

## **PART 4**

### **INFORMATION TO BE SHOWN ON OR SUBMITTED WITH SUBDIVISION AND LAND DEVELOPMENT PLANS**

#### **SECTION 401      SKETCH PLANS**

The scale and sheet size of Sketch Plans shall be as required for Preliminary Plans in Sections 402 A.1. and 402 A.4. The Sketch Plan shall show or be accompanied by the following data, legible in every detail and drawn to scale, but not necessarily containing precise dimensions:

- A. Name and address of the Landowner and Developer (if different).
- B. Name of the individual and/or the firm that prepared the plan.
- C. Location map with sufficient information to enable the Township to locate the property.
- D. North arrow.
- E. Written and graphic scales.
- F. Existing tract boundaries accurately labeled with the name(s) of adjacent landowners, the existing adjacent zoning and adjacent plan(s) of record. "Adjacent plans" and "adjacent owners" include those across a public street.
- G. Name of the municipality or municipalities in which the project is located, including the location of any municipal boundary line(s) if located within the vicinity of the tract.
- H. Significant topographical and manmade features (e.g. bodies of water, quarries, flood plains, tree masses, existing streets, structures, sinkholes and suspected wetlands).
- I. Proposed street, parking, building and lot layout.
- J. Proposed land use; if several land uses are proposed, the location of each land use shall be indicated.
- K. Statement explaining the methods of water supply and sewage disposal to be used.
- L. Existing historic features.

- M. Buildings and historic features, or parts thereof, to be demolished.
- N. Contour lines with source of datum (which may be U.S.G.S.) and mapping of soil types.
- O. Copies of all easements, rights-of-way and restrictions currently applicable to or effecting the subject property.

## **SECTION 402      PRELIMINARY PLANS**

Preliminary subdivision and/or land development plans shall be prepared by a land surveyor. The Preliminary Plan shall show, be accompanied by, or be prepared in accordance with the following.

### **A.      Drafting Standards.**

1. The plan shall be clearly and legibly drawn at a scale of 10 feet, 20 feet, 30 feet, 40 feet or 50 feet to the inch.
2. Existing lot line dimensions shall be in feet and decimals; bearings shall be in degrees, minutes and seconds. Lot line descriptions shall read in a clockwise direction.
3. The survey shall not have an error of closure greater than one (1) foot in ten thousand (10,000) feet.
4. The sheet size shall be no smaller than eighteen by twenty-two (18x22) inches and no larger than twenty-four by thirty-six (24x36) inches. If the Plan is prepared in two (2) or more sections, a key map showing the location of the sections shall be placed on each sheet. If more than one (1) sheet is necessary, each sheet shall be the same size and numbered to show the relationship to the total number of sheets in the Plan (e.g. Sheet 1 of 5).
5. Plans shall be legible in every detail
6. All street profiles as well as the design of sanitary sewer facilities, water supply facilities and storm water drainage facilities shall be drawn at a horizontal scale of 1" = 50' and a vertical scale of 1" = 10'.
7. Plans shall be accurate in every detail. Accordingly, the property has to be surveyed. All plan requirements of this Section shall be accurately represented in reports, studies, and other supporting materials. The failure to provide accurate plans and supporting materials shall be a violation of this Ordinance and grounds for denial of an application.

B. Location and Identification.

1. The proposed project name or identifying title.
2. The municipality or municipalities in which the project is to be located. (If the tract of land is located in the vicinity of a municipal boundary line, the location of the boundary shall be shown).
3. The name and address of the owner of the tract (or his authorized agent), the developer/subdivider, and the firm that prepared the plans.
4. The file or project number assigned by the firm that prepared the plan, the plan date, and the date (s) of all plan revisions.
5. A north arrow, a graphic scale and a written scale.
6. The entire existing tract boundary with bearings and distances. (If a landowner is going to retain a single lot with a lot area in excess of ten (10) acres, the boundary of that lot may be identified as a deed plotting and shall be drawn at any legible scale; if the retained lot has a lot area of ten (10) or less acres, the entire existing tract boundary must be described to the accuracy requirements of this Ordinance. In the case of Lot Add-On plans, all the boundaries of the receiving tract shall also be identified as a deed plotting and may be drawn at any legible scale.
7. The total acreage of the entire existing tract.
8. The district and lot size and/or density requirements of the prevailing zoning ordinance and all setback requirements.
9. The location of existing lot line markers along the perimeter of the entire existing tract.
10. A location map, drawn to scale at a scale of 1"=800', relating the subdivision to at least two (2) intersections of road centerline, including the approximate distance to the intersection of the centerline of the nearest improved street intersection.
11. Source of title, deed book, page, plan book (if applicable), and County Tax Parcel Account Identification Number for each parcel involved.
12. Copies of all deeds for all lots, tracts, parcels, etc. involved in the proposed subdivision or land development.
13. Copies of all easements, rights-of-way and restrictions currently applicable to or affecting the subject property.

C. Existing Features.

1. Existing contours shall be shown at a minimum vertical interval of one (1) foot for land with average natural slope of three (3) percent or less, two (2) feet for land with average natural slope between three (3) percent and twenty (20) percent, and at a minimum vertical interval of five (5) feet for more steeply sloping land. Contour intervals may be adjusted based upon horizontal scale with concurrence of the Township Engineer. Contours shall be accompanied by the location of the bench mark and a notation indicating the datum used. The datum used by the Authority shall be used in all plans indicating connection to the Authority's public sewer system or public water system. Contours plotted by interpolation of the United States Geodetic Survey 7.5' mapping will not be accepted.
2. The names of all immediately adjacent landowners, the existing adjacent zoning and plan book record numbers of all recorded plans for adjacent projects.
3. The following items when located within two hundred (200) feet in any direction of the subject tract:
  - a. The location and name of existing rights-of-way and cartway for public or private streets, access drives, driveways, and service streets.
  - b. The location of the following features and any related rights-of-way: sanitary sewer mains, water supply mains, electric and gas facilities, fire hydrants, buildings, and storm water management facilities (e.g. storm sewers, berms, terraces, bridges, dams, basins, infiltration systems, swales), sinkholes and carbonate geology, watercourses, and flood plains).
  - c. The location of existing rights-of-way for electric, gas, and oil transmission lines, and railroads.
4. The following items when located within the subject tract:
  - a. The location, name, and dimension of existing rights-of-way and cartway for public or private streets, access drives, driveways, and service streets.
  - b. The location, condition and size of any on-lot water and/or sewage systems.
  - c. The location of existing mains and rights-of-way for electric, gas, and oil transmission lines, and railroads.

- d. The location, condition and size of the following features and related rights-of-way: sanitary sewer mains, water supply mains, fire hydrants, buildings, and storm water runoff control facilities. management facilities (e.g. storm sewers, berms, terraces, bridges, dams, basins, infiltration systems, swales), sinkholes and carbonate geology, watercourses, and flood plains).
- e. All easements, rights-of-ways, etc. appearing on the subject tract or in the chain of title. If an easement, right-of-way, etc. appears in the chain of title, but does not affect the subject tract, it should be noted.
- f. The location of wetlands and subsequent data or information required by Section 407.
- g. The location of buildings, historic features, cemeteries or burial sites, and archaeological sites.

D. Plan Information

- 1. The layout of streets, alleys and sidewalks, including cartway and right-of-way widths.
- 2. The layout of lots, with approximate dimensions.
- 3. Block and lot numbers in consecutive order (e g. Block "A," Lots 1 through 10; Block "B," Lots 11 through 22).
- 4. The location and configuration of proposed buildings, parking compounds, streets, access drives, driveways, and all other significant planned facilities.
- 5. Total number of lots, units of occupancy, density and proposed land use. If multiple land uses are proposed, the location of each land use shall be indicated. In the case of lands wholly or partially located within the Agricultural or Agricultural Transition Zoning District, lines of all lots, parcels or tracts included within the subdivision (including those not presently owned by the subdivider, but on December 14, 1992, owned by the same landowner as the tract being subdivided), shall be indicated.
- 6. Easements and rights-of-way.
- 7. Building setback lines, with distances from the street right-of-way line, and building lines.

8. Identification of buildings and historic features, or parts thereof, to be demolished.
9. A typical cross section for each new driveway, access drive, or street or each existing driveway, access drive or street which will be improved as part of the application. Each cross section shall include the entire right-of-way width and indicate maximum proposed cut and fill slopes.
10. A centerline profile for each proposed access drive or street including corresponding centerline stationing.
11. The preliminary design of the proposed sanitary sewer mains, electric and gas facilities, storm water management facilities and water supply mains. This information shall include the approximate size, vertical location and horizontal location, if applicable. All such preliminary designs shall take into consideration potential Final Plans and shall contain sufficient information to assure to the Township that, from an engineering and design perspective, the proposed infrastructure can logically supply such facilities to all parts of the subject tract at time of Final Plan approval.
12. A statement on the Plan indicating any proposed or granted zoning amendment, special exception, conditional use or variance relating to subject property.
13. A statement on the Plan indicating any existing or proposed waivers granted by the Township Supervisors.
14. Proposed street names.
15. The location, size and proposed use of all common open spaces, recreation areas and Prime Open Space.
16. The location and design of driveways or access drives on corner lots and driveways or access drives on other lots as requested by the Board of Supervisors. Such driveways or access drives shall demonstrate the existence of reasonable, safe access to the property while maintaining the street's traffic capacity. If access is to be provided by a state highway, the applicant shall supply proof that the driveway or street intersection permit has been issued to permit a driveway or street intersection to be completed at the proposed location, or certification from an engineer that consistent with Penn DOT regulations a permit can be issued to permit a driveway or street intersection to be completed at the proposed location.

Common driveways or access drives are to be discouraged, and shall only be permitted when there are unique circumstances that create a safety hazard or create substantial difficulty in access to one of the tracts. A

proposed agreement regarding such common driveways or access drives shall be generally in the form adopted, from time to time, by the Board of Supervisors and may be modified by the developer's legal counsel, consistent with the required aspects of the project, as long as a reasonable approval of the Township Solicitor is acquired in advance.

17. A table indicating the existing zoning district, required lot size, required setbacks, required maximum and/or minimum development density, number of lots in the proposed subdivision along with the proposals for each of these parameters. The proposed lots shall meet all on-lot sanitary sewage disposal requirements, including where applicable, minimum lot size, setbacks and separation distances.
18. Where the subject property is located partially or wholly within an area prone to frequent flooding (either by impoundment or conveyance) as indicated by the Flood Insurance Rate Map Profiles and supporting data, soil type, or local historical record; the applicant shall supply the following information:
  - a. The location and elevation of all proposed roads, fills, utilities, buildings, storm water management, and erosion control facilities;
  - b. The 10 year, 100 year, and encroachment boundaries as required by FEMA. Neither flood boundaries defined by the limits of alluvial soils nor by the boundaries shown on the Flood Insurance Rate Map shall be accepted without verification. Information shown on the Flood Insurance Rate Map and its accompanying documentation shall be verified using any currently available information to update the data.
  - c. Sufficient information to show compliance with all applicable provisions of the Stormwater Management Code and with the floodplain zoning requirements of the Zoning Ordinance.
19. The location of all deciduous trees larger than five (5) inches in caliper measured five (5) feet above grade and evergreen trees six (6) feet or larger in height proposed to be disturbed and/or removed during development.
20. If the Preliminary Plan does not include the total land area held by the applicant, a Sketch Plan shall be submitted to identify the potential for future use of parcels of land which are five or more times the minimum lot area requirement; or for proposed streets which are temporary cul-de-sacs, or whenever the Planning Commission deems it necessary and/or appropriate. The design of the Preliminary Plan will be considered in conjunction with the concept presented in the Sketch Plan.

21. Where the Preliminary Plan covers only a part of the entire land holdings, a sketch of the future street system of the unsubmitted part shall be furnished. The street system of the submitted part will be considered in light of adjustments and connections with further streets in the part not submitted.
22. In case of a Preliminary Plan calling for the installation of improvements beyond a five (5) year period, a schedule delineating all proposed phases as well as deadlines within which applications for Final Plan approval of each phase are intended to be filed shall be provided. Each phase in any residential subdivision or land development, except for the last phase, shall contain a minimum of twenty-five (25%) percent of the total number of dwelling units depicted on the Preliminary Plan.
23. Location of all percolation test holes, deep probe holes and proposed well locations.
24. Easements for the on-lot sewage replacement locations.
25. Clear sight triangles and stopping sight distances for all intersections shall be shown on the plan.
26. Where a proposed subdivision is located in the Agricultural or Agricultural Transition Zoning District, either in whole or part, a deed plotting of the parent tract as it existed on or before December 14, 1992 shall be provided. Any parcels subdivided from the parent tract including the date of subdivision shall be plotted and the date of the subdivision shall be noted on the Plan.

E. Certificates, Notification and Reports.

1. Certificates.
  - a. Certificate for review by the Township Planning Commission (See Appendices).
  - b. Certificate for approval by the Board of Supervisors (See Appendices).
  - c. Certificate for approval by the Authority (See Appendices).
  - d. Certificate, signature and seal of the person responsible for the preparation and correctness of the plan (See Appendices).
  - e. Certificate, signature, and seal of the surveyor to the effect that the survey and/or plan are correct (See Appendices).



- f. Certificate, signature, and seal of the engineer or landscape architect responsible for the design of the utility and storm water systems. (See Appendices and the appropriate certification for the Authority.)
- g. Certificate of review by the Lancaster County Planning Commission (See Appendices).
- h. Where the plan indicates that water will be supplied through a means other than private wells owned and maintained by individual owners of lots, a copy of a certificate of public convenience or an application for such certificate, a cooperative agreement or agreement to serve the area in question, whichever is appropriate, from the entity which will provide the public water supply, shall be submitted.
- i. Proof of ability to comply with all Other Provisions.

2. Notifications.

- a. Where the land included in the subject application has an electric transmission line, a gas pipeline, or petroleum or petroleum products transmission line located within the tract, the application shall be accompanied by a letter from the owner or lease of such right-of-way stating any conditions on the use of the land and the minimum building setback and/or right-of-way lines. This requirement may also be satisfied by submitting a copy of the recorded agreement certified as being correct by a licensed attorney-at-law.
- b. Where the land included in the subject application has an agricultural, woodland or other natural resource easement located within the tract the application shall be accompanied by a letter from the party holding the easement stating any conditions on the use of the land. This requirement may also be satisfied by submitting a copy of the recorded easement.
- c. All plans shall incorporate any of the special restrictions, conditions, setbacks, etc. into the design and construction.

3. Reports.

- a. A hydrologic report as required by the Storm Water Management Ordinance.

- b. A traffic impact study and report where required by Section 408 of this Ordinance.
- c. A wetlands report as described in Section 407 of this Ordinance.
- d. A water and sewer feasibility report as described in Section 610 of this Ordinance.
- e. Copies of all decisions rendered by the Zoning Hearing Board when the proposed use is permitted by special exception, or where a variance has been granted.
- f. Copies of all decisions rendered by the Board of Supervisors when the proposed use is permitted by conditional use.

F. Additional Information for Condominium Projects.

- 1. An expression of intent to submit the property to the provisions of the Pennsylvania Uniform Condominium Act, as amended, or other applicable laws of the Commonwealth.
- 2. A description of the common elements, with an allocation of the proportionate undivided interest, expressed as a percentage, assigned to each unit.
- 3. A statement of the proposed issue for each unit and restrictions on use, if any.
- 4. Floor plans and building elevations (views) for all buildings.

G. Filing Fees. The Preliminary Plan shall be accompanied by one (1) check or money order drawn to Clay Township in an amount specified on the fee schedule adopted by resolution of the Board of Supervisors and available at the Township.

**SECTION 403      FINAL PLANS**

Final subdivision and land development plans shall, be prepared by a land surveyor. The Final Plan shall show, be accompanied by, or prepared in accordance with the following:

A. Drafting Standards. The same standards shall be required for a Final Plan as specified for a Preliminary Plan in Section 402 A. of this Ordinance.

- B. Location and Identification. The same standards shall, be required for a Final Plan as specified for a Preliminary Plan in Section 402 B. of this Ordinance.
- C. Existing Features. The same standards shall be required for a Final Plan as specified for a Preliminary Plan in Section 402 C. of this Ordinance.
- D. Plan Information.
1. Complete description of the centerline and the right-of-way line for all new streets. This description shall include distances and bearings with curve segments comprised of radius, tangent, arc, and chord.
  2. Lot lines, with accurate bearings and distances, and lot areas for all parcels. Curve segments shall, be comprised of arc, chord, bearing and distance. Along existing street rights-of-way, the description shall utilize the existing deed lines or road centerlines; along all proposed street rights-of-way, the description shall be prepared to the right-of-way lines.
  3. Block and lot numbers in consecutive order (e.g., Block "A," Lots 1 through 10, Block "B" Lots 11 through 22).
  4. The location and configuration of proposed buildings, parking compounds, landscaping, streets, access drives, driveways, and all other significant facilities.
  5. Total number of lots, units of occupancy, density, and proposed land use. If a multiple land use is proposed, the location of each land use shall. Be indicated. In the case of lands wholly or partially located within the Agricultural or Agricultural Transition Zoning Districts, lines of all lots, parcels or tracts included within the subdivision (including those not presently owned by the subdivider, but on December 14, 1992, owned by the same landowner as the tract, being subdivided), shall be indicated.
  6. Easements and rights-of-way in a form reasonably satisfactory to the Township Solicitor, taking into consideration any forms that may have been previously approved by the Board of Supervisors, from time to time, pursuant to this Ordinance.
  7. Building setback lines, from all sides of each lot, with distances from the street right-of-way line and from other borders of the lot, and building lines.
  8. Identification of buildings and historic features, or parts thereof, to be demolished.

9. A typical cross section for each new driveway, access drive, or street or each existing driveway, access drive or street which will, be improved as part of the application. Each cross section shall include the entire eight-of-way width and indicate maximum proposed cut and fill slopes.
10. Final vertical and horizontal alignment for each proposed street, sanitary sewer, and water distribution system. All street profiles shall show at least the existing (natural) profile along the centerline, proposed grade at the centerline, and the length of all proposed vertical curves for streets. All water distribution and sanitary sewer systems shall provide manhole locations and size and type of materials. This information may be provided on separate sheets and is not subject to recording with the Final Plan.
11. Source of title to the land included within the subject application, as shown by the books of the Lancaster County Recorder of Deeds. Identify owner or equitable owner and means by which equitable ownership was established.
12. Final street names.
13. Location and material of all permanent monuments and lot line markers, including a note that all monuments and lot line markers are set or indicating when they will be set.
14. A detailed grading plan, which shall include finished grades and ground floor elevations. This information may be provided on separate sheets and is not subject to recording with the Final Plans.
15. Identification of any waivers granted by the Board of Supervisors.
16. Identification of any lands to be dedicated or reserved for public, semi-public, or community use, including the identification of Prime Open Space. Identification shall include size and proposed use.
17. The following storm water management data and plans designed in accordance with the Storm Water Ordinance. This information may be provided on a sheet with other data or on separate sheets and need not necessarily be recorded with the Final Plan. In the case of any dispute in the methodology used in the design of any storm water management plan and/or in the presentation of such information, the Board of Supervisors shall make the final determination on the design criteria, methodology and form of presentation.
  - a. All calculations, assumptions, criteria, and references used in the design of storm water management facilities, the establishment of

existing facilities' capabilities, and the pre- and post-development discharges.

- b. Plans and profiles of all proposed storm water management facilities including vertical and horizontal location, alignment, size, and type of material. This information shall be to a detail required for the construction of all facilities.
- c. For all basins which hold two (2) acre-feet or more of water and have an embankment that is six (6) feet or more in height, soil structure and characteristics shall be provided. Plans and data shall be prepared by a registered professional engineer. These submissions shall provide design solutions for frost-heave potential, shrink-swell potential, soil bearing strength, water infiltration, soil settling characteristics, fill and back-filling procedures, and soil treatment techniques as required to protect the improvements for adjacent structures.
- d. The type, location, and extent of all temporary and permanent erosion and sedimentation control measures shall be shown on an erosion and sedimentation control plan that conforms to the requirements of the Soil Erosion and Sedimentation Control Manual of the Pennsylvania Department of Environmental Protection.
- e. The guidelines for lot grading within subdivisions. This information shall identify the direction of storm water runoff flow within each lot and the areas where storm water flows will be concentrated.
- f. Finished first floor elevations for all residential units shall be shown on the plan.
- g. Soil types as designated by the USDA SCS Soil Survey of Lancaster County.
- h. Designation of limits of on-site watershed areas, including a map which shows the off-site watershed areas.
- i. A note on the plan indicating any area that is not to be offered for dedication along with a statement that the Township is not responsible for maintenance of any area not dedicated to and accepted for public use, and that no alteration to swales, or basins, or placement of structures shall be permitted within easements.
- j. A written hydraulic report and erosion and sedimentation narrative, which includes storm water runoff calculations for both pre-

development and post-development conditions and all calculations required to substantiate all proposed design.

- k. An erosion and sedimentation control plan narrative that conforms to the requirements of the Soil Erosion and Sedimentation Control Manual of the Pennsylvania Department of Environmental Protection and provides a description of all erosion and sedimentation control measures, temporary as well as permanent, including the staging of earthmoving activities, sufficient in detail, to clearly indicate their function. The applicant shall demonstrate that the applicant has submitted the erosion and sedimentation control plan to the Conservation District for review.
- l. For all proposed detention basins and retention basins, and temporary sedimentation basins, the documentation shall include a plotting or tabulations of storage volumes and discharge curves with corresponding water surface elevations, inflow and outflow hydrographs.
- m. For all proposed detention basins and retention basins, and temporary sediment basins, documentation shall set forth the design hydrology, and the short-cut routing method or a method of equal caliber acceptable to the Township Engineer, utilized to determine the function of the basin.
- n. Description of an ownership and maintenance program, in a recordable form, that clearly sets forth the ownership and maintenance responsibilities for all temporary and permanent storm water management facilities, including the following:
  - (1) Description of the method and extent of the maintenance requirements.
  - (2) When maintained by a private entity, identification of an individual, corporation, association, or other entity responsible for ownership and maintenance.
  - (3) When maintained by a private entity, a copy of the legally binding document, in recordable form, which provides that the Township shall have the right to:
    - (a) Inspect the facilities at any time.

- (b) Require the private entity to take corrective measures and assign the private entity reasonable time periods for any necessary action.
    - (c) Authorize maintenance to be done and lien the cost of the work against the properties of the private entity responsible for maintenance.
  - (4) Establishment of suitable easements for access to storm water management facilities.
  - (5) Such document shall be in a form reasonably satisfactory to the Township Solicitor, taking into consideration any forms that may have been previously approved by the Board of Supervisors, from time to time, pursuant to this Ordinance.
18. In the case of a plan which requires driveway access to a highway under the jurisdiction of the Pennsylvania Department of Transportation; the following note shall be added to the Plan:
- "A Highway Occupancy permit is required pursuant to Section 420 of the Act of June 1, 1945 (P.L. 1242 No. 428), known as the "State Highway Law", before a driveway access to a state highway is permitted. Access to the state highway shall only be as authorized by a Highway Occupancy Permit.
- The approval of this plan shall no way imply that a state highway permit can be acquired or that Clay Township will support, encourage, or not oppose the granting of such a permit. It is possible that access to the property from a state highway will not be permitted by the Commonwealth and the property therefore cannot be used for the purpose interlude by any purchaser. Purchasers are accordingly warned and should govern themselves accordingly, acquiring state and local highway occupancy permits before purchasing any premises."
19. Location of all percolation test holes, deep probe holes, and proposed well locations.
20. All Final Plans proposing residential development or residential uses within or adjoining the Agricultural or Agricultural Transition Zoning District or agricultural uses must contain in conspicuous form the following language:

"WARNING: The property described herein is located within an area where land is used for agricultural production. Owners, residents and other users of this property may be subjected to inconvenience, discomfort and the possibility of injury to property and health arising from normal, accepted agricultural practices and operations, including but not limited to, noise, odors, dust, operation of machinery of any kind including aircraft, storage and disposal of manure, and application of fertilizers, soil, amendments, herbicides, and pesticides. Owners, occupancy and users of this property should be prepared to accept such inconveniences, discomfort and possibility of injury from normal agricultural operations, and are hereby put on official notice that Section 4 of Pennsylvania Act 133 of 1982 "The Right to Farm Law" may bar them from obtaining a legal judgment against such normal agricultural operations."

21. A complete landscape plan, prepared by a registered landscape architect, showing the location, size and type of all plant material, when landscaping is required by provisions of this Ordinance or any other applicable Township regulations, including but not limited to screening, buffer planting, parking landscaping, replacement trees, and street trees. The landscape plan should be provided on separate sheets and must include the signature and seal of the registered landscape architect responsible for preparation of the plan.
22. Easements for the on-lot sewage replacement locations.
23. Clear sight triangles and stopping sight distances for all intersections shall be shown on the plan.
24. Where a proposed subdivision is located in the Agricultural or Agricultural Transition Zoning District, either in whole or part, a deed plotting of the parent tract as it existed on or before December 14, 1992 shall be provided. Any parcels subdivided from the parent tract, including the date of subdivision shall be plotted and the date of the subdivision shall be noted on the Plan.
25. If the Final Plan does not include that total land area held by the applicant, a Sketch Plan shall be submitted to identify the potential for future use of parcels of land which are five or more times the minimum lot area requirement or for proposed streets which are temporary cul-de-sacs, or whenever the Planning Commission deems it necessary and/or appropriate. The design of the Final Plan will be considered in conjunction with the concept presented in the Sketch Plan.



26. The location and design of driveways or access drives on corner lots and driveways or access drives on other lots as requested by the Board of Supervisors. The designer shall demonstrate that driveways or access drives so located shall not unreasonably erode the public street's capacity while providing safe access to the property. If access is to be provided by a state highway, the applicant shall supply proof that the driveway or street intersection permit has been issued to permit a driveway or street intersection to be completed at the proposed location, or certification from an engineer that consistent with Penn DOT regulations a permit can be issued to permit a driveway or street intersection to be completed at the proposed location.

Common driveways or access drives are to be discouraged, and shall only be permitted when there are unique circumstances that create a safety hazard or create substantial difficulty in access to one of the tracts. A proposed agreement regarding such common driveways or access drives shall be generally in the form adopted, from time to time, by the Board of Supervisors and may be modified by the developer's legal counsel, consistent with the required aspects of the project, as long as a reasonable approval of the Township Solicitor is acquired in advance.

27. A table indicating the existing zoning district, required lot size, required setbacks, required maximum and/or minimum development density, maximum building height, total tract area, and number of lots in the proposed subdivision along with the proposals for each of these parameters. Information on proposed lot size, setbacks and similar zoning parameters shall be plotted on each lot. The proposed lots shall meet all on-lot sanitary sewage disposal requirements, including where applicable, minimum lot size, setbacks and separation distances.
28. Where the subject property is located partially or wholly within an area prone to frequent flooding (either by impoundment or conveyance) as indicated by the Flood Insurance Rate Map (Profiles), soil type, or local historical record; the applicant shall supply the following information:
  - a. The location and elevation of all proposed roads, fills, utilities, buildings, storm water management, and erosion control facilities;
  - b. The 10 year, 100 year, and encroachment boundaries as required by FEMA. Neither flood boundaries defined by the limits of alluvial soils nor by the boundaries shown on the flood insurance rate map shall be accepted without verification. Information shown on the Flood Insurance Rate Map and its accompanying documentation shall be verified using any currently available information to update the data.

- c. Sufficient information to show compliance with all applicable provisions of the Stormwater Management Code and with the floodplain zoning requirements of the Zoning Ordinance.
- 29. A statement on the plan indicating the granting of zoning amendment, special exception, conditional use or variance, if applicable, along with waivers granted by the Board of Supervisors to sections of this Ordinance.
- 30. The location of all deciduous trees larger than five (5) inches in caliper measured five (5) feet above grade and evergreen trees six (6) feet or larger in height proposed to be disturbed and/or removed during development.
- 31. A detailed schedule of inspections, as generally outlined by Section 505 of this Ordinance, which is tailored for the site under consideration.
- 32. A tabulation of the number of parking spaces provided, and a statement whether the number provided complies with the Zoning Ordinance. The locations of proposed parking spaces shall be plotted on the plan.
- 33. A photometric lighting plan for street, access drive, and parking lot lighting.

E. Certificates, Notifications, and Reports.

- 1. Certificates.
  - a. A certificate of review to be signed by the Clay Township Planning Commission. (See Appendices).
  - b. Certificate for approval by the Board of Supervisors (See Appendices).
  - c. Certificate of review to be signed by the Lancaster County Planning Commission (See Appendices).
  - d. Certificate for approval by the Authority (See Appendices).
  - e. Certificate, signature and seal of the person responsible for the preparation and correctness of the plan (See Appendices).
  - f. Certificate, signature, and seal of the surveyor to the effect that the survey and/or plan are correct (See Appendices).

- g. An acknowledgement of the storm water management data (See Appendices) as required by this Ordinance.
- h. A certificate of dedication of streets and other public property (See Appendices).
- i. A certificate to accommodate the Lancaster County Recorder of Deeds information. (See Appendices).
- j. One or more notes that may be applicable related to clear sight triangle, dedication of improvements, easements, etc.
- k. A statement, duly acknowledged before an officer authorized to take acknowledgement of deeds and signed by the land owner, in black ink, to the effect that the subdivision or land development shown on the plan is the act and the deed of the owner, that all those signing are all the owners of the property shown on the survey and plan, and that they desire the same to be recorded as such (See Appendices). This must be dated following the last change or revision to said plan.
- l. A note to be placed on the plan indicating any area that is to be offered for dedication, if applicable, and that the conveyance of land constituting all or part of such offered land shall not constitute the revocation of the offer and all conveyances shall be under and subject to said offer.

2. Notifications.

- a. Where the land included in the subject application has an electric transmission line, a gas pipeline, or a petroleum or petroleum product transmission line located within the tract, the application shall be accompanied by a letter from the owner or lease of such right-of-way stating any conditions on the use of the land and the minimum building setback and/or right-of-way lines. This requirement may also be satisfied by submitting a copy of the recorded agreement certified as being correct by a licensed attorney-at-law.
- b. Where the land included in the subject application has an agricultural, woodland or other natural resource easement located within the tract the application shall be accompanied by a letter from the party holding the easement stating any conditions on the use of the land. This requirement may also be satisfied by submitting a copy of the recorded easement.

- c. All plans shall incorporate any of the special restrictions, conditions, setbacks, etc. into the design and construction.
- d. Where the plan indicates that water will be supplied through a means other than private wells owned and maintained by individual owners of lots, a copy of a certificate of public convenience or an application for such certificate, a cooperative agreement or agreement to serve the area in question, whichever is appropriate, from the entity which will provide the public water supply, shall be submitted.
- e. Notification from the Department of Environmental Protection that approval of the Sewer Facility Plan Revision (Plan Revision Module for Land Development.) or Supplement has been granted, where applicable.
- f. Notice from the postmaster of the postal district in which the tract is located stating that the proposed street names are acceptable.
- g. Written approval from the municipality that all improvements have been made to the standards of the Final Plan and that as-built plans have been submitted or an improvement guarantee has been submitted and was accepted by the municipality or the authority accepting dedication. (See Part 5 for the administration).
- h. Such written notices of approval is required by the Ordinance, including written notices approving the water supply systems, sanitary sewage systems, and storm water runoff to adjacent properties.
- i. The submission of a controlling agreement in accordance with Section 602 C. when an application proposes to establish a street which is not offered for dedication to public use.
- j. If public water or sewer is proposed to service the premises, a copy of a certified resolution from the municipality or authority having jurisdiction over the water and/or sewer stating that sewer service is available to this particular tract as proposed by the applicant and will remain available during the next five years.
- k. When required by the Township, the following notification:
  - "The provisions of Notes hereof shall be and are hereby considered covenants running with the land affected thereby, enforceable by any other owner of property in this subdivision. In addition to the

foregoing, the Township of Clay may, but need not, at its discretion, enforce such covenants as it desires, and is hereby given such right, irrevocably."

- l. Verification of approval for a Highway Occupancy Permit from the Pennsylvania Department of Transportation or Township when a plan proposes access to a state highway or Township street by an access drive or street, or when a plan proposes any improvements, grading, etc. within the right-of-way of a state highway or Township street.
- m. Verification of approval by the appropriate agency for the Erosion and Sedimentation Control Plan.
- n. Notification from the appropriate state and federal agencies that permits have been issued, or are not required, for any proposed activities within streams, wetlands or any other state or federal regulated body of water. These permits include, but are not limited to, Floodplain Encroachment Permits, Dam Safety Permits, Earth Disturbance Permits, Stream Encroachment Permits, and General Permits.
- o. When the Final Plan is submitted in sections, the above notifications for all applicable activities on the entire site, shown on the approved Preliminary Plan shall be provided upon submittal of the first final phase of the project.
- p. Proof of ability to comply with all Other Provisions.

3. Reports.

- a. A final hydrologic report as required by the Storm Water Management Ordinance.
- b. A final traffic impact study and report where required by Section 408 of this Ordinance.
- c. A final wetlands report as described in Section 407 of this Ordinance.
- d. A final water and sewer feasibility report as described in Section 610 of this Ordinance.

- e. Copies of all decisions rendered by the Zoning Hearing Board when the proposed use is permitted by special exception, or where a variance has been granted.
  - f. Copies of all decisions rendered by the Board of Supervisors when the proposed use is permitted by conditional use.
4. Other Documentation.
- a. Any utility easements which may be required in a form acceptable to the Township or to the Authority.
  - b. Legal descriptions for any easements to be dedicated to the Township, including but not limited to drainage easements and easements for depositing of snow plowed from a cul-de-sac turnaround.
  - c. Legal descriptions for any rights-of-way along existing streets to be dedicated to the Township or Penn DOT.
  - d. A Storm Water Management Agreement and Declaration of Easement in the form required by the Storm Water Management Ordinance.
  - e. If the Final Plan proposes access, utility or storm drainage facilities to be located on adjoining tracts, easements in a form acceptable to the Township or the Authority Solicitor.
  - f. Properly executed land development agreement in the form and content required by the Township setting forth, among other things, the responsibilities for the development of the property and listing required improvements, lands to be dedicated, and contributions to be made to the Township (See Appendices).
  - g. If the Final Plan proposes an enlargement of an existing lot, a copy of the deed to transfer the land and a copy of a deed with a perimeter description for the enlarged lot.
  - h. If all required improvements have not been installed, financial security in a form and in the amount meeting the requirements of Part 5.

F. Declaration Plan and Code of Regulations for Condominium Projects.

This declaration, declaration plan and code of regulations as required by the Pennsylvania Uniform Condominium Act, as amended or other applicable laws of the Commonwealth shall be provided. This information may be provided on separate sheets.

G. Filing Fee. The Final Plan shall be accompanied by one (1) check or money order drawn to Clay Township in an amount specified on the fee schedule adopted by resolution of the Board of Supervisors and available at the Township Office.

**SECTION 404      LOT ADD-ON PLANS**

Lot Add-On Plans shall be prepared by a registered surveyor and shall include the following information.

A. Drafting Standards. The same standards shall be required for a Lot Add-On Plan as specified for a Preliminary Plan in Section 402 A. of this Ordinance.

B. Location and Identification. The same standards shall be required for a Lot Add-On Plan as specified for a Preliminary Plan in Section 402 B. of this Ordinance.

C. Existing Features. The same standards shall be required for a Lot Add-On Plan as specified for a Preliminary Plan in Sections 402 C.2. and 402 C.4. of this Ordinance.

D. Plan Information. The same standards shall be required for a Lot Add-On Plan as specified for a Final Plan in Section 403 D. of this Ordinance.

E. Certificates and Other Documentation.

1. Certificate, signature, and seal of the surveyor to the effect that the survey and/or plan are correct (See Appendices).
2. A certificate of review to be signed by the Clay Township Planning Commission. (See Appendices).
3. Certificate for approval by the Township's Supervisors. (See Appendices).
4. A statement, duly acknowledged before an officer authorized to take acknowledgment of deeds and signed by the landowner, to the effect that the subdivision or land development shown in the plan is the act and deed of the owner, that all those signing area all the owners of the property

shown on the survey and plan, and that they desire the same to be recorded as such (See Appendices).

5. A certificate to the effect that the Survey and/or Plan have been reviewed by the Lancaster County Planning Commission (See Appendices).
  6. A certificate to accommodate the Lancaster County Recorder of Deeds information (See Appendices).
  7. A copy of the deed to transfer the land and a copy of a deed with a perimeter description for both the enlarged lot and the residual lot.
- F. Filing Fee. The Lot Add-On Plan shall be accompanied by one (1) check or money order drawn to Clay Township in an amount specified on the fee schedule adopted by resolution of the Board of Supervisors and available at the Township Office.

## **SECTION 405      CENTERLINE SEPARATION PLANS**

Centerline Separation Plans shall be prepared by a surveyor or an engineer and shall include the following information:

A. Drafting Standards.

1. The plan shall be clearly and legibly drawn at a scale of not less than one hundred (100) feet to the inch.
2. Existing lot line dimensions shall be in feet and decimals; bearings shall be in degrees, minutes and seconds. Lot line descriptions shall read in a clockwise direction.
3. The survey shall not have an error of closure greater than one (1) foot in ten thousand (10,000) feet.
4. The sheet size shall be no smaller than eighteen by twenty-two (18x22) inches and no larger than twenty-four by thirty-six (24x36) inches. If the Plan is prepared in two (2) or more sections, a key map showing the location of the sections shall be placed on each sheet. If more than one (1) sheet is necessary, each sheet shall be the same size and numbered to show the relationship to the total number of sheets in the Plan (e.g. Sheet 1 of 5).
5. Plans shall be legible in every detail. Accordingly, the property has to be surveyed.



B. Location and Identification.

1. The proposed project name or identifying title.
2. The municipality or municipalities in which the project is located. (If the tract of land is located in the vicinity of a municipal boundary line, the location of the boundary shall be shown).
3. The name and address of the owner of the tract (or his authorized agent), the developer/subdivider, and the firm that prepared the plans.
4. The file or project number assigned by the firm that prepared the plan, the plan date, and the date(s) of all plan revisions.
5. A north arrow, a graphic scale, and a written scale.
6. The entire existing tract boundary with bearings and distances.
7. The total acreage of the entire existing tract.
8. The district and lot size and/or density requirements of the prevailing zoning ordinance and all setback requirements.
9. The location of existing lot line markers along the perimeter of the entire existing tract.
10. A location map, drawn to scale at a scale of not less than 1"=800', relating the subdivision to at least two (2) intersections of road centerline, including the approximate distance to the intersection of the centerline of the nearest improved street intersection.
11. Source of title, deed book, page, plan book (if applicable), and County Tax Parcel Account Identification Number for each parcel involved.
12. Copies of all deeds for all lots, tracts, parcels, etc. involved in the proposed subdivision or land development.
13. Copies of all easements, rights-of-way and restrictions currently applicable to or effecting the subject property.

C. Existing Features.

1. The names of all immediately adjacent landowners, the existing adjacent zoning, and plan book record numbers of all recorded plans for adjacent projects. "Adjacent plans" and "adjacent owners" include those across a public street.

2. The following items when located within the subject tract:
  - a. The location, name, and dimension of existing rights-of-way and cartway for public or private streets, access drives, driveways, and service streets.
  - b. The location and size of any on-lot water and/or sewage systems.
  - c. The location of existing mains and rights-of-way for electric, gas, and oil transmission lines, and railroads.
  - d. The location and size of the following features and related rights-of-way: sanitary sewer mains, water supply mains, fire hydrants, buildings, and storm water management facilities (e.g. storm sewers, berms, terraces, bridges, dams, basins, infiltration systems, swales), sinkholes and carbonate geology, watercourses, and flood plains).
  - e. All easements, rights-of-ways, etc. appearing on the subject tract or in the chain of title. If an easement, right-of-way, etc. appears in the chain of title, but does not affect the subject tract, it should be noted.
  - f. The location of wetlands and subsequent data or information required by Section 407.
  - g. The location of buildings, historic features, cemeteries or burial sites, and archaeological sites.

D. Plan Information.

1. Easements and rights-of-way.
2. Building setback lines, with distances from the street right-of-way line, and building lines.
3. A table indicating the existing zoning district, required lot size, required setbacks, required maximum and/or minimum development density, number of lots in the proposed subdivision along with the proposals for each of these parameters. Information on proposed lot size, setbacks and similar zoning parameters shall be plotted on each lot.
4. Where the subject property is located partially or wholly within an area prone to frequent flooding (either by impoundment or conveyance) as indicated by the Flood Insurance Rate Map Profiles and supporting data,

soil type, or local historical record; the applicant shall supply the following information:

- a. The 10 year, 100 year, and encroachment boundaries as required by FEMA. Neither flood boundaries defined by the limits of alluvial soils nor by the boundaries shown on the Flood Insurance Rate Map shall be accepted without verification. Information shown on the Flood Insurance Rate Map and its accompanying documentation shall be verified using any currently available information to update the data.
5. Where a proposed subdivision is located in the Agricultural or Agricultural Transition Zoning District, either in whole or part, a deed plotting of the parent tract as it existed on or before December 14, 1992 shall be provided. Any parcels subdivided from the parent tract including the date of subdivision shall also be provided.
6. In the case of a plan which requires driveway access to a highway under the jurisdiction of the Pennsylvania Department of Transportation; the following note shall be added to the Plan:

"A Highway Occupancy permit is required pursuant to Section 420 of the Act of June 1, 1945 (P.L. 1242 No. 428), known as the "State Highway Law", before a driveway access to a state highway is permitted. Access to the state highway shall only be as authorized by a Highway Occupancy Permit.

The approval of this plan shall no way imply that a state highway permit can be acquired or that Clay Township will support, encourage, or not oppose the granting of such a permit. It is possible that access to the property from a state highway will not be permitted by the Commonwealth and the property therefore cannot be used for the purpose interlude by any purchaser. Purchasers are accordingly warned and should govern themselves accordingly, acquiring state and local highway occupancy permits before purchasing any premises."

E. Certificates and Other Documentation.

1. Certificate, signature, and seal of the surveyor to the effect that the survey and/or plan are correct (See Appendices).
2. A certificate of review to be signed by the Clay Township Planning Commission (See Appendices).

3. Certificate for approval by the Township Supervisors (See Appendices).
  4. A statement, duly acknowledged before an officer authorized to take acknowledgment of deeds and signed by the landowner, to the effect that the subdivision or land development shown in the plan is the act and deed of the owner, that all those signing area all the owners of the property shown on the survey and plan, and that they desire the same to be recorded as such (See Appendices).
  5. A certificate to the effect that the Survey and/or Plan have been reviewed by the Lancaster County Planning Commission (See Appendices).
  6. A certificate to accommodate the Lancaster County Recorder of Deeds information (See Appendices).
  7. A copy of the deeds with perimeter descriptions for each lot to be created by the Plan.
- F. Filing Fee. The Centerline Separation Plan shall be accompanied by one (1) check or money order drawn to Clay Township in an amount specified on the fee schedule adopted by resolution of the Board of Supervisors and available at the Township Office.

## **SECTION 406      IMPROVEMENT CONSTRUCTION PLANS**

Improvement Construction Plans shall be prepared by a surveyor or an engineer and shall include the following information:

- A. Drafting Standards. The same standards shall be required for an Improvement Construction Plan as specified for a Final Plan in Section 403 of this Ordinance.
- B. Location and Identification. The same standards shall be required for an Improvement Construction Plan as specified for a Final Plan in Section 403 of this Ordinance.
- C. Plan Information. The same standards shall be required for an Improvement Construction Plan as specified for a Final Plan in Section 403 of this Ordinance.
- D. Certificates.
  1. Certificate, signature, and seal of the surveyor to the effect that the survey and/or plan are correct (See Appendices).

2. Certificate for Improvement Construction Plan approval by the Board of Supervisors (See Appendices).
- E. Notifications. The same notifications shall be required for an improvement construction plan as specified for a Final Plan in Section 403 of this Ordinance except the notifications set forth in Sections 403 E.2.f. and 403 E.4.h. may be omitted.
  - F. Reports. The applicant shall provide the same reports as required to be submitted with a Final Plan as set forth in Section 403 of this Ordinance.
  - G. Filing Fee. The Improvement Construction Plan shall also be accompanied by one (1) check or money order drawn to the order of Clay Township in an amount specified on the fee schedule adopted by resolution of the Board of Supervisors and available at the Township office.

#### **SECTION 407      WETLANDS STUDY**

- A. The applicant shall submit a wetland study in duplicate with the submittal of all subdivision and land development plans. The purpose of the study shall be to determine the presence and extent of wetlands on the site.
- B. The study shall be performed by a qualified wetland scientist. Qualified individuals should possess a minimum of a bachelor's degree in biology, botany, zoology, ecology, or environmental sciences. In general, other professional, such as engineers, landscape architects, surveyors, planners, and geologist are not considered fully qualified to perform wetland delineations, unless they possess special ecological training and experience beyond their discipline. The Township reserves the right, in as much as no recognized certification program exists for wetland scientists, to determine the qualification of those preparing wetland delineations. Should a state or federal wetland scientist certification program be established, the Township will consider only those certified individuals qualified to perform delineations.
- C. Requirements for Wetland Studies.
  1. Delineations should follow the procedures outline in the "current" Federal Manual for Identifying and Delineating Jurisdictional Wetlands, and any subsequent amendments.
  2. Delineations shall be supported by reports. The report shall contain the following sections:

- a. Introduction. Description of the physical features of the site, its location and the proposed plans for the site.
  - b. Methods. Description of the methods, used for the survey, with particular emphasis on any deviation from the outlined federal method. Relevant information includes the date of the field studies, the number of transects and plots used, the size of vegetation quadrants employed, the size of soil pits used, taxonomic references used, and the disposition of any voucher specimens.
  - c. Results and Discussion. Description of the findings of the study. Soils, vegetation and hydrology for wetland and upland areas of the site should be discussed. Any problem areas should be thoroughly treated.
  - d. Conclusions. The extent of wetlands on the site should be discussed. The impact of the proposed project on these wetlands should also be considered
3. Included in the report as appendices or tables should be:
- a. Site location map (USGS 7.5' quadrangle will suffice).
  - b. NWI map.
  - c. Soil survey map with soil descriptions.
  - d. Data sheets for each plot.
  - e. Wetland Boundary Map. Wetland boundaries shall be surveyed by a registered professional surveyor and shown on a plan of appropriate scale. The limits of the wetland study shall be clearly shown. The plan shall also show the location of all plots and/or transects used in the study; the date of the delineation; a statement of the method used for the study; the name of the consulting firm which performed the delineation; the name of the surveyor; and a disclaimer statement indicating no wetland boundary is considered jurisdictional until approved by PaDEP and COE.
  - f. Color photos of wetlands areas on the site, with locations and directions of view keyed to the wetland boundary map.
  - g. Resumes of the wetland scientist(s) who performed the delineation.

- D. For sites on which no wetlands occur, an abbreviated report may be submitted. The abbreviated report should contain the introductory material, the methods section and a discussion of the results of the study. Site Location, NWI and soil maps should also be provided.
- E. All subdivision plans shall contain notes for future lot owners. The wetland boundary on each lot will be clearly marked. Each lot which contains wetlands, or to which access may be restricted by wetlands, shall have a note which states state and federal laws require permits for all activities, which result in a deposition of fill into delineated wetlands. The note shall also state that refusal of such a permit may restrict some uses of all or portions of the lot.
- F. Compensatory mitigation projects required as part of state or federal permits shall be shown on the subdivision plans. Future lot owners whose property encompasses all or part of a mitigation area shall be notified that the portion of their property which includes the mitigation area may not be altered, and is considered a jurisdictional wetland by the state and federal governments. Lot owners may be responsible for maintenance of mitigation areas. In order to help ensure the long-term viability of wetland mitigation efforts, the Township discourages multiple ownership of mitigation areas. Ownership by one individual or a homeowners association is encouraged. Owners of the wetland mitigation areas must be clearly identified to the Township.
- G. The Township reserves the right to reject any submitted wetland delineations. Should the Township feel the actual wetland area differs from that shown on the subdivision plan the Township has the right to secure, at the developer's expense, qualified personnel to check the delineation and redraw the boundary as necessary. Should the developer subsequently disagree with the Township's delineation, a jurisdictional delineation by PaDEP and COE will be requested. Any charges for the jurisdictional delineation will be the responsibility of the developer.
- H. Where the study shows the existence of wetland areas, the delineated boundary shall be properly fenced off to prevent encroachment. Snow fence or other acceptable material shall be used (the use of silt fence is not acceptable). The fence shall be properly installed, at a minimum distance of five (5) feet outside the delineated boundary, prior to any construction or issuance of building permits. The fence must be properly maintained until all occupancy permits have been issued and/or for the extent of all construction.

**SECTION 408      TRAFFIC IMPACT STUDY**

- A. Traffic Impact Study Required. A traffic impact study will be required for developments or subdivisions that meet the following criteria:

1. Residential - 20 or more dwelling units, whether initial or cumulative.
2. Commercial - 10,000 or more square feet of gross floor area, whether initial or cumulative.
3. Industrial - 25,000 or more square feet of gross floor area, whether initial or cumulative.
4. Any proposed use or combination of uses that is projected to generate 300 or more vehicle trips per day.
5. Any other instance where the Board of Supervisors deems that preparation and submission of a Traffic Impact Study is necessary.

All developments that do not meet the above stated criteria shall submit the information required in Section 408 C.

B. Traffic Study and Report Required to be Submitted with Preliminary Plan. All subdivisions and/or land developments meeting the criteria set forth in Section 408 A. shall submit a traffic impact study and report with the Preliminary Plan application meeting all of the following:

1. The traffic impact study shall be prepared under the supervision of a qualified and experienced engineer with specific training in traffic and transportation engineering and at least two years of experience related to preparing traffic impact studies.
2. The ultimate scope of the Traffic Impact Area (TIA) will be subject to the approval of the Township Engineer and projected scopes shall be submitted for review prior to collection of traffic count data. At a minimum, the TIA shall include all streets and major intersections within a one-half mile radius of each access for the proposed development. If a street abutting the proposed development does not contain an intersection with another street within the one-half mile area, the first intersection with such abutting street shall be included. Whenever a proposed project will generate one hundred (100) new vehicle trips in the peak direction (inbound or outbound) during the site peak or adjacent street peak hours, the traffic impact area shall include, at a minimum, all streets and major intersections within a one mile radius.
3. The traffic impact study shall include existing 24-hour and peak hour traffic volume data, including weekdays and, where deemed appropriate, Saturdays and Sundays, for all streets and intersections included in the TIA.



4. Traffic forecasts shall be prepared for the design and horizon years of the development, assuming both no-build and full build-out scenarios and including projected adjacent approved development traffic volumes. Forecasts will cover the same time periods as the existing traffic volume data noted in Section 408 B.3. above. The design year shall be considered the point in time when the development is completed and shall be determined in accordance with accepted engineering practices. In the event of a dispute as to the design year, the determination of the Township Engineer shall be final. The horizon year shall be considered the point in time 10 years beyond the design year of the development.
5. Background traffic growth used for traffic forecasts will be estimated based on growth rates from the current edition of Penn DOT Pennsylvania Traffic Data, County growth projections, or other accepted information sources, subject to the approval of the Township Engineer.
6. The traffic impact study shall include estimates of the total number of vehicle trips to be generated by the development for a typical 24-hour period and typical a.m. and p.m. peak periods, including weekdays, Saturdays and Sundays.
7. The traffic impact study report shall include a table showing the categories and quantities of land uses, with the corresponding trip generation rates or equations (with justification for selection of one or the other), and resulting number of trips. The trip generation rates used must be from the latest edition of the ITE Trip Generation Manual, from a local study of corresponding land uses and quantities, or from another source as approved by the Township Engineer. All sources must be referenced in the study.
8. Any significant difference between the sums of single-use rates and proposed mixed-use estimates shall be justified in the traffic impact study report.
9. The reasoning and data used in developing a trip generation rate for special/unusual generators must be justified and explained in the report, and such trip generation rates shall be subject to the approval of the Township Engineer.
10. Trip distribution must be estimated and analyzed for the design and horizon years. A multi-use development may require more than one distribution and coinciding assignment for each phase. Consideration shall also be given to whether inbound and outbound trips will have similar distributions.

11. Assignments shall be made considering logical routings, available roadway capacities, left turns at critical intersections, and projected minimum travel times. In addition, multiple paths shall be considered between origins and destinations to achieve realistic estimates rather than assigning all of the trips to the route with the shortest travel time. The assignments shall be carried through the external site access points. When the site has more than one access, logical routing and possibly multiple paths shall be used to obtain realistic driveway volumes. The assignment shall reflect conditions at the time of the analysis. Assignments can be accomplished either manually or with applicable computer models.
12. If pass-by or shared trips are a consideration for the land use in question, studies and interviews at similar land uses must be conducted or referenced.
13. If a thorough analysis is required to account for pass-by trips, the following procedure should be used:
  - a. Determine the percentage of pass-by trips in the total trips generated.
  - b. Estimate a trip distribution for the pass-by trips.
  - c. Perform two separate trip assignments based on the new and pass-by trip distributions.
  - d. Combine the pass-by and new trip assignment.
14. Traffic estimates for any site with current traffic activity must reflect not only new traffic associated with the site's redevelopment, but also the trips subtracted from the traffic stream because of the removal of a land use. The traffic impact report shall clearly depict the total traffic estimate and its components.
15. Capacity analysis shall be performed at each of the street and project site access intersection locations (signalized and unsignalized) within the TIA for each of the forecast scenarios. When deemed necessary by the Township Engineer, analyses shall also be completed for major roadway segments within the study area. These may include such segments as internal site roadways, parking facility access points, and reservoirs for vehicles queuing off site and on site. Other locations may be deemed appropriate depending on the situation.
16. The recommended level-of-service analysis shall follow the procedures detailed in the Highway Capacity Manual. Overall and approach level-of-service ratings A, B, C and D will be acceptable for existing signalized and

unsignalized intersections, (Levels C or better are considered desirable); level-of-service E or F is considered to be unacceptable. For new or newly signalized intersections, level-of-service C will be considered as the minimum acceptable level-of-service.

17. The operational analyses in the Highway Capacity Manual shall be used for analyzing existing conditions, traffic impacts, access requirements, or other future conditions for which traffic, geometric, and control parameters can be established. Other methods of operational analysis, such as the Synchro Analysis package may be acceptable, subject to the approval of the Township Engineer.
18. The recommendations of the traffic impact study shall provide safe and efficient movement of traffic to and from the proposed development, while minimizing the impact to non-site trips. The current approach and overall levels of service shall be maintained if they are C or D, not allowed to deteriorate to worse than C if they are currently A or B, and improved to D if they are E or F. If an improvement to a resultant level of service E or F cannot be met, then there can be no increase in delay (overall, approach, and lane) from the future pre-developed condition to the post-developed condition.
19. A traffic impact study report shall be prepared to document the purpose, procedures, findings, conclusions, and recommendations of the study.
  - a. The documentation for a traffic impact study shall include, at a minimum:
    - (1) Study purpose and objectives.
    - (2) Description of the site and study area.
    - (3) Existing conditions in the area of the development, including, but not limited to, detailed descriptions of the studied intersections, roadway conditions, and existing deficiencies.
    - (4) Recorded or approved nearby development traffic.
    - (5) Analysis of accident data for the previous five-year period for the intersections within the TIA.
    - (6) Trip generation, trip distribution, and modal split.
    - (7) Projected future traffic volumes.

- (8) An assessment of the change in roadway operating conditions resulting from the proposed development traffic.
- (9) Recommendations for site access and transportation improvements needed to maintain traffic flow to, from, within, and past the site at an acceptable level of service.
- (10) Approximate costs associated with the implementation of the necessary improvements.

- b. The analysis shall be presented in a straightforward and logical sequence. It shall lead the reader step-by-step through the various stages of the process and resulting conclusions and recommendations. All assumptions are to be noted and sufficient justification provided.
- c. The recommendations shall specify the time period within which the improvements should be made (particularly if the improvements are associated with various phases of the development construction) and any monitoring of operating conditions and improvements that may be required.
- d. Data shall be presented in tables, graphs, maps and diagrams wherever possible for clarity and ease of review.
- e. To facilitate examination, an executive summary of one or two pages shall be provided, concisely summarizing the purpose, assessment of the change in roadway operating conditions resulting from the development traffic, conclusions and recommendations.

C. All developments that do not meet the criteria in Section 408 A. shall, as a minimum, identify the amount of traffic generated by the site for daily and the three (3) peak hour conditions (AM, PM and site generated). The trip generation rates shall be justified and documented to the satisfaction of the Township.

**SECTION 409      ENVIRONMENTAL IMPACT ASSESSMENT REPORT**

A. Purpose. In order to provide the Board of Township Supervisors with an opportunity to more effectively evaluate subdivision and/or land development proposals, the applicant shall be required to disclose the environmental consequences or effects of such proposals through the submission of an Environmental Impact Assessment (EIA) report.

B. When Required. An EIA report shall be submitted with the Preliminary Plan for subdivisions and land developments which meet the following criteria:

1. Residential - Involving 10 or more dwelling units, whether initial or cumulative;
2. Commercial - Involving 10,000 or more feet of gross floor space, whether initial or cumulative;
3. Industrial - Involving 10,000 or more feet of gross floor space, whether initial or cumulative;
4. Other - Whenever the Planning Commission or Board of Township Supervisors shall find that there is a reasonable ground to believe that an adverse environmental impact is likely to result from the proposed subdivision or land development.

An undated EIA report shall accompany and form a part of the Final Plan for any of the above.

C. By Whom Prepared. The study shall be prepared by a qualified consultant who shall be mutually agreed upon by the developer and the Township. The study preparer shall have sufficient, documented prior environmental study experience to qualify him to perform the study and render any opinions and recommendations set forth therein. The cost to prepare the study will be borne entirely by the developer. The EIA report shall be certified as correct by the preparer.

D. Contents. Twelve (12) copies of the EIA report shall be submitted in accordance with the format and content specified below. Within the EIA report, specific emphasis shall be directed toward the proposed project's effects on and relationship to applicable site, neighborhood (including areas in adjacent municipalities where applicable) and township wide resources, conditions or characteristics. Where required information is contained in other Plans and supporting documentation, said information can be cited by reference to said plans and supporting documentation. The EIA report shall include text, tables, maps and analyses for the purpose of describing the project site, proposed use(s), environmental characteristics and the environmental effects of the proposal as follows:

1. An identification of the site location and area through the use of a location map drawn at a scale of not more than two thousand feet (2000') to the inch. The location map shall depict all streets, adjoining properties, zoning district boundaries and municipal boundaries within three thousand (3000') feet of any part of the tract. In the case of development of a

section of the entire tract, the location map shall also show the relationship of the section to the entire tract.

2. An identification of the site character and appearance through the presentation of black and white photographs or copies thereof. Such photographs shall provide a representation of what the site looks like from the ground. Photographs should be properly identified or captioned and shall be keyed to a map of the site.
3. An identification of the nature of the proposals through the presentation of the following:
  - a. A site development plan including notes pertaining to the number and type of lots or units, the square footage and/or acreage of the tract and a depiction of the features which are proposed such as streets, driveways, parking areas, buildings and other structures, and all impervious surfaces. The plan shall be drawn at a scale of not more than one hundred feet (100') to the inch and may be submitted as an attachment to the report. The plan shall reflect all the information required for a Preliminary Plan.
  - b. Plans and elevations depicting the proposed size, square footage, height, number of rooms (where applicable) of buildings and/ or other structures.
  - c. A statement indicating the existing and proposed ownership of the tract and where applicable, the type of ownership, operation and maintenance proposed for areas devoted to open space or otherwise not under the control of a single lot owner.
  - d. A statement indicating the proposed staging or phasing of the project and a map depicting the boundaries of each stage or phase of the project. Such boundaries shall be superimposed on a version of the site development plan.
4. An identification of physical resources associated with the natural environment of the tract including such features as geology, topography, soils, hydrology and the like. The identification of physical resources shall include a narrative description of the qualitative and quantitative aspects of each of the resources mentioned above. In addition, these resources shall be mapped at a scale of not more than one hundred feet (100') to the inch as specified below and may be either incorporated into the EIA report or submitted as attachments to the report.

- a. A map depicting the geological characteristics of the tract. Such map shall define the location and boundaries of the rock formations at or influencing the tract and features such as faults and/or fractures.
  - b. A map depicting the topographical characteristics of the tract. Such map shall contain contours with at least two (2) foot intervals; and, shall depict slopes from zero to four (0 - 4) percent, four to ten (4 - 10) percent, ten to fifteen (10 - 15) percent, fifteen to twenty-five (15 - 25) percent, and greater than twenty-five (25) percent.
  - c. A map depicting the soil characteristics of the tract. Such map shall depict all soil types and shall include a table identifying soil characteristics pertinent to the proposed subdivision and/or land development such as depth of bedrock, depth of water table, flood hazard potential, and limitations for septic tank filter fields.
  - d. A map depicting the hydrological characteristics of the tract. Such map shall depict: surface water resources, their drainage characteristics, watersheds and flood plains, and groundwater resources. Surface water resources include features such as creeks, runs and other streams, ponds, other natural bodies of water, springs, wetlands, and any man-made impoundments. Groundwater resources include features such as aquifers and aquifer recharge areas.
5. An identification of biological resources associated with the natural environment of the tract including such features as vegetation and wildlife. The identification of biological resources shall include a narrative description of each of the resources mentioned above. Any protected and/or endangered species shall be noted. In addition, these resources shall be mapped at a scale of not more than one hundred feet (100') to the inch, as specified below; and, may be either incorporated into the EIA report or submitted as attachments to the report.
- a. A map depicting the vegetation characteristics of the tract. Such map shall define the locations and boundaries of the wooded areas of the tract and shall note the types of vegetation associations which exist in terms of their species types and sizes. In addition, all trees twelve (12) inches in caliper or greater measured five (5) feet above grade shall be accurately located on the map either as free standing trees or as tree masses.
  - b. A map depicting characteristics associated with wildlife habitats. Such map may draw upon the vegetation, hydrology and soil maps in order to express habitat characteristics associated with terrestrial

and aquatic wildlife on the tract and the relationship of the overall habitat(s).

6. An identification of the land use conditions and characteristics associated with the tract such as: current and past use, land cover, and encumbrances; and, the relationship of these two adjacent tracts. The identification of land use conditions and characteristics shall include a narrative description of the above. In addition, the following maps drawn at a scale of not more than one hundred (100') feet to the inch, unless otherwise noted, shall be incorporated into the EIA report or submitted as attachments to it:
  - a. A map depicting the land cover characteristics of the tract. Such map shall define existing features including: paved or other impervious surfaces, wooded areas, cultivated areas, pasture, old fields, lawns and landscaped areas and the like.
  - b. A map depicting any encumbrances to the tract. Such map shall define easements and other areas where certain use privileges exist.
  - c. A map depicting the land uses adjacent to the proposed tract. Such map may be at the same scale as the location map.
7. An identification of the historic resources associated with the tract such as areas, structures and/or routes and trails which are significant. Areas, structures and/or routes and trails included on the National Register of Historic Places, the Pennsylvania Inventory of Historic Places and the Historic American Building Survey, those identified in the Comprehensive Plan and any structure erected prior to 1890 shall be identified. The identification of historic resources shall include a narrative description of the above. In addition, a map drawn at a scale of not more than one hundred feet (100') to the inch depicting historic resources shall be incorporated into the EIA report or submitted as an attachment to the report.
8. An identification of the visual resources associated with the tract such as areas which have a particular amenity value and areas which offer interest in viewing the tract. The identification of visual resources shall include a narrative description of the above. In addition, a map drawn at a scale of not more than one hundred feet (100') to the inch depicting visual resources shall be incorporated into the EIA report or submitted as an attachment to the report.



9. An identification of the community facility needs associated with the user and/or resident of the proposed subdivision and/or land development. The community facility needs assessment shall indicate in narrative form the type of services which will be in demand. Where applicable, community facilities (such as schools, park and recreation areas, libraries, hospitals, and other health care facilities, fire protection, police protection, ambulance, and rescue service and postal services) shall be discussed in terms of the ability of existing facilities and services to accommodate the demands of future users and/or residents of the lots and/or tract and the need for additional or expanded community facilities.
10. An identification of the utility needs associated with the user and/or resident of the proposed subdivision and/or land development. The utility needs assessment shall indicate in narrative form the type of installations which will be in demand. Utilities (such as those used for water supply, sewage disposal, refuse disposal, storm drainage, communications and electrical transmission) shall be discussed in terms of: the ability of existing utility installations to accommodate the demands of the future users and/or residents of the lots and/or tract; the need for additional or expanded utility installations; the ability to achieve an adequate, potable quantity of water whenever individual wells are proposed; the ability to achieve an adequate system for on-site sewage disposal whenever such a system is proposed; and the ability to achieve an adequate system for storm drainage and stormwater management.
11. An identification of the relationship of the transportation and circulation system needs of the proposed subdivision and/or land development to the existing street or highway network. A discussion of this relationship shall be in narrative form and shall indicate factors such as methods to be used for traffic control within the tract and at points of ingress to and egress from it; and, expected traffic volumes generated from the subdivision and/or land development including their relationship to existing traffic volumes on existing streets for both peak-hour and nonpeak-hour traffic conditions. In addition, there shall be a discussion of the physical condition of existing streets which will service the proposed subdivision and/or land development and what improvements are proposed to remedy any physical deficiencies.
12. An identification of the anticipated population characteristics related to the proposed subdivision and/or land development. The characteristics which shall be presented in narrative form shall include a profile of the future users and/or residents of the lot and/or tract including information such as the number of people expected. Such information shall be related to initial and completed subdivision and/or land development conditions.

13. An identification of the economic and fiscal characteristics related to the proposed subdivision and/or land development. The characteristics which shall be presented in narrative form shall include a profile of the township, county and school district revenues which the proposal may generate and the township, county and school district costs it may create. Such information shall be related to initial and completed subdivision and land development conditions.
14. An identification of characteristics and conditions associated with existing, construction related, and future air and water quality, light and noise levels, vibration, toxic materials, electrical interference, odor, glare and heat, fire and explosion, smoke, dust, fumes, vapors and gases and/or radioactive materials.
15. The implications of the proposed subdivision and land development in terms of: the type of beneficial or adverse effects which may result from it; and, the duration of these effects in terms of their short-term or long-term nature. To indicate such effects, there shall be a discussion of the implications of the proposed subdivision and/or land development to the resources, conditions and characteristics described in subsections (4) through (14) above. In addition to a narrative presentation of implications, the applicant shall display where the subdivision and/or land development adversely affects the tract's resources, conditions or characteristics through the use of a map drawn at a scale of not more than one hundred feet (100') to the inch, wherein the areas adversely affected from proposed development are highlighted. Such map may be either incorporated into the EIA report or submitted as an attachment to the report. Further, the applicant must demonstrate and specify in the EIA report how and where the findings in the EIA report and its attachments are reflected in the subdivision and/or land development plan.
16. Alternatives to the proposed subdivision and/or land development. To indicate such alternatives, the applicant shall submit exhibits or diagrams which will depict the type of alternatives described in narrative form. The applicant shall comment on how alternatives such as: revised location, redesign, layout or siting of buildings, roads and other structures, alternate methods for sewage disposal and water supply, reduction in the size of proposed structures or number of structures, and the like would preclude, reduce or lessen potential adverse impact or produce beneficial effects.
17. Probable adverse effects which cannot be precluded. In indicating such effects a discussion shall be presented regarding whether they will have primary or secondary implications, that is, whether the adverse effects will have direct or indirect influence on a particular resource, condition or characteristic.

18. Measures to mitigate adverse effects. To indicate such measures, the applicant shall submit exhibits or diagrams which will depict the type of remedial, protective and mitigative measures described in narrative form. These resources shall include those required through existing procedures and standards, and those unique to a specific project, as follows:
  - a. Mitigation measures which pertain to existing procedures and standards are those related to current requirements of the state, county and/or township for remedial or protective action such as: sedimentation and erosion control, storm water runoff control, water quality control, air quality control, and the like.
  - b. Mitigation measures related to impacts which may be unique to a specific subdivision and/or land development are those related to efforts such as: revegetation, screening, fencing, emission control, traffic control, noise control, relocation of people and/or businesses, land acquisition, and the like.
19. Any irreversible environmental changes which would occur due to the proposed subdivision and/or land development should it be implemented. To indicate such changes, the use of non-renewable resources during the initial and continued phases of the subdivision and/or land development shall be discussed. Further, the loss of environmental resources shall be indicated through a presentation of the quantity of loss and related qualitative effects.

D. In making its evaluation, the Board of Township Supervisors and/or the Planning Commission may request any additional information it deems necessary to adequately assess potential environmental impacts. Further, whenever any information requested in subsection C. above is not applicable to the proposed subdivision and/or land development, the Board of Township Supervisors may waive any or all of the requirements to address such information upon a finding of such inapplicability. A written request for a modification shall be made by the applicant and shall be submitted at the time when a Sketch Plan or an application for subdivision and/or land development is made.

## **SECTION 410      HYDROGEOLOGICAL REPORT**

A hydrogeological and/or related study shall be prepared when individual wells are proposed to be utilized for water supply for a subdivision or land development in which: Individual wells are proposed to supply greater than two (2) equivalent dwelling units (EDU's) per well, or; individual wells are proposed to supply two (2) EDU's or less on lots with a size of less than one (1) acre for those subdivisions containing three (3) lots or more. Such study shall be prepared by a hydrogeologist or geologist with training, education and experience in performing such studies, and shall demonstrate that

adequate quantity and quality of water will be available for such subdivision or land development without adversely affecting neighboring water supplies. Such study shall be based on a drought condition rainfall recharge rate of at least 400 gallons per day per acre, unless otherwise justified by a professional experienced in this field. Withdrawal rates shall be based on PaDEP Rules and Regulations for sewage flows. For plan approval the study shall demonstrate that the recharge rate will exceed the withdrawal rate by at least 20%.

**SECTION 411. MYLARS AND ELECTRONIC MEDIA**

- A. All submissions for each plan and all accompanying materials shall also be submitted on electronic medium that is compatible with the Township's current electronic medium standards.
- B. All submissions of requests for releases pursuant to Part 5 hereof and all "as-built" plans accompanying the same shall also be on electronic medium that is compatible with the Township's current electronic medium standards.
- C. A separate mylar of the final plan identical to that which is to be recorded shall be supplied to the Township in a form and with the necessary hangers, files, etc., as the Township may require, or sufficient moneys for the purpose of the Township purchasing such storage facilities. Electronic media containing a full set of the Approved Plan shall also be concurrently submitted to the Township in a form compatible with the Township's current electronic medium standards.