the conditions of approval and the posting of performance or maintenance security.

DEVELOPMENT — Any man-made change to improved or unimproved REAL ESTATE, including but not limited to BUILDING s or other STRUCTURES, filling, grading, paving, excavating, earth disturbance activity, mining, dredging or drilling operations, the placement of manufactured homes, streets and other paving, utilities and the SUBDIVISION of land.

DEVELOPMENT PLAN — The provisions for DEVELOPMENT, including a PLANNED RESIDENTIAL DEVELOPMENT, a PLAT of SUBDIVISION, all covenants relating to use, location and bulk of BUILDING s and other STRUCTUREs, intensity of use or density of DEVELOPMENT, streets, ways and parking facilities, COMMON OPEN SPACE and public facilities (NOTE: Public facilities include utility easements for sewer collection, water, electric, telephone and gas distribution, transformer, pumping stations, telecommunications, etc.). The phrase "provisions of DEVELOPMENT plan" when used in this chapter shall mean the written and graphic materials referred to in this definition.

DIAMETER AT BREAST HEIGHT (DBH). A measurement of the size of a tree equal to the diameter of its trunk measured four and five-tenths (4.5) feet above natural grade.

DRAINAGE —

- 1. Surface water RUNOFF.
- The removal of surface water or groundwater from land by drains, grading or other means
 which include RUNOFF controls to minimize EROSION and SEDIMENTATION during and after
 CONSTRUCTION of DEVELOPMENT, the means for preserving the water supply and the
 prevention or alleviation of flooding.

DRAINAGE SYSTEM — Pipes, SWALEs, natural features and man-made IMPROVEMENTS designed to carry DRAINAGE.

DRIVEWAY — A PRIVATE roadway providing access for vehicles to a PARKING SPACE, garage, DWELLING or other STRUCTURE. A shared DRIVEWAY is a single DRIVEWAY serving two or more adjoining LOTS.

DWELLING — A single unit providing complete independent living facilities for one or more persons including permanent provisions for living, sleeping, eating, cooking and sanitation.

DWELLING, SINGLE-FAMILY DETACHED — A BUILDING used by one family, having only one DWELLING unit and having two side yards.

DWELLING UNIT — A single unit providing complete independent living facilities for one or more persons including permanent provisions for living, sleeping, eating, cooking and sanitation.

EASEMENT — A grant of one or more property rights by the property OWNER to and/or for the use by the public, a corporation or another PERSON or entity.

EASEMENT, CONSERVATION — An easement for the preservation of natural features that precludes future or additional DEVELOPMENT to the land.

EASEMENT, DRAINAGE — An easement required for the installation and maintenance of stormwater sewers, DRAINAGE ditches, other DRAINAGE facilities and/or required for the preservation or maintenance of a natural WATERCOURSE, DRAINAGE-way, channel or STREAM.

ENGINEER, PROFESSIONAL — An individual licensed and registered under the laws of the Commonwealth to engage in the practice of engineering. A professional engineer may not practice land surveying unless licensed as set forth in P.L. 913, No. 367; however, a professional engineer may perform engineering land surveys.

ENGINEER, TOWNSHIP — A registered professional engineer in Pennsylvania designated by the TOWNSHIP to perform the duties of engineer as herein specified.

ENGINEERING SPECIFICATIONS — The engineering specifications of the municipality regulating the installation of any required IMPROVEMENTS or for any facility installed by any OWNER, subject to public use.

ENVIRONMENTALLY SENSITIVE AREAS — An area on a DEVELOPMENT SITE with one or more of the following characteristics:

- 1. An area on a DEVELOPMENT SITE with one or more of the following characteristics:
- 2. Any area of archeological significance as defined by the Pennsylvania Archaeological SITE Survey;
- 3. Any BUILDING, STRUCTURE, object, district, place, SITE or area significant in the history, architecture, maritime heritage, archaeology or culture of the Commonwealth, as defined by the Pennsylvania Historical and Museum Commission;
- 4. Habitats of endangered species or threatened species as designated by applicable laws, including environmental laws;
- 5. Any FLOODPLAIN or other special FLOOD hazard area as defined by FEMA;
- 6. Soils determined by the United States Department of Agriculture and defined as being highly erodible and/or having a high WATERTABLE; and
- 7. WETLANDS and surface waters as defined by Title 25 Chapter 93 of the PA Code including surface waters of exceptional ecological significance and exceptional recreational significance.

EROSION — The process involving the detachment and movement of soil or rock fragments, or the wearing away of the land surface or channels by water, ice, wind, chemical action and gravity.

EVERGREEN TREE. A non-deciduous tree often used for purposes of SCREENING, weather barrier or accent planting, with foliage that persists and remains green year-round.

EXCAVATION — Any act by which earth, sand, gravel, rock or any other similar material is dug into, CUT, quarried, uncovered, removed, displaced, relocated or bulldozed. It shall include the conditions resulting therefrom.

EXISTING CONDITIONS — Existing conditions are defined as the LAND USE present at the time a DRAINAGE/STORMWATER MANAGEMENT PLAN is submitted. However, a more impervious existing condition can be used if the DEVELOPER can document that a more impervious condition was present at the time the TOWNSHIP adopted this chapter. For computation purposes, meadow or good woods/ forest shall be used for existing pervious conditions. For existing areas consisting of a combination of pervious and impervious/parking shall be used of the various precomputed composite covers for developed areas shall be used.

FILL — Any act by which earth, sand, gravel, rock or any other material is placed, pushed, dumped, pulled, transported or moved to a new location above the natural surface of the ground or on top of the stripped surface and shall include the conditions resulting therefrom; the difference in elevation between a point on the original ground and a designated point of higher elevation on the final grade; the material used to make a FILL.

FLOOD — A temporary inundation of normally dry land areas.

FLOOD, BASE (ONE-HUNDRED-YEAR FLOOD) — A FLOOD that, on the average, is likely to occur once every 100 years (i.e., that has a one- percent chance of occurring each year, although the FLOOD may occur in any year).

REGULATORY FLOOD ELEVATION: The elevation that a FLOOD on the average is likely to occur once every 100 years (i.e., that has a one-percent chance of occurring each year although the FLOOD elevation may occur at any year.

FLOOD HAZARD, AREA — The land in the FLOODPLAIN within a community subject to a one percent or greater chance of flooding in any given year.

FLOODPLAIN —

- A relatively flat or low land area, comprised of the FLOODWAY area and the FLOOD fringe 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.
- 2. An area subject to the unusual and rapid accumulation or RUNOFF of surface waters from any source.

FLOODPLAIN (FP) OVERLAY DISTRICT — The FLOODPLAIN (FP) OVERLAY DISTRICT specified in Chapter 208 Zoning in the Code Marshall Township.

FLOODWAY — The channel of a river or other WATERCOURSE and the adjacent land areas that must be reserved in order to discharge the base FLOOD without cumulatively increasing the water surface elevation more than one foot.

GRADE, FINISHED — The completed surfaces of lawns, walks and roads brought to grades as shown on official plans or designs relating thereto.

GREENWAY LAND — That portion of a tract that is set aside for the protection of sensitive natural features, farmland, scenic views, and other unique features. GREENWAY LAND may be accessible to the residents of the DEVELOPMENT and/or the TOWNSHIP,

GROSS FLOOR AREA – The sum of the floor areas of the spaces within a building, including basements, mezzanine and intermediate-floored tiers

HOMEWOWNERS' ASSOCIATION — A community ASSOCIATION, other than a CONDOMINIUM ASSOCIATION, that is organized in a DEVELOPMENT in which individual owners share common interests and responsibilities for costs and upkeep of COMMON OPEN SPACE or facilities.

IMPERVIOUS SURFACE — A surface that prevents the infiltration of water into the ground. Impervious surface includes, but is not limited to, any BUILDING, BUILDING roof, paved parking or DRIVEWAY areas and any paved streets and concrete sidewalks, concrete features and areas designed to initially be gravel or crushed stone.

IMPROVEMENT(S) — Those physical additions, installations and changes required to render land suitable for the use intended, including but not limited to grading, paving, curbing, STREET lights and signs, fire hydrants, water mains, electric service, gas service, sanitary sewers, storm drains, sidewalks, crosswalks, DRIVEWAYS, CULVERTS, STREET shade trees and IMPROVEMENTS to existing WATERCOURSES.

LAND DEVELOPMENT — Any of the following activities:

- (A) The improvement of one LOT or two or more contiguous LOTS, tracts or parcels of land for any purpose involving:
 - 1. A group of two or more residential or nonresidential BUILDING s, whether proposed initially or cumulatively, or a single nonresidential BUILDING on a LOT or LOTS regardless of the number of occupants or tenure; or
 - 2. The division or allocation of land or space, whether initially or cumulatively, between or among two or more existing or prospective occupants by means of, or for the purpose of, streets, common areas, leaseholds, Condominiums, BUILDING groups or other features.
- (B) A SUBDIVISION of land.
- (C) The exclusion of certain LAND DEVELOPMENT from this definition of "LAND DEVELOPMENT" is permitted only when such LAND DEVELOPMENT involves:
 - 1. The conversion of an existing single-family detached DWELLING or single-family semidetached DWELLING into not more than three (3) residential units, unless such units are intended to be a CONDOMINIUM.
 - 2. The addition of an accessory BUILDING, including farm BUILDING s, on a LOT or LOTS subordinate to an existing PRINCIPAL BUILDING not to exceed 5,000 square feet of IMPERVIOUS SURFACE.
 - 3. An addition to a NON-RESIDENTIAL BUILDING not to exceed 2,500 square feet of GROSS FLOOR AREA. Files must be checked to be sure plan is compatible with the original LAND DEVELOPMENT plan.

LAND USE — A description of how land is occupied or utilized.

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 conditions), a lessee if they are authorized under the lease to exercise the rights of the LANDOWNER, or other PERSON having a proprietary interest in the land.

LOT — Land occupied or to be occupied by a BUILDING and its accessory BUILDING s, or by a DWELLING group and its accessory BUILDING s, together with such open space as required under the provisions of this chapter, having not less than the minimum area and width required by this chapter for a LOT in the district in which such land is situated, and having its principal frontage on a STREET; a designated parcel, tract or area of land established by a PLAT, deed or permitted by law to be used, developed or built upon.

LOT AREA — The area contained within the property lines of a LOT as shown on a SUBDIVISION plan, excluding space within any rights-of-way, but including the area of any easement.

LOT LINE — A line of record bounding a LOT which divides one LOT from another LOT or from a public or PRIVATEPRIVATE STREET, or any other public space.

LOT, CORNER — A LOT at the junction of and abutting on two or more intersecting streets or at the point of abrupt change of a single STREET, where the interior angle is less than 135° and the radius of the STREET LINE is less than 100 feet.

LOT, DOUBLE FRONTAGE — A LOT that fronts upon two parallel streets or that fronts upon two streets that do not intersect at the boundaries of the LOT.

LOT, FLAG — A large LOT not meeting minimum frontage requirements and where access to the public road is by a narrow, PRIVATE RIGHT-OF-WAY or DRIVEWAY.

LOT, INTERIOR — A LOT other than a corner LOT.

MANUFACTURED HOME PARK — A parcel or contiguous parcels of land which has been so designated and improved that it contains two or more manufactured home LOTS for the placement thereon of manufactured homes.

MANUFACTURED HOME — HOME — A DWELLING unit fabricated in an off-SITE manufacturing facility for installation or assembly at the BUILDING SITE, bearing a label certifying that it is built in compliance with the Federal Manufactured Housing Construction and Safety Standards (see CFR 3280 for legal definition). Manufactured homes placed in manufactured housing parks shall meet the requirements for manufactured housing parks listed Chapter 174, SUBDIVISION and LAND DEVELOPMENT, of the Code of the Township of Marshall. Manufactured houses placed on individual LOTS shall be considered DWELLINGs and be bound by the requirements thereon imposed.

MANUFACTURED HOME/HOUSING LOT — A parcel of land in a manufactured housing park, improved with the necessary utility connections and other appurtenances necessary for the erection thereon of a single manufactured house.

MANUFACTURED HOME/HOUSING PARK — A parcel or contiguous parcels of land which have been so designated and improved to contain two or more manufactured housing LOTS for the placement thereon of manufactured houses.

MEADOW — An area containing native grasses and flowing herbaceous plants that serve an ecological function. MEADOWS may not contain invasive plant species or species on the PA Department of Agriculture's "Noxious Weeds List."

MUNICIPAL SEWER AUTHORITY — The Marshall Township Municipal Sanitary Authority, the McCandless Township Sanitary Authority or other governmental entity operating a PUBLIC SEWAGE DISPOSAL SYSTEM in the TOWNSHIP.

MUNICIPAL WATER AUTHORITY — The Westview Water Authority or other governmental entity providing PUBLIC WATER providing PUBLIC WATER service in the TOWNSHIP.

NATIVE PLANT — A plant species that occurred in Pennsylvania, Maryland, Ohio or West Virginia prior to European settlement. The native status of plants may be confirmed at www.plants.usda.gov.

NON-RESIDENTIAL — Any use other than a RESIDENTIAL USE.

OPEN SPACE, COMMON – A designated Area within or related to a SITE designated as a DEVELOPMENT and designed and intended for the use or enjoyment of residents and owners of the DEVELOPMENT or the public. Common Open Space may contain such complementary STRUCTUREs and IMPROVEMENTS as are necessary and appropriate for the use and enjoyment of residents and owners of the DEVELOPMENT. The following items shall not be classified as COMMON OPEN SPACE and shall not be included in the calculation of COMMON OPEN SPACE area:

- 1. Area within STREET RIGHT-OF-WAY LINES or PRIVATE vehicular access EASEMENTS.
- 2. Area within storm water management basins with IMPERVIOUS SURFACEs.
- 3. Area located within fifteen (15) feet of any Structure not designated for community use.
- 4. Area between the required BUILDING Setback line and the property of STREET RIGHT-OF-WAY LINE, except pedestrian pathways and sidewalks.
- 5. Area between the required BUILDING Setback line and a PRIVATE access easement, interior ACCESS DRIVE or PARKING LOT.
- 6. Area located on LOTS held in single and separate ownership not intended for community use.
- 7. Area within the footprint of any enclosed Structure.
- 8. Recreation areas located within COMMON OPEN SPACE areas defined above which contain IMPERVIOUS SURFACEs such as athletic courts or walking paths can be considered part of the COMMON OPEN SPACE.

OUTDOOR STORAGE — The keeping in an unroofed area, of any junk, merchandise, samples, or display models, regardless of whether the aforementioned items are or may be for sale, in the same place for more than twenty-four (24) hours.

OWNER – An individual, firm, ASSOCIATION, syndicate, partnership or corporation having sufficient proprietary interest to seek DEVELOPMENT of land.

PARKING LOT — An area not within a BUILDING where motor vehicles may be stored for the purposes of temporary, daily or overnight off-STREET parking; a tract of LAND used for the temporary parking of motor vehicles when such use is not accessory to any other use.

PARKING SPACE — An area on a LOT and/or within a BUILDING intended for the use of temporary parking of a personal vehicle. This term is used interchangeably with "parking stall."

PENNDOT — The Pennsylvania Department of Transportation.

PENNSYLVVANIA MUNICIPALITIES PLANNING CODE (MPC) — The Pennsylvania Municipalities Planning Code, Act 247, as amended.

PERSON — Includes one or more individuals, corporations, partnerships, ASSOCIATIONs, labor organizations, legal representatives, mutual companies, joint-stock companies, trusts, unincorporated organizations, trustees, trustees in cases under title 11 [of the United States Code], receivers, and fiduciaries.

PLAN OR PLAT, FINAL — A complete and exact SUBDIVISION or LAND DEVELOPMENT plan, prepared for official recording as required by statute, to define property rights and proposed streets and other IMPROVEMENTS.

PLAN OR PLAT, PRELIMINARY — A tentative SUBDIVISION or LAND DEVELOPMENT plan, in lesser detail than a Final Plan, showing approximate proposed STREET and LOT layout as a basis for consideration prior to preparation of a Final Plan.

PLAN, SKETCH — An informal plan, not necessarily to exact scale, indicating salient existing features of a tract and its surroundings and the general layout of a proposed SUBDIVISION or LAND DEVELOPMENT.

PLANNING COMMISSION — The Marshall Township Planning Commission, appointed by the BOARD OF SUPERVISORS in accordance with the Pennsylvania Municipalities Planning Code, Act 247, as amended.

PLANNING DIRECTOR. the PLANNING DIRECTOR for the TOWNSHIP.

POLLUTION — The presence of matter or energy whose nature, location or quantity produces undesired environmental effects.

PRACTICABLE — Capable of being put to use or put into practice.

PRINCIPAL BUILDING — A building in which the primary use of the LOT on which the BUILDING is located is conducted; a STRUCTURE or, where the context so indicates, a group of STRUCTUREs in or on which is conducted the principal use of the LOT on which such STRUCTURE is located.

PRIVATE — Not owned, operated or controlled by the TOWNSHIP, COUNTY, Commonwealth, United States, other governmental entity or PUBLIC UTILITY.

PRIVATE STREET — A legally established RIGHT-OF-WAY, other than a PUBLIC STREET, which provides the primary pedestrian and vehicular access to one or more LOTS.

PROFESSIONAL ENGINEER — An individual licensed and registered under the laws of the Commonwealth to engage in the Practice of Engineering. A Professional Engineer may not practice land surveying unless licensed and registered as a Professional Land Surveyor as defined and set forth in the Engineer, Land Surveyor and Geologist Registration Law, Act of May 23, 1945, P.L. 913, No. 367 Cl. 63. However, a Professional Engineer may perform engineering land surveys.

PROFESSIONAL LAND SURVEYOR — An individual licensed and registered under the laws of the Commonwealth to engage in the Practice of Land Surveying. A Professional Land Surveyor may perform engineering land surveys but may not practice any other branch of engineering.

PUBLIC GROUNDS — public grounds include the following:

- 1. Parks, playgrounds, trails, paths and other recreational areas and other public areas;
- 2. SITES for schools, sewage treatment, refuse disposal and other publicly owned or operated facilities; and
- Publicly owned or operated scenic and historic SITEs— A formal meeting held pursuant to PUBLIC NOTICE by the governing body or planning agency, intended to inform and obtain public comment, prior to taking action in accordance with the Pennsylvania Municipalities Code, Act 247, as amended.

PUBLIC HEARING — A formal meeting held pursuant to PUBLIC NOTICE by the BOARD or Zoning Hearing Board intended to inform and obtain public comment, prior to taking action in accordance with the MPC.

PUBLIC IMPROVEMENTS — All STREETS, walkways, GUTTERS, CURBS, SEWERS, water lines and other utilities or related facilities dedicated to and maintained by the TOWNSHIP, COUNTY, Commonwealth, United States, other governmental entity or PUBLIC UTILITY.

PUBLIC NOTICE — Notice published once each week for two (2) successive weeks in a newspaper of general circulation in Marshall Township. Such notice shall state the time and place of the hearing and the particular nature of the matter to be considered at the hearing. 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. Public notice for rezoning, special exception, variance, or any combination thereof, requests shall also include the posting of a sign(s) at a conspicuous location(s) upon the SITE to notify potentially interested citizens; this sign(s) shall be posted at least one week prior to the hearing and will exhibit the nature, date, time and location of the hearing. Marshall

PUBLIC SEWER — A municipal sanitary sewer or a comparable common or package sanitary facility approved and permitted by the Pennsylvania Department of Environmental Protection.

PUBLIC SEWER AND WATER SYSTEM — Any system, other than an individual SEPTIC TANK, tile field or individual SEPTIC TANK or well, that is operated by a municipality, governmental agency or a public utility for the collection, treatment and disposal of wastes and the furnishing of potable water.

PUBLIC STREET – A STREET owned and maintained by the TOWNSHIP, COUNTY, Commonwealth, United States or other governmental agency.

PUBLIC UTILITY — Any use such as electrical, telephone, gas, water and sewer which are regulated by the Public Utilities Commission or any other governmental agency.

PUBLIC WATER — A municipal water supply system, or a comparable common WATER FACILITY approved and permitted by the Pennsylvania Department of Environmental Protection.

REAL ESTATE — Any fee, leasehold or other estate or interest in, over or under land, including STRUCTURES, fixtures and other IMPROVEMENTS and interests which by custom, usage or law pass with a conveyance of land though not described in the contract of sale or instrument of conveyance. Real estate includes parcels with or without upper or lower boundaries, and spaces that may be filled with air or water.

RECORD PLAN — Location of utilities and proposed design features as installed. See also "AS-BUILT DRAWINGS."

RECREATIONAL VEHICLE — A vehicular-type unit designed as temporary living quarters for recreational, camping or travel use, which has its own motorized power or is mounted on or drawn by another vehicle (including a camping trailer, motor home, travel trailer and truck camper); and a body width of no more than eight feet and a body length of not more than thirty-five (35) feet when factory equipped for the road, and licensed as such by the commonwealth.

REGULATORY FLOOD ELEVATION — The BASE FLOOD ELEVATION (BFE) or estimated FLOOD height as determined using simplified methods plus a freeboard safety factor of one and one-half (1½) feet. The freeboard safety factor also applies to utilities and ductwork.

RIGHT-OF-WAY — A strip of land acquired by reservation, dedication, forced dedication, prescription or condemnation and intended to be occupied or occupied by a road, crosswalk, railroad, electric transmission lines, oil or gas pipeline, water line, sanitary STORM SEWER and other similar uses; generally, the right of one to pass over the property of another.

RIGHT-OF-WAY LINE — See "STREET LINE."

RIGHT-OF-WAY, STREET — A public thoroughfare for vehicular traffic and/or pedestrian traffic, whether designated as a STREET, highway, thoroughfare, parkway, road, avenue, boulevard, lane or ALLEY, or however designated.

RIPARIAN BUFFER. An undeveloped area adjacent to a water body that provides an ecological service, such as filtration or RUNOFF, FLOOD water storage and/or improved surface water quality.

ROADWAY — See "CARTWAY."

RUNOFF — 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.

SANITARY SEWER, PUBLIC — A sanitary sewage collection method in which sewage is carried from the SITE by a system of pipes to a central treatment and disposal plant.

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

SEPTIC SYSTEM — An underground system with a septic tank used for the decomposition of domestic wastes; also referred to as an "on-LOT system." (See "SEWAGE DISPOSAL SYSTEM (ON-LOT").

SEPTIC TANK — A watertight tank in which raw sewage is broken down into solid, liquid and gaseous phases to facilitate further treatment and final disposal.

SEWAGE DISPOSAL SYSTEM (ON-LOT) — Any STRUCTUREs designated to dispose of sanitary sewage within the boundaries of a LOT.

SEWAGE DISPOSAL SYSTEM (COMMUNITY) A sanitary SEWAGE DISPOSAL SYSTEM that is owned and operated by a form of common ownership and collects wastewater from two or more DWELLINGs or buildings.

SEWAGE DISPOSAL SYSTEM (PUBLIC) — A sanitary sewage collection method in which sewage is carried from the SITE by a system of pipes to a central treatment and disposal plant.

SHADE TREE — A woody, perennial plant with one main stem or trunk that develops many branches, distinguished by overall impact on the environment related to their size, character and permanence.

SIDEWALK — A paved, surfaced or leveled area, paralleling and usually separated from the STREET, used as a pedestrian walkway.

SIGHT DISTANCE — The length of roadway visible to the driver of a passenger vehicle at any given point on the roadway when the view is unobstructed by traffic.

SINGLE-ACCESS STREET — A local STREET or streets, including, but not limited to, cul-de-sac and loop streets, which have only one point of intersection with an existing TOWNSHIP road, state road, or proposed road having at least two separate and distinct access points.

SITE — A specific parcel of land which is part of a SUBDIVISION or LAND DEVELOPMENT proposal.

SITE ANALYSIS — The study of a specific parcel of land which takes into account the physical attributes and conditions, including climate, soils/watersheds/DRAINAGE, TOPOGRAPHY, existing trees and vegetation, ENVIRONMENTALLY SENSITIVE AREAS (WETLANDS/hillsides/SLOPES/STREAMS/lakes/ponds), geology, hydrology and viewsheds, wildlife [species of concern and endangered species (PNDI)], CULTURAL ATTRIBUTES, including historical SITES, public infrastructure and existing STRUCTURES.

SLOPE — The face of an embankment or CUT section; any ground whose surface makes an angle with the plane of the horizon. SLOPES are usually expressed in a percentage based upon vertical difference in feet per 100 feet of horizontal distance.

STORM SEWER — A sewer that carries intercepted surface RUNOFF, STREET water and other washwaters or DRAINAGE, but excludes domestic sewage and industrial wastes.

STORMWATER MANAGEMENT FACILITIES — Facilities designed to reduce peak flows and/or volumes, such as stormwater management ponds, underground storage, rooftop storage, pervious parking, etc.

STORMWATER MANAGEMENT PLAN — The planned control of RUNOFF to allow water falling on a given SITE to be absorbed or retained on SITE to the extent that after DEVELOPMENT the peak rate of discharge leaving the SITE is not greater than if the SITE had remained undeveloped; a plan does not constitute a

formal submission of a Preliminary or Final Plat and is voluntarily offered to all APPLICANTs for guidance showing all present and proposed grades and facilities for stormwater management.

STREAM — A WATERCOURSE with definite bed and banks which confine and convey continuously or intermittently flowing water.

STREET — A public or PRIVATE RIGHT-OF-WAY constructed to municipal standards which affords primary vehicular traffic or pedestrian access to abutting properties, which includes avenue, boulevard, road, highway, freeway, parkway, lane, ALLEY, viaduct, and any other ways used or intended to be used by vehicular traffic or pedestrians whether public or PRIVATE. This definition shall not include Driveways.

STREET GRADE — The officially established grade of the STREET upon which a LOT fronts or, in its absence, the established grade of the other streets upon which the LOT abuts, at the midpoint of the frontage of the LOT thereon. If there is no officially established grade, the existing grade of the STREET at such midpoint shall be taken as the STREET grade.

STREET LINE (RIGHT-OF-WAY LINE) — The dividing line between the STREET, or road and the LOT, also known as the "Right-of-way Line."

STREET TREE — Any tree growing or extending within the public RIGHT-OF-WAY.

STREET WIDTH — The distance between the STREET LINES measured at right angles to the center line of the STREET.

STREET, CUL-DE-SAC — A STREET intersecting another STREET at one end terminating at the other in a vehicular turnaround.

STREET, MARGINAL ACCESS — A Minor STREET which is parallel and Adjacent to a limited access highway or arterial STREET, which provides access to abutting properties and protection from through traffic.

STREET, MAJOR — Interstates and other Limited Access Highways, Arterials, Collectors, and Local Roads as defined in Figure 1.1 to the Pennsylvania Department of Transportation Publication 13M, March 2015 Edition.

STREET, MINOR — A STREET used primarily for access to abutting properties.

STRUCTURE — Any man-made object having an ascertainable stationary location on or in land or water, whether or not affixed to the land; for FLOODPLAIN management purposes, a walled and roofed BUILDING, including a gas or liquid storage tank, which is principally above ground, as well as a manufactured home.

SUBDIVISION — The division or redivision of a LOT, tract or parcel of land by any means into two (2) or more LOTS, tracts, parcels or other divisions of land including changes in existing LOT lines for the purpose, whether immediate or future, of lease, petition by the court for distribution to heirs or devisees, transfer of ownership or BUILDING or LOT DEVELOPMENT: Provided, however, that the SUBDIVISION by lease of land for agricultural purposes into parcels of more than ten (10) acres, not involving any new STREET or easement of access or residential DWELLINGs, shall be exempted.

SUBDIVISION, MAJOR — A SUBDIVISION that includes one or more of the following characteristics:

- 1. Multiple phasing of the plan.
- 2. Containing PUBLIC IMPROVEMENTS, including one or more of the following: STREETS, STORM WATER DETENTION and storm water retention facilities and PUBLIC utilities.
- 3. Containing more than four LOTS.

SUBDIVISION, MINOR — A SUBDIVISION not including any of the characteristics included in the MAJOR SUBDIVISION category. In general, a MINOR SUBDIVISION involves the adjustment of LOT LINES for existing LOTS and/or the creation of no more than four (4) new LOTS that are already serviced by an existing STREET and water and sewer facilities, DEVELOPMENT.

SURVEYOR, PROFESSIONAL LAND — An individual licensed and registered under the laws of this Commonwealth to engage in the practice of land surveying. A professional land surveyor may perform engineering land surveys but may not practice any other branch of engineering.

SWALE — A natural or man-made low-lying stretch of vegetative land characterized as a depression and used to carry surface water RUNOFF.

THROUGH STREET — A STREET that has at least two separate and distinct access points, as a means of ingress and egress for vehicular and pedestrian traffic.

TIMBER HARVESTING. The act of cutting live TREES for timber, for pulp, or for any commercial or non-commercial purpose, except:

- 1. Cutting on the property of the LANDOWNER for the sole USE of the LANDOWNER;
- 2. Clearing pursuant to a DEVELOPMENT PLAN approved by the BOARD;
- 3. Clearing for CONSTRUCTION of a single-FAMILY DETACHED DWELLING and any ACCESSORY USES or STRUCTURES; and/or
- 4. Clearing for FARMING OPERATIONS where FARMING is the principal source of income.
- 5. TIMBER HARVESTING shall include the acts of timber harvesting, SITE clean-up and SITE restoration.

TOPOGRAPHY — The configuration of a surface area showing relative elevations.

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

TOWNSHIP — Marshall Township, Allegheny County, Pennsylvania.

TOWNSHIP ENGINEER — The Engineer of Record (EOR) for the TOWNSHIP.

TRAIL — A pedestrian oriented walkway that is may or may not be adjacent to a RIGHT-OF-WAY and is built to a lesser specification than a SIDEWALK.

TRANSPORTATION IMPACT ASSESSMENT. A limited analysis and evaluation of the impact of the SUBDIVISION or LAND DEVELOPMENT LAND DEVELOPMENT of a SITE not warranting a TRANSPORTATION IMPACT STUDY conducted under the supervision of a Pennsylvania registered professional engineer. The purpose of the TRANSPORTATION IMPACT ASSESSMENT is to conduct a limited evaluation to determine the key DEVELOPMENT impacts at a specific intersection(s) location.

TRANSPORTATION IMPACT STUDY — Analysis of the impact of a SUBDIVISION or LAND DEVELOPMENT conducted under the supervision of a Pennsylvania registered professional engineer to determine the full impact of proposed DEVELOPMENT on the transportation system.

TRIP — A single or one-way vehicle movement either to or from a subject property or study area.

UNDERSTORY TREE. A tree that would occupy the understory of a forest in a natural ecological situation. These types of TREES are often referred to as "ornamental TREES." Examples include redbud, hazel, alder, holly, hornbeam, dogwood, witch-hazel, etc.

UNDEVELOPED LAND — Any LOT, tract or parcel of land which has not been graded or in any other manner prepared for the CONSTRUCTION of a BUILDING.

UNIT — That part of the property, STRUCTURE or BUILDING designed or intended for any type of independent use, which has direct exit to a PUBLIC STREET or way or to an easement or RIGHT-OF-WAY leading to a PUBLIC STREET or way, and includes a proportionate undivided interest in the common elements, which is assigned to the property, STRUCTURE or BUILDING.

UTILITY, PUBLIC OR PRIVATE —

- 1. Any agency which under public franchise or ownership, or under certificate of convenience and necessity, provides the public with electricity, gas, heat, steam, communication, rail transportation, water, sewage collection or other similar service.
- 2. A closely regulated PRIVATE enterprise with an exclusive franchise for providing a public service.

WATER FACILITY — Any water works, water supply works, water distribution system or part thereof designed, intended or constructed to provide or distribute potable water.

WATER SYSTEM, COMMUNITY - A water system providing potable water to a cluster of homes of buildings, and which is maintained and owned under common ownership.

WATER TABLE — The upper surface of groundwater, or that level below which the soil is seasonally saturated with water.

WATERCOURSE — A channel for the conveyance of surface water, such as a STREAM or creek, or intermittent STREAM, having a defined bed and banks, whether natural or artificial, with perennial or intermittent flow.

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. (The term includes but is not limited to wetland areas listed in the State Water Plan, the United States Forest Service Wetlands Inventory of Pennsylvania, the Pennsylvania Coastal Zone Management Plan and a wetland area designated by a river basin commission. This definition is used by the United States Environmental Protection Agency and the United States Army Corps of Engineers.)

WOODLAND — An area or stand of TREES whose total combined canopy covers an area of one-half (1/2) acre or more and at least fifty percent (50%) of which is composed of CANOPY TREES having a DIAMETER AT BREAST HEIGHT (DBH) of at least three (3) inches; provided, however, that no TREES kept or grown for commercial purposes shall be considered a WOODLAND.

ZONING DISTRICT — The part, zone or geographic area as depicted on the Marshall Township Zoning Map within which certain zoning and DEVELOPMENT regulations apply.

ZONING ORDINANCE — The officially enacted Zoning Ordinance of Marshall Township, Allegheny County, Pennsylvania.

ATTACHMENTS

Appendix A. Construction Standards

See <u>existing ordinance Appendix A</u> for construction standards.

Appendix B. Planting List

								_		<u> </u>
RECOMMENDED TREES				_				1.1		
								ultiva	ted v	arieties of the species listed are acceptable. This list is not
extraustive of all acceptable option	ns; trees not mentioned here may be used with	_	_	JIIIC SI	e coi					
		Mature Height (ft)	Mature Width (ft)			Large Street Tree	Small Street Tree*	e e	Parking Lot Trees	
		<u>ie</u>	Ē		a	et T	et	Evergreen Tree	Ė	
		를 포	>		ree	tre	tre	en	3	
		l ä	i ii	ě.	. əp	S e S	<u>=</u>	rgre	ê	
Common Name	Botanical Name	Mat	Mat	Native	Shade Tree	arg	, a	š	ark	Notes
apanese Maple	Acer palmatum	15-25'	10-25'	-	8	_	X	ш	-	Colorful leaves, fall color
Red Maple	Acer rubrum	40-60'	30-50'	Х	Х	Х	<u> </u>		×	Fall color
Silver Maple	Acer saccharinum	50-80'	35-70'	Х	X	X			^	Fall color
Sugar Maple	Acer saccharum	40-80'	30-60'	Х	X	^				Fall color
reeman Maple	Acer x freemanii	50-70'	10-15'	<u> </u>	Х	Х			Х	Red maple and silver maple hybrid
Allegheny Serviceberry	Amelanchier laevis	15-25'	15-20'	Х	^	^	Х		^	Spring flower, fall color, winter fruit, wildlife value
	Amelanchier canadensis	15-25'	15-20'	X			X			Spring flower, fall color, winter fruit, wildlife value
Eastern Serviceberry		15-25		Х			X			· · · · · · · · · · · · · · · · · · ·
Apple Serviceberry	Amelanchier x grandifolia		15-25'	Х			X			Spring flower, fall color, winter fruit, wildlife value
Gray Birch	Betula populifolia	20-30'	10-20'	_	· ·		^			Winter interest
River Birch	Betula nigra	30-70'	40-60'	X	Х		V		V	Fall color, can tolerate wet soils
American Hornbeam	Carpinus caroliniana	20-30'	20-35'	Х		· ·	Х	1	Х	Fall color
Pignut Hickory	Carya glabra	60-80'	25-40'	Х	X	Χ	-	1		Wildlife value, fall color
Shagbark Hickory	Carya ovata	70-90'	50-70'	Х	X	-	-		-	Wildlife value
Mockernut Hickory	Carya tomentosa	60-80'	40-60'	Х	X	<u></u>	-			Wildlife value, fall color
Hackberry	Celtis occidentalis	40-100'	40-60'	Х	Χ	Χ	<u> </u>	<u> </u>	Х	Wildlife value
Eastern Redbud	Cercis canadensis	20-30'	25-35'	Х			Х		Х	Spring flower
White Fringetree	Chionanthus virginicus	12-30'	12-20'	Х			Х	—	-	Spring flower
Yellowwood	Cladrastis kentukea	30-45'	40-45'	Х	X					Wildlife value, fall color
Flowering Dogwood	Cornus florida (Benthamidia florida)	15-25'	15-30'	Х			Х			Spring flower, fall color, prefers partial shade
Thornless Hawthorn	Crataegus crus-galli inermis	20-30'	20-35'	X					Х	Thornless variety, spring flower, fall color, winter fruit, wildli
										value
Ginkgo	Ginkgo biloba	50-80'	30-40'		Χ	Х			Х	Fall color, only plant male varieties like Magyar
Honeylocust	Gleditsia triacanthos inermis	60-80'	60-80'	Х	Χ	Х			Х	Thornless & fruitless varieties like Skyline, Sunburst, Harve
Kentucky Coffeetree	Gymnocladus dioicus	60-80'	40-55'	Х	Χ	Х				Male varieties more desirable due to seed pods
Carolina Silverbell	Halesia carolina	10-30'	25-35'	Х			Х			Spring flower, interesting seed pod, fall color
American Holly	Ilex opaca	15-30'	10-20'	Х				Х		Winter interest
	to a to a constitute to a con-	20.401	10 20	Х				Х	Х	Winterinterest
Eastern Red Cedar	Juniperus virginiana	30-40'	10-20'	_ ^						
Eastern Red Cedar American Sweetgum	Liquidambar styraciflua	60-80'	40-50'	Х	Χ					Fall color
		J			X	Х				Fall color Spring/summer flowers, fall color
American Sweetgum	Liquidambar styraciflua	60-80'	40-50'	Х		Х				
American Sweetgum Tulip Tree	Liquidambar styraciflua Liriodendron tulipifera	60-80' 60-90'	40-50' 30-50'	X	Χ	Х				Spring/summer flowers, fall color
American Sweetgum Tulip Tree Cucumbertree	Liquidambar styraciflua Liriodendron tulipifera	60-80' 60-90' 40-70'	40-50' 30-50' 20-35'	X	Χ		* • • •		sə	Spring/summer flowers, fall color
American Sweetgum Tulip Tree Cucumbertree	Liquidambar styraciflua Liriodendron tulipifera	60-80' 60-90' 40-70'	40-50' 30-50' 20-35'	X	Χ		t Tree *	ree	Trees	Spring/summer flowers, fall color
American Sweetgum Tulip Tree Cucumbertree	Liquidambar styraciflua Liriodendron tulipifera	60-80' 60-90' 40-70'	40-50' 30-50' 20-35'	X	X		reet Tree *	en Tree	Lot Trees	Spring/summer flowers, fall color
American Sweetgum Tulip Tree Cucumbertree	Liquidambar styraciflua Liriodendron tulipifera	60-80' 60-90' 40-70'	40-50' 30-50' 20-35'	X X X	X		Street Tree *	green Tree	ng Lot Trees	Spring/summer flowers, fall color
American Sweetgum Tulip Tree Cucumbertree RECOMMENDED TREES (cont.)	Liquidambar styraciflua Liriodendron tulipifera Magnolia acuminata	60-80' 60-90' 40-70'	40-50' 30-50' 20-35'	X X X	X		nall Street Tree*	ergreen Tree	rking Lot Trees	Spring/summer flowers, fall color Spring/summer flowers, fall color
American Sweetgum Tulip Tree Cucumbertree RECOMMENDED TREES (cont.)	Liquidambor styraciflua Liriodendron tulipifera Magnolia acuminata Botanical Name	60-80' 60-90' 40-70'	40-50' 30-50' 20-35'	X	Χ	Large Street Tree	Small Street Tree*	Evergreen Tree	Parking Lot Trees	Spring/summer flowers, fall color Spring/summer flowers, fall color
American Sweetgum Tulip Tree Cucumbertree RECOMMENDED TREES (cont.) Common Name Star Magnolia	Liquidambor styraciflua Liriodendron tulipifera Magnolia acuminata Botanical Name Magnolia stellata	60-80' 60-90' 40-70' (1) 40-70'	40-50' 30-50' 20-35' 10-15'	Native X	X		Х	Evergreen Tree		Spring/summer flowers, fall color Spring/summer flowers, fall color Notes Spring flower
American Sweetgum Tulip Tree Coucumbertree RECOMMENDED TREES (cont.) Common Name Star Magnolia Sweetbay Magnolia	Liquidambar styraciflua Liriodendron tulipifera Magnolia acuminata Botanical Name Magnolia stellata Magnolia virginiana	60-80' 60-90' 40-70' 40-70' 15-20' 10-30'	40-50' 30-50' 20-35' (1) (1) (1) (1) (2) (3) (3) (4) (4) (4) (4) (4) (4) (4) (4) (5) (6) (6) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7	X X X	X		X	Evergreen Tree	Х	Spring/summer flowers, fall color Spring/summer flowers, fall color Notes Spring flower Spring/summer flower, semi-evergreen
American Sweetgum Tulip Tree Cucumbertree RECOMMENDED TREES (cont.) Common Name Star Magnolia Sweetbay Magnolia Crabapple	Liquidambar styraciflua Liriodendron tulipifera Magnolia acuminata Botanical Name Magnolia stellata Magnolia virginiana Malus spp.	60-80' 60-90' 40-70' (t) 15-20' 10-30' varies	40-50' 30-50' 20-35' Watrue Midth (#) 10-15' 10-35' varies	X X X X	Shade Tree	Large Street Tree	Х	Evergreen Tree		Spring/summer flowers, fall color Spring/summer flowers, fall color Notes Spring flower Spring flower Spring/summer flower, semi-evergreen Cultivars: Adirondack, Cardinal, Prairie Fire, Tina, Sargent
American Sweetgum Tulip Tree Courambertree RECOMMENDED TREES (cont.) Common Name Star Magnolia Sweetbay Magnolia Crabapple	Liquidambar styraciflua Liriodendron tulipifera Magnolia acuminata Botanical Name Magnolia stellata Magnolia virginiana	60-80' 60-90' 40-70' 40-70' 15-20' 10-30'	40-50' 30-50' 20-35' (1) (1) (1) (1) (2) (3) (3) (4) (4) (4) (4) (4) (4) (4) (4) (5) (6) (6) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7) (7	X X X	X		X	Evergreen Tree	Х	Spring/summer flowers, fall color Spring/summer flowers, fall color Notes Spring flower Spring/summer flower, semi-evergreen
American Sweetgum Tulip Tree Court mbertree RECOMMENDED TREES (cont.) Common Name Star Magnolia Sweetbay Magnolia Crabapple Blackgum	Liquidambar styraciflua Liriodendron tulipifera Magnolia acuminata Botanical Name Magnolia stellata Magnolia virginiana Malus spp.	60-80' 60-90' 40-70' (t) 15-20' 10-30' varies	40-50' 30-50' 20-35' 20-35' (#) http://www.marker.in/ 10-15' 10-35' varies 20-30' 15-30'	X X X X	Shade Tree	Large Street Tree	X	Evergreen Tree	Х	Spring/summer flowers, fall color Spring/summer flowers, fall color Notes Spring flower Spring flower Spring/summer flower, semi-evergreen Cultivars: Adirondack, Cardinal, Prairie Fire, Tina, Sargent
American Sweetgum Tulip Tree Cucumbertree RECOMMENDED TREES (cont.) Common Name Star Magnolia Sweetbay Magnolia Crabapple Blackgum American Hophornbeam	Liquidambar styraciflua Liriodendron tulipifera Magnolia acuminata Botanical Name Magnolia stellata Magnolia virginiana Malus spp. Nyssa sylvatica	60-80' 60-90' 40-70' 40-70' Waries 30-50'	40-50' 30-50' 20-35' Watrue Midth (#) 10-15' 10-35' varies 20-30'	X X X	× × × × × × × × × × × × × × × × × × ×	Large Street Tree	X X X	X Evergreen Tree	X	Spring/summer flowers, fall color Spring/summer flowers, fall color Notes Spring flower Spring/summer flower, semi-evergreen Cultivars: Adirondack, Cardinal, Prairie Fire, Tina, Sargent Wildlife value, fall color
American Sweetgum Tulip Tree Cucumbertree RECOMMENDED TREES (cont.)	Liquidambor styraciflua Liriodendron tulipifera Magnolia acuminata Botanical Name Magnolia stellata Magnolia viiginiana Malus spp. Nyssa sylvatica Ostrya virginiana	60-80' 60-90' 40-70' (1) 40-70' 15-20' 10-30' varies 30-50' 20-30'	40-50' 30-50' 20-35' 20-35' (#) http://www.marker.in/ 10-15' 10-35' varies 20-30' 15-30'	X X X	× × × × × × × × × × × × × × × × × × ×	Large Street Tree	X X X		X	Spring/summer flowers, fall color Spring/summer flowers, fall color Notes Spring flower Spring flower Spring/summer flower, semi-evergreen Cultivars: Adirondack, Cardinal, Prairie Fire, Tina, Sargent Wildlife value, fall color Wildlife value
American Sweetgum Tulip Tree Courumbertree RECOMMENDED TREES (cont.) Common Name Star Magnolia Sweetbay Magnolia Crabapple Blackgum American Hophornbeam Norway Spruce Colorado Blue Spruce	Liquidambar styraciflua Liriodendron tulipifera Magnolia acuminata Botanical Name Magnolia stellata Magnolia virginiana Malus spp. Nyssa sylvatica Ostrya virginiana Picea abies	60-80' 60-90' 40-70' 10-70' 15-20' 10-30'	40-50' 30-50' 20-35' 20-35' (#) http://www.marker.com/ 10-15' 10-35' varies 20-30' 15-30' 25-30'	X X X	× × × × × × × × × × × × × × × × × × ×	Large Street Tree	X X X	X	X	Spring/summer flowers, fall color Spring/summer flowers, fall color Notes Spring flower Spring flower Spring/summer flower, semi-evergreen Cultivars: Adirondack, Cardinal, Prairie Fire, Tina, Sargent Wildlife value, fall color Wildlife value Winter interest
American Sweetgum Tulip Tree Courambertree RECOMMENDED TREES (cont.) Common Name Star Magnolia Sweetbay Magnolia Crabapple Blackgum American Hophornbeam Norway Spruce Colorado Blue Spruce White Spruce Eastern White Pine	Liquidambar styraciflua Liriodendron tulipifera Magnolia acuminata Botanical Name Magnolia stellata Magnolia virginiana Malus spp. Nyssa sylvatica Ostrya virginiana Picea abies Picea pungens	60-80' 60-90' 40-70' (1) 15-20' 10-30' varies 30-50' 40-60' 30-60'	40-50' 30-50' 20-35' 20-35' 4) 4) 4) 40-15' 10-35' varies 20-30' 15-30' 25-30' 10-20'	X X X X X X	× × × × × × × × × × × × × × × × × × ×	Large Street Tree	X X X	X	X	Spring/summer flowers, fall color Spring/summer flowers, fall color Notes Spring flower Spring/summer flower, semi-evergreen Cultivars: Adirondack, Cardinal, Prairie Fire, Tina, Sargent Wildlife value, fall color Wildlife value Winter interest Native to western United States, winter interest
American Sweetgum Tulip Tree Cucumbertree RECOMMENDED TREES (cont.) Common Name Star Magnolia Crabapple Blackgum American Hophornbeam Norway Spruce Colorado Blue Spruce White Spruce	Liquidambar styraciflua Liriodendron tulipifera Magnolia acuminata Botanical Name Magnolia stellata Magnolia virginiana Malus spp. Nyssa sylvatica Ostrya virginiana Picea abies Picea pungens Picea glauca	60-80' 60-90' 40-70' 15-20' 10-30' varies 30-50' 20-30' 40-60' 40-60'	40-50' 30-50' 20-35' 20-35' 4) 10-15' 10-35' varies 20-30' 15-30' 25-30' 10-20'	X X X X X X X X X X X X X X X X X X X	× × × × × × × × × × × × × × × × × × ×	Large Street Tree	X X X	X X X	X	Spring/summer flowers, fall color Spring/summer flowers, fall color Notes Spring flower Spring/summer flower, semi-evergreen Cultivars: Adirondack, Cardinal, Prairie Fire, Tina, Sargent Wildlife value, fall color Wildlife value Winter interest Native to western United States, winter interest Winter interest
American Sweetgum Tulip Tree Courambertree RECOMMENDED TREES (cont.) Common Name Star Magnolia Sweetbay Magnolia Crabapple Blackgum American Hophornbeam Norway Spruce Colorado Blue Spruce White Spruce Eastern White Pine	Liquidambar styraciflua Liriodendron tulipifera Magnolia acuminata Botanical Name Magnolia stellata Magnolia virginiana Malus spp. Nyssa sylvatica Ostrya virginiana Picea abies Picea pungens Picea glauca Pinus strobus	60-80' 60-90' 40-70' 15-20' 10-30' varies 30-50' 40-60' 30-60' 40-60' 50-80' 75-100'	40-50' 30-50' 20-35' 4 4 4 4 10-15' 10-35' varies 20-30' 15-30' 25-30' 10-20' 20-40'	X X X X X X X X X X X X X X X X X X X	X X X	Large Street Tree	X X X	X X X	X	Spring/summer flowers, fall color Spring/summer flowers, fall color Notes Spring flower Spring flower Spring/summer flower, semi-evergreen Cultivars: Adirondack, Cardinal, Prairie Fire, Tina, Sargent Wildlife value, fall color Wildlife value Winter interest Native to western United States, winter interest Winter interest Winter interest Winter interest
American Sweetgum Tulip Tree Courambertree RECOMMENDED TREES (cont.) Common Name Star Magnolia Grabapple Blackgum American Hophornbeam Norway Spruce Colorado Blue Spruce White Spruce Eastern White Pine London Planetree	Liquidambar styraciflua Liriodendron tulipifera Magnolia acuminata Botanical Name Magnolia stellata Magnolia virginiana Malus spp. Nyssa sylvatica Ostrya virginiana Picea abies Picea pungens Picea glauca Pinus strobus Platanus x acerifolia	60-80' 60-90' 40-70' 15-20' 10-30' varies 30-50' 40-60' 30-60' 40-60' 50-80' 75-100'	40-50' 30-50' 20-35' 20-35' (#) 41 41 41 41 41 41 41 41 41 41	X X X X X X X X X X X X X X X X X X X	X X X X X X X X X X X X X X X X X X X	Large Street Tree	X X X	X X X	X	Spring/summer flowers, fall color Spring/summer flowers, fall color Notes Spring flower Spring flow
American Sweetgum Tulip Tree Courumbertree RECOMMENDED TREES (cont.) Common Name Star Magnolia Sweetbay Magnolia Crabapple Blackgum American Hophornbeam Norway Spruce Colorado Blue Spruce White Spruce Eastern White Pine London Planetree American Sycamore	Liquidambar styraciflua Liriodendron tulipifera Magnolia acuminata Botanical Name Magnolia stellata Magnolia virginiana Malus spp. Nyssa sylvatica Ostrya virginiana Picea abies Picea pungens Picea glauca Pinus strobus Platanus x acerifolia Platanus occidentalis	60-80' 60-90' 40-70' 10-70' 15-20' 15-20' 10-30' 10-30' 10-30' 10-60' 30-60' 40-60' 30-60' 40-60' 50-80' 75-100' 70-100'	40-50' 30-50' 20-35' (1) 10-15' 10-35' varies 20-30' 15-30' 25-30' 10-20' 10-20' 20-40' 75-100' 60-75'	X X X X X X X X X X X X X X X X X X X	X X X X X X X X X X X X X X X X X X X	Large Street Tree	X X X	X X X	X	Spring/summer flowers, fall color Spring/summer flowers, fall color Notes Spring flower Spring/summer flower, semi-evergreen Cultivars: Adirondack, Cardinal, Prairie Fire, Tina, Sargent Wildlife value, fall color Wildlife value Winter interest Native to western United States, winter interest Winter interest Winter interest Winter interest Winter interest Wildlife value Winter interest
American Sweetgum Tulip Tree Cucumbertree RECOMMENDED TREES (cont.) Common Name Star Magnolia Crabapple Blackgum American Hophornbeam Norway Spruce Colorado Blue Spruce White Spruce Eastern White Pine London Planetree American Sycamore Sargent Cherry	Liquidambar styraciflua Liriodendron tulipifera Magnolia acuminata Botanical Name Magnolia stellata Magnolia sitellata Magnolia virginiana Malus spp. Nyssa sylvatica Ostrya virginiana Picea abies Picea pungens Picea glauca Pinus strobus Platanus x acerifolia Platanus occidentalis Prunus sargentii	60-80' 60-90' 40-70' 40-70' 40-70' 40-70' 15-20' 10-30' 10-30' 10-30' 40-60' 40-60' 50-80' 75-100' 70-100' 20-30'	40-50' 30-50' 20-35' 20-35' 10-15' 10-15' 10-35' varies 20-30' 15-30' 25-30' 10-20' 10-20' 20-40' 75-100' 60-75' 20-30'	X X X X X X X X X X X X X X X X X X X	X X X X X X X X X X X X X X X X X X X	Large Street Tree	X X X	X X X	X	Spring/summer flowers, fall color Spring/summer flowers, fall color Notes Spring flower Spring/summer flower, semi-evergreen Cultivars: Adirondack, Cardinal, Prairie Fire, Tina, Sargent Wildlife value, fall color Wildlife value Winter interest Native to western United States, winter interest Winter interest Winter interest Winter interest Wildlife value Winter interest Wildlife value Winter interest Spring flower, fall color, wildlife value
American Sweetgum Tulip Tree Courambertree RECOMMENDED TREES (cont.) Common Name Star Magnolia Sweetbay Magnolia Crabapple Blackgum American Hophornbeam Norway Spruce Colorado Blue Spruce White Spruce Eastern White Pine London Planetree American Sycamore Sargent Cherry Flowering Cherry Flowering Cherry	Liquidambar styraciflua Liriodendron tulipifera Magnolia acuminata Botanical Name Magnolia stellata Magnolia virginiana Malus spp. Nyssa sylvatica Ostrya virginiana Picea abies Picea pungens Picea glauca Pinus strobus Platanus x acerifolia Platanus occidentalis Prunus sargentii Prunus x yedoensis	60-80' 60-90' 40-70' 40-70' 40-70' 15-20' 10-30' varies 30-50' 40-60' 30-60' 40-60' 50-80' 75-100' 70-100' 70-100' 20-30' 30-40'	40-50' 30-50' 20-35' 20-35' 10-15' 10-15' 10-20' 25-30' 10-20' 20-40' 75-100' 20-30' 20-30' 20-30' 20-30' 20-30' 20-30' 20-30'	X X X X X X X X X X X X X X X X X X X	X X X X X X X X X X X X X X X X X X X	× Large Street Tree	X X X	X X X	X	Spring/summer flowers, fall color Spring/summer flowers, fall color Notes Spring flower Spring flower Spring flowers Spring flowers semi-evergreen Cultivars: Adirondack, Cardinal, Prairie Fire, Tina, Sargent Wildlife value, fall color Wildlife value Winter interest Native to western United States, winter interest Winter interest Winter interest Winter interest Wildlife value Winter interest Wildlife value Winter interest Spring flower, fall color, wildlife value Spring flower, fall color, wildlife value
American Sweetgum Tulip Tree Courumbertree RECOMMENDED TREES (cont.) Common Name Star Magnolia Crabapple Blackgum American Hophornbeam Norway Spruce Colorado Blue Spruce White Spruce Eastern White Pine London Planetree American Sycamore Sargent Cherry White Oak	Liquidambar styraciflua Liriodendron tulipifera Magnolia acuminata Botanical Name Magnolia stellata Magnolia virginiana Malus spp. Nyssa sylvatica Ostrya virginiana Picea abies Picea pungens Picea glauca Pinus strobus Platanus accrifolia Platanus accrifolia Prunus x yedoensis Quercus alba	60-80' 60-90' 40-70' 10-70' 15-20' 10-30' varies 30-50' 20-30' 40-60' 30-60' 40-60' 75-100' 70-100' 20-30' 30-40' 50-80'	40-50' 30-50' 20-35' 20-35' (1)-15' 10-15' 10-35' varies 20-30' 15-30' 10-20' 20-40' 75-100' 60-75' 20-30' 20-30' 50-75' 20-30' 50-75' 20-30' 50-75' 20-80'	X X X X X X X X X X X X X X X X X X X	X X X X X X X X X X X X X X X X X X X	× Large Street Tree	X X X	X X X	XXX	Spring/summer flowers, fall color Spring/summer flowers, fall color Notes Spring flower Spring flower Spring/summer flower, semi-evergreen Cultivars: Adirondack, Cardinal, Prairie Fire, Tina, Sargent Wildlife value, fall color Wildlife value Winter interest Native to western United States, winter interest Spring flower, fall color, wildlife value Spring flower, fall color, wildlife value Wildlife value, fall color, wildlife value Wildlife value, fall color
American Sweetgum Tulip Tree Courombertree RECOMMENDED TREES (cont.) Common Name Star Magnolia Sweetbay Magnolia Crabapple Blackgum American Hophornbeam Norway Spruce Colorado Blue Spruce White Spruce Eastern White Pine London Planetree American Sycamore Sargent Cherry Flowering Cherry White Oak Swamp White Oak	Liquidambar styraciflua Liriodendron tulipifera Magnolia acuminata Botanical Name Magnolia stellata Magnolia virginiana Malus spp. Nyssa sylvatica Ostrya virginiana Picea abies Picea pungens Picea pungens Picea plauca Pinus strobus Platanus x acerifolia Platanus vacidentalis Prunus sargentii Prunus x yedoensis Quercus alba Quercus bicolor	60-80' 60-90' 40-70' 40-70' 40-70' 40-70' 40-70' 15-20' 10-30' 10-30' 10-30' 10-30' 10-60' 10-60' 10-60' 10-70-100' 10-70-	40-50' 30-50' 20-35' 20-35' (#) ## 10-15' 10-35' varies 20-30' 10-20' 10-20' 10-20' 20-50' 50-80' 50-60'	X	X X X X X X X X X X X X X X X X X X X	× × ×	X X X	X X X	XXX	Spring/summer flowers, fall color Spring/summer flowers, fall color Spring/summer flowers, fall color Spring flower Spring/summer flower, semi-evergreen Cultivars: Adirondack, Cardinal, Prairie Fire, Tina, Sargent Wildlife value, fall color Wildlife value Winter interest Winter interest Winter interest Winter interest Winter interest Winter interest Spring flower, fall color, wildlife value Spring flower, fall color, wildlife value Wildlife value, fall color, wildlife value Wildlife value, fall color Wildlife value, fall color Wildlife value, fall color Wildlife value, fall color
American Sweetgum Tulip Tree Courdmentree RECOMMENDED TREES (cont.) Common Name Star Magnolia Sweetbay Magnolia Crabapple Blackgum American Hophornbeam Norway Spruce Colorado Blue Spruce White Spruce Eastern White Pine London Planetree American Sycamore Sargent Cherry Flowering Cherry White Oak Swamp White Oak Swamp White Oak Swamp White Oak Scarlet Oak/Black Oak	Liquidambar styraciflua Liriodendron tulipifera Magnolia acuminata Botanical Name Magnolia stellata Magnolia virginiana Malus spp. Nyssa sylvatica Ostrya virginiana Picea abies Picea pungens Picea glauca Pinus strobus Platanus acerifolia Pitanus acerifolia Prunus argentii Prunus x gedoensis Quercus alba Quercus alba Quercus coccinea Quercus coccinea	60-80' 60-90' 40-70' 10-70' 15-20' 10-30' varies 30-50' 40-60' 30-60' 40-60' 50-60' 50-80' 75-100' 70-100' 20-30' 50-80' 50-80' 50-80' 50-80' 50-80' 50-80' 50-80' 50-80'	40-50' 30-50' 20-35' 10-15' 10-35' varies 20-30' 15-30' 25-30' 10-20' 10-20' 10-20' 10-20' 10-20' 10-50' 50-60' 45-60' 50-60' 50-60'	X	x x x x x x x x x x x x x x x x x x x	X X X	X X X	X X X	XXX	Spring/summer flowers, fall color Spring/summer flowers, fall color Spring/summer flowers, fall color Spring flower Spring/summer flower, semi-evergreen Cultivars: Adirondack, Cardinal, Prairie Fire, Tina, Sargent Wildlife value, fall color Wildlife value Winter interest Winter interest Winter interest Wildlife value Winter interest Spring flower, fall color, wildlife value Spring flower, fall color, wildlife value Wildlife value, fall color
American Sweetgum Tulip Tree Courumbertree RECOMMENDED TREES (cont.) Common Name Star Magnolia Crabapple Blackgum American Hophornbeam Norway Spruce Colorado Blue Spruce White Spruce Eastern White Pine London Planetree American Sycamore Sargent Cherry Elowering Cherry White Oak Swamp White Oak Scarlet Oak/Black Oak Shingle Oak/Laurel Oak Bur Oak	Liquidambar styraciflua Liriodendron tulipifera Magnolia acuminata Botanical Name Magnolia stellata Magnolia virginiana Malus spp. Nyssa sylvatica Ostrya virginiana Picea abies Picea pungens Picea glauca Pinus strobus Platanus occidentalis Prunus sargentii Prunus sargentii Prunus sy vedoensis Quercus bicolor Quercus occinea Quercus imbricaria Quercus imbricaria Quercus macrocarpa	60-80' 60-90' 40-70' 10-70' 15-20' 10-30' varies 30-50' 20-30' 40-60' 30-60' 70-100' 20-30' 70-100' 20-30' 50-80' 50-80' 50-80' 50-80' 50-80' 50-80' 50-80' 50-80' 50-80'	40-50' 30-50' 20-35' 20-35' (#) 10-15' 10-35' varies 20-30' 15-30' 10-20' 25-30' 10-20' 20-40' 75-100' 60-75' 20-30' 50-60' 45-60' 50-60' 60-80'	X	X X X X X X X X X X X X X X X X X X X	X X X	X X X	X X X	XXX	Spring/summer flowers, fall color Spring/summer flowers, fall color Spring/summer flowers, fall color Spring/summer flower, semi-evergreen Cultivars: Adirondack, Cardinal, Prairie Fire, Tina, Sargent Wildlife value, fall color Wildlife value Winter interest Native to western United States, winter interest Winter interest Winter interest Winter interest Winter interest Spring flower, fall color, wildlife value Winter interest Spring flower, fall color, wildlife value Wildlife value, fall color
American Sweetgum Tulip Tree Courombertree RECOMMENDED TREES (cont.) Common Name Star Magnolia Sweetbay Magnolia Crabapple Blackgum American Hophornbeam Norway Spruce Colorado Blue Spruce White Spruce Eastern White Pine London Planetree American Sycamore Sargent Cherry Flowering Cherry White Oak Swamp White Oak Scarlet Oak/Black Oak Shingle Oak/Laurel Oak Bur Oak Chinkapin Oak	Liquidambar styraciflua Liriodendron tulipifera Magnolia acuminata Botanical Name Magnolia stellata Magnolia virginiana Malus spp. Nyssa sylvatica Ostrya virginiana Picea abies Picea pungens Picea glauca Pinus strobus Platanus x acerifolia Platanus vaceidentalis Prunus sargentii Prunus sargentii Prunus vedoensis Quercus alba Quercus imbricaria Quercus imbricaria Quercus macrocarpa Quercus muehlenbergii	60-80' 60-90' 40-70' 40-70' 40-70' 15-20' 15-20' 10-30' varies 30-50' 20-30' 40-60' 30-60' 40-60' 50-80' 75-100' 70-100' 20-30' 30-40' 50-8	40-50' 30-50' 20-35' 20-35' (1) 10-35' 10-35' varies 20-30' 15-30' 25-30' 10-20' 10-20' 20-40' 75-100' 60-75' 20-30' 50-60' 45-60' 50-60' 50-60' 50-70'	X	x x x x x x x x x x x x x x x x x x x	X X X	X X X	X X X	X X X	Spring/summer flowers, fall color Spring/summer flowers, fall color Spring/summer flowers, fall color Spring/summer flower, semi-evergreen Cultivars: Adirondack, Cardinal, Prairie Fire, Tina, Sargent Wildlife value, fall color Wildlife value Winter interest Winter interest Winter interest Winter interest Winter interest Spring flower, fall color, wildlife value Winter interest Spring flower, fall color, wildlife value Wildlife value, fall color spring plant only Wildlife value, fall color
American Sweetgum Tulip Tree Courding Tree RECOMMENDED TREES (cont.) Common Name Star Magnolia Sweetbay Magnolia Crabapple Blackgum American Hophornbeam Norway Spruce Colorado Blue Spruce White Spruce Eastern White Pine London Planetree American Sycamore Sargent Cherry Flowering Cherry White Oak Swamp White Oak Scarlet Oak (Black Oak Shingle Oak/Laurel Oak Bur Oak Chinkapin Oak Pin Oak	Liquidambar styraciflua Liriodendron tulipifera Magnolia acuminata Botanical Name Magnolia stellata Magnolia virginiana Malus spp. Nyssa sylvatica Ostrya virginiana Picea abies Picea pungens Picea glauca Pinus strobus Platanus x acerifolia Platanus x acerifolia Prunus sargentii Prunus sargentii Prunus syedoensis Quercus aliba Quercus bicolor Quercus indendendendendendendendendendendendenden	60-80' 60-90' 40-70' 40-70' 40-70' 15-20' 10-30' varies 30-50' 40-60' 30-60' 40-60' 50-80' 75-100' 70-100' 20-30' 20-30' 60-80' 50-80' 50-80' 50-80' 50-80' 50-80' 50-80' 50-80' 50-80' 50-80' 50-80' 50-80' 50-80' 50-80' 50-70' 60-80' 40-60' 50-70'	40-50' 30-50' 20-35' ###################################	X	x x x x x x x x x x x x x x x x x x x	X X X X X X X X X X X X X X X X X X X	X X X	X X X	X X X	Spring/summer flowers, fall color Spring/summer flowers, fall color Notes Spring flower Spring/summer flower, semi-evergreen Cultivars: Adirondack, Cardinal, Prairie Fire, Tina, Sargent Wildlife value, fall color Wildlife value, fall color Winter interest Wildlife value Wildlife value Wildlife value Wildlife value Wildlife value Wildlife value, fall color, wildlife value Wildlife value, fall color
American Sweetgum Trulip Tree Courumbertree RECOMMENDED TREES (cont.) RECOMMENDED TREES (cont.) Common Name Star Magnolia Sweetbay Magnolia Crabapple Blackgum American Hophornbeam Norway Spruce Colorado Blue Spruce White Spruce Eastern White Pine London Planetree American Sycamore Sargent Cherry White Oak Swamp White Oak Swamp White Oak Swamp White Oak Skarlet Oak/Black Oak Shingle Oak/Laurel Oak Bur Oak Chinkapin Oak Pin Oak Red Oak	Liquidambar styraciflua Liriodendron tulipifera Magnolia acuminata Botanical Name Magnolia stellata Magnolia virginiana Malus spp. Nyssa sylvatica Ostrya virginiana Picea abies Picea pungens Picea glauca Pinus strobus Platanus accifolia Platanus accifolia Platanus accifolia Prunus x yedoensis Quercus alba Quercus bicolor Quercus occinea Quercus macrocarpa Quercus muehlenbergii Quercus muehlenbergii Quercus rubra	60-80' 60-90' 40-70' 10-70' 15-20' 10-30' varies 30-50' 20-30' 40-60' 30-60' 40-60' 30-60' 40-60' 30-60' 50-80' 75-100' 70-100' 50-8	40-50' 30-50' 20-35' ###################################	X	x x x x x x x x x x x x x x x x x x x	X X X X X X X X X X X X X X X X X X X	X X X	X X X	X X X	Spring/summer flowers, fall color Spring/summer flowers, fall color Spring/summer flowers, fall color Spring/summer flower, semi-evergreen Cultivars: Adirondack, Cardinal, Prairie Fire, Tina, Sargent Wildlife value, fall color Wildlife value Winter interest Native to western United States, winter interest Winter interest Wildlife value Winter interest Wildlife value Winter interest Spring flower, fall color, wildlife value Spring flower, fall color, wildlife value Wildlife value, fall color
American Sweetgum Tulip Tree Courumbertree RECOMMENDED TREES (cont.) Common Name Star Magnolia Crabapple Blackgum American Hophornbeam Norway Spruce Colorado Blue Spruce White Spruce Eastern White Pine London Planetree American Sycamore Sargent Cherry How London Planetree American Sycamore Sargent Cherry White Oak Swamp White Oak Swamp White Oak Scarlet Oak/Black Oak Shingle Oak/Laurel Oak Bur Oak Chinkapin Oak Pin Oak Red Oak Red Oak Bald Cypress	Liquidambar styraciflua Liriodendron tulipifera Magnolia acuminata Botanical Name Magnolia stellata Magnolia virginiana Malus spp. Nyssa sylvatica Ostrya virginiana Picea abies Picea pungens Picea glauca Pinus strobus Platanus vacerifolia Platanus occidentalis Prunus sargentii Prunus yedoensis Quercus alba Quercus bicolor Quercus imbricaria Quercus macrocarpa Quercus macrocarpa Quercus macrocarpa Quercus multani	60-80' 60-90' 40-70' 11-20' 15-20' 10-30' varies 30-50' 30-60' 40-60' 30-60' 75-100' 70-100' 20-30' 30-40' 50-80' 50-80' 50-80' 50-60' 50-70' 60-80' 40-60' 50-70' 50-70'	40-50' 30-50' 20-35' 20-35' (#) ################################	X	x x x x x x x x x x x x x x x x x x x	X X X X X X X X X X X X X X X X X X X	X X X	X X X	X X X	Spring/summer flowers, fall color Spring/summer flowers, fall color Spring/summer flowers, fall color Spring/summer flower, semi-evergreen Cultivars: Adirondack, Cardinal, Prairie Fire, Tina, Sargent Wildlife value, fall color Wildlife value Winter interest Winter interest Winter interest Winter interest Winter interest Winter interest Spring flower, fall color, wildlife value Winter interest Spring flower, fall color, wildlife value Wildlife value, fall color Prefers wet soils
American Sweetgum Tulip Tree Courding Tree RECOMMENDED TREES (cont.) Common Name Star Magnolia Sweetbay Magnolia Crabapple Blackgum American Hophornbeam Norway Spruce Colorado Blue Spruce White Spruce Eastern White Pine London Planetree American Sycamore Sargent Cherry Flowering Cherry White Oak Swamp White Oak Scarlet Oak/Black Oak Shingle Oak/Laurel Oak Bur Oak Chinkapin Oak Pin Oak Red Oak Bald Cypress American Linden/Basswood	Liquidambar styraciflua Liriodendron tulipifera Magnolia acuminata Botanical Name Magnolia stellata Magnolia stellata Magnolia virginiana Malus spp. Nyssa sylvatica Ostrya virginiana Picea abies Picea pungens Picea glauca Pinus strobus Platanus x acerifolia Platanus x acerifolia Prunus sargentii Prunus sargentii Prunus sy vedoensis Quercus alba Quercus bicolor Quercus bicolor Quercus macricana Quercus macrocarpa Quercus machenbergii Quercus rubra Taxodium distichum Tilia americana	60-80' 60-90' 40-70' ### EX	40-50' 30-50' 20-35' 10-15' 10-35' 10-35' 15-30' 25-30' 10-20' 1	X	x x x x x x x x x x x x x x x x x x x	X X X X X X X X X X X X X X X X X X X	X X X	X X X	X X X	Spring/summer flowers, fall color Spring/summer flowers, fall color Spring/summer flowers, fall color Spring/summer flower, semi-evergreen Cultivars: Adirondack, Cardinal, Prairie Fire, Tina, Sargent Wildlife value, fall color Wildlife value, fall color Wildlife value Winter interest Winter interest Winter interest Winter interest Spring flower, fall color, wildlife value Spring flower, fall color, wildlife value Wildlife value, fall color Prefers wet soils Fragrant flowers, wildlife value
American Sweetgum Trulip Tree Courumbertree RECOMMENDED TREES (cont.) RECOMMENDED TREES (cont.) Common Name Star Magnolia Sweetbay Magnolia Crabapple Blackgum American Hophornbeam Norway Spruce Colorado Blue Spruce White Spruce White Pruce Eastern White Pine London Planetree American Sycamore Sargent Cherry Flowering Cherry White Oak Swamp White Oak Scarlet Oak/Black Oak Shingle Oak/Laurel Oak Bur Oak Chinkapin Oak Pin Oak Red Oak Red Oak Bald Cypress American Linden/Basswood Littleleaf Linden	Liquidambar styraciflua Liriodendron tulipifera Magnolia acuminata Botanical Name Magnolia stellata Magnolia virginiana Malus spp. Nyssa sylvatica Ostrya virginiana Picea abies Picea pungens Picea glauca Pinus strobus Platanus x acerifolia Platanus x acerifolia Platanus sacerifolia Prunus sargentii Prunus sargentii Prunus supens Quercus aliba Quercus bicolor Quercus della Quercus inbricaria Quercus macrocarpa Quercus macrocarpa Quercus muehlenbergii Quercus rubra Taxodium distichum Tilia cordata	60-80' 60-90' 40-70' 10-70' 15-20' 10-30' varies 30-50' 40-60' 30-60' 40-60' 50-80' 75-100' 70-100' 50-80' 50-80' 50-60' 40-60' 50-80' 50-70' 50-70' 50-70' 50-70' 50-70' 50-70' 50-70' 50-70' 50-70'	40-50' 30-50' 20-35' ###################################	X	x x x x x x x x x x x x x x x x x x x	X X X X X X X X X X X X X X X X X X X	X X X	X X X X	X X X	Spring/summer flowers, fall color Spring/summer flowers, fall color Spring/summer flowers, fall color Spring/summer flower, semi-evergreen Spring/summer flower, semi-evergreen Cultivars: Adirondack, Cardinal, Prairie Fire, Tina, Sargent Wildlife value, fall color Wildlife value, fall color Winter interest Winter interest Winter interest Winter interest Winter interest Spring flower, fall color, wildlife value Spring flower, fall color, wildlife value Wildlife value, fall color
American Sweetgum Tulip Tree Courumbertree RECOMMENDED TREES (cont.) Common Name Star Magnolia Sweetbay Magnolia Crabapple Blackgum American Hophornbeam Norway Spruce Colorado Blue Spruce White Spruce Eastern White Pine London Planetree American Sycamore Sargent Cherry White Oak Swamp White Oak Swamp White Oak Scarlet Oak/Black Oak Shingle Oak/Laurel Oak Bur Oak Chinkapin Oak Pin Oak Red Oak Bald Cypress American Linden/Basswood Littleleaf Linden Giant Arbovitae/Western Redcedal	Liquidambar styraciflua Liriodendron tulipifera Magnolia acuminata Botanical Name Magnolia stellata Magnolia stellata Magnolia virginiana Malus spp. Nyssa sylvatica Ostrya virginiana Picea abies Picea pungens Picea glauca Pinus strobus Platanus accifolia Platanus accidentalis Prunus sargentii Prunus x yedoensis Quercus alba Quercus bicolor Quercus coccinea Quercus macrocarpa Quercus macrocarpa Quercus muehlenbergii Quercus palustris Quercus rubra Taxodium distichum Tilia americana Tilia cordata r Thuja plicata	60-80' 60-90' 40-70' 15-20' 10-30' varies 30-50' 40-60' 30-60' 40-60' 30-60' 70-100' 50-80' 75-100' 70-100' 50-80' 50-60' 50-80' 50-70' 50-80' 50-70' 50-70' 50-70' 50-70' 50-70'	40-50' 30-50' 20-35' ###################################	X	x x x x x x x x x x x x x x x x x x x	X X X X X X X X X X X X X X X X X X X	X X X	X X X X	X X X	Spring/summer flowers, fall color Spring/summer flowers, fall color Spring/summer flowers, fall color Spring/summer flower, semi-evergreen Cultivars: Adirondack, Cardinal, Prairie Fire, Tina, Sargent Wildlife value, fall color Wildlife value Winter interest Wildlife value Winter interest Wildlife value Winter interest Wildlife value Wildlife value, fall color, wildlife value Wildlife value, fall color Prefers wet soils Fragrant flowers, wildlife value Fragrant flowers, wildlife value Susceptible to deer damage
American Sweetgum Tulip Tree Courumbertree RECOMMENDED TREES (cont.) Common Name Star Magnolia Sweetbay Magnolia Crabapple Blackgum American Hophornbeam Norway Spruce Colorado Blue Spruce White Spruce Eastern White Pine London Planetree American Sycamore Sargent Cherry White Oak Swamp White Oak Swamp White Oak Scarlet Oak/Black Oak Shingle Oak/Laurel Oak Bur Oak Chinkapin Oak Pin Oak Red Oak Bald Cypress American Linden/Basswood Littleleaf Linden Giant Arbovitae/Western Redcedal	Liquidambar styraciflua Liriodendron tulipifera Magnolia acuminata Botanical Name Magnolia stellata Magnolia virginiana Malus spp. Nyssa sylvatica Ostrya virginiana Picea abies Picea pungens Picea glauca Pinus strobus Platanus x acerifolia Platanus x acerifolia Platanus sacerifolia Prunus sargentii Prunus sargentii Prunus supens Quercus aliba Quercus bicolor Quercus della Quercus inbricaria Quercus macrocarpa Quercus macrocarpa Quercus muehlenbergii Quercus rubra Taxodium distichum Tilia cordata	60-80' 60-90' 40-70' 10-70' 15-20' 10-30' varies 30-50' 40-60' 30-60' 40-60' 50-80' 75-100' 70-100' 50-80' 50-80' 50-60' 40-60' 50-80' 50-70' 50-70' 50-70' 50-70' 50-70' 50-70' 50-70' 50-70' 50-70'	40-50' 30-50' 20-35' ###################################	X	x x x x x x x x x x x x x x x x x x x	X X X X X X X X X X X X X X X X X X X	X X X	X X X X	X	Spring/summer flowers, fall color Spring/summer flowers, fall color Spring/summer flowers, fall color Spring/summer flower, semi-evergreen Cultivars: Adirondack, Cardinal, Prairie Fire, Tina, Sargent Wildlife value, fall color Wildlife value Winter interest Winter interest Winter interest Winter interest Winter interest Winter interest Spring flower, fall color, wildlife value Winter interest Spring flower, fall color, wildlife value Wildlife value, fall color Prefers wet soils Fragrant flowers, wildlife value Fragrant flowers, wildlife value Susceptible to deer damage Small tree varieties can be used in screening and as an everg
American Sweetgum Tulip Tree Courding Tree RECOMMENDED TREES (cont.) Common Name Star Magnolia Sweetbay Magnolia Crabapple Blackgum American Hophornbeam Norway Spruce Colorado Blue Spruce White Spruce Eastern White Pine London Planetree American Sycamore Sargent Cherry White Oak Swamp White Oak Scarlet Oak/Black Oak Shingle Oak/Laurel Oak Bur Oak Chinkapin Oak Pin Oak Red Oak Bald Cypress American Linden/Basswood Little1eaf Linden Giant Arbovitae/Western Redcedai Arborvitae	Liquidambar styraciflua Liriodendron tulipifera Magnolia acuminata Botanical Name Magnolia stellata Magnolia stellata Magnolia virginiana Malus spp. Nyssa sylvatica Ostrya virginiana Picea abies Picea pungens Picea glauca Pinus strobus Platanus x acerifolia Platanus x acerifolia Platanus sacerifolia Prunus sargentii Prunus sargentii Prunus syedoensis Quercus aliba Quercus aliba Quercus bicolor Quercus imbricaria Quercus mehlenbergii Quercus mehlenbergii Quercus rubra Taxodium distichum Tilia americana Tilia cordata Thuja piicata Thuja spp.	60-80' 60-90' 40-70' 10-70' 15-20' 10-30' varies 30-50' 20-30' 40-60' 30-60' 40-60' 50-80' 75-100' 70-100' 50-80' 50-80' 50-80' 50-70' 50-70' 50-70' 50-70' 50-70' 50-70' 40-60' varies	40-50' 30-50' 20-35' 10-15' 10-35' 10-20' 10-20' 10-20' 10-20' 10-20' 20-40' 75-100' 50-80' 50-60' 45-60' 50-60' 40-60' 50-75' 20-45' 30-50' 335-50' 12-18' varies	X	x x x x x x x x x x x x x x x x x x x	X X X X X X X X X X X X X X X X X X X	X X X	X X X X	x x x x x x	Spring/summer flowers, fall color Spring/summer flowers, fall color Spring/summer flowers, fall color Spring/summer flower, semi-evergreen Cultivars: Adirondack, Cardinal, Prairie Fire, Tina, Sargent Wildlife value, fall color Wildlife value, fall color Wildlife value Winter interest Winter interest Winter interest Winter interest Spring flower, fall color, wildlife value Wildlife value, fall color
American Sweetgum Tulip Tree Common Name Star Magnolia Sweetbay Magnolia Crabapple Blackgum American Hophornbeam Norway Spruce Colorado Blue Spruce Mhite Spruce Colorado Blue Spruce Mhite Poruce Castern White Pine London Planetree American Sycamore Castern White Pine London Planetree American Sycamore Castern White Oak Swamp White Oak Swamp White Oak Swamp White Oak Scarlet Oak/Black Oak Shinigle Oak/Laurel Oak Bur Oak Chinkapin Oak Pin Oak Red Oak Bald Cypress American Linden/Basswood Littleleaf Linden Giant Arbovitae/Western Redcedal	Liquidambar styraciflua Liriodendron tulipifera Magnolia acuminata Botanical Name Magnolia stellata Magnolia stellata Magnolia virginiana Malus spp. Nyssa sylvatica Ostrya virginiana Picea abies Picea pungens Picea glauca Pinus strobus Platanus accifolia Platanus accidentalis Prunus sargentii Prunus x yedoensis Quercus alba Quercus bicolor Quercus coccinea Quercus macrocarpa Quercus macrocarpa Quercus muehlenbergii Quercus palustris Quercus rubra Taxodium distichum Tilia americana Tilia cordata r Thuja plicata	60-80' 60-90' 40-70' 15-20' 10-30' varies 30-50' 40-60' 30-60' 40-60' 30-60' 70-100' 50-80' 75-100' 70-100' 50-80' 50-60' 50-80' 50-70' 50-80' 50-70' 50-70' 50-70' 50-70' 50-70'	40-50' 30-50' 20-35' ###################################	X	x x x x x x x x x x x x x x x x x x x	X X X X X X X X X X X X X X X X X X X	X X X	X X X X	X	Spring/summer flowers, fall color Spring/summer flowers, fall color Spring/summer flowers, fall color Spring/summer flower, semi-evergreen Cultivars: Adirondack, Cardinal, Prairie Fire, Tina, Sargent Wildlife value, fall color Wildlife value Winter interest Winter interest Winter interest Wildlife value Wildlife value, fall color Prefers wet soils Fragrant flowers, wildlife value Fragrant flowers, wildlife value Susceptible to deer damage Small tree varieties can be used in screening and as an everging street tree Dutch Elm Disease resistant; cultivars: Accolade, Frontier,
American Sweetgum Tulip Tree Common Name Star Magnolia Sweetbay Magnolia Crabapple Blackgum American Hophornbeam Vorway Spruce Colorado Blue Spruce White Spruce Sastern White Pine London Planetree American Sycamore Sargent Cherry Flowering Cherry White Oak Swamp White Oak Swamp White Oak Sarden Oak/Black Oak Shinigle Oak/Laurel Oak Bur Oak Strinkapin Oak Pin Oak Red Oak Bald Cypress American Linden/Basswood Littleleaf Linden Giant Arbovitae/Western Redcedal Arborvitae	Liquidambar styraciflua Liriodendron tulipifera Magnolia acuminata Botanical Name Magnolia stellata Magnolia virginiana Malus spp. Nyssa sylvatica Ostrya virginiana Picea abies Picea pungens Picea glauca Pinus strobus Platanus accerifolia Platanus accerifolia Prunus x yedoensis Quercus aiba Quercus bicolor Quercus bicolor Quercus muehenbergii Quercus muehenbergii Quercus muehenbergii Quercus pulatiis Quercus rubra Taxodium distichum Tilia americana Tilia cordata r Thuja spp.	60-80' 60-90' 40-70' 15-20' 10-30' varies 30-50' 20-30' 40-60' 30-60' 40-60' 50-80' 50-80' 50-80' 50-70' 50-70' 50-70' 50-70' 50-70' 50-70' 40-60' varies	40-50' 30-50' 20-35' 20-35' 10-15' 10-35' varies 20-30' 15-30' 10-20' 20-40' 75-100' 60-75' 20-30' 20-50' 50-60' 45-60' 60-80' 50-70' 440-60' 50-75' 20-45' 30-50' 33-50' 12-18' varies	X	x x x x x x x x x x x x x x x x x x x	X X X X X X X X X X X X X X X X X X X	x x x	X X X X	x x x x x x	Notes Spring/summer flowers, fall color Spring/summer flowers, fall color Notes Spring flower Spring/summer flower, semi-evergreen Cultivars: Adirondack, Cardinal, Prairie Fire, Tina, Sargent Wildlife value, fall color Wildlife value Winter interest Native to western United States, winter interest Winter interest Winter interest Winter interest Winter interest Spring flower, fall color, wildlife value Spring flower, fall color, wildlife value Winter interest Wildlife value, fall color
American Sweetgum Common Name Star Magnolia Sweetbay Sw	Liquidambar styraciflua Liriodendron tulipifera Magnolia acuminata Botanical Name Magnolia stellata Magnolia stellata Magnolia virginiana Malus spp. Nyssa sylvatica Ostrya virginiana Picea abies Picea pungens Picea glauca Pinus strobus Platanus x acerifolia Platanus x acerifolia Platanus sacerifolia Prunus sargentii Prunus sargentii Prunus syedoensis Quercus aliba Quercus aliba Quercus bicolor Quercus imbricaria Quercus mehlenbergii Quercus mehlenbergii Quercus rubra Taxodium distichum Tilia americana Tilia cordata Thuja piicata Thuja spp.	60-80' 60-90' 40-70' 10-70' 15-20' 10-30' varies 30-50' 20-30' 40-60' 30-60' 40-60' 50-80' 75-100' 70-100' 50-80' 50-80' 50-80' 50-70' 50-70' 50-70' 50-70' 50-70' 50-70' 40-60' varies	40-50' 30-50' 20-35' 10-15' 10-35' 10-20' 10-20' 10-20' 10-20' 10-20' 20-40' 75-100' 50-80' 50-60' 45-60' 50-60' 40-60' 50-75' 20-45' 30-50' 335-50' 12-18' varies	X	x x x x x x x x x x x x x x x x x x x	X X X X X X X X X X X X X X X X X X X	X X X	X X X X	x x x x x x	Spring/summer flowers, fall color Spring/summer flowers, fall color Spring/summer flowers, fall color Spring/summer flower, semi-evergreen Cultivars: Adirondack, Cardinal, Prairie Fire, Tina, Sargent Wildlife value, fall color Wildlife value Winter interest Winter interest Winter interest Wildlife value Spring flower, fall color, wildlife value Wildlife value, fall color