

Chapter 195

SUBDIVISION AND LAND DEVELOPMENT

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[HISTORY: Adopted by the Borough Council of the Borough of Coopersburg 5-8-2007 by Ord. No. 588. Amendments noted where applicable.]

GENERAL REFERENCES

Floodplain management — See Ch. 132.

Streets and sidewalks — See Ch. 191.

Sewers — See Ch. 177.

Water — See Ch. 220.

Stormwater management — See Ch. 187.

Zoning — See Ch. 230.

ARTICLE I

Purpose, Authority, Title and Jurisdiction

§ 195-1. Purpose.

The purpose of this chapter is to regulate subdivision and land development in Coopersburg Borough, Lehigh County, Pennsylvania.

§ 195-2. Authority and title.

This chapter is enacted pursuant to the Pennsylvania Municipalities Planning Code¹ and may be cited as the Coopersburg Subdivision and Land Development Ordinance (SALDO).

§ 195-3. Jurisdiction.

This chapter shall apply in the following circumstances:

- A. To all subdivision and land development plans for property located in Coopersburg Borough submitted after the effective date of this chapter.
- B. A modification to a submitted drainage plan for a proposed development site which involves a change in control methods or techniques, or which involves the relocation or redesign of control measures, or which is necessary because soil or other conditions are not as stated on the drainage plan (as determined by the Municipal Engineer) shall require a resubmission of the modified drainage plan consistent with this chapter.

§ 195-4. Application.

- A. No subdivision or land development of any lot, tract or parcel of land shall be made, and no street, sanitary sewer, water main, gas, or electric transmission line, or other improvements in connection therewith shall be laid out, constructed, opened or dedicated

1. Editor's Note: See 53 P.S. 10101 et seq.

for public use or travel or for the common use of occupants of buildings abutting thereon, except in accordance with this chapter.

- B. No lot in a proposed subdivision or land development may be sold, and no final permit to erect any building upon land in a subdivision or land development may be issued unless and until a final plan has been approved and recorded and either Coopersburg Borough has been assured by means of an improvements agreement acceptable to the Borough that the improvements will subsequently be installed or the required improvements in connection therewith have been constructed.
- C. Notwithstanding any provisions of this chapter, including waiver provisions, any landowner and any person engaged in the alteration or development of land which may affect stormwater runoff characteristics shall implement such measures as are reasonably necessary to prevent injury to health, safety or other property. Such measures shall include such actions as are required to manage the rate, volume and direction of resulting stormwater runoff in a manner which otherwise adequately protects health and property from possible injury.

ARTICLE II

Submission Procedures

§ 195-5. Feasibility review submission.

- A. Feasibility review maps and materials may be submitted for any proposed subdivisions and land developments, for purposes of discussion between the Coopersburg Borough Council and the developer.
- B. Three copies of all feasibility review maps and materials, as set forth in § 195-12, shall be submitted to the staff.
- C. The staff shall refer one copy of the feasibility review maps and materials to the planning Committee and the Borough Engineer for their review and recommendations.

§ 195-6. Feasibility review.

- A. When feasibility review maps and materials have been submitted to the planning Committee, the data presented will be reviewed by that body at its next regular meeting.
- B. The Coopersburg Borough Council shall review the feasibility review data to determine the development potential of the site, as indicated by the natural features analysis presented. The general development concepts of the developer will be reviewed to determine their compatibility with the development potential of the site and with relevant plans and ordinances. Also, the feasibility review stage is designed to offer the developer an opportunity to informally discuss his plans for the proposed subdivision or land development with the Borough Council.
- C. Within 60 days of submission of feasibility review maps and materials to the Coopersburg Borough Council, the Council shall make any recommendations to the developer which it deems necessary or advisable in the public interest in order to provide

an acceptable subdivision or land development plan for the site. The staff shall send written recommendations of the Council's recommendations to the applicant.

§ 195-7. Submission of the preliminary plan.

- A. Applications, preliminary plans and all required supplementary data for all proposed subdivisions and land developments shall be submitted to the staff at least 21 days prior to the meeting of the Coopersburg Borough Council at which the application is to be considered. Only one subdivision or land development plan may be submitted at one time. Additional submissions for the same parcel will invalidate the previous submissions.
- B. Official submission of a preliminary plan to the staff by a developer shall comprise of the following: (Submissions which do not include the material specified in the following subsections shall not be accepted as an official submission.)
- (1) Five copies of a completed Subdivision and Land Development Application.
 - (2) Five black-on-white or blue-on-white prints on paper of the preliminary plan which shall fully comply with the provisions of this chapter as set forth in § 195-13.
 - (3) Five copies all required supplemental information as set forth in § 195-13F.
 - (4) The review fees and escrow shall be submitted as set forth in the current fee schedule.
- C. The staff shall refer preliminary plan submission materials to the various review bodies as needed.
- D. The developer shall submit the preliminary plan to the Lehigh Valley Planning Commission for review and comment.
- E. Supplemental submissions are permitted subject to the following provisions:
- (1) The supplemental submission shall consist of five complete sets of the plans, five copies of any revised supporting documentation, a completed and executed application form which notes the submission as a supplemental submission and a written summary of the changes made. The summary of the changes made shall refer to the staff and other reviews to which the changes are responding.
 - (2) The submission shall be received at least 14 days prior to the date of the next meeting of the Coopersburg Borough Council at which the application is to be considered.
 - (3) Supplemental submissions which do not comply with the requirements of § 195-7E(1) shall not be accepted for review. The submission of a final plan application will not be considered as a supplemental submission.

§ 195-8. Review of preliminary plan.

By the Coopersburg Borough Council:

- A. When a preliminary plan has been officially submitted, such plan shall be placed on the agenda of the planning Committee for review at its next meeting, provided that such official submission has occurred after approval of the submittal by the Borough Council.
- B. Within 90 days following the date of the meeting of the planning Commission next following the date of the acceptance of the application by the Borough Council, the planning Committee shall, in accordance with the provisions of relevant ordinances, take action by recommending approval, conditional approval or disapproval of the preliminary plan and document the findings upon which that action is based, in writing to:
 - (1) The applicant or his engineer;
 - (2) The Borough Council.
- C. In no case shall the decision be communicated to the applicant in more than 15 days from the date that the decision has been made.

§ 195-9. Submission of the final plan.

- A. Within 12 months after approval of the preliminary plan, a final subdivision or land development plan and all required supplemental data shall be submitted to the staff at least 14 days prior to the meeting of the Coopersburg Borough Council at which the application is to be considered. An extension of time may be granted by the Borough Council upon written request. Otherwise, the plan submitted may be considered as a new preliminary plan and must adhere to current ordinances.
- B. The final plan shall conform in all significant respects to the preliminary plan as previously approved by the Coopersburg Borough Council and shall incorporate all modifications required by the Borough Council in its preliminary plan approval.
- C. The final plan may be submitted in sections or stages, each covering a reasonable portion of the entire proposed subdivision as shown on the reviewed preliminary plan, in accordance with the regulations set forth in § 195-14. In the case of the final subdivision or land development plan which is to be submitted in sections or stages over a period of years, the time between submission of application for final approval of each stage or section shall be no greater than 12 months.
- D. Final plans and all required supplementary data set forth in § 195-14 for all proposed subdivisions and land developments shall be submitted to the staff.
- E. Official submission of a final plan to the staff by a developer shall comprise of the following: (submissions which do not include the material specified in the following subsections shall not be accepted as an official submission.)

- (1) Five copies of a completed Subdivision and Land Development Application;
 - (2) Five black-on-white or blue-on-white prints on paper of the final plan which shall fully comply with the provisions of this chapter as set forth in § 195-14;
 - (3) Five copies of all required supplemental information as set forth in § 195-14;
 - (4) The review fee and escrow as set forth in the current fee schedule.
- F. The staff shall refer final plan submission materials to the various review bodies as needed.
- G. The developer shall submit the final plan to the Lehigh Valley Planning Commission for review and comment.

§ 195-10. Review of final plan.

- A. When a final plan has been officially submitted, such plan shall be placed on the agenda of the planning Committee for review at its next meeting, provided that such official submission has occurred no less than 14 calendar days prior to such regular meeting.
- B. Within 90 days following the date of the meeting of the planning Committee, the planning Committee shall, in accordance with the provisions of relevant ordinances, take action by recommending approval, conditional approval or disapproval of the final plan and document the findings upon which that action is based, in writing to:
- (1) The applicant or his engineer;
 - (2) The Borough Council.
- C. In no case shall the decision be communicated to the applicant in more than 15 days from the date that the decision has been made.

§ 195-11. Recording of the final plan.

- A. After the final plan is approved by the Borough Council, the applicant shall provide one Mylar reproducible print and four paper prints of the final plan to the staff for endorsement.
- B. The record plan shall be a clear and legible print of a type and material required by the County Recorder of Deeds.
- C. After the Borough Engineer and Borough Council has endorsed the record plan, the plan will be recorded with the Lehigh County Recorder of Deeds within 90 days of the approval.

ARTICLE III
Plan Requirements

§ 195-12. Feasibility review.

The feasibility review submission shall include the following maps and materials:

- A. A key map, for the purpose of locating the property being subdivided, drawn at a scale not smaller than one inch equals 2,000 feet and showing the relation of the property, differentiated by tone or pattern, to adjoining property and to all streets, roads and municipal boundaries existing within one mile of any part of the property. The key map may be based on USGS quad sheet maps.
- B. A map illustrating an analysis of natural drainage patterns and water resources within the proposed subdivision tract, including delineation of streams, natural drainage swales, ponds and lakes, wetlands, floodplains subject to a one-hundred-year flood frequency, and permanent and seasonal high water table areas. The map shall be based on USGS quad sheets, county soil survey maps, and the flood boundary and floodway map from the Municipal Flood Insurance Study, when available.
- C. A topographic map of the site based on USGS quad sheets.
- D. A map delineating additional significant physical features within the proposed subdivision tract, such as woodland areas, large trees, rock outcroppings and scenic views. The map may be based on USGS quad sheets and on-site survey work.
- E. Where feasible and legible, the analysis involved in Subsections A through D may be illustrated on one or a combination of composite maps. The combined impact of the natural characteristics upon the development potential of the tract shall be clearly illustrated on the map or maps.
- F. A letter of intent and a sketch of the proposed subdivision or land development tract at a scale of one inch equals 100 feet explaining and illustrating the developer's general development concepts for the tract. The type of development, density of development, form of ownership, circulation patterns, and means of providing major utility service should be explained and illustrated. The sketch may be based on deed and tax map information.

§ 195-13. Preliminary plan.

- A. The preliminary plan of a proposed subdivision or land development shall be clearly and legibly drawn at one of the following scales:
 - (1) One inch equals 100 feet;
 - (2) One inch equals 50 feet;
 - (3) One inch equals 20 feet; and
 - (4) One inch equals 10 feet.

- B. The original drawing and all submitted prints shall be made on sheets of one of the following sets of dimensions:
- (1) Eighteen inches by 24 inches;
 - (2) Twenty-four inches by 36 inches;
 - (3) Thirty-six inches by 48 inches.
- C. If the preliminary plan requires more than one sheet, a key diagram illustrating relative location of the several sections shall be drawn on each sheet.
- D. The preliminary plan shall indicate the following data:
- (1) Name and address of record owner;
 - (2) Name of developer if different from owner;
 - (3) Name of the proposed subdivision;
 - (4) Name of the municipality or municipalities within which subdivision is proposed;
 - (5) Names of all adjoining subdivisions, if any, and the names of owners of all adjacent unplatted land;
 - (6) Name, address, license number, and seal of the registered surveyor responsible for the subdivision plan. The surveyor shall sign a statement attesting to the accuracy of the survey.
 - (7) North point, graphic scale, written scale, and date including the month, day and year that the original drawing was completed, and the month, day and year that the original drawing was revised, for each revision;
 - (8) A key map, for the purpose of locating the property being subdivided, drawn at a scale not smaller than one inch equals 2,000 feet and showing the relationship of the property, differentiated by tone or pattern, to adjoining property and to all streets, roads, and municipal boundaries, within one mile of any part of the property;
 - (9) Total tract boundaries of the property being subdivided showing bearings and distances, and a statement of total acreage of the property;
 - (10) Tax map sheet, block and lot numbers within the proposed subdivision tract obtained from the County tax assessor's office;
 - (11) The zoning district or districts within which the proposed subdivision is located;
 - (12) All existing buildings or other structures within the proposed subdivision tract;
 - (13) All existing streets, including streets of record (recorded but not constructed), on or adjoining the tract, including names, right-of-way widths, and pavement widths;

- (14) All existing sewer lines, septic systems, storm sewers, waterlines, wells, fire hydrants, utility transmission lines, culverts, bridges, railroads, other man-made features, watercourses and wetlands within the proposed subdivision tract and immediately adjacent to the subdivision tract;
 - (15) Location, width, and purpose of existing easements and utility rights-of-way within the proposed subdivision tract;
 - (16) Contour lines at vertical intervals of not more than two feet for land with average natural slope of 5% or less, and at intervals of not more than five feet for land with average natural slope exceeding 5%. Location and elevation of the data to which contour elevations refer shall be the closest United States Geologic Survey established benchmark, where available;
 - (17) A signature block for the Lehigh Valley Planning Commission approval of the subdivision;
 - (18) The following owner's statement shall be placed on the plan. The owner(s) shall execute the statement before a notary public. The seal of the notary public acknowledging the owner(s) statement shall be impressed on the plan. The statement shall read, "We (I), the owners of this plat of land being duly sworn according to law, depose and say we (I) are (am) the sole owner(s) of this property in peaceful possession of it and there are no suits pending affecting title of same;"
 - (19) Proposed locations of wells (if any), proposed locations of subsurface disposal fields and alternate fields (if any), and the locations of percolation test holes and soil probe pits (if any);
 - (20) A signature block, executed by the applicant, shall read "The applicant hereby authorizes the Borough staff to enter upon and inspect the site for the purposes of conducting a review and determining consistency with the requirements of the Coopersburg Borough SALDO during the pendency of the application before the Borough;"
 - (21) Significant natural features including but not limited to floodplains, ponds and lakes, wooded areas and trees of greater than eight inches in caliper. Floodplain information shall delineate the bounds of the one-hundred-year floodplain, floodway and flood fringe.
- E. The full plan of proposed development, including:
- (1) Location and width of all streets and rights-of-way, with a statement of any conditions governing their use;
 - (2) Suggested street names;
 - (3) Utility easement locations;
 - (4) Building setback lines along each street;
 - (5) Lot lines with approximate dimensions;

- (6) A statement of the intended use of all nonresidential lots and parcels;
 - (7) Lot numbers, a statement of total number of lots and parcels and the lot size in square feet or acres for each lot;
 - (8) Sanitary and/or storm sewers (and other drainage facilities), with the size and material of each indicated, and any proposed connections with existing facilities;
 - (9) Parks, playgrounds and other areas dedicated or reserved for public or common use, with any conditions governing such use;
 - (10) Location, width, and purpose of proposed easements and utility rights-of-way;
 - (11) Copies of the proposed deed restrictions and protective and restrictive covenants referenced to the preliminary plan;
 - (12) A contour grading plan.
- F. The preliminary plan shall be accompanied by the following supplementary data unless the Borough Engineer has determined that the submission of such data is not necessary:
- (1) Preliminary profiles, typical cross sections and specifications for proposed street, sanitary sewer, water system improvements, and storm drainage in accordance to the design standards of §§ 195-18, 195-19, 195-20 and 195-21, respectively.
 - (2) A storm drainage plan for the proposed subdivision tract which includes the following in addition to the requirements of §§ 195-13D and E:
 - (a) A narrative with a general description of the proposed subdivision and/or land development and a general description of proposed permanent stormwater controls.
 - (b) Maps of the project area showing:
 - [1] Soil types and boundaries based on the Lehigh County Soil Survey.
 - [2] Proposed structures, paved areas and buildings.
 - [3] Stormwater management district boundaries applicable to the site.
 - [4] A schematic showing all tributaries contributing flow to the site and all existing man-made features beyond the property boundary that would be affected by the project.
 - (c) Stormwater management controls:
 - [1] All stormwater management controls must be shown on a map and described, including:
 - [a] Groundwater recharge methods such as seepage pits, beds or trenches. When these structures are used, the locations of septic tank infiltration areas and wells must be shown.

[b] Other control devices or methods such as rooftop storage, semipervious paving materials, grass swales, parking lot ponding, vegetated strips, detention or retention ponds, storm sewer, etc.

- [2] All calculations, assumptions and criteria used in the design of the control device or method must be shown.
- (3) A landscape plan, where applicable, according to the standards set forth in § 195-24B(4), Tree preservation and planting;
 - (4) In the case of subdivisions or land development plans to be developed in stages or sections over a period of time, a map delineating each stage or section of the proposed subdivision or land development consecutively numbered so as to illustrate phasing of development and a schedule indicating the approximate time for which application for final approval of each stage or section are intended to be filed;
 - (5) Preliminary designs of any bridges or culverts which may be required. Such designs shall meet all applicable requirements of the Pennsylvania Department of Environmental Protection, Division of Dams and Encroachments and/or the Pennsylvania Department of Transportation;
 - (6) A map illustrating the entire contiguous holdings of the landowner indicating the area or scope of ultimate proposed subdivision and delineating the area which the preliminary plan encompasses;
 - (7) A sketch map of the proposed road system for the remainder of the area not included in the preliminary plan;
 - (8) When water service to the proposed subdivision is to be provided by an existing public system, the developer shall submit one copy of a letter from the agency, authority or utility which agrees to extend water service, subject to the execution of a service agreement.
 - (9) Certification of sewage disposal systems.
 - (a) When sewage disposal service to the proposed subdivision is to be provided by an existing public system, the developer shall submit one copy of a letter from the agency, authority or utility which agrees to provide sewer service subject to the execution of a service agreement.
 - (b) When sewage disposal service for the proposed subdivision is to be by individual on-lot sewage disposal systems, the applicant shall submit two copies of the Borough Sewage Enforcement Officer's approval of the planning module.
 - (10) Whenever a subdivision or land development or part thereof is in an area of carbonate geology as mapped in Map 1, the following provisions shall apply:
 - (a) A recognized professional with competence in the field shall review aerial photographs, soils, geologic and other related data available to him or her, as

the data relates to the subject property. The professional shall also conduct a site inspection of the property.

- (b) Based on the work required in § 195-13F(10)(a), the professional shall prepare a map of the site showing all Karst features or feature indicators. The mapping shall indicate, but shall not be limited to, the following features:
 - [1] Closed depressions;
 - [2] Open sinkholes;
 - [3] Seasonal high water table indicators;
 - [4] Outcrops of bedrock;
 - [5] Unplowed areas in plowed fields;
 - [6] Surface drainage into ground;
 - [7] "Ghost lakes" after rainfall.
 - (c) Based upon the work performed in § 195-13F(10)(a), the professional shall determine what further testing should be done by the applicant to ensure compliance with the performance standards set forth in § 195-24D. Testing methodology shall be reasonable under the circumstances, including the scale of the proposed development and the hazards revealed by examination of available data and site inspection.
 - (d) The applicant shall cause the additional testing established in § 195-13F(10)(c) to be done. The test results shall be included with the submission and shall be referred to the Borough Engineer, who shall be a recognized professional with competence in the field.
 - (e) The Borough Engineer shall report to the Council, with a copy to the landowner, his or her opinion as to the adequacy of the study and as to the capability of the site to support the proposed development in a manner in which the risks attendant to development in carbonate areas are either eliminated or minimized. Recommendations for site development, including stormwater management, the layout of utility lines, and building location, may be included. Additional studies or testing as deemed necessary by the Borough Engineer in order to produce an adequate study given the scale of the proposed development and the hazards revealed may be required of the applicant.
- (11) If the subdivision or land development includes wetlands or hydric soils, the applicant shall submit either a written determination from the U.S. Army Corps of Engineers that the area does not contain wetlands, or copies of permits for the proposed activity from the U.S. Army Corps of Engineers pursuant to Sections 9 and 10 of the River and Harbor Act of 1899, Section 404 of the Clean Water Act, and Section 103 of the Marine Protection Research and Sanctuaries Act and from the Pennsylvania Department of Environmental Protection pursuant to the Dam

Safety and Encroachments Act. A copy of any wetlands study prepared for the property, including a study prepared for the use of the U.S. Army Corps of Engineers or the Pennsylvania Department of Environmental Protection shall be submitted.

- (12) A traffic impact study and report shall be required for proposed developments that meet one or more of the following criteria: Commercial, commercial building or buildings consisting of 10,000 square feet or more of total floor area; office, development consisting of 50,000 square feet or more of total floor area; industrial, development consisting of 50,000 square feet or more of total floor area; other, use generating 250 or more trips per day as determined by generation rates published by the Institute of Transportation Engineers Traffic Impact Study. The study will enable the Borough Council to assess the impact of a proposed development on the traffic system. Its purpose is to ensure that proposed developments do not adversely affect the traffic network and to identify any traffic problems associated with access from the site onto the existing roads. The study's purpose is also to delineate solutions to potential problems and to present improvements to be incorporated into the proposed development. Traffic impact reports shall be based on the following criteria:
- (a) General site description. The site description shall include the size, location, proposed land uses, construction, staging and completion date or types of dwelling units. A brief description of other major existing and proposed land developments within 1/2 mile of the proposal which shall constitute the study area.
 - (b) Traffic facilities description. The description shall contain a full documentation of the proposed internal and existing highway system. The report shall describe the external roadway system within the area. Major intersections in the area shall be identified and diagrammed. All future highway improvements which are part of proposed surrounding developments shall be noted and included in the calculations.
 - (c) Existing traffic conditions. Existing traffic conditions shall be measured and documented for all streets and intersections in the area. Existing traffic volumes for average daily traffic, peak highway hour(s) traffic and peak development-generated hour(s) traffic shall be recorded. Traffic counts at major intersections in the study area shall be included in the report. A volume/capacity analysis based upon existing volumes shall be performed during the peak highway hour(s) and the peak development-generated hour(s) for all streets and major intersections in the study area. Levels of service shall be determined for each major road segment and turning movement. Detailed traffic counts of existing local streets are not required, unless the Borough Council would so require. A tabulation of accident locations during the past five-year period shall be shown.
 - (d) Traffic impact of the development. Estimation of vehicular trips to result from the proposal shall be computed from the average daily peak highway hour(s). Vehicular trip generation rates to be used for this calculation shall be

obtained from the Trip Generation Manual published by the Institute of Transportation Engineers. These development-generated traffic volumes shall be provided for the inbound and outbound traffic movements, as estimated, and the reference source(s) and methodology followed shall be documented. All turning movements shall be calculated. These generated volumes shall be distributed to the area and assigned to the existing streets and intersections throughout the area. Documentation of all assumptions used in the distribution and assignment phase shall be provided. Traffic volumes shall be assigned to individual access points. Any characteristics of the site that will cause particular trip generation problems shall be noted.

- (e) Analysis of traffic impact. The total future traffic demand shall be calculated. This demand shall consist of the combination of the existing traffic expanded to the completion year (straight line projections based on historical data), the development-generated traffic and the traffic generated by other proposed development is anticipated; calculations for each stage of completion shall be made. This analysis shall be performed during the peak highway hour(s) for all roadways and major intersections in the study area. Volume/capacity calculations shall be completed for all major intersections. All access points shall be examined as to the necessity of installing traffic signals. This evaluation shall compare the projected traffic to state warrant regulations for traffic signal installation.
- (f) Conclusions and recommendations. Levels of service for all streets and intersections shall be listed. All streets and/or intersections showing a level of service below C shall be considered deficient, and specific recommendations for the elimination of these problems shall be listed. This listing of recommended improvements shall include, but not be limited to, the following elements: internal circulation design, site access location and design, external roadway and intersection design and improvements, traffic signal installation and operation including signal timing. All physical street improvements shall be shown in sketches.
- (g) Costs of needed projects. Approximate costs for all needed transportation improvements shall be developed within a defined impact area.
- (h) The project manager for any traffic impact report shall be a professional traffic engineer or transportation planner, who should be a member of the Institute for Transportation Engineering.
- (i) The Borough Council may combine contributions for traffic impact studies from more than one applicant to accomplish one major coordinated traffic study.
- (j) Applicant's responsibilities. The applicant shall respond to the traffic impact report by stating to what degree he/she is willing to assist in funding any off-site improvements that are needed and to state what on-site improvements he/she proposes.

- (k) Future stages of development. The traffic study shall include not only an analysis of one individual project proposed at one point in time, but also the overall projected impacts of future development of all nearby lands owned by the applicant or that the applicant has an option to purchase. The study shall include a projection of the traffic expected from this development, using reasonable alternatives if no definite plans are available.
- (l) Other proposed development. The study should also take in account traffic that can be expected as a result of other development which has been approved or is being reviewed by the Commission and other development that might reasonably be expected to occur.

§ 195-14. Final plans.

- A. The final plans shall conform to the standards and data requirements set forth for preliminary plans in § 195-13A through E this chapter.
- B. It shall not be necessary to resubmit supporting maps and data submitted with the preliminary plan, as set forth in § 195-13F of this chapter, provided that no change has occurred.
- C. The following additional data shall be illustrated on the final plan:
 - (1) The latest source of title to the land as shown by the deed, page number and book of the County Recorder of Deeds;
 - (2) The total tract boundary lines of the area being subdivided with accurate distances to hundredths of a foot and bearing to 15 seconds. These boundaries shall be determined by accurate survey in the field, to an error of closure not to exceed one foot in 10,000 feet. The tract boundary shall be subsequently closed and balanced. The boundary(s) adjoining additional unplatted land of the subdivider (for example, between separately-submitted final plan sections), however, are not required to be based upon field survey and may be calculated. The location of all boundary line (perimeter) monuments shall be indicated, along with a statement of the total area of the property being subdivided. In addition, the engineer or surveyor shall certify to the accuracy of the survey, the drawn plan, and the placement of the monuments;
 - (3) All lot lines shall be completely dimensioned in feet, if straight, and by designating length of arc and radius (in feet) and central angle (in degrees, minutes, and seconds), if curved. All internal angles within the lots shall be designated to within 15 seconds;
 - (4) The proposed building setback or the proposed placement of each building;
 - (5) All easements or rights-of-way where provided for or owned by public services and any limitations on such easements or rights-of-way. Rights-of-way shall be shown and accurately identified on the plan. Easements shall either be shown or specifically described on the plan. Easements should be located in cooperation with the appropriate public utilities;

- (6) Such private deed restrictions as may be imposed upon the property as a condition to sale, together with a statement of any restrictions previously imposed which may affect the title to the land being subdivided;
- (7) Space shall be left along the lower edge of the sheet, in order that the County Recorder of Deeds may acknowledge receipt and recording of the plan when it is presented;
- (8) If the final plan requires more than one sheet, a key diagram showing the relative location of the several sections shall be drawn on each sheet.

D. The final plan shall be accompanied by the following:

- (1) Plans showing:
 - (a) Location, size and invert elevation of all sanitary sewer, water distribution and storm drainage systems and the location of all manholes, inlets and culverts;
 - (b) Final profiles, cross sections, and specifications for proposed streets, sanitary sewers, water distribution systems, and storm drainage systems shall each be shown on one or more separate sheets.
- (2) Documentation from the Borough Sewage Enforcement Officer that each lot has been approved for on-lot sewage systems (where applicable).
- (3) A copy of the Pennsylvania Department of Environmental Protection acceptance or approval of the planning module (where applicable).
- (4) A copy of the permit granted by the Pennsylvania Department of Environmental Protection for a private centralized sanitary sewer system, where applicable.
- (5) A copy of the highway occupancy permit for any road or driveway requiring access to a state legislated route.
- (6) A copy of a permit granted by the Pennsylvania Department of Environmental Protection for a private centralized water system (where applicable).
- (7) A completed and executed copy of the subdivision improvements agreement as agreed upon by the developer and the Borough Council, public utility or municipal authority. The Borough Council shall find, upon review of the executed improvements agreement, that the agreement covers all public improvements specified on the subdivision plan and that the agreement is enforceable. Should the improvements agreement not meet these criteria, this requirement shall be considered to be unmet.
- (8) A performance guarantee in the amount of 110% of the cost of all required improvements, as set forth in § 195-27, as estimated in accordance with the provisions set forth in the Pennsylvania Municipalities Planning Code, as amended, in a form and with surety in accordance with the provisions set forth in the Pennsylvania Municipalities Planning Code, as amended, and acceptable to the Borough Solicitor, guaranteeing the construction and installation of all such

improvements within a stated period which shall not be longer than one year from the date of the final subdivision approval. Where the final plan is submitted in stages or sections, the amount of the guarantee may also be provided in stages if acceptable to the municipal governing body, public utility or municipal authority.

- (9) A maintenance guarantee in an amount of not less than 15% of the actual cost of the installation of the improvements as set forth in § 195-27. This guarantee assures the structural integrity of the improvements as well as the functioning of said improvements in accordance with the design and specifications as depicted on the final plat for a period not to exceed 18 months after the acceptance of all such improvements by the Borough, public utility, or municipal authority.
 - (10) An erosion and sedimentation control plan developed in accordance with Part IV, paragraph 44 of the Soil Erosion and Sedimentation Control Manual issued by the Department of Environmental Protection.
 - (11) A legal description of all areas offered for dedication.
 - (12) A copy of an opinion of title from a title insurance company or an attorney which sets forth the names of all owners of the property, and a list of all mortgages, judgments, liens, easements, contracts and agreements of record as filed in the Lehigh County Recorder of Deeds Office which affect the property being acted upon.
 - (13) When an agency, authority or utility providing sewer or water service to the subdivision or land development has approval authority under its own jurisdiction, a letter which indicates that the plans meet the relevant agency, authority or utility specifications shall be submitted.
- E. In the case of a subdivision or land development proposed to be developed in stages or sections over a period of years, final plan requirements as listed in § 195-14A through D shall apply only to the stage or section for which final approval is being sought. However, the final plan presented for the stage or section must be considered as it relates to information presented for the entire subdivision or land development in the application for preliminary approval.

ARTICLE IV Design Standards

§ 195-15. Application.

- A. The design standards and requirements outlined in this section will be utilized by the Borough Council in determining the adequacy of all plans for proposed subdivisions and land developments.
- B. Development shall be planned, reviewed and carried out in conformance with all municipal, state and other applicable laws and regulations.
- C. Whenever provisions of this chapter conflict with the provisions of other ordinances and regulations, the most restrictive provisions shall apply.

§ 195-16. General standards.

- A. Land shall be suited to the purpose for which it is to be subdivided. Land with unsafe or hazardous conditions, such as open quarries, unconsolidated fill, steep slopes, or floodprone areas, shall not be subdivided unless the subdivision plan provides for adequate safeguards which are approved by the Coopersburg Borough Council.
- B. Consideration shall be given to applicable provisions of the Borough Comprehensive Plan and the LVPC's Comprehensive Plan for Lehigh and Northampton Counties, emphasizing future school sites, recreation sites, water supply and sewage treatment systems, highway alignments, and other public facilities. However, consideration must be given to the need for the facilities and utilities mentioned above whether or not they are proposed as part of a comprehensive plan.
- C. The development of the proposed subdivision shall be coordinated with adjacent existing development so that the area, as a whole, may develop harmoniously.
- D. These design standards and requirements may be altered by the Land and Subdivision Committee for the purpose of achieving economy and ingenuity in design in accordance with modern and evolving principles of site planning and development, upon presentation of evidence that the intent of such standards shall be substantially achieved.

§ 195-17. Block and lot design standards.

- A. Block layout. The length, width and shape of blocks shall be determined with due regard to:
 - (1) Provisions of adequate sites for buildings of the type proposed;
 - (2) Zoning requirements;
 - (3) Topography;
 - (4) Requirements for safe and convenient vehicular and pedestrian circulation, including the reduction of intersections with arterial streets.
- B. Block length.
 - (1) Residential blocks shall ordinarily be no less than 500 feet in length and no more than 1,800 feet in length.
 - (2) In the design of blocks longer than 1,000 feet, special consideration shall be given to the requirements of satisfactory fire protection.
 - (3) Where practicable, blocks along arterial and collector streets shall not be less than 1,000 feet in length.
- C. Block depth. Single-family residential blocks shall be of sufficient depth to accommodate two tiers of lots; except the Borough Council may approve a single tier of lots in the following cases:

- (1) Where reverse frontage lots are required; or
 - (2) Where two tiers of lots are not possible due to the size, topographical conditions or other inherent conditions of the property.
- D. Commercial and industrial blocks. Blocks in commercial, industrial, multifamily and planned residential developments may vary from the elements of design detailed above if required by the nature of the use. In all cases, however, adequate provisions shall be made for traffic and pedestrian circulation, off-street parking, and loading areas.
- E. General lot design 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.
 - (2) Insofar as practical, side lot lines shall be at right angles to straight street lines or radial to curved street lines.
 - (3) Where feasible, lot lines shall follow municipal boundaries rather than cross them in order to avoid jurisdictional problems.
 - (4) Generally, the depth of single-family detached residential lots shall be not less than one nor more than three times their width.
 - (5) 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 and unloading, setbacks and landscaping.
 - (6) If after subdividing there exists remnants of land, they shall be either:
 - (a) Incorporated in existing or proposed lots; or
 - (b) Legally dedicated to public use, if acceptable to the municipality.
- F. Lot access.
- (1) Direct access onto arterial roads and numbered traffic routes shall be minimized.
 - (a) Direct access onto an arterial road or a numbered traffic route shall be prohibited where adequate alternative access can be obtained from a collector road, local road or alley.
 - (b) Access to two or more abutting residential properties shall be provided by a shared driveway unless the applicant demonstrates that such access is impractical.
 - (c) A maximum of one access point per property involving a left-hand turn exiting a nonresidential property onto an arterial road or a numbered traffic route shall be permitted.
 - (d) Parking lots and internal driveways for nonresidential development shall support access management objectives along arterial roads and numbered traffic routes.

- [1] Shared parking lots and driveways connecting adjacent parking lots for nonresidential uses shall be used whenever practical.
 - [2] The distance between the intersection of the access road with the arterial road or a numbered traffic route and the intersection of the access road with other internal access roads shall be maximized to the extent possible.
- (2) Where access is permitted to a state road or highway, authorization from the Pennsylvania Department of Transportation must be proven by the display of a valid highway occupancy permit. Driveways to single-family residences shall intersect streets at angles of no less than 60°. All other driveways or access roads shall intersect streets at right angles, where practicable, and in no case less than 75°.
 - (3) Widths of access roads or driveways shall be in accordance with the following standards:
 - (a) Access roads for multifamily residential, mobile home parks and all nonresidential subdivisions shall be no less than 24 feet in width, shall not exceed 30 feet in width at the street line, and shall be clearly defined by use of curbing;
 - (b) Driveways for single-family residential subdivisions shall be no less than 10 feet in width but shall not exceed 20 feet in width at the street line.
 - (4) To provide safe and convenient ingress and egress, access road and driveway entrances shall be rounded at the following minimum radii, except when a curb depression is provided.
 - (a) Access road entrances for multifamily residential developments, mobile home parks, and all nonresidential subdivisions shall be rounded at a minimum radius of 10 feet;
 - (b) Driveway entrances for single-family residences shall be rounded at a minimum radius of five feet except along legislated routes where a ten-foot radius is required.
 - (5) Access road grades or driveway grades shall not exceed the following grades:
 - (a) Twelve percent between the future street right-of-way line and any other point within the confines of the lot being served;
 - (b) Five percent in a leveling area extending 40 feet from the intersection of the Access road or driveway with the cartway of the street.
 - (6) The center line of an access road or driveway at the point of access to a street shall not be located closer to an intersection of street center lines than the following distances:

- (a) Fifty feet for single-family residential units.
- (b) For multifamily residential developments, mobile home parks, and all nonresidential subdivisions:
 - [1] One hundred fifty feet if either street is an arterial street;
 - [2] One hundred feet if either street is a collector street;
 - [3] Fifty feet if both streets are local streets.
- (7) Vehicular access shall be available to all lots directly from an ordained public street. This requirement shall not apply to individual condominium units where such units are contained in an approved condominium development.
- (8) Clear sight triangles shall be provided at all intersections of driveways with streets, except alleys. Within such triangles, no object greater than 2 1/2 feet in height and no other object that would obscure the vision of the motorist shall exist or be placed. The triangles shall be measured as follows:
 - (a) Along the center line of the driveway from a point 10 feet from where the driveway meets the cartway of the road, to points along the center line of the road 200 feet on each side from the intersecting center lines of the driveway and road, if the road is classified as a local road.
 - (b) Along the center line of the driveway, from a point 10 feet from where the driveway meets the cartway of the road, to points along the center line of the road 300 feet on each side from the intersecting center lines of the driveway and road, if the road is classified as a collector or arterial road.
- G. Flag lots may be allowed in certain circumstances to minimize hardships in the use of land that lacks adequate road frontage for an equitable use of the lot. Normally, this situation will be deemed to exist when the lot lacks double the required road frontage for lots in that zoning district. However, flag lots will not be permitted merely to increase the density of development nor to minimize the amount of road improvements. The following requirements will apply:
 - (1) No more than two flag lots will be permitted per original tract of land, even if lots are subdivided from the tract at different times;
 - (2) The access lane will have a minimum width of 25 feet, be contained entirely within the lot and serve only one lot;
 - (3) The access lane will have a maximum length of 500 feet measured from the right-of-way of the public road to the perimeter of the rectangle defining the lot area;
 - (4) The area in the access lane shall be excluded from the area required for meeting the minimum lot size standards of the Zoning Ordinance;
 - (5) No sharp turns (greater than 45°) shall be allowed within the access lane;

- (6) The location of the access lane shall be logically related to the body of the flag lot, surrounding property configurations, woodlands, topography, watercourses and floodplains.

§ 195-18. Street design standards.

A. General requirements.

- (1) Proposed streets shall be properly related to the road and highway plans of the state, county and municipality. Streets shall be designed to provide adequate vehicular access to all lots or parcels and with regard for topographic conditions, project volumes of traffic, and further subdivision possibilities in the area.
- (2) The street system of a proposed subdivision or land development shall be designed to create a hierarchy of street functions which includes collector and local streets.
- (3) The street system of a proposed subdivision or land development shall be designed so as to minimize street intersections and pedestrian-vehicular conflict points.
- (4) Proposed local streets shall be designed so as to discourage through traffic and excessive speeds. However, the developer shall provide for the extension and continuation of arterial and collector streets into and from adjoining properties.
- (5) Where, in the opinion of the Borough Council, it is desirable to provide for street access to adjoining property, streets shall be extended by dedication to the boundary of such property. Distances between accesspoints to adjoining property shall be based on block length standards set forth in § 195-17B.
- (6) Where a subdivision abuts or contains an existing or proposed arterial traffic street, the Borough Council may require marginal access streets, reverse frontage lots, or other such treatment as will provide protection for abutting properties, reduction in the number of intersections with the arterial street, and separation of local and through traffic.
- (7) Private streets (streets not to be offered for dedication) may be approved by the Borough Council only if they meet the street design and improvement standards set forth in this chapter and when they are part of an approved condominium development.
- (8) If the lots in the development are large enough for resubdivision, or if a portion of the tract is not subdivided, suitable access and street openings for such an eventuality shall be provided.

B. Street right-of-way and cartway widths.

- (1) Street right-of-way and cartway widths in proposed subdivisions shall conform to the standards on the following chart:

Street Design Standards

	Street Classification		
	Local (feet)	Collector (feet)	Arterial (feet)
Right-of-way width	50	60	80
Pavement width	34	36	24-48 *
Traffic lane width	9	10	12
Parking lane width	8 (when required)		
Sidewalk width	5, as per § 195-26A(3)		
Curbing	Vertical curb, or grassed drainage swale with no curbing		

*The width shall depend on whether two lanes or four lanes are provided for traffic.

- (2) The standards set forth in § 195-18B(1) may be modified by the Borough Council when an analysis of proposed development densities, provisions for off-street parking, and projected traffic volumes indicate a need for such modifications. The burden of proof shall be upon the developer to justify the adequacy of rights-of-way or cartway widths which are less than those set forth in § 195-18B(1).

C. Horizontal curves.

- (1) Whenever street center lines are deflected more than 5° within 500 feet, connection shall be made by horizontal curves.
- (2) Horizontal curves shall be designed to produce the following minimum sight distances:
- (a) Local streets: 150 feet;
 - (b) Collector streets: 300 feet;
 - (c) Arterial streets: 600 feet.
- (3) A minimum tangent of 100 feet shall be required between reverse curves on a street and between a curve and a street intersection.

D. Street grades.

- (1) There shall be a minimum center line grade on all streets of 0.75%.
- (2) Unless approval is obtained from the Borough Council upon recommendation from the Borough Engineer, center line grades shall not exceed the following:

- (a) Local streets: 11%;
 - (b) Collector streets: 8%;
 - (c) Arterial streets: 6%.
- (3) Intersections shall be approached on all sides by leveling areas. Such leveling areas shall have a minimum length of 75 feet (measured from the edge of the cartway of the intersecting road), within which no grade shall exceed a maximum of 4%.
- E. Vertical curves.
- (1) Vertical curves shall be used in changes of grade exceeding 1%. However, where the curve would be a sag curve, vertical curves shall be used in changes of grade exceeding 2%.
 - (2) Vertical curves shall be designed to meet minimum sight distances according to standards set forth by the American Association of State Highway Officials.
- F. Street intersections.
- (1) Streets shall intersect at right angles whenever practicable. When local streets intersect collector or arterial streets, the angle of intersection at the street center lines shall in no case be less than 75°. No two streets shall intersect with an angle of intersection at the center lines of less than 60°.
 - (2) Multiple intersections involving the junction of more than two streets shall be prohibited.
 - (3) Two streets intersecting a third street from opposite sides shall either intersect with a common center line or their center lines shall be offset according to the following distances:
 - (a) The two streets shall be separated by a distance of 150 feet between center lines measured along the center line of the street being intersected when all three streets involved are local streets;
 - (b) The two streets shall be separated by a distance of 300 feet between center lines measured along the center line of the street being intersected when one or more of the streets involved is a collector street;
 - (c) The two streets shall be separated by a distance of 500 feet between center lines measured along the center line of the street being intersected when one or more of the streets involved is an arterial street.
 - (4) Street curb intersections shall be rounded by a tangential arc with a minimum radius of:
 - (a) Twenty feet for intersections involving only local streets;
 - (b) Thirty feet for all intersections involving a collector street;
 - (c) Forty feet for all intersections involving an arterial street.

- (5) Street right-of-way lines shall be parallel to (or concentric with) curb arcs at intersections.
- (6) Clear sight triangles shall be provided at all street intersections. Within such triangles, no object greater than 2 1/2 feet in height and no other object that would obscure the vision of the motorist shall exist or be placed. Such triangles shall be established as follows:
 - (a) Seventy-five feet from the point of intersection of the center lines of the two streets, along the center lines of all streets, where both streets are local streets and the intersection is not controlled by a stop sign or a traffic light.
 - (b) One hundred feet from the point of intersection of the center lines of the two streets, along the center lines of all streets, where at least one road is collector road and the intersection is not controlled by a stop sign or a traffic light.
 - (c) One hundred fifty feet from the point of intersection of the center lines of the two streets, along the center lines of all streets, where at least one road is an arterial street and the intersection is not controlled by a stop sign or a traffic light.
 - (d) Along the center line of the street where movement is controlled by a stop sign, from a point 20 feet from where the cartways of the two roads meet, to points 200 feet on each side from the point where the center lines of the two roads meet along the other road, if both roads are classified as local roads.
 - (e) Along the center line of the street whose movement is controlled by a stop sign from a point 20 feet from where the cartways of the two roads meet, to points 300 feet on each side from the point where the center lines of the two roads meet along the other road, if at least one road is classified as a collector or arterial road.
- (7) Wherever a portion of the line of such triangles occurs within the proposed building setback line, such portion shall be shown on the final plan of the subdivision and shall be considered a building setback line.

G. Culs-de-sac.

- (1) Dead-end streets are prohibited unless designed as cul-de-sac streets or designed for future access to adjoining properties.
- (2) Any dead-end street which is constructed for future access to an adjoining property or because of authorized stage development, and which is open to traffic and exceeds 200 feet in length, shall be provided with a temporary, all-weather turning circle or "T" type turnaround. The turning circle or "T" type turnaround shall be completely within the boundaries of the subdivision and the use of the turnaround shall be guaranteed to the public until such time as the street is extended.
- (3) Cul-de-sac streets, permanently designed as such, shall not exceed 1,000 feet in length and shall not furnish access to more than 25 dwelling units. In the case of

industrial parks, a cul-de-sac shall not furnish access to more than 100 employees. Exemptions from these requirements may be granted where necessary due to unique characteristics of the site.

- (4) All cul-de-sac streets, whether permanently or temporarily designed as such, shall be provided at the closed end with a fully-paved turning circle. The turning circle may be offset to the left, but turnarounds offset to the right shall be discouraged.
 - (a) If parking will be prohibited on the turning circle, the minimum radius to the pavement edge or curblineline shall be 40 feet and the minimum radius of the right-of-way shall be 48 feet.
 - (b) If parking will be permitted on the turning circle, the minimum radius to the pavement edge or curblineline shall be 50 feet and the minimum radius of the right-of-way line shall be 58 feet.
- (5) The center line grade on a cul-de-sac street shall not exceed 11%, and the grade of the diameter of the turnaround shall not exceed 5%.

H. Half streets.

- (1) The dedication of new half streets at the perimeter of a new subdivision is prohibited.
- (2) The subdivider shall provide the entire required right-of-way, or as much thereof as is possible, within his property, along all existing streets which traverse or abut the property.

I. Street names and street signs.

- (1) Proposed streets which are in alignment with others already existing and named shall bear the name of the existing streets.
- (2) In no case shall the name of a proposed street duplicate an existing street name in the Borough and in the postal district, irrespective of the use of the suffix street, road, avenue, boulevard, driveway, place, court or lane.
- (3) All street names shall be subject to the approval of the Borough Council.
- (4) Street signs shall be provided at the intersection of all streets. The type, height and design shall be according to the provisions of § 195-26J.

§ 195-19. Sanitary sewage disposal.

- A. The developer shall provide the most effective type of sanitary sewage disposal consistent with the Borough's official plan for sewage facilities prepared in accordance with the Pennsylvania Sewage Facilities Act (Act 537) and Chapter 71 of the Pennsylvania Department of Environmental Protection Regulations.
- B. Connection to a public sanitary sewer system shall be required where such a system is proposed by the municipality's official plan for sewage facilities, can feasibly be

provided to the proposed subdivision tract, and where such a system can adequately fulfill the sewage disposal needs of the subdivision or land development.

- C. Where a public sanitary sewer system is not yet accessible to the site, but is planned for extension within a five-year period, the developer shall install sanitary sewer lines within the subdivision boundary to the point where the future connection to a public sewer system will be made. Lateral connections shall be constructed for all lots. Connections shall be available in the structures so as to allow the switch from the use of on-lot systems to the public system. Such sewer systems shall be capped until ready for use. On-lot disposal facilities shall be provided for interim use.
- D. In subdivision/land developments where connection to a public sewage system is not possible, on-lot sewage disposal systems shall be provided in accordance with the Pennsylvania Sewage Facilities Act, Chapter 73 of DEP Regulations, and the requirements of the Borough Sewage Enforcement Officer. Each lot shall be provided with a tested, approved primary and secondary absorption area.
- E. Sanitary sewerage systems shall be located and designed to minimize or eliminate flood damage, infiltration of floodwaters into the system, and discharges from the system into floodwaters.
- F. On-lot sewage disposal systems shall be located and designed to avoid impairment or contamination from flooding.

§ 195-20. Water supply and distribution systems.

The developer shall provide a water supply and distribution system to service the proposed subdivision through one of the following methods:

- A. Connection shall be made to the Coopersburg public water supply system. A distribution system shall be designed to furnish an adequate supply of water to each lot.
- B. Where a public water supply system is planned to serve the proposed subdivision area within 10 years, a centralized water system will be provided by the developer if the subdivision involves 20 or more dwelling units unless the average residential lot size is one acre or larger. Whenever such a system is provided, the water distribution lines shall be dedicated to the Coopersburg Municipal Authority, and the Authority will acquire other parts of the water supply system such as wells, pumps and storage tanks that can be integrated into the public water system. This will take place after the improvements are completed so that the system can be operated by the Authority. Also, such a system shall be designed and constructed in a manner that will permit adequate connection to a public water supply system in the future. The system shall meet the design and construction standards for centralized water systems set forth by the Coopersburg Municipal Authority.
- C. Where a public water supply is not proposed in the area of the proposed subdivision within 10 years, the developer shall provide a centralized water system if the subdivision involves 20 or more lots and the average residential lot size is less than one acre. The

system shall meet the design and construction standards for centralized water systems set forth by the Coopersburg Municipal Authority.

- D. All centralized water systems that remain privately owned shall be organized in a manner as to fall within the jurisdiction of the Pennsylvania Public Utility Commission.
- E. Water supply systems shall be located and designed to minimize or eliminate infiltration of floodwaters so as to meet Federal Insurance Administration provisions.

§ 195-21. Storm drainage systems.

- A. Storm drainage systems shall be provided in order to:
 - (1) Ensure adequate drainage of all low points along the line of streets;
 - (2) Intercept stormwater runoff along streets at intervals related to the extent and grade of the area drained;
 - (3) Provide positive drainage away from on-site sewage disposal systems;
 - (4) Take surface water from the bottom of vertical grades, lead water from springs, and avoid excessive use of cross-gutters at street intersections and elsewhere;
 - (5) Prevent overloading of downstream drainage systems and watercourses as a result of increased rate of runoff caused by the proposed development. No stormwater runoff or natural drainage shall be so diverted as to overload existing drainage systems, or create flooding or the need for additional drainage structures on other private properties or public lands, without approved provisions being made by the developer for properly handling such conditions.
- B. General requirements.
 - (1) A site drainage plan for the proposed subdivision tract shall be prepared which illustrates the complete drainage systems for the subdivision. All existing drainage features which are to be incorporated in the design shall be so identified. If the subdivision is to be developed in stages, a general drainage plan for the entire subdivision shall be presented with the first stage and appropriate development stages for the drainage system shall be indicated.
 - (2) The site drainage plan for the proposed subdivision shall meet the requirements of the Act 167 Stormwater Management Ordinance as included in Appendix B.²
 - (3) Drainage facilities that are located on state highway rights-of-way shall be approved by the PennDOT and a letter indicating such approval shall be directed to the Coopersburg Borough Council.
 - (4) All streets shall be designed so as to provide for the eventual discharge of surface water away from their rights-of-way.

2. Editor's Note: See also Ch. 187, Stormwater Management.

- (5) Where detention facilities are included as part of the storm drainage system, the developer shall demonstrate that such ponds are designed, protected and located to assure that public safety is maximized and health problems are prevented;
- (6) Storm drainage systems shall be provided to permit unimpeded flow in natural watercourses except as modified by stormwater detention facilities or open channels consistent with this chapter.
- (7) The existing points of concentrated drainage discharge onto adjacent property shall not be altered without written approval of the affected property owner(s).
- (8) Areas of existing diffused drainage discharge onto adjacent property shall be managed such that, at minimum, the peak diffused flow does not increase in the general direction of discharge, except as otherwise provided in this chapter. If diffused flow is proposed to be concentrated and discharged onto adjacent property, the developer must document that there are adequate downstream conveyance facilities to safely transport the concentrated discharge or otherwise prove that no harm will result from the concentrated discharge. Areas of existing diffused drainage discharge shall be subject to any applicable release rate criteria in the general direction of existing discharge whether they are proposed to be concentrated or maintained as diffused drainage areas.
- (9) Where a site is traversed by watercourses other than those for which a one-hundred-year floodplain is defined by the municipality, there shall be provided drainage easements conforming substantially with the line of such watercourses. The width of any easement shall be adequate to provide for unimpeded flow of storm runoff based on calculations made in conformance with § 195-12D for the one-hundred-year return period runoff and to provide a freeboard allowance of 0.5 foot above the design water surface level. The terms of the easement shall prohibit excavation, the placing of fill or structures, and any alterations which may adversely affect the flow of stormwater within any portion of the easement. Also, periodic maintenance of the easement to ensure proper runoff conveyance shall be required. Watercourses for which the one-code as amended, one-hundred-year floodplain is formally defined are subject to the applicable municipal floodplain regulations.
- (10) When it can be shown that, due to topographic conditions, natural drainage swales on the site cannot adequately provide for drainage, open channels may be constructed conforming substantially to the line and grade of such natural drainage swales. Capacities of open channels shall be calculated using the Manning equation.
- (11) Storm drainage facilities and appurtenances shall be so designed and provided as to minimize erosion in watercourse channels and at all points of discharge.
- (12) Consideration should be given to the design and use of volume controls for stormwater management, where geology and soils permit. Areas of suitable geology for volume controls shall be determined by the Borough Engineer. Documentation of the suitability of the soil for volume controls shall be provided by the applicant. Volume controls shall be acceptable in areas of suitable geology

where the soils are designated as well drained in the County Soil Survey. Other soils may be acceptable for use of volume controls based on site-specific soils evaluations provided by the applicant.

C. Improvement specifications.

- (1) Inlets shall be designed and located to prevent hazardous conditions for vehicles, bicycles or pedestrians.
- (2) The Borough Engineer will supply additional specifications which may be necessary for spacing and type of inlets and manholes, minimum pipe sizes and materials and construction methods.

D. Maintenance.

- (1) If the lands of the proposed subdivision or land development will remain in common ownership, the developer will identify the proposed owner of the control facilities and provide written assurances that the control facilities will be properly maintained. The maintenance shall include, but not be limited to, grass mowing, sediment cleaning, repair of eroded areas, and repair of damaged structures.
- (2) If the lands of the proposed subdivision or land development will be conveyed to two or more separate owners, the developer shall either identify the proposed owner of the control facilities and provide written assurances that the control facilities will be properly maintained or shall dedicate the land on which the control facilities are located to the municipality which shall then be responsible for maintaining the control facilities. The maintenance shall include, but not be limited to, grass mowing, sediment cleaning, repair of eroded areas, and repair of damaged structures.

§ 195-22. Underground utilities and utility easements.

- A. In accordance with the Pennsylvania Public Utility Commission Investigation Docket No. 99, as amended from time to time, all electric utility distribution lines shall be installed underground in subdivisions or land developments of five or more dwelling units. In addition, the following design requirements shall be observed:
- (1) Established public utility and state and federal governmental agency design standards shall be observed in preparing the utility plan;
 - (2) Utility lines to be installed within street rights-of-way shall be located according to municipal or municipal authority requirements;
 - (3) Whenever practicable, telephone and cable TV utilities shall be installed underground in connection with the installation of electric utility distribution lines;
 - (4) Streetlighting, where required, shall be provided at each intersection of the development and at intervals not to exceed 200 feet between intersections;

- (5) Utility lines shall be installed at the rough grade phase of construction. Utility lines shall be installed according to their depth, with the utility line installed at the greatest depth being installed first.
- B. Utility easements.
- (1) Utility easements shall be provided for all utility lines servicing the abutting lots when such utility lines are installed outside street rights-of-way. No structures or trees shall be placed within such easements. The location of utility easements shall be acceptable to the appropriate public utility or municipal authority.
 - (2) Whenever practicable, all utility lines to be installed outside street rights-of-way shall share a common utility easement.
 - (3) Utility easements shall be located either:
 - (a) Abutting the street right-of-way. In this case a minimum easement width of 10 feet shall be required;
 - (b) Along rear or side lot lines. In this case a minimum easement width of 20 feet, 10 feet on each side of the lot line, shall be provided. Where the lot line coincides with the subdivision boundary, a minimum easement width of 15 feet may be required by Borough Council.
- C. Petroleum and natural gas transmission lines.
- (1) No company intending to install any petroleum, petroleum product or natural gas transmission line shall be allowed to construct the line on less than a fifty-foot right-of-way. Such lines are to be installed in the center of the right-of-way, and shall comply with the applicable standards imposed by state and federal laws and regulations.
 - (2) There shall be a minimum distance of 25 feet, measured from the right-of-way line, between any proposed dwelling unit and any petroleum, petroleum products or natural gas transmission line which traverses the subdivision.
- D. Floodproofing. Facilities for gas, electric and communication utilities shall be elevated or floodproofed to a level at least one foot above the one hundred-year flood elevation.

§ 195-23. Mobile home parks.

- A. Applicable standards and requirements. The design and development of mobile home parks shall conform to all the general standards and requirements set forth for subdivision and land developments in this chapter in addition to the specific design standards set forth herein (§ 195-23).
- B. Permits.
- (1) It shall be unlawful for any person to construct, alter, or extend any mobile home park or any of the facilities thereof within the limits of the municipality unless such action has been approved by the Borough Council.

- (2) Mobile home park expansions, constructions and alterations shall be approved by the Borough Council only after all requirements of this chapter are met.
- C. Off-street parking areas.
- (1) Off-street parking areas shall be provided in all mobile home parks for the use of park occupants and guests. A minimum of two off-street parking places for each mobile home unit shall be required.
 - (2) Required car parking spaces shall be so located as to provide convenient access to the mobile home but shall not exceed a distance of 200 feet from the mobile home that they are intended to serve.
- D. Pedestrian walkways.
- (1) All parks shall provide safe, convenient, all-season pedestrian access between individual mobile homes, the park streets, and all community facilities provided for park residents. Sudden changes in alignment and gradient shall be avoided.
 - (2) Where a common walk system is provided and maintained between locations, and where pedestrian traffic is concentrated, such common walks shall have a minimum width of 3 1/2 feet.
 - (3) All mobile home stands shall be connected to common walks, streets, driveways or parking spaces connecting to a paved street. Such individual walks shall have a minimum width of two feet.
- E. Mobile home siting. Mobile home stand construction.
- (1) The area of the mobile home stand shall be improved to provide an adequate foundation for the placement of the mobile home.
 - (2) The stand shall be constructed from either concrete, asphalt concrete or other material sufficient to adequately support the mobile home and to prevent abnormal settling or heaving under the weight of the home. The corners of the mobile home shall be anchored to prevent wind overturn and rocking with tie-downs such as concrete "dead men," screw augers, arrowhead anchors, or other devices suitable to withstand a tension of at least 2,800 pounds.
 - (3) After a mobile home has been anchored to the mobile home stand, the hitch which is employed for the transportation of the unit shall be removed, and there shall be a decorative skirt installed around the base of the unit.
- F. Common open space.
- (1) At least 20% of the usable site area of the mobile home park must be in common open space. The usable site area is that area which is free of water surfaces, severe high water table, quarries, or slopes over 20 percent.
 - (2) Whenever possible, the common space shall be designed as a contiguous area with pedestrian and visual accessibility to all residents of the mobile home park.

- (3) Recreation areas and facilities shall be provided to meet the anticipated needs of the residents of the park. Not less than 10% of the usable site area shall be devoted to recreation. Recreation areas shall be of a size, shape and relief that is conducive to active play.

G. Utilities.

(1) Water supply.

- (a) All mobile home parks shall be connected to the public water supply and distribution system upon construction or expansion. The availability of service shall be certified in accordance with the provisions of § 195-20.
- (b) Individual water connections.
 - [1] Individual water riser pipes shall be located within the confined area of the mobile home stand at a point where the water connection will approximate a vertical position, thereby insuring the shortest water connection possible and decreasing susceptibility to water pipe freezing.
 - [2] The water riser pipe shall have a minimum inside diameter of 3/4 inch and terminate at least four inches above the ground surface. The water outlet shall be provided with a cap when the mobile 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 ground during freezing weather. Surface drainage shall be diverted from the location of the riser pipe.
 - [4] A shut-off valve below the frost line shall be provided near the water riser pipe on each mobile home lot. Underground stop-and-waste valves are prohibited unless the type of manufacture and method of installation are approved by the Authority Engineer.

(2) Sewage disposal.

- (a) All mobile home parks shall be connected to the public sanitary sewage disposal system upon construction or expansion. The availability of service shall be certified in accordance with the provisions of § 195-19A.
- (b) Individual sewer connections.
 - [1] Each mobile home stand shall be provided with at least a four-inch diameter sewer riser pipe. The sewer riser pipe shall be so located on each stand that the sewer connection to the mobile home drain outlet will approximate a vertical position.
 - [2] The sewer connection shall have a nominal inside diameter of not less than four inches, and the slope of any portion thereof shall be at least 1/4 inch per foot. All joints shall be watertight.

- [3] All materials used for sewer connections shall be semi-rigid, corrosion-resistant, nonabsorbent and durable. The inner surface shall be smooth.
- [4] Provision shall be made for plugging the sewer riser pipe when a mobile home does not occupy the site. Surface drainage shall be diverted away from the riser. The rim of the riser pipe shall extend at least one-half (1/2) inch above ground elevation.
- (3) Individual electrical connections.
- (a) Each mobile home lot shall be provided with an approved disconnecting device and over current protective equipment. The minimum service per outlet shall be 120/240 volts AC, 100 amperes.
 - (b) The mobile home shall be connected to the outlet receptacle by an approved type of flexible cable with connectors and a male attachment plug.
 - (c) Where the calculated load of the mobile home is more than 100 amperes either a second outlet receptacle shall be installed or electrical service shall be provided by means of permanently installed conductors.
- (4) Required electrical grounding.
- (a) All exposed non-current-carrying metal parts of mobile homes and all other equipment shall be grounded by means of an approved grounding conductor run with branch circuit conductors and other approved methods of grounded metallic wiring. The neutral conductor shall not be used as an equipment ground for mobile homes or other equipment.
- (5) Natural gas systems.
- (a) Natural gas piping systems when installed in mobile home parks shall conform to the rules and regulations of the American Gas Association.
 - (b) Each mobile home lot provided with piped gas shall have an approved shutoff valve installed upstream of the gas outlet. The outlet shall be equipped with a cap to prevent accidental discharge of gas when the outlet is not in use.
- (6) Liquefied petroleum gas systems.
- (a) Liquefied petroleum systems provided for mobile homes, service buildings or other structures shall be installed and maintained in conformity with the rules and regulations of the National Fire Prevention Association Standards NFPA Nos. 57 and 58.
 - (b) Systems shall be provided with safety devices to relieve excessive pressures and shall be arranged so that the discharge terminates at a safe location.

- (c) Systems shall have at least one accessible means for shutting off gas. Such means shall be located outside the mobile home and shall be maintained in effective operating condition.
 - (d) All liquefied petroleum gas piping outside of the mobile homes shall be well supported and protected against mechanical injury. Undiluted liquefied petroleum gas shall not be conveyed through piping equipment and systems in mobile homes.
 - (e) Vessels of more than 12 and less than 60 U.S. gallons gross capacity may be installed on a mobile home lot and shall be securely, but not permanently, fastened to prevent accidental overturning.
 - (f) No liquefied petroleum gas vessel shall be stored or located inside or beneath any storage cabinet, carport, mobile home or any other structure.
- (7) Fuel oil supply systems.
- (a) All fuel oil supply systems for mobile homes, service buildings, and other structures shall be installed and maintained in conformity with the rules and regulations of the National Fire Protection Association Standard NFPA No. 31.
 - (b) All piping from outside fuel storage tanks or cylinders to mobile homes shall be securely, but not permanently, fastened in place.
 - (c) All fuel oil supply systems provided for mobile homes, service buildings, and other structures shall have shutoff valves located within five feet from any mobile home exit.
 - (d) All fuel storage tanks or cylinders shall be a minimum of five feet from any mobile home exit.
 - (e) Storage tanks located in areas subject to traffic shall be protected against physical damage.
- H. Roads. The private street system shall be designed and built to the specifications contained in the Coopersburg Borough Subdivision and Land Development Ordinance.
- (1) The roads shall meet the design standards for local roads contained in § 195-18.
 - (2) The roads shall be built to the local road specifications set forth by the Borough Engineer.

§ 195-24. Environmental protection and open space preservation.

A. Erosion and sedimentation control.

- (1) All earthmoving activities shall be conducted in such a way as to prevent accelerated erosion and the resulting sedimentation.

- (2) No earthmoving or soil disturbance may take place until an erosion and sedimentation control plan has been developed in accordance with Chapter 102, Erosion Control, P.L. 1987. Such a plan is to be maintained on the construction site until all disturbed areas are finally stabilized.
 - (3) The erosion and sedimentation control plan shall be developed in the form outlined in the Soil Erosion and Sedimentation Control Manual issued by the Pennsylvania Department of Environmental Protection.
 - (4) All erosion and sedimentation control plans shall be submitted with the final plan as set forth in § 195-14(10) of this chapter.
 - (5) When it has been determined that an earthmoving permit is required, the application for such a permit must be filed with the Lehigh County Conservation District.
 - (6) Borough Council may require the submission of the erosion and sedimentation control plan to the Lehigh County Conservation District for review and recommendations, whether a permit for earthmoving is required or not.
 - (7) All earthmoving shall be conducted in accordance with the current federal regulations relative to the NPDES.
- B. Natural feature preservation.
- (1) The design and development of all subdivisions and land developments shall preserve, whenever possible, natural features which will aid in providing adequate open space for recreation and conditions generally favorable to the health, safety, and welfare of the residents. Some of these natural features are the natural terrain of the site, woodland areas, large trees, natural watercourses and bodies of water, wetlands, rock outcroppings, and scenic views. More detailed standards concerning the preservation of specific natural features are set forth in the following sections.
 - (2) Floodplain regulation.
 - (a) The flood elevation map shall be based on the municipal flood insurance rate map (FIRM). When not available, the map shall be based on estimated one hundred-year flood elevations or estimated areas subject to flooding based on best available data.
 - (b) No new buildings or structures shall be placed within the bounds of the one hundred-year floodplain except as § 195-24B(2)(c) provides.
 - (c) The substantial improvement of an existing building or the redevelopment of a vacant but formerly developed parcel is permissible within the floodway fringe if said development is in accordance with the floodplain provisions of the Borough Zoning Ordinance if one has been enacted or with the Borough Floodplain Ordinance.³

3. Editor's Note: See Ch. 230, Zoning, and Ch. 132, Floodplain Management, respectively.

- (d) When a developer does not intend to develop the plat himself and the Borough determines that additional controls are required to insure safe development, it may require the developer to impose appropriate deed restrictions on the land. Such deed restrictions shall be inserted in every deed and noted on every recorded plat.
 - (e) The finished elevation of proposed streets shall not be more than the one foot below the regulatory flood elevation. The Borough may require profiles and elevations of streets to determine compliance with the requirements. Drainage openings shall be sufficient to discharge flood flows without unduly increasing flood heights.
 - (f) All sanitary sewer systems, whether public or private, shall be floodproofed up to the regulatory flood elevation.
 - (g) The installation of sewage disposal facilities requiring soil absorption systems shall be prohibited within designated floodplain areas.
 - (h) All water systems, whether public or private, shall be floodproofed up to the regulatory flood elevation.
 - (i) All other public and private utilities and facilities including gas and electric shall be elevated or floodproofed up to the regulatory flood elevation.
- (3) Lake, stream and river frontage preservation.
- (a) Lake, stream and river frontage shall be preserved as open space whenever possible. This area may be credited toward the open space requirement set forth in § 195-24C.
 - (b) Access to the water and maintenance easement area shall be provided at intervals of not more than 0.5 mile. These accesspoints shall not be less than 100 feet in width.
- (4) Topography.
- (a) The natural terrain of the proposed subdivision tract will be retained wherever possible with cut and fill operations being kept to a minimum. Subdivisions and land developments shall minimize the disturbance of steeply sloping areas, that is areas with slopes in excess of 15%. Development shall be directed to the lesser sloping portions of the site to the greatest degree possible.
 - (b) Finished slopes on all cuts and fills shall not exceed 33%.
- (5) Topsoil protection. Topsoil shall not be removed from the development site or used as fill. 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 the construction, topsoil must be uniformly redistributed on the site.

- C. Open space and recreation areas. Subject to the provisions and requirements of the Municipalities Planning Code, the open space and recreation needs of subdivisions and land developments shall be met as follows:
- (1) For subdivisions and land developments involving less than 60 lots or dwelling units, cash in lieu of recreation space shall be provided as set forth in § 195-24C(3).
 - (2) For subdivisions and land developments involving 60 or more lots or dwelling units, the recreation needs shall be met as follows:
 - (a) Land may be offered for dedication to the municipality, subject to approval by the Borough. The land offered for dedication shall not: 1) be subject to flooding; 2) have slopes in excess of 15%; 3) include stormwater management facilities; 4) include wetlands; 5) include utility facilities or easements; or 6) include quarries and/or other dangerous features. The Borough shall consider the offer relative to the following factors:
 - [1] The suitability of the size, shape and landform of the tract for appropriate recreational facilities;
 - [2] Accessibility for future users;
 - [3] Conformity with the recreation element of the Comprehensive Plan;
 - [4] Availability of nearby recreation facilities for meeting the recreation needs; and
 - [5] The ability to provide adequate security.
 - (b) Cash in lieu of open space may be provided as set forth in § 195-24C(3).
 - (3) Cash in lieu of open space and recreation land dedication shall be provided to and used by the Municipality as follows:
 - (a) The cash in lieu shall be \$500 per lot or dwelling unit.
 - (b) The use of the monies shall be restricted to the purchase of lands for recreation and open space areas, the improvement of said areas, or other capital purchases.
- D. Carbonate geology area development. All buildings, structures, impervious surfaces, and utilities shall be so situated, designed and constructed as to minimize the risk of structural damage from existing or future sinkholes.
- (1) Buildings, structures, impervious surfaces, and utilities shall not be located within 100 feet of the Karst features identified pursuant to § 195-13F(10)(b) unless: 1) a recognized professional with competence in the field demonstrates that a minimal risk of structural damage due to sinkholes will exist; or 2) mitigating measures are taken to minimize the risk of structural damage. These mitigating measures shall be designed by a recognized professional with competence in the field.

- (2) Stormwater management facilities, including but not limited to, detention basins, shall not be located within 100 feet of the Karst features identified pursuant to § 195-13F(10)(b) unless: 1) a recognized professional with competence in the field demonstrates that a minimal risk of damage due to sinkholes will exist; or 2) mitigating measures are taken to minimize the risk of structural damage. These mitigating measures shall be designed by a recognized professional with competence in the field.
- (3) Stormwater shall not be redirected into a sinkhole or closed depression.

ARTICLE V Improvement Specifications

§ 195-25. General requirements.

- A. Physical improvements to the subdivision/land development tract shall be provided, constructed and installed as shown on the record plan, in accordance with the requirements of this chapter.
- B. As a condition to review of a final plan by the Borough Engineer, the developer shall agree with the Borough Council, public utility or municipal authority as to installations of all improvements shown on the plan and required by this chapter. Before the record plan may be endorsed by the Borough Council, the developer shall submit a completed and executed original copy of the subdivision improvements agreement and performance and maintenance guarantees in the amount required by § 195-27.
- C. All improvements installed by the developer shall be constructed in accordance with the design specifications of the Borough Council, public utility or Municipal Authority.
- D. Inspection of the installation of those improvements required by § 195-26, shall in all cases be the responsibility of the Borough Council and Borough Engineer.

§ 195-26. Required improvements.

Improvements shall be provided, constructed and installed by the developer as stated in the improvements agreement, shown on the record plan, and in accordance with the design standards set forth in Article IV of this chapter. The following improvements will be required in all applicable cases:

- A. Street excavating, grading, subgrade preparation, base course paving and surface course paving installed according to the Coopersburg Borough specifications.
- B. Concrete curbing of the vertical type, or stabilized shoulder and drainage swale with no curbing installed according to the Coopersburg Borough specifications.
- C. Concrete sidewalks or interior walkways installed according to the Coopersburg Borough specifications in connection with road construction pursuant to § 195-26A or when required by § 195-15B.

- D. Sanitary sewer system improvements installed according to the specifications of the municipality, public utility, the appropriate government authority and the Department of Environmental Protection.
- E. Water supply and distribution system improvements installed according to the specifications of the municipality, public utility, the appropriate governmental authority, and the Department of Environmental Protection.
- F. Storm drainage system improvements installed according to the Coopersburg Borough specifications.
- G. Monuments shall be installed:
 - (1) Permanent reference monuments shall be located at each intersection of rights-of-ways of street(s) constructed by the developer, at the beginning and ending of all street curves, and at exterior corners of the subdivision or land development unless an alternate arrangement is approved that still permits a surveyor to stake out accurately any building lot shown on the record plan.
 - (2) Monuments shall be made of PennDOT Class "A" concrete, shall be four inches by four inches square or four inches in diameter at the top, and shall taper from four inches at the top to six inches at the bottom. All monuments shall be a minimum of 30 inches in length and shall be marked with a round metal cap, rebar or drilled hole. All monuments in developed areas shall be flush with finished grade and, in undeveloped areas, shall be set two inches to three inches above existing grade.
 - (3) All monuments shall be placed by a registered surveyor so that the scored point shall coincide exactly with the point of intersection of the line being monumented.
 - (4) Monuments shall be set with their top level with the finished grade of the surrounding ground, except:
 - (a) Monuments which are placed within the lines of existing or proposed sidewalks shall be so located (preferably beneath the sidewalks) that their tops will not be affected by lateral movement of the sidewalks; and
 - (b) Where monuments are located beneath a sidewalk, proper access shall be provided for their use.
 - (c) Where sidewalks are existing, a stone point (a four-inch square chisel cut in the sidewalk with a drill hole in center) may be substituted for a monument.
 - (5) Lot corner markers shall be provided at all lot corners. Lot corner markers shall be permanently located and shall be a No. 4 (1/2 inch) or No. 5 (5/8 inch) diameter rebar a minimum length of 30 inches. Lot corner markers shall be located in the ground flush to existing grade.
- H. Fire hydrants installed according to the specifications of the Coopersburg Borough and the appropriate authority.
- I. Street signs installed according to municipal specifications.

- J. Shade trees shall be of nursery-stock quality of a species grown under the same climatic condition as exist in the municipality. The trees shall be of symmetrical growth, free of insect pests and disease, suitable for street use, and durable under the maintenance contemplated.

§ 195-27. Improvements guarantee procedure.

- A. Before the Borough Council approves any final plan and as a prerequisite for approval, the developer shall deliver to the Council a performance guarantee in the amount of 110% of the cost of all improvements required by this chapter, as determined in accordance with the procedures set forth in the Municipalities Planning Code, as amended, in a form and with a surety as determined in accordance with the procedures set forth in the Municipalities Planning Code, as amended, guaranteeing the construction and installation of all such improvements before the date fixed in the formal action of approval or accompanying agreement for completion of the improvements. Upon written application signed by both the obligor and surety of the performance guarantee in a form approved by the Solicitor, the Borough Council, public utility or municipal authority may, at their discretion, extend said period by not more than three additional years. If the party posting the financial security requires more than one year from the date of posting of the financial security to complete the required improvements, the amount of financial security may be increased by an additional 10% for each one-year period beyond the first anniversary date from posting of financial security or to an amount not exceeding 110% of the cost of completing the required improvements as reestablished on or about the expiration of the preceding one-year period by using the above bidding procedure. In the event of default under a performance guarantee, the proceeds of the performance guarantee received by the municipality, public utility or municipal authority shall be used to construct and install the improvements.
- B. Before the Borough Council approves any final plan and as a prerequisite for approval, the developer shall deliver to the Borough Council, a maintenance guarantee in an amount of not less than 15% of the actual cost of the installation of all improvements required by this chapter, guaranteeing acceptance of all such improvements by the Borough Council.

§ 195-28. Approval of improvements and release of performance guarantee by the Borough Council.

- A. The approval of improvements and release of performance guarantee by the Borough Council and the inspection of the improvements shall occur in conformance with the procedures prescribed by the Pennsylvania Municipalities Planning Code.
- B. In the event that any improvements which may be required have not been installed as provided in this chapter or in accord with the approved final plan, the Borough Council is hereby granted the power to enforce any corporate bond or other security by appropriate legal and equitable remedies. If proceeds of such bond or other security are insufficient to pay the cost of installing or making repairs or corrections to all the improvements covered by said security, the Borough Council may, at its option, install part of such improvements in all or part of the subdivision or land development and may

institute appropriate legal or equitable action to recover the monies necessary to complete the remainder of the improvements. All of the proceeds, whether resulting from the security or from any legal or equitable action brought against the developer, or both, shall be used solely for the installation of the improvements covered by such security and not for any other municipal purpose.

ARTICLE VI Administration

§ 195-29. Amendments.

Amendments to the Subdivision and Land Development Ordinance shall become effective only after a public hearing held pursuant to public notice in the manner prescribed for enactment of a subdivision and land development ordinance by the Pennsylvania Municipalities Planning Code.

§ 195-30. Appeals.

The decisions of the Coopersburg Borough Council with respect to the approval or disapproval of subdivision or land development plans may be appealed directly to court in the same manner and within the same time limitations as is provided for zoning appeals in Article X of the Pennsylvania Municipalities Planning Code.

§ 195-31. Enforcement remedies.

Violations and penalties. For any and every violation of the provisions of this chapter, the owner, agent, architect, contractor, engineer, or other person who commits a violation shall be liable on conviction to pay a fine or penalty not to exceed \$500 per day per violation and all court costs and Borough legal expenses, which shall be paid to the Borough of Coopersburg.

- A. Such fines and penalties may be collected by suit or summary proceedings brought in the name of Lehigh County before any Magistrate.
- B. Whenever any such person specified above shall have been notified by the Coopersburg Borough Solicitor, in writing, that there is a violation of this chapter, such person shall commence correction of all violations within five days after notice and correct all violations within 30 days of notice. If corrections are not commenced within five days or completed within 30 days, each day that a violation continues shall be considered a separate offense punishable by the like fine.

§ 195-32. Validity and conflicts.

- A. Should any action or provisions of this chapter be declared by the courts to be invalid, such decision shall not affect the validity of the Ordinance as a whole, nor the validity of any other section or provision of the Ordinance than the one so declared.

- B. Whenever there is a conflict between minimum standards or requirements set forth in this chapter and those contained in other municipal ordinances and regulations, or other applicable laws and regulations, the most stringent standard or requirement shall apply.

§ 195-33. Fees.

- A. The Borough Council shall set, by resolution, a schedule of fees to be paid by the developer at the time of filing of the feasibility, preliminary and final plans.
- B. The applicant shall pay the subdivision fees charged according to the adopted fee schedule. At the time of the submission, the applicant shall deposit the amount of money specified by the fee schedule with the Borough Manager. No application will be accepted for consideration unless accompanied by the required deposit. Charges and expenses will be withdrawn from the account as they are incurred by the Borough. If the charges and expenses attributable to the application exceed the amount deposited, the applicant shall be notified so that additional funds as are necessary to meet the charges and expenses are deposited with the Borough Manager. No plan shall be approved unless all fees are paid in full. Any amounts which were deposited in excess of the charges and expenses recorded shall be returned to the applicant following complete staff action on the proposal.

§ 195-34. Repealer.

The Coopersburg Subdivision and Land Development Ord. No. 190, and all amendments thereto, are hereby repealed. This chapter does not repeal other laws or ordinances except those specifically repealed by this chapter.

§ 195-35. Modifications and exceptions.

The Coopersburg Borough Council and staff may grant a modification to the requirements of one or more provisions of this chapter if the literal enforcement will exact undue hardship because of peculiar conditions pertaining to the land in question, provided that such modification will not be contrary to the public interest and that the purpose and intent of this chapter is met. All requests for modifications shall be in writing and shall accompany and be a part of the application for development. The requests shall state, in full, the grounds and facts of unreasonableness or hardship on which the request is based, the provision or provisions of the ordinance involved and the minimum modification necessary.

§ 195-36. Effective date of ordinance.

This chapter shall become effective immediately upon approval by Borough Council.

§ 195-37. Disclaimer.

Whereas the exact occurrence of sinkholes is not predictable, the administration of these regulations shall create no liability on behalf of Coopersburg Borough as to damages which

may be associated with sinkhole formation. That is, compliance with these regulations represents no warranty, finding, guarantee, or assurance that sinkholes will not occur on an approved property. Coopersburg Borough, consultants and employees assume no liability for any financial or other damages which may result from sinkhole activity.

§ 195-38. Entry.

Upon presentation of proper credentials, duly authorized representatives of the municipality or its agents may enter at reasonable times upon any property to investigate or ascertain the condition of the subject property in regard to any aspect regulated by this chapter.

**ARTICLE VII
Definitions**

§ 195-39. Word usage.

Unless otherwise expressly stated, the following terms shall, for the purpose of these regulations, have the meaning indicated:

- A. Words in the singular include the plural and those in the plural include the singular.
- B. Words in the present tense include the future tense.
- C. The words "person", "developer", "subdivider", and "owner" include a corporation, unincorporated association, a partnership, or other legal entity, as well as an individual.
- D. The word "building" includes structure and shall be construed as if followed by the phrase "or part thereof".
- E. The words "should" and "may" are permissive; the words "shall" and "will" are mandatory and directive.

§ 195-40. Definition of terms.

As used in this chapter, the following terms shall have the meanings indicated:

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

BLOCK — Property bounded on one side by a street, and the other three sides by a street, railroad right-of-way, waterway, unsubdivided area, or other definite barrier.

BUILDING, ACCESSORY — A detached subordinate building, the use of which is customarily incidental and subordinate to that of the principal building, and which is located on the same lot as that occupied by the principal building.

BUILDING, PRINCIPAL — A structure enclosed within exterior walls or fire walls; built, erected, and framed of component structural parts; designed for the housing, shelter,

enclosure, and support of individuals, animals, or property of any kind; main structure on a given lot.

BUILDING SETBACK LINE — The line parallel to the street line at a distance therefrom equal to the depth of any yard setbacks required for the district in which the lot is located.

CISTERN — An underground reservoir or tank for storing rainwater.

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

CLOSED DEPRESSION — In a Karst area, a distinctive bowl-shaped depression in the land surface. It is characterized by internal drainage, varying magnitude, and an unbroken ground surface.

COMMON OPEN SPACE — A parcel or parcels of land, an area of water, or a combination of land and water within a development site designed and intended for the use of residents of the development, not including streets, off-street parking area, private yard space, and areas set aside for nonresidential and public facilities. Common open space shall be substantially free of structures, but may contain such improvements as are appropriate for recreational use by the residents.

COMPREHENSIVE PLAN — The maps, charts, and textual material adopted by the municipality in accordance with the Pennsylvania Municipalities Planning Code and designated, as a whole and in its several parts, as a comprehensive plan for the continuing development of the municipality.

CULVERT — A pipe, conduit or similar structure including appurtenant works which carries surface water.

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

DEP — The Pennsylvania Department of Environmental Protection (formerly the Pennsylvania Department of Environmental Resources).

DESIGN STORM — The magnitude of precipitation from a storm event measured in probability of occurrence (e.g., fifty-year storm) and duration (e.g., twenty-four-hour), and used in computing stormwater management control systems.

DETENTION BASIN — A basin designed to retard stormwater runoff by temporarily storing the runoff and releasing it at a predetermined rate.

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

DOUBLE OR REVERSE FRONTAGE LOT — A lot extending between and having frontage on two generally parallel streets with vehicular access from only one street.

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

DRAINAGE PLAN — The documentation of the proposed stormwater management controls, if any, to be used for a given development site.

DWELLING UNIT — Any room or group of rooms located within a building and forming a single habitable unit, with facilities which are used or intended to be used for living, sleeping, cooking and eating by one family.

EASEMENT — A right-of-way granted, but not dedicated, for limited use of private land and for a public or quasi-public purpose, and within which the owner of the property shall not erect any permanent structures, but shall have the right to make any other use of the land which is not inconsistent with the rights of the grantee.

ENGINEER — A professional engineer licensed as such in the commonwealth of Pennsylvania.

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

EROSION AND SEDIMENTATION CONTROL PLAN — A plan designed to prevent on-site accelerated erosion and off-site sedimentation through the use of vegetative or mechanical controls. Control measures must be designed to fit the topography, soils, rainfall and land use of the area they are to protect. The plan includes as a minimum: a) a map or maps describing the topography of the area, the proposed alteration to the area and the specific erosion and sedimentation control measures and facilities; and b) a narrative report describing the project and giving the purpose and the engineering assumptions and calculations for control measures and facilities.

FLAG LOT — A lot with direct frontage on a public road which does not meet the required lot width at the minimum required front yard setback line, which consists of an access lane with a minimum width of 25 feet and a rectangular area, the dimensions of which exceed the minimum lot width requirement as established in the municipal zoning ordinance, if any.

FLOOD FRINGE — That portion of the floodplain outside the floodway.

FLOOD, ONE-HUNDRED-YEAR — The flood having a one-percent chance of being equaled or exceeded in any given year.

FLOODPLAIN — The area of normally dry land along a natural watercourse which is periodically inundated by water therefrom.

FLOODWAY, REGULATORY — The channel of a watercourse and the adjacent land areas that must be reserved in order to discharge the one-hundred-year flood. The regulatory floodway is designated on the flood boundary and floodway map of the municipality's flood insurance study prepared by the Federal Emergency Management Agency.

FREEBOARD — The incremental depth in a stormwater management structure provided as a safety factor of design above that required to convey the design runoff event.

GROUNDWATER RECHARGE — Replenishment of existing natural underground water supplies.

IMPERVIOUS SURFACE — Surfaces which do not absorb water, moisture or rain and the term includes but is not limited to, roofs, buildings, parking areas, driveways, streets, roads, and any areas covered by concrete or asphalt and stormwater detention and retention ponds.

IMPROVEMENTS — Those physical additions and changes to the land that may be necessary to produce usable and desirable lots.

INFILTRATION STRUCTURE — A structure designed to direct runoff into the ground, e.g., french drain, seepage pit or seepage trench.

LAND DEVELOPMENT — Any of the following activities: (1) The improvement of one lot or two or more contiguous lots, tracts, or parcels of land for any purpose involving a group of two or more residential or nonresidential buildings, whether proposed initially or cumulatively, or a single nonresidential building on a lot or lots regardless of the number of occupants or tenure, or 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 the purpose of streets, common areas, leaseholds, condominiums, building groups or other features; 2) a subdivision of land.

LANDOWNER — The legal or beneficial owner or owners of land including the holder of an option or contract to purchase (whether or not such option or contract is subject to any condition), a lessee having a remaining term of not less than 40 years, or other person having a proprietary interest in land, shall be deemed to be a landowner for the purpose of this chapter.

LOCAL RUNOFF CONVEYANCE FACILITIES — Any natural channel or man-made conveyance system which has the purpose of transporting runoff from the site to the mainstem.

LOT — A designated parcel, tract or area of land established by a plat or otherwise as permitted by law and to be used, developed or built upon as a unit.

LOT AREA — The area contained within the property line of a lot (as shown on the plan), excluding space within all streets and within all permanent drainage easements, but including the areas of all other easements.

LOWEST FLOOR — The lowest floor of the lowest enclosed area (including basement). An unfinished or flood-resistant enclosure, usable solely for parking of vehicles, building access or storage, in an area other than a basement area, is not considered a building's lowest floor, provided that such enclosure is not built so as to render the structure in violation of the applicable nonelevation design requirements of this chapter.

MAINSTEM (MAIN CHANNEL) — Any stream segment or other conveyance used as a reach in the hydrologic model.

MAINTENANCE GUARANTEE — Security in a form in accord with the provisions set forth in the Municipalities Planning Code, as amended, which insures the structural integrity of the improvements as well as the functioning of said improvements in accordance with the design and specifications as depicted on the final plat for a period not to exceed 18 months after the acceptance of said improvements by the Borough of Coopersburg.

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

MARKER — A metal pipe No. 4 (1/2 inch) or No. 5 (5/8 inch) rebar at least 30 inches in length.

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

MOBILE HOME STAND — That part of an individual lot which has been reserved for the placement of the mobile home, appurtenant structures or additions.

MONUMENT — A tapered concrete marker at least four inches by four inches square or four inches in diameter and at least 30 inches in length and marked with a round metal cap, rebar or drilled hole.

MUNICIPALITIES PLANNING CODE — The Pennsylvania Municipalities Planning Code, Act 1988-170, as amended.

NPDES REGULATIONS — National Pollutant Discharge Elimination System Regulations.

NRCS — Natural Resource Conservation Service, U.S. Department of Agriculture. (Formerly, the Soil Conservation Service.)

NUMBERED TRAFFIC ROUTE — A highway that has been assigned an interstate, United States, or Pennsylvania route number to aid motorists in their travels.

OFFICIAL MAP — The municipal map adopted by ordinance showing exact locations of existing and proposed lines for public streets, watercourses and public grounds, including widenings, narrowings, extensions, diminutions, opening or closing of same for the entire municipality.

OFFICIAL PLAN FOR SEWAGE FACILITIES — A comprehensive plan for the provision of adequate sewage systems adopted by a municipality or municipalities possessing authority or jurisdiction over the provision of such systems and submitted to and approved by the State Department of Environmental Protection, as provided by the Pennsylvania Sewage Facilities Act, and Chapter 71, Rules and Regulations promulgated thereunder.

PAVEMENT WIDTH (ROADWAY) — The portion of a street right-of-way, generally paved, intended for vehicular use.

PEAK DISCHARGE — The maximum rate of flow of stream runoff at a given location and time resulting from a specified storm event.

PENN STATE RUNOFF MODEL (PSRM) — The computer-based hydrologic modeling technique used in early Act 167 Plans. PSRM was also updated to include water quality modeling capabilities and renamed PSRM-QUAL. The PSRM and PSRM-QUAL calculation methodologies were used as the basis for writing the watershed model.

PERFORMANCE GUARANTEE — Security in a form in accord with the provisions set forth in the Municipalities Planning Code, as amended, to guarantee that the proper construction of improvements be made by the developer as a condition for the approval of the plan.

PLAN, FEASIBILITY REVIEW — An initial submission, by the developer, of maps and other materials analyzing the natural features of the site as they relate to its development potential. The proposed concept for development of the tract is included in the submission.

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

PLAN, PRELIMINARY — A tentative plan, in lesser detail than a final plan, showing proposed streets and lot layout and such other information as required by this chapter.

PLAN, RECORD — The copy of the final plan bearing the original endorsements of the Borough of Coopersburg, which is intended to be recorded with the County Recorder of Deeds.

PLANNING MODULE FOR LAND DEVELOPMENT — A document to be prepared by the developer or subdivider, accepted by the municipality, and submitted to the Pennsylvania Department of Environmental Protection to provide proposed development data in order to supplement or revise the municipality's official plan for sewage facilities.

RATIONAL METHOD — A method of peak runoff calculation using a standardized runoff coefficient (rational "c"), acreage of tract and rainfall intensity determined by return period and by the time necessary for the entire tract to contribute runoff. The rational formula is stated as follows: $Q = ciA$, where "Q" is the calculated peak flow rate in cubic feet per second, "c" is the dimensionless runoff coefficient (see Attachment C⁴), "i" is the rainfall intensity in inches per hour, and "A" is the area of the tract in acres.

REACH — Any of the natural or man-made runoff conveyance channels used for modeling purposes to connect the subareas and transport flows downstream.

REGISTERED SURVEYOR — A licensed surveyor registered by the commonwealth of Pennsylvania.

RELEASE RATE — The percentage of the predevelopment peak rate of runoff for a development site to which the postdevelopment peak rate of runoff must be controlled to avoid peak flow increases throughout the watershed.

RESUBDIVISION — Any replatting or resubdivision of land, limited to changes in lot lines on approved final plans or recorded plans as specified in this chapter. Other replattings shall be considered as constituting a new subdivision of land. See also "subdivision."

RETURN PERIOD — The average interval in years over which an event of a given magnitude can be expected to recur. For example, the twenty-five-year return period rainfall or runoff event would be expected to recur on the average once every twenty-five years.

4. Editor's Note: See Appendix C of Ch. 187, Stormwater Management.

RIGHT-OF-WAY — The total width of any land reserved or dedicated as a street, sidewalk, or for other public or quasi-public purposes.

RUNOFF — That part of precipitation which flows over land.

SANITARY SEWAGE DISPOSAL, CENTRALIZED — A sanitary sewage collection system in which sewage is carried from individual lots by a system of pipes to a central treatment and disposal plant, commonly called a "package treatment plant," generally serving a single land development, subdivision, or neighborhood, and operated by a governmental agency, governmental authority, public utility company, or a developer.

SANITARY SEWAGE DISPOSAL, ON-LOT — Any structure designed to treat sanitary sewage within the boundaries of an individual lot.

SANITARY SEWAGE DISPOSAL, PUBLIC — A sanitary sewage collection system in which sewage is carried from individual lots by a system of pipes to a central treatment and disposal plant, generally serving a major portion of a municipality or municipalities, and operated by a governmental agency, governmental authority, or public utility company.

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

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

SEWAGE ENFORCEMENT OFFICER — The municipal official who issues and reviews permit applications and conducts investigations and inspections as are necessary to implement Act 537 and the rules and regulations thereunder.

SIGHT DISTANCE — The required length of roadway visible to the driver of a motor vehicle at any given point on the roadway when the view is unobstructed by traffic. Sight distance measurements shall be made from a point 3.75 feet above the center line of the road surface to a point 0.5 feet above the center line of the road surface.

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.

SOIL-COVER-COMPLEX METHOD — A method of runoff computation developed by NRCS which is based upon relating soil type and land use/cover to a runoff parameter called a curve number.

STORAGE INDICATION METHOD — A reservoir routing procedure based on solution of the continuity equation (inflow minus outflow equals the change in storage for a given time interval) and based on outflow being a unique function of storage volume.

STORM DRAINAGE PROBLEM AREAS — Areas which lack adequate stormwater collection and/or conveyance facilities and which present a hazard to persons or property.

STORM DRAINAGE SYSTEMS — All facilities and features, such as pipes, culverts, open channels, ditches, swales, and stormwater detention facilities, used to transmit or temporarily store surface water runoff.

STORM SEWER — A system of pipes or other conduits which carries intercepted surface runoff, street water and other wash waters, or drainage, but excludes domestic sewage and industrial wastes.

STORMWATER DETENTION FACILITIES — Basins, ponds, ponding areas, depressions or other structures or features used to temporarily store rainfall and release it at a controlled rate.

STORMWATER MANAGEMENT PLAN — The plan for managing stormwater runoff adopted by Coopersburg Borough, for each watershed, as required by the Act of October 4, 1978, P.L. 864, (Act 167), as amended, and known as the Stormwater Management Act.

STREAM — A watercourse.

STREET — A strip of land, including the entire right-of-way (i.e., not limited to the cartway) intended for use as a means of vehicular and pedestrian circulation to provide access to more than one lot. The word "street" includes street, avenue, boulevard, road, highway, freeway, parkway, alley, viaduct, and any other ways used or intended to be used by vehicular traffic or pedestrians whether public or private. Streets are further classified according to the functions they perform:

- A. **ARTERIAL STREET** -- A street serving a large volume of comparatively high-speed and long distance traffic, including all facilities classified as main and secondary highways by the Pennsylvania Department of Transportation.
- B. **COLLECTOR STREET** -- A street which, in addition to providing access to abutting properties, intercepts local streets to provide a route giving access to community facilities and/or other collector and arterial streets (streets in industrial and commercial subdivisions shall generally be considered collector streets).
- C. **LOCAL STREET** -- A street used primarily to provide access to abutting properties.
- D. **CUL-DE-SAC STREET** -- A local street intersecting another street at one end, and terminating in a vehicular turn-around at the other.
- E. **HALF (PARTIAL) STREET** -- A street, generally parallel and adjacent to a property line, having a lesser right-of-way width than normally required for improvement and use of the street.
- F. **MARGINAL ACCESS STREET** -- A local street, parallel and adjacent to a major street (but separated from it by a reserve strip) which provides access to abutting properties and control of intersections with the major street.
- G. **ALLEY** -- A minor right-of-way providing secondary vehicular access to the side or rear of two or more properties. All streets with a right-of-way width of less than 30 feet are alleys.

STRUCTURE — Any man-made object having an ascertainable stationary location on or in land or water, whether or not affixed to the land.

SUBAREA — The smallest unit of watershed breakdown for hydrologic modeling purposes for which the runoff control criteria have been established in each stormwater management plan.

SUBDIVISION — The division or redivision of a lot, tract or parcel of land by any means into two or more lots, tracts, or parcels or other divisions of land including changes in existing lot lines for the purpose, whether immediate or future, of lease, partition by the court for distribution to heirs or devisees, transfer of ownership or building, or lot development; provided, however, that the division of land for agricultural purposes into parcels of more than 10 acres, not involving any new street, easement of access, or residence, shall be exempted.

A. **MINOR SUBDIVISION** -- A residential subdivision which does not and will not in the future involve more than a total of three lots, including the residue parcel, and does not involve the provision of any new street or easement for access. Such subdivision applications shall be processed in accordance with the provisions contained above.

SUBSTANTIAL IMPROVEMENT — Any reconstruction, rehabilitation, addition, or other improvement of a structure, the cost of which equals or exceeds 50% of the market value of the structure before the "start of construction" of the improvement.

SWALE — A low-lying stretch of natural or man-made land which gathers or carries surface water runoff.

TESTING ON-LOT SANITARY SEWER SYSTEMS — Soil tests and percolation tests conducted by the Municipal Sewage Enforcement Officer in compliance with Chapter 73 of Pennsylvania Department of Environmental Protection Regulations in order to determine whether a permit may be issued for installation of on-lot sewage disposal systems.

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."

WATERCOURSE — Any channel or conveyance of surface water having defined bed and banks, whether natural or artificial, with perennial or intermittent flow.

WATERSHED — The computer-based hydrologic modeling technique adapted to the Little Lehigh Creek watershed for the Act 167 Plan update. This model was written by Tarsi Software Laboratories and uses the same algorithms found in the Penn State Runoff Quality Model (PSRM-QUAL). The model has been calibrated to reflect actual flow values by adjusting key model input parameters.

WATER SUPPLY AND DISTRIBUTION SYSTEM, CENTRALIZED — A system for supplying and distributing water from a common source to two or more dwellings and/or other buildings, generally serving a single land development, subdivision, or neighborhood, and operated by a governmental agency, governmental authority, public utility company or a developer.

WATER SUPPLY AND DISTRIBUTION SYSTEM, ON-LOT — A system for supplying and distributing water to a single dwelling or other building from a source located on the same lot.

WATER SUPPLY AND DISTRIBUTION SYSTEM, PUBLIC — A system for supplying and distributing water from a common source to dwellings and other buildings, generally serving a major portion of a municipality or municipalities, and operated by a governmental agency, governmental authority, or a public utility company.



SUBDIVISION AND LAND DEVELOPMENT

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Borough of Coopersburg

APPENDIX A

DESIGN AND CONSTRUCTION STANDARDS
FOR CENTRALIZED WATER SYSTEMS

The Design and Construction Standards will be supplied by the Coopersburg Municipal Authority.

