

B/36/74

ORDINANCE NO. 2458

AN ORDINANCE OF THE CITY OF BETHLEHEM, COUNTIES OF LEHIGH AND NORTHAMPTON, COMMONWEALTH OF PENNSYLVANIA, SETTING FORTH RULES, PROCEDURES, AND REGULATIONS FOR SUBDIVISIONS AND/OR DEVELOPMENTS; PROVIDING FOR SUBMISSION OF PLANS, SETTING FORTH STANDARDS AND CRITERIA FOR DEVELOPING AND/OR SUBDIVIDING LAND; PROVIDING FOR INSPECTION; OUTLINING JURISDICTION OF VARIOUS CITY DEPARTMENTS, BUREAUS, AND THE PLANNING COMMISSION; SETTING FORTH RESPONSIBILITIES OF THE APPLICANT; PROVIDING FOR PENALTIES; AND REPEALING ALL ORDINANCES AND PARTS OF ORDINANCES INCONSISTENT HEREWITH.

Sponsored by (s) Lawrence E. Kisslinger

(s) Dolores W. Caskey

ADOPTED by Council this 21st day of February, 1975.

(s) Paul M. Marcincin

ATTEST:

(s) Donald C. Cressman  
City Clerk

This Ordinance approved this        day of

Not signed by Mayor Mowrer  
Mayor

## AMENDMENTS

The following amendments have been made to the Subdivision and Development Ordinance since January 21, 1975.

	<u>Date</u>	<u>Ordinance No.</u>	<u>Section Amended</u>
1.	Oct. 8, 1976	2531	1343.02(F)(2)G 1349.08
2.	Oct. 19, 1977	2581	1351.03
3.	May 24, 1978	2614	1341.02(a)(10)(11) 1343.02(d) 1343.02(f)(2)Q. 1343.02(f)(3)R. 1345.02 1347.02(a) 1347.05(d) 1347.12 1349.03(c) 1349.03(d) 1349.04(a) 1349.05(h) 1349.12 1349.13 1351.04
4.	June 19, 1979	2661	1351.03
5.	March 4, 1980	2696	1349.07
6.	May 27, 1981	2777	1347.10(a) 1347.10(b)
7.	May 26, 1982	2839	1343.02(f)(2) 1343.02(f) 1349.02
8.	Oct. 20, 1982	2849	1347.13
9.	Dec. 2, 1986	3090	1347.11(a) 1351.02
10.	Apr. 7, 1987	3118	1349.11

	<u>Date</u>	<u>Ordinance No.</u>	<u>Section Amended</u>
11.	Sep. 20, 1988	3211	1349.08(e)(f)(g)
12.	Feb. 7, 1989	3244	1351.02
13.	May 23, 1989	3265	1351.05
14.	May 6, 1992	3477	1349.04
15.	September 3, 2002	4140	1345.02
16.	March 15, 2005	4316	1347.14
17.	July 3, 2007	4439	1343.02(g) 1347.10
18.	September 5, 2007	4441	1343.02(f) 1343.02(g)(2)(R-U) 1343.02(g)(3)(R-V)
19.	September 5, 2007	4442	1345.06

## SUBDIVISION AND DEVELOPMENT ORDINANCE

### FORWARD

The decision to convert open land to a different use is a step that should receive utmost consideration. Our land is limited, therefore, it is something which we must preserve and use wisely.

When the decision is made to build a home, a street, a school, or a factory, it must be realized that an indelible mark is placed on the land and a pattern of growth is started. How well these patterns tie together determines whether the City will reap the problems or advantages of such development. Although the actual transaction in the sale of land is a private matter, the results are a vital concern to the whole community.

In adapting and administering these regulations, the primary purpose is to encourage the best possible development.

Anyone who contemplates subdividing land in the City of Bethlehem should become familiar with these regulations. They are designed to achieve equal treatment for all and to provide clear-cut procedures for the preparation, submission, and approval of subdivision and/or development plans.

It is the function of the Department of Community Development to confer, advise, and cooperate with the applicant, but not to do the work of preparing the plans. Best products will result when the applicant retains a qualified technician to prepare the subdivision or development plan.

All subdivision plans, as well as all development plans for uses specified for site plan review by the Zoning Officer, Zoning Hearing Board or the City Planning Commission in the City Zoning Ordinance, shall be submitted to the Zoning Officer or the Planning Director as appropriate for review and approval or disapproval. These regulations were prepared and adopted to regulate the development of land in the City of Bethlehem, Lehigh and Northampton Counties, Pennsylvania, requiring and regulating the preparation and presentation of plans; establishing minimum design standards; providing minimum improvements to be made; and setting forth the procedure to be allowed by the City in applying these rules, regulations and standards.

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ARTICLE 1341

TITLE, PURPOSE, AUTHORITY, JURISDICTION & ADOPTION

1341.01

Title

These regulations shall be known and may be cited as "The Bethlehem City Subdivision and Development Ordinance."

1341.02

Purpose

The purpose of this Ordinance is to assure harmonious development of the City by:

- ( 1) Ensuring suitable sites for building purposes and human habitation.
- ( 2) Assisting in orderly and efficient integration of subdivisions.
- ( 3) Coordinating existing and proposed public improvements.
- ( 4) Facilitating adequate space for efficient movement of traffic.
- ( 5) Securing sites for adequate open space for recreation, light and air.
- ( 6) Safeguarding water resources and drainage ways.
- ( 7) Encouraging the retention of whatever natural features the land to be developed may possess which, in the view of the City Zoning Hearing Board or City Planning Commission, are worth protection. These may include, but need not be limited to: topography, water areas, plantings, rock formations, historic landmarks, etc.
- ( 8) Providing for the proper distribution of population.
- ( 9) Promoting conditions favorable to the general health, safety, morals, and welfare of the citizens of the City.
- (10) Requiring that each subdivision lot in flood plains be provided with a safe building site and that private and public facilities which serve such uses be designed and installed to preclude flood damage to the subdivision or adjacent property.
- (11) Protecting individuals from buying lands which are unsuitable for use because of flood hazards.

1341.03 Authority

The City of Bethlehem is vested by law with the control of the subdivision and development of land as provided in the Pennsylvania Municipalities Planning Code, Act of July 31, 1968, P.L. 805, 53 Purdons 10101 et seq.

1341.04 Jurisdiction

The City Zoning Officer, Zoning Hearing Board, and/or the City Planning Commission shall have jurisdiction and control of all subdivision of land, as well as any use of land requiring site plan review as specified in the City Zoning Ordinance.

1341.05 Adoption

The following regulations have been proposed by the Bethlehem City Planning Commission on February 28, 1974 and enacted by the Council of the City of Bethlehem on January 21, 1975, signed by the Mayor on NOT SIGNED BY MAYOR MOWRER, and shall remain in effect until amended, modified or rescinded.



## ARTICLE 1343

### DEFINITIONS

#### 1343.01 Inclusions:

All definitions stated in Article 1302 of the Zoning Ordinance of the City of Bethlehem shall represent the usage of those words when used in this Ordinance.

#### 1343.02 Additional Definitions:

- (a) Crosswalk: An extension of the sidewalk, usually ten (10) feet wide, which is meant to provide a concrete walkway from the street curb to the sidewalk on the planting strip between the curb and the sidewalk.
- (b) Cul-de-sac: A City street with one end open for vehicular and pedestrian access and the outer end terminating in a vehicular turnaround.
- (c) Developer: A person who is the registered owner, or authorized agent of the registered owner, of land to be developed. In this Ordinance he may also be referred to as the applicant.
- (d) Development: Any man-made change to improved or unimproved real estate, including, but not limited to, buildings or other structures, mining, dredging, filling, grading, paving, excavation or drilling operations.
  - (1) Total Development Acreage: The aggregate of lands to be developed.
  - (2) Net Development Acreage: The total development acreage minus all watercourses, floodways and street right-of-way lands.
- (e) Easement: A right granted by a property owner to use certain land for a special public or quasi-public purpose not inconsistent with the general property rights of the owner.
- (f) Geodetic Control: All subdivisions and land development will require all surveys to be tied into North American Datum (NAD) 1983 State Plane Pennsylvania South (FIPS 3702) Coordinates in feet and performed to third order control standards as set forth by the Federal Geodetic Control Committee (as specified by the National Geodetic Survey). Coordinates and scale factors/grid factors of existing permanent monuments will be provided to the surveyor by the City of Bethlehem. In the event that any points of the lands subject to subdivision are more than one half mile from

any given permanent monument, the developer shall construct a new permanent monument.

[Section 1343.02(f) was added by Ordinance No. 4441 on September 4, 2007]

(g) Plans:

(1) Development Sketch Plan: A plan showing the dimensions of the property to be developed and the location of all existing and proposed structures, roads, driveways, parking spaces, and adjacent properties. Show existing topography if considered necessary by the Planning Director or City Engineer.

(2) Development Final Plan: A plan by a Licensed Professional Land Surveyor and, if required by Commonwealth Law, a Licensed Professional Engineer, which shows the following information concerning the property to be developed:

- A. Identification title, including: Name of development; date of preparation with revision; scale (40 or 50); City Ward and Block; street address; county; zoning classification; total acreage; and net development acreage.
- B. Number of dwelling units with listing according to type. Further subdivide apartments into: efficiency, one or two bedrooms, and three or more bedrooms.
- C. Certification of Ownership signed by the record owner of the property.
- D. Bearings and distances of all lot lines. Show abandoned lot lines as dotted lines. Show lot numbers.
- E. Location and dimensions of all existing and proposed structures, garbage receptacles, driveways, parking and loading areas. Show number of parking spaces.
- F. Building restriction lines with offset distances to street lines.
- G. Show all walkways, landscaping and planting, including the following:
  - 1. Location, size and species of existing trees over three (3) inches in caliper.

- H. Designate those areas of the plan which are to be commonly owned and/or maintained.
- I. If there is to be any commercial use, show its location and the floor area in square feet.
- J. Show number of employees.
- K. All signs shall be shown in detail including location, size, illumination and materials.
- L. Names, widths, and curve data for all City streets in and adjacent to the development. If the existing property extends into a proposed street, dedication of the land back to the street line is required, including all bearings and distances to be dedicated and labeled "Dedicated to the City of Bethlehem for street purposes." All monuments at point of curve and point of tangent of curves and angle points shall be shown with a circle. Show centerline dimensions between streets.
- M. Names of owners of all adjacent properties.
- N. North Arrow and location plan.
- O. Stamp or certification of person who designed plan and phone number of person submitting plan.
- P. All existing and/or proposed easements, utilities, and grading.
- Q. Show the location of the proposed development with respect to the municipality's flood plain, including information on, but not limited to, the regulatory flood elevations, boundaries of flood plains, fills, floor or erosion protective facilities, and areas subject to special deed restrictions.
- R. All surveys shall be tied into North American Datum (NAD) 1983 State Plane Pennsylvania South (FIPS 3702) Coordinates in feet and performed to third order control standards as set forth by the Federal Geodetic Control

Committee, as specified by the National Geodetic Survey. The City will provide the coordinates and scale factor/grid factor of the permanent monumentation established in the City.

- S. Boundaries of tracts to be subdivided with their bearings and distances, and acreage to the nearest tenth of an acre. If applicable, a uniform reference grid showing labeled NAD 1983 State Plane in feet both easting and northing dimensions. The layout of the map grid should coincide with the corners of the subdivision and land development plan.
- T. Location and description of all monuments including the State Plane Feet Coordinates and scale factors/grid factors of the starting Geodetic Station and ending Geodetic Station. Identify City of Bethlehem coordinates on the State Plane Feet Coordinates System of each property corner showing the scale factor/grid factor used for each point, if applicable.
- U. GPS monuments shall be required for subdivisions or land developments when determined to be appropriate by the City Engineer or Planning Bureau.

[Section 1343.02(g)(2)(R-U) were added by Ordinance No. 4441 on September 4, 2007]

- (3) Subdivision Final Plan: A plan by a Licensed Professional Land Surveyor and, if required by Commonwealth Law, a Licensed Professional Engineer which shows the following information concerning the property to be subdivided:
  - A. Identification title including: Name of subdivision, date of preparation with revisions, scale (1" = 40' is preferred), City Ward, zoning classification, county, and net development acreage.
  - B. Certification of Ownership signed by the record owner of the property.
  - C. Bearings and dimensions for all lot lines. Show old lot lines (dotted) if different from future lot lines.
  - D. Lot numbers for all single family home subdivisions.

- E. Location and dimensions of all existing structures, driveways, parking and loading areas.
- F. Building restriction lines with offset distances to street lines.
- G. Names, widths, and curve data for all City streets in and adjacent to the subdivision. If the existing property extends into a proposed street, dedication of the land back to the street line is required, including all bearings and distances to be dedicated and labeled "Dedicated to the City of Bethlehem for street purposes."
- H. All monuments at point of curve and point of tangent of curves and angle points shall be shown with a circle.
- I. Centerline data between streets.
- J. Names of owners of all adjacent properties.
- K. North Arrow.
- L. Stamp or certification of person who designed plan.
- M. Phone number of person submitting plan.
- N. All existing and/or proposed easements.
- O. Proposed grading of the property.
- P. Location of all utilities.
- Q. Location plan.
- R. Show the location of the proposed subdivision with respect to the municipality's flood plain, including information on, but not limited to, the regulatory flood elevations, boundaries of flood plains, fills, flood or erosion protective facilities, and areas subject to special deed restrictions.
- S. All surveys shall be tied into North American Datum (NAD) 1983 State Plane Pennsylvania South (FIPS 3702) Coordinates in feet and performed to third order control standards as set forth by the Federal Geodetic Control Committee, as specified by the National Geodetic Survey. The City will provide the

coordinates and scale factor/grid factor of the permanent monumentation established in the City.

- T. Boundaries of tracts to be subdivided with their bearings and distances, and acreage to the nearest tenth of an acre. If applicable, a uniform reference grid showing labeled NAD 1983 State Plane in feet both easting and northing dimensions. The layout of the map grid should coincide with the corners of the subdivision and land development plan.
- U. Location and description of all monuments including the State Plane Feet Coordinates and scale factors/grid factors of the starting Geodetic Station and ending Geodetic Station. Identify City of Bethlehem coordinates on the State Plane Feet Coordinates System of each property corner showing the scale factor/grid factor used for each point, if applicable.
- V. GPS monuments shall be required for subdivisions or land developments when determined to be appropriate by the City Engineer or Planning Bureau.

[Section 1343.02(g)(3) (R-V) was amended by Ordinance No. 4441 on September 4, 2007]

- (h) Recreation Land. A parcel or parcels of land within a tract which meets all of the following standards when the land is being used to meet City requirements:
  - A. is designed, intended and suitable for non-commercial active or passive recreation by residents of a development or the general public, or another open space use that is specifically approved by the City,
  - B. is covered by a system that ensures perpetual maintenance, unless the land is intended to be publicly owned,
  - C. will be deeded to the City and/or preserved by a deed restriction or conservation easement to permanently prevent uses of land other than "recreation land," and
  - D. does not use any of the following areas to meet

minimum recreation land requirements:

1. existing street rights-of-way,
2. vehicle streets or driveways providing access to other lots,
3. land beneath building(s) or land within 20 feet of a building (other than accessory buildings and pools clearly intended for noncommercial recreation),
4. off-street parking (other than that clearly intended for noncommercial recreation),
5. area(s) needed to meet a requirement for an individual building lot except for a community recreation building,
6. for land intended to be open to the public, that does not have provisions for entry with a 15 foot minimum width by pedestrians from a street open to the public or from recreation land that has access to such a street,
7. land that includes a stormwater detention basin, except for a basin or portions of a basin that the applicant, after a review by the City Engineer, proves to the satisfaction of the City would: a) be reasonably safe and useful for active or passive recreation during the vast majority of weather conditions or b) serve as a scenic asset resembling a natural pond,
8. portions of land that have a width of less than 50 feet, unless this requirement is specifically modified by the City,
9. areas that are under water during normal weather conditions, or
10. areas that are under or within 50 feet from electric transmission lines or towers that are designed for a capacity of 35 kilovolts or greater.

[Section 1343.02(h) was added by Ordinance No. 4439 on June 3, 2007]

(g) Street: See Zoning Ordinance.

(1) Street Specifications: Streets in Bethlehem are classified according to their width as follows: Fifty (50) foot, sixty (60) foot, seventy (70) foot, and eighty (80) foot streets.

(2) Streets are also classified according to their use as follows:

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A. Local Street: A street whose main purpose is to

provide access to individual lots.

- B. Arterial or Collector Street: A street which acts as a major carrier of traffic between distant points in the City and which may provide access to individual lots.
  - C. Limited Access Highway: A street whose main function is to carry large volumes of traffic between distant points in the City and beyond, and which provides no access to individual lots.
- (h) Subdivider: A person who is the registered owner, or authorized agent of the registered owner, of land to be subdivided. In this Ordinance he may also be referred to as the applicant.
- (i) Subdivision: The division or redivision of a lot, tract or parcel of land by any means into two or more lots, tracts, parcels or other divisions of land, including changes in existing lot lines for the purpose, whether immediate or future, of lease, transfer of ownership or building or lot development; provided, however, that the division of land for agricultural purposes into parcels of more than ten (10) acres, not involving any new street or easement of access, shall be exempted.
- (1) Minor Subdivision: A subdivision of one (1) acre or less which creates no new streets, water mains, or sewer mains.
- (j) "Subdivision and Development Ordinance" means Ordinance 2458 passed January 21, 1975, as amended, which is codified as Articles 1341 to 1351 of this Part Thirteen.



## PROCEDURE

1345.01 General: Land subdivision, residential development, institutional development, industrial park, and/or shopping center development, as well as any other use of land so specified in the City Zoning Ordinance, shall require the review and approval of final plans as provided for in Sections 1345.04 and 1345.05 before the applicant may apply for a building permit. The decision of the City Zoning Officer, Zoning Hearing Board, or City Planning Commission to approve or disapprove plans shall depend on three factors:

- (1) Their adherence to this Subdivision and Development Ordinance.
- (2) Their adherence to the pertinent regulations in the City Zoning Ordinance.
- (3) The proper compliance of the applicant with whatever current soil and sediment control regulations are prescribed and enforced by the Pennsylvania Department of Environmental Resources, and/or the local County Conservation District.

1345.02 Submitting Plans For Approval: All development and subdivision plans whether sketch or final, shall be submitted to the City at least thirty (30) working days prior to the next scheduled meeting of the City Zoning Board or Planning Commission for consideration at that meeting. Submission of development sketch plans as a preliminary procedure for City Planning Commission review shall be at the discretion of the applicant. Prior to the preparation of any plans, it is suggested that prospective developers consult with the Municipal Sewage Enforcement Officer concerning soil suitability when on-site sewage disposal facilities are proposed. When required by the City, prospective developers shall consult with the County Conservation District Representative concerning erosion and sediment control and the effect of geologic conditions on the proposed development. At the same time, a determination should be made as to whether or not any flood hazard either exists or will be created as a result of the subdivision or development.

1345.03 Development Sketch Plan Submission: If the applicant decides to apply for development sketch plan approval, he shall submit to the City Planning Bureau four (4) copies of the plan as defined under Section 1343.02(f)(1). Should the City Planning Commission approve the sketch plan, such approval shall not compel the Planning Commission to approve the project's final plan, but shall merely act as an indication of the City Planning Commission's attitude toward the general purpose of the project at the time of sketch plan approval.

1345.04 Final Plan: For final approval of a development or subdivision plan, the

applicant shall submit to the City eight (8) final plan prints as defined in Section 1343.02(f)(2) and (3). Upon receipt of final plans, the Zoning Officer or Planning Director shall distribute copies to all other City Departments which would normally be affected by such a project. Their comments on the plan shall then be conveyed to the City Zoning Hearing Board or Planning Commission during the meeting at which the project is to be discussed. For applications to the Planning Commission which are subsequently approved by the Commission, the applicant shall submit three (3) cloth, one (1) transparent mylar reproducible, and as many paper prints as are deemed necessary by the Planning Bureau, for final stamping, signing, and distribution of the plans. Approval of a final plan by the City Zoning Hearing Board or Planning Commission shall be contingent upon the applicant signing a Development or Subdivision Agreement, to be prepared by the Bureau of Law in conjunction with the Bureau of Engineering and filing such security as shall be required by the City to guarantee compliance by the applicant. The provisions of the Development or Subdivision Agreement shall be based on, but not limited to, the information included on the final plans as approved. The date of the signing of a Subdivision Agreement shall be the date of final approval and the applicant shall then have ninety (90) days within which to file the final plan with the County Recorder of Deeds. Should the applicant fail to record a final subdivision plan within the ninety (90) day period, the approval of the Commission shall be null and void. A development applicant shall be required to commence and proceed with construction on any development plan approved by the City Zoning Hearing Board or Planning Commission within one (1) year of said approval, or one (1) year from the effective date of this Ordinance, whichever comes later. An agreement between the applicant and the City Zoning Hearing Board or Planning Commission shall also specify date of completion. If construction has not been completed as per date in agreement, approval by the City Zoning Hearing Board or Planning Commission and this agreement shall lapse and become null and void. In such case, the City Zoning Hearing Board or Planning Commission and applicant may enter into a new agreement.

1345.05 Minor Subdivision: The applicant for approval of a minor subdivision plan shall submit to the Director of the Planning Bureau eight (8) paper final plan prints and (1) reproducible final plan print as defined under Section 1343.02(f)(3).

After distributing copies of the plan to all other City Departments normally interested in subdivision review, the Planning Bureau Director or his designated agent shall have the authority to approve or disapprove all minor subdivisions. Approval of the final plan shall be contingent upon the applicant signing a Subdivision Agreement to be prepared by the Bureau of Law in conjunction with the Bureau of Engineering and filing such security as may be required by the City to guarantee compliance by the applicant. The provisions of the Subdivision Agreement shall be based on, but not limited to, the information included on the final plans as approved. The date of the signing of the Subdivision Agreement shall be the date of final

approval and the applicant shall have ninety (90) days within which to file

the final plan with the County Recorder of Deeds. Should the applicant fail to record the Minor Subdivision Plan within the ninety (90) day period, the approval of the Director shall be null and void.

1345.06 Plan Compatibility with GIS/AutoCAD: All plan submissions and plan revisions shall include drawings and a digital file of the drawings. All final drawings shall show North American Datum (NAD) (1983) State Plane Pennsylvania South (FIPS 3702) Coordinates in feet and the digital file shall be in North American Datum (NAD) (1983) State Plane Pennsylvania South (FIPS 3702) Coordinates in Feet as applicable. All digital files shall reside on a PC compatible CD-ROM containing the digital representation of the final plan as presented on the twenty four (24) inch by thirty six (36) inch sheets. The digital map shall be AutoCAD compatible. All layers included in the digital maps shall be the standardized layers prepared and utilized by the City of Bethlehem to ensure compatibility with the City's existing CADD standards and as described in Appendix A of the City's Subdivision and Land Development Ordinance.

[Section 1345.06 was added by Ordinance No. 4442 on September 4, 2007]

## ARTICLE 1347

### DEVELOPMENT STANDARDS AND REQUIREMENTS

1347.01 General: The following principles of land subdivision and good design shall be observed by the applicant in all instances.

1347.02 Suitability of Land:

- (a) Land within the floodway shall not be plotted for structural development nor for such other uses as may involve danger to health, life or property, or aggravate the flood hazard, but such land within the plan shall be set aside for such uses as shall not be adversely affected by flood waters. Refer to Section 1347.12 for further detail.
- (b) Land situated on slopes greater than fifteen (15) percent shall not be used for development purposes unless a geologic survey of the area is undertaken by the applicant. This study shall identify any erosion, storm water drainage or similar problems which might be created by the proposed development. The applicant shall then propose adequate safeguards to be used or implemented during and after the construction process which would alleviate any such problems.

1347.03 Street Systems:

- (a) The development plan shall conform to such plan or plans for the City as shall have been prepared and adopted by the City Planning Commission.
- (b) Local streets in a new development should be so laid out as to discourage through traffic, but provision for the extension and continuation of arterial streets into and from adjoining areas should be required. If the subdivision abuts a present or proposed arterial street, the Commission may require access streets running parallel to the thoroughfare.
- (c) At all times, the street layout should be logically related to the topography of the land.
- (d) Center lines of local streets opening into opposite sides of collector or arterial streets which are within one hundred twenty-five (125) feet of each other, shall be made to coincide by curving the local streets.
- (e) Proposed streets will be designed to connect with existing street stubs in adjacent subdivisions and suitable street openings shall be provided to adjacent undeveloped properties. Proposed streets

which terminate at the applicant's property lines shall terminate in a temporary cul-de-sac or turnaround built and maintained at the applicant's expense until the adjoining property is developed and the proposed street extended, or the City accepts the cul-de-sac as permanent. The applicant shall deposit a sum sufficient to connect all temporary cul-de-sacs to any future projection of the street. Should any temporary cul-de-sac be accepted as permanent by the City, said sum shall be returned without interest to the applicant.

- (f) Where a subdivision borders on or contains a railroad right-of-way or limited access highway right-of-way, the City Planning Commission may require streets approximately parallel to and on each side of such right-of-way at a distance suitable for appropriate use of the intervening land.
- (g) Cul-de-sacs in the local street system shall not exceed five hundred (500) feet in length from the centerline of the street to which the cul-de-sac connects to the point of radius turnaround having a minimum radius of fifty (50) feet on the street line.
- (h) Half streets shall be prohibited.
- (i) Streets that are extensions of, or obviously in alignment with existing named streets shall bear the names of the existing streets.
- (j) No new street names shall be used which may duplicate or be confused with the names of existing streets. Street names shall be subject to approval by the City Planning Commission.

1347.04

Street Alignment:

- (a) The minimal radius at the centerline for curves on limited access highways shall be five hundred (500) feet; for arterial streets, three hundred (300) feet; and for local streets, it shall be one hundred fifty (150) feet. Where greater radii requirements have been established for streets planned prior to subdivision, the established plans shall govern development. Super elevation shall be provided for curves less than six hundred (600) feet radius on all streets.
- (b) Except for local residential streets there shall be a tangent of at least one hundred (100) feet, measured at the centerline, between reverse curves.
- (c) Between all horizontal curves on the street line and the radius at street intersections, there shall be a tangent of at least ten (10) feet.
- (d) Proper sight distance should be provided with respect to both horizontal and vertical alignment. Measured along the centerline, said sight distance should be four hundred (400) feet for limited

access highways; two hundred (200) feet for arterial streets; and one hundred (100) feet for local streets.

- (e) Proper sight lines should be maintained at all intersections of streets. See Section 1318.06 of the City Zoning Ordinance.
- (f) Street lines at street intersections shall have a minimal radius of fifteen (15) feet on local streets; on arterial streets, the minimum radius shall be twenty-five (25) feet on the street line.
- (g) In the Central Business (CB) District, where the street cartways are composed of driving lanes eighteen (18) feet or wider, street intersection radii may be reduced or eliminated at the discretion of the City Planning Commission.

1347.05

Street Grades:

- (a) There shall be a minimum grade of at least three quarters of one percent (0.75%) on all streets. The maximum grade for arterial and limited access streets shall be six (6%) percent, and there shall be a maximum grade of ten (10%) percent for distances not to exceed fifteen hundred (1,500) feet for local residential streets.
- (b) Vertical curves shall be used in changes of grade exceeding one (1%) percent, and should be designed for maximum visibility.
- (c) Intersections shall be approached from all sides by leveling areas wherever possible. Where the grade exceeds seven (7%) percent, such leveling areas shall have a minimum length of fifty (50) feet from intersection, within which no grade shall exceed a maximum of four (4%) percent.
- (d) The finished elevation of proposed streets shall be no more than one (1) foot below the regulatory flood elevation. The City Engineer may require, where necessary, profiles and elevations of streets to determine compliance with this requirement. Drainage openings shall be sufficient to discharge flood flows without unduly increasing flood heights.

1347.06

Street Intersections:

- (a) Multiple intersections involving the junction of more than two (2) roadways shall be avoided, but where such avoidance is impossible, such inter-sections shall be designed with adequate consideration for both vehicular and pedestrian safety.
- (b) Right angle intersections are required, unless, due to exceptional conditions, the Commission approves a variation, in which case no intersection angle, measured at the centerline, shall be less than seventy-five (75) degrees.

- (c) Street curb line intersections shall be rounded by an arc, with a minimum radius of twenty-three (23) feet for local streets and thirty-three (33) feet for intersections including arterial streets. These radii shall be computed on the basis of the radius on the street line, plus the width of the narrowest sidewalk area.
- (d) In the Central Business (CB) Zoning District, where the street cartways are composed of driving lanes eighteen (18) feet or wider, street curb line intersection radii may be reduced at the discretion of the City Planning Commission to a minimum equal to the widest sidewalk adjacent to the intersection.

1347.07 Blocks:

- (a) In general, all blocks in a subdivision should have a minimum length of at least five hundred (500) feet and a maximum length of sixteen hundred (1,600) feet. Also, such blocks containing individual lots shall be two (2) lot depths in width.
- (b) In large blocks with interior parks, in exceptionally long blocks at bus stops, or where access to a school or shopping center is necessary, a crosswalk shall be provided.

1347.08 Lots and Building Restriction Lines - Residential Districts:

- (a) Lots and building restriction lines shall conform to the provisions of the Bethlehem Zoning Ordinance of 1970, being Ordinance No. 2210 as adopted September 25, 1970, and including any amendments thereto.
- (b) All side lot lines shall be at right angles or radial to the street line, unless otherwise approved by the Commission due to exceptional conditions.

1347.09 Utility Easements and Alleys:

- (a) If easements are used at the rear or side of lots to provide sewer facilities, a minimum easement of twenty (20) feet from the rear or side of each lot must be provided. However, where easements are to be installed to the rear or side of adjoining lots, the total easement required will be twenty (20) feet. This width for a sewer easement shall be considered a part of the overall lot depth as required in the City Zoning Ordinance; except where necessary for safety and convenience, the City may exclude the easement area in computing minimum lot size requirements.
- (b) If easements are used at the front, side, or rear of lots to provide for electric or telephone service facilities, a minimum easement width of five (5) feet from the front, side or rear of each lot must be provided. For any development of five (5) or more lots and/or

dwelling units, underground installation of electric or telephone service facilities may be required by the City Planning Commission. Said five (5) foot easement for service facilities or poles shall be considered a part of the overall lot depth or width as required in the City Zoning Ordinance.

- (c) Service streets or alleys may be required by the City Planning Commission in commercial districts, shopping centers or industrial districts where deemed necessary. Said service streets or alleys shall have a minimum width of thirty-three (33) feet, with a twenty-four (24) foot cartway. Where such alleys dead-end, they shall provide a turnaround having a street radius of not less than thirty-seven (37) feet. The street line radius shall be determined by the City Planning Commission at the time of site plan review.

1347.10. Recreation Lands and Fees.

- (a) Purposes. To provide adequate park and recreational lands and facilities to serve inhabitants/occupants of new and expanded developments, for both active and passive recreation. To recognize and carry out the City of Bethlehem Parks and Recreation Plan.
- (b) Applicability. This section shall apply to any subdivision or land development for which a plan is submitted after the effective date of this amendment.

1. This Section 1347.10 shall not apply to applications that:
  - a. the City Planning Bureau determines only involve adjustments or corrections to an approved preliminary or final subdivision or land development plan, provided the adjustments do not increase the number of proposed dwelling units; or
  - b. only involve non-commercial recreation land or buildings, primary or secondary schools, colleges, universities and places of worship.
2. The City may waive these fees for any residential units that utilize any federal, state, or local public funds, tax credits, or other similar financial programs in which the owner agrees to keep the housing units affordable for low and moderate income residents based on the affordability guidelines in the specific program or programs used in financing the housing units. Financing programs would include but not be limited to the use of Federal Community Development Block Grant (CDBG) and HOME Investment Partnership funds, Pennsylvania Housing Finance Agency tax credit or other financing programs, programs using public housing funding,



local or county affordable housing trust fund projects, or programs using funding provided for low and moderate income housing by foundations or not-for-profit organizations. The specific term of affordability would be established under the terms of the individual programs used in the financing of the units.

(c) Limitations on Use of Fees.

1. Fees collected under this section shall be accounted for separately from other City funds, with interest earnings retained in such account.
2. To make sure that the lands and facilities are accessible to the inhabitants of the developments that paid fees towards their cost, such fees should only be used within a 5-mile radius of the boundaries of the subdivision or land development that paid the fees, unless the fees are used within a recreation area open to the public that the City determines serves the entire City.
3. Such fees shall only be used for the following: acquisition of public recreation land and open space, development of public recreational facilities, landscaping of public lands and closely related engineering, design work and debt payments.
4. Unless the City commits the fees for a different set of facilities or recreation area at the time of or prior to receipt, then as a default to comply with Section 503(11)(vi), the fees shall be used for the further development of the Monocacy Park as a generally centrally located recreation area providing programs and facilities for all residents and employees within the entire City.

- (d) Land to be Preserved. Any subdivision or land development regulated under this Section 1347.10 shall be required to dedicate the specified amount of recreation land, unless: a) the City and the applicant mutually agree that recreation fees shall be required in-lieu of land or b) the applicant does not propose to dedicate recreation land meeting City requirements and the City determines that fees should be required instead of a land requirement.

The City Bureau of Planning and Zoning shall make this determination in consultation with the Department of Parks and Public Property.

1. As a general non-binding guideline, it is the intent of this Section that developments that would otherwise be required to provide less than one acre of new recreation land should be required to pay a recreation fee in lieu of dedicating land,  
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unless the recreation land would be connected to adjacent

recreation land.

2. The land and fee requirements of this section shall be based upon the number of new dwelling units and the square feet of floor area within new principal non-residential buildings that would be allowed on the lots of a subdivision or land development after approval.
3. Prime Recreation Land. For the purposes of this section, the term “Prime Recreation Land” shall mean land proposed to be established as recreation land that would meet all of the following standards:
  - a. less than 6 percent slope,
  - b. not a “wetland” under Federal and/or State regulations,
  - c. be part of a contiguous tract of at least 2 acres (which may include existing adjacent recreation land), and
  - d. not be within the “100 Year Floodplain” as defined by official floodplain maps of the City.
4. Amount of Recreation Land. If a subdivision or land development is required to include recreation land, the following amounts for each permitted new dwelling unit shall apply:

Percentage of the Total Required Recreation Land that Would Meet the Definition of “Prime Recreation Land”:	Minimum Required Recreation Land Per Permitted Dwelling Unit
0% to 25.0%	4,400 square feet
25.1% to 75.0%	2,200 square feet
75.1% to 100%	1,100 square feet

5. Non-Residential Development. If a subdivision or land development

is required to include recreation land, a minimum of 5 percent of the total lot area of all non-residential lots within the subdivision or land development shall be required to be dedicated as Recreation land. (Note - In most cases, the general intent is to seek fees in lieu of land for non-residential development.)

E. Fees. If the City determines that a proposed subdivision or land development is required to pay fees-in-lieu of dedicating recreation land, this fee shall be as established by separate City resolution, which may be updated from time to time. The appropriateness of any existing fees should be reviewed every three years. Until such time as a different fee may be established or revised by resolution, the following fees shall apply:

1. RESIDENTIAL – a fee of \$1,500 per each additional approved new dwelling unit, and
2. INDUSTRIAL – a recreation fee of \$1,200, plus \$0.10 a square foot of building space up to 100,000 square feet, except the fee is reduced to \$0.05 a square foot for portions of building area greater than 100,000 square feet.
3. NON-RESIDENTIAL USES OTHER THAN INDUSTRIAL – a recreation fee of \$1,500 plus \$0.25 per square foot of total building floor area.

No fee shall apply for a non-residential building of less than 1,000 square feet of floor area or a building addition of less than 5,000 square feet of floor area, nor for renovations or changes of use of existing buildings that do not result in new dwelling units, nor for buildings/lots that are not required to be approved under the subdivision or land development ordinance. The 5,000 square foot exemption shall be measured in aggregate over time beginning with the enactment of this ordinance.

F. Decision on Land vs. Fees. The determination of whether a land dedication or fee should be required should, at a minimum, consider the following in this decision:

1. Whether the land in that location would serve a valid public purpose.
2. Whether there is potential to make a desirable addition to an existing public or School District recreation area or to create a greenway along a creek.
3. Whether the proposed land would meet the objectives and requirements of this section and any relevant policies of the City Parks and Recreation Plan.

4. Whether the area surrounding the proposed development has sufficient existing recreation land, and whether it is possible for pedestrians and bicyclists to reach those lands.
5. Any recommendations that may be received from the City Council, Mayor, the City Engineer, the local School Board or School District staff and the City Staff.

G. Recreation Land to be Preserved.

1. Suitability. Recreation land shall be suitable for its intended purpose, in the determination of the City Planning Commission. The applicant shall state in writing what improvements, if any, he/she will commit to make to the land to make it suitable for its intended purpose, such as grading, landscaping, or development of trails. Such land shall be free of construction debris at the time of dedication.
2. Ownership. Required recreation land shall be dedicated to the City, unless the City Planning Commission agrees to accept a dedication to any of the following: the School District, Lehigh or Northampton County, a similar governmental agency, an incorporated property-owner association (such as a homeowner or condominium association) or an established environmental organization acceptable to the City. In the case of a rental development, the City may permit the recreation land to be retained by the owner of the adjacent principal buildings.
  - a. If recreation land is to be owned by a property-owner association, the developer shall be required to establish such association in a form that requires all property owners within the development to annually contribute to the maintenance of the recreation land.
    - 1) Any property-owner association agreements regarding required recreation land shall be subject to acceptance by the City, based upon review by the City Solicitor.
    - 2) Prior to the sale of any dwelling unit or lot, all deeds shall require each property-owner to pay fees on a regular basis for the maintenance and other expenses of owning such land. The property-owners shall be incorporated with covenants and bylaws providing for the filing of assessments. After providing notice to affected owners, the City shall have the authority to establish municipal liens upon all properties in the association to fund maintenance of the land and City legal costs if the property-owners association does not fulfill its responsibilities.
    - 3) An orderly process shall be established for the transfer of the land to the association. The City may delay a dedication of maintenance responsibilities by a developer to a property-owners association until such association is incorporated and able to maintain such land.

- 4) The property-owners association shall be established in full compliance with applicable State law, including the Uniform Planned Community Act.
  - b. Transfer to another Entity. If the approved plan states that ownership of and/or responsibilities to maintain the recreation land are limited to a particular entity, then any transfer of ownership or responsibilities to another entity shall require pre-approval by the City Planning Commission. Where land is to be owned by a conservation organization, a process should be established for the land to transfer to a different organization if the first organization is not able to fulfill its obligations.
  - c. The City shall have the authority to refuse to accept an offer of dedication of recreation land to the City.
3. Easements/Deed Restrictions. Any required common open space dedication shall include deed restrictions or conservation easements to permanently prevent its development for buildings, except buildings for approved types of non-commercial recreation or to support maintenance of the land. Such deed restrictions or conservation easements shall, at a minimum, be enforceable by the City. The City may require that the restrictions or easements also authorize their enforcement by a suitable third party.
4. Priorities. Priority shall be given to dedication of land that would be suitable for a) additions to existing public schools and public parks, or b) preservation of woods, steep slopes or other important natural features or land along a creek, or c) for centralized active recreation.
5. Suitability. Land that is not suitable for active or passive recreation shall not be permitted to meet the requirements of this section. Any land area used to meet the requirements of this Section 1347.10 shall meet the definition of "Recreation Land" that is stated in the Subdivision and Land Development Ordinance. Portions intended for active recreation shall be well-drained, of less than 6 percent average slope and not require filling in of a wetland for use.
6. Access and Contiguosness. Required recreation land shall be contiguous, except as may be specifically exempted by the City Planning Commission, and shall have adequate access for maintenance and by pedestrians.
7. Other Ordinances. Any required land dedication or fees under this Section shall be in addition to any land dedication or improvement requirements of any other City ordinance.
8. Residual Lands. If only a portion of a larger tract of land is currently proposed to be subdivided, or the applicant owns one or more adjacent tracts that are not currently proposed to be subdivided, the applicant shall provide a sketch of a possible future land dedication on these adjacent

lands. The intent is to coordinate current plans with any future development, even in the long-term.

9. Coordination With Future Adjacent Dedication. The City Planning Commission may require that a required land dedication within a property currently being subdivided be placed along an edge of the property so that it may, in the future, be combined with a recreation land dedication on the edge of an adjoining property when that adjoining property is subdivided or developed.
- H. Combination of Land and Fees. Upon mutual agreement of the City Planning Commission and the applicant, the City may accept a combination of recreation land and fees-in-lieu of land to meet the requirements of this section for a subdivision or land development. This combination shall be based upon the recreation land requirement applying for a certain number of dwelling units or portions of a non-residential development and the fee-in-lieu of land requirement applying for the remaining development. For example, if a development included 25 dwelling units, recreation land could be required for 15 dwelling units and fees could be required for 10 dwelling units.
- I. Timing of Residential Fees. Fees required by this Section for all of the dwelling units shall be paid prior to the recording of the final plan, except if the City and the applicant mutually agree to pay such fees in installments, then all such fees shall not be considered to be “paid” for the purposes of any applicable time limitations for utilization under the State Municipalities Planning Code until all such fees are paid in full, including all installments and phases.
- J. Timing of Non-Residential Fees. Fees required by this Section for any non-residential subdivision or land development shall be paid prior to the final approval of a land development, except that, if the applicant establishes a legally binding mechanism acceptable to the City Solicitor, the fees may be paid prior to the time a land development plan is approved for each lot, as opposed to at the time an entire subdivision is approved.
- K. Facilities in Place of Land or Fees. An applicant may submit a written request for a modification of the requirements of this section by offering to construct substantial permanent recreation facilities within the proposed subdivision or land development or on public parkland at another site. Such modification shall only be approved if the applicant clearly proves to the satisfaction of the City Planning Commission that the facilities will serve a valid public purpose, will be designed following modern standards in a durable manner and will have a higher market value than the land or fees that would otherwise be required.
  1. A modification of these requirements may also be approved by the City Planning Commission if the applicant donates or sells appropriate public recreation land to the City or the School District. In such case, the applicant shall provide a written appraisal from a qualified professional that the market value of the donation or price reduction is greater than the value of the fee or land requirement that is waived. In such case, the land shall be determined to be suitable for public recreation by the City Planning Commission.

- L. Landscaping Plan. If one or more acres of recreation land are required, then the applicant shall submit a landscape planting and preservation plan for the recreation land.
1. Such plan shall show the locations, general species and initial sizes of landscaping to be planted within the common open space and throughout the tract.
  2. Such plan shall also show that existing substantial healthy trees will be preserved to the maximum extent reasonable. The methods to ensure preservation during construction shall be described.”

[Section 1347.10 was added by Ordinance No. 4439 on July 3, 2007]

1347.11 Environmental Controls:

- (a) No applicant shall strip (i.e., remove vegetation and top soil) at any one time, an area of land greater than five (5) acres. Before additional stripping may be accomplished, all previously stripped land must be stabilized (i.e., graded, reseeded, etc.) in such manner as to prevent any erosion over and above that which normally took place prior to the stripping. Additional stripping may be initiated only after the City Engineer has determined that the previously stripped land has been stabilized.
- (b) Provisions will be made by the applicant to insure that the development of any land does not create health, safety, dust, drainage or attractive nuisance problems which affect the quiet enjoyment of any adjoining tract of land.

1347.12 Flood Plains:

- (a) Building sites for residences or any other type of dwelling or structure shall not be permitted in any floodway area. Building sites may be permitted outside the floodway area if the structures are constructed in conformance with the requirements of the City Building Code. If fill is used to raise the elevation of the site, the fill area shall extend out laterally for a distance of at least fifteen (15) feet beyond the limits of the proposed structures.
- (b) If the City Planning Commission determines that only a part of the proposed plat can be safely developed, it shall limit development to that part and shall require that development proceed consistent with this determination.
- (c) When a developer does not intend to develop the plat himself and the City Planning Commission determines that additional controls are required to insure safe development, it may require the developer to impose appropriate deed restrictions on the land. Such deed restrictions shall be inserted in every deed and noted on every recorded plat.

1347.13 Noise Protection:

Any residential land development which abuts an urban principle arterial road as designated on the current Pennsylvania Department of Transportation Functional Classification Map for the Allentown/Bethlehem Urban Area, as revised from time to time (available from the City Planner), shall be protected from sound levels which exceed the following maximum levels:

<u>Zoning District</u>	<u>Sound Level Limit</u>
Residential	60 dBA
Institutional	60 dBA
Commercial	67 dBA
Industrial	75 dBA

If sound levels exceed these standards, a noise barrier of a type shown in the current U.S. Department of Transportation, Federal Highway Administration Implementation Package 76-8 and Publication FHWA-RD-76-58, as amended from time to time, (available from the City Engineer) or other suitable barrier acceptable to the City, shall be constructed in such a manner as to theoretically reduce the sound levels on the lot(s) to be developed to or below the levels listed above.

1347.14 Traffic Impact Studies

- (a) Purpose.
  - (1) To allow the City of Bethlehem to determine the safety and congestion impacts, and related costs, of proposed major traffic generating uses.
  - (2) To require that applicants respond with reasonable proposals to resolve the negative traffic impacts that their proposed uses will cause on the public.
  - (3) To recognize that sufficient Federal, State and City funds are not available to resolve traffic problems caused by private development.
  - (4) To assist in carrying out Sections 503(2)(ii) and 503(3) of the Pennsylvania Municipalities Planning Code as amended.
  - (5) To ensure that streets bordering a subdivision or land development are coordinated and of such widths and grades and in such locations as deemed necessary to accommodate prospective traffic and to facilitate fire protection.
  - (6) To ensure that the access into and out of subdivisions and land developments is reasonably safe.

- (b) Administration



- (1) The full cost of the traffic study shall be borne by the applicant.
- (2) The traffic study shall be reviewed by the City and/or City's consulting Traffic Engineer, the cost of which shall also be borne by the applicant. The applicant shall provide the appropriate escrow, as described by resolution by the City of Bethlehem, to ensure the payment of the costs of such traffic study review.
- (3) The project manager for any traffic impact report shall be a Pennsylvania registered professional engineer with expertise in the preparation of traffic impact studies.
- (4) The City shall require such onsite traffic improvements to be provided by the applicant, as the City deems appropriate, in light of the traffic impact study as a specific condition of preliminary plan approval for all land developments and/or subdivisions for which a study has been required. The study shall identify improvements/facilities to be installed or actions to be undertaken by the applicant.
- (5) Joint traffic studies between different applicants are acceptable and are strongly encouraged.
- (6) The City will ensure that the selected consulting Traffic Engineer for any project does not have a prior professional relationship with the applicant of the land development or subdivision plan or a prior professional relationship with the Traffic Engineer that prepared the traffic study for the applicant.

(c) Contents of the Study

- (1) The following abbreviated traffic impact study shall be required as part of the preliminary plan submission when the proposed project will generate between 50 and 100 new vehicle trips in the peak direction (inbound or outbound) during the site's peak traffic hour.
  - a. A written, abbreviated traffic study, pedestrian safety analysis and, where appropriate, a traffic calming analysis shall be submitted at the time of preliminary plan application and shall include:
    - i. projected peak AM, PM, and/or Saturday traffic volumes of the development,
    - ii. projected ADT (average daily trips) of the development,
    - iii.   
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Current ADT and peak hour volumes of streets adjacent to any access drives,

- iv. LOS (level of service) of existing and proposed access drives as defined by the Transportation Research Board Highway Capacity manual (most recent edition).
  - v. Modal split of services (categories of vehicles) entering the site,
  - vi. Proposed sight distances at access drives, and
  - vii. Existing and proposed pedestrian paths from streets and within the site to entrances of all buildings.
- b. The study shall identify improvements/facilities to be installed or actions to be undertaken by the applicant to ensure the following:
- i. LOS C or higher overall for all new access drives,
  - ii. No reduction in the levels of service for existing access drives, except that LOS D shall be permitted during the AM and PM peak hour. If an applicant cannot meet this requirement an analysis shall be completed to show that all reasonable options have been considered to create the most efficient access possible.
  - iii. Sight distances for all access drives intersecting with all streets shall meet City and/or PennDOT requirements as applicable,
  - iv. If pedestrian paths cross vehicular drives and parking areas within the site, adequate measures to ensure pedestrian safety,
  - v. Safe pedestrian access and, if feasible, bicycle access to the site, and
  - vi. Where appropriate, effective traffic calming measures should be outlined.
- (2) For residential or non residential developments generating 100 or more new vehicle trips in the peak direction (inbound or outbound) during the site's peak traffic hour, or where current traffic problems exist in the local area, such as high accident locations or

pedestrian safety analysis, and, where appropriate, traffic calming measures shall be submitted at the time of preliminary plan application. The study area shall include all public streets and intersections within a radius of 1,600 feet of an access drive to the site, unless the City and/or the City's consulting Traffic Engineer determine that another study area shall be more appropriate.

a. The full traffic study and pedestrian safety analysis shall include, at a minimum, the following:

- i. Current ADT and peak hour volumes of all streets,
- ii. Current LOS of all intersections,
- iii. Projected ADT and peak hour volumes of all streets without the development,
- iv. Projected LOS of all intersections without the development,
- v. Site traffic generation, including projected ADT and peak hour volumes of the development,
- vi. Site traffic distribution,
- vii. Site traffic assignment,
- viii. Projected ADT and peak hour volumes of all streets and intersections within the development,
- ix. Projected LOS of all intersections within the development, including all existing and proposed access drives,
- x. An assessment of the change in roadway operating conditions resulting from the development traffic,
- xi. Modal split of vehicles entering the site,
- xii. Proposed sight distances at access drives,
- xiii. Existing and proposed pedestrian paths from streets and within the site to entrances of all buildings, and
- xiv. Proposed facilities to accommodate mass transit and bicycle access to site.

b. The study shall identify improvements/facilities to be installed or actions to be undertaken by the applicant to ensure the following:

- i. LOS C or higher overall for all new access driveways,
- ii. No reduction in the levels of service for existing access driveways, except that LOS D shall be permitted during the AM and PM peak hour. If an applicant cannot meet this requirement an analysis shall be completed to show that all reasonable options have been considered to create the most efficient access possible.
- iii. No reduction in the levels of service of intersections within the study area as a result of the development; however, if the intersection already has an LOS F, no reduction in the intersection delay shall occur;
- iv. Sight distances for all access drives intersecting with all rights-of-way shall meet City and/or PennDOT requirements as applicable;
- v. Where high incidence of accidents for any adjacent intersection exists, safe sight distances, adequate traffic control restrictions, and safe pedestrian crossings for each adjacent impacted intersection,
- vi. If any access drive is within 1,600 feet of the property line of any public or private elementary or secondary school (1,600 feet is the maximum length of a school zone in accordance with PennDOT publications 201), safe pedestrian crossings for all access drives,
- vii. If pedestrian paths cross vehicular drives within the development, adequate points of pedestrian right-of-way and traffic flow restrictions as necessary to ensure pedestrian safety,
- viii. Provision of mass transit, safe pedestrian access, and, if feasible, bicycle access to the site, and
- ix. Where appropriate, effective traffic calming measures shall be outlined.

[Section 1347.14 was added by Ordinance No. 4316 on March 15, 2005]

ARTICLE 1349

REQUIRED IMPROVEMENTS  
AT THE SOLE COST AND EXPENSE OF THE APPLICANT

1349.01 Monuments and Markers for Subdivisions:

- (a) Permanent reference monuments of precast concrete, thirty (30) inches by six (6) inches square, with forty-five (45) degree beveled shoulders, shall be set at all corners and angle points of the boundaries of the original tract of ground to be subdivided. The top of all concrete monuments shall be set six (6) inches above finished grade so as to be plainly visible.
- (b) Iron pipe markers with a 3/4" minimum diameter x 24" minimum length shall be placed at all radii of street line intersections, at point of curvature and point of tangency on curves as shown on said applicant's plan, or as is required by the Bureau of Engineering as the rough grading in said development is completed. Applicant shall also furnish and set in place all iron pipe markers specifically identifying each lot. Said markers and monuments, other than lot markers, must be in place prior to any verification done by the Bureau of Engineering.
- (c) All iron pipe lot markers must be in place and set flush with the finished grade in each block when all of the structures proposed to be erected thereon shall have been completed and the lots completely graded.

1349.02 Street Grading: Applicant shall grade all streets to the grade shown on the street profile and cross-section plan. Engineering control shall be by applicant, who shall employ a Licensed Professional Engineer or Land Surveyor to perform this work, which shall be subject to the approval of the City Engineer. Streets shall be graded to the full width of the right-of-way, and side bankments or fill shall be finished to a maximum slope of one and one-half (1-1/2) horizontal, to one (1) vertical, i.e., beyond each street right-of-way where a cut or fill is necessary.

1349.03 Sanitary Sewers:

- (a) Sanitary sewers and house lateral connections shall be constructed on all streets not presently served, in accordance with the City's specifications and to the lines and grades established by the developer's engineer and subject to the City Engineer's approval and inspection.
- (b) Capped Sanitary Sewers: Whenever trunk line sanitary sewer facilities are available to a new subdivision and/or development, the applicant shall be required to install sanitary sewers and connect same to such trunk line facilities, regardless of the sizes of the lots on the approved subdivision plan. If such facilities are not available, but are

contemplated to become available within five (5) years, such sanitary sewers, together with all necessary laterals extending in each case from the

main sewer to the street curb, shall be installed and capped. Where such capped sanitary sewer installations are made, the applicant shall also install on-site disposal units, provided that they are so located as to permit ready unimpeded access and inexpensive connection to the sewer facilities when the same become available for use.

- (c) Temporary Sewage Disposal Facilities: Whenever, in the opinion of the City Engineer, sanitary sewer facilities are not presently available to a new subdivision and/or development, the applicant shall construct and install a complete temporary sanitary sewage disposal system consisting of a septic tank and tile field or leaching bed. If public sewage disposal is not available, and the sewage treatment is on a project or individual lot basis, such private facilities must be installed under direct supervision of the State or Local Health Department and must be designed to meet the standards of the State Health Department. The officers of such departments shall require percolation tests, soil samples, and other data to determine the size and extent of facilities needed prior to the submission of subdivision and/or development plans for final approval. Minimum lot sizes intended for individual temporary sewage disposal facilities shall be dependent upon recommendations of the State or Local Health Department. On-site waste disposal systems located in flood plains shall be located so as to avoid impairment to them or contamination from them during flooding.
- (d) Sewer Facilities In Flood Areas: All sanitary sewer systems located in flood plains, whether public or private, shall be flood-proofed up to a point one (1) foot above the regulatory flood elevation.

1349.04 Storm Sewers And Surface Drainage:

Requirements under this section shall be as stipulated under Article 925.

1349.05 Water:

- (a) Applicant shall install any and all water mains and fire hydrants required by the City's Bureau of Water and Fire Department. All such installations shall be performed and located in accordance with the Water Bureau's and Fire Department's Rules and Regulations and subject to their inspection and approval.
- (b) Applicant shall reimburse the Bureau of Water for the cost of all inspection and engineering required to be done by City forces.
- (c) All water main installation shall be performed by a reputable contractor experienced in this type of work. Further, all materials used shall be subject to the approval of the Bureau of Water.

- (d) After all water main installations have been inspected and approved by the

City, the applicant shall apply to the Bureau of Water for service lines and meters. All service lines and meter charges are payable in advance. All excavation and backfilling of service lines shall be done by the applicant.

- (e) All water main installations, fire hydrant installations, and service line trenches shall be subject to one (1) year's maintenance by the applicant.
- (f) Applicant shall maintain all curb boxes and valve boxes in good condition after the installation of each curb box and valve box, assuming full responsibility for any damages occurring thereto prior to final acceptance of abutting street section by the City.
- (g) Wells will not be permitted in any subdivision or development in the City of Bethlehem. All water supply connections shall be made only to the City's water system.
- (h) All water systems located in flood plains, whether public or private, shall be flood-proofed to a point one (1) foot above the regulatory flood elevation.

1349.06

Curbs, Gutters, Sidewalks, Crosswalks, And Cross Drainage Gutters:

- (a) Curbs And Gutters: Construct completely in concrete all curbs and gutters in said subdivision and/or development, in accordance with the City's Ordinances and Specifications. In the event that full-depth asphalt is used for street construction, gutters may be eliminated except where the grade is more than ten (10%) percent.
- (b) Sidewalks And Crosswalks: Construct completely in concrete all sidewalks and crosswalks in said sub-division and/or development in accordance with the approved subdivision and/or development agreement, and in accordance with the City's Ordinance and Specifications. Crosswalks shall be constructed at all street intersections in the planting strip area between the curb and the sidewalk.
- (c) Cross Gutters: Where the grade of streets at any street intersection is less than 1.25%, applicant shall construct an eight (8) inch reinforced concrete drainage gutter, five (5) feet minimum width across the cartway of each street intersection designated by the City Engineer for street drainage purposes, pursuant to and in accordance with the City's Ordinances and Specifications.

Street Paving:

- (a) Furnish all necessary materials and perform all work necessary to construct and pave the traveled cartway in accordance with the City's Ordinances and Specifications as set forth in Paragraph (f) of this Section, for the full width between curb lines in each block, as indicated in applicant's plan.
- (b) Minimum street paving construction in residential areas shall be an eight and one-half (8-1/2) inch flexible type street paving or an equivalent full depth asphalt pavement as required by the City's minimum specifications for street paving. Said paving shall consist of a minimum of six (6) inches compacted thickness of graded crushed stone or slag base course and a two and one-half (2-1/2) inch compacted thickness, two course bituminous pre-mix surface consisting of one and one-half (1-1/2) inch binder course and a one (1) inch wearing course alternately, said paving shall consist of a six (6) inch bituminous pre-mix surface course, for a total compacted seven and one-half (7-1/2) inches of full-depth asphalt pavement.
- (c) Whenever the cartway width in any street shall exceed thirty-four (34') feet, applicant shall construct at his own expense, a ten and one-half (10-1/2) inch flexible type street cartway paving, said paving consisting of a minimum of eight (8) inches, compacted thickness of graded crushed stone or slag base course and a two and one-half (2-1/2) inch compacted thickness, two (2) course bituminous pre-mix surface consisting of one and one-half (1-1/2) inch binder course and one (1) inch wearing course. Alternately, said paving shall consist of seven (7) inches, compacted thickness of bituminous pre-mix course installed in two (2) courses, four (4) inches and three (3) inches respectively and one and one-half (1-1/2) inch compacted thickness of bituminous pre-mix surface course, for a total compacted eight and one-half (8-1/2) inches of full-depth asphalt pavement.
- (d) All street paving work shall be performed by a reputable street paving contractor. Any street paving contractor employed to perform street paving work must, whenever requested by the City Engineer, furnish a work qualification statement as to contractor experience, as well as his financial ability to perform the street cartway paving required by these regulations.
- (e) No street paving work shall be undertaken without the City Engineer's written approval, and not until after the complete installation of all water mains, including service lines for house connections, underground gas and electric facilities, sanitary sewers and facilities, storm water sewers and appurtenances, and any other sub-surface utilities.



(f) Street specifications are as follows:

**FIFTY FOOT (50') STREET**

		50'	
Sidewalk Area	8'		8'
Cartway		34'	

Paving shall consist of a minimum of six (6) inches compacted thickness of graded crushed stone or slag base course and a two and one-half (2-1/2) inch compacted thickness two (2) course bituminous pre-mix surface consisting of one and one-half (1-1/2) inch binder course and a one (1) inch wearing course. Alternately, said paving shall consist of a six (6) inch bituminous pre-mix base course installed in two (2) courses of three (3) inches each and a one and one-half (1-1/2) inch bituminous pre-mix surface course, for a total compacted seven and one-half (7-1/2) inches of full-depth asphalt pavement.

**SIXTY FOOT (60') STREET**

		60'	
Sidewalk Area	8'		8'
		34'	

Whenever the cartway width in any street shall exceed thirty-four (34) feet, applicant shall construct at his Cartway own expense, a twelve and one-half (12-1/2) inch flexible type street cartway paving, said paving consisting of a minimum of ten (10) inches, compacted thickness of graded crushed stone or slag base course and a two and one-half (2-1/2) inch thickness.

**SEVENTY FOOT (70') STREET**

70'					<p>two (2) course bituminous pre-mix surface consisting of one Sidewalk area and one and one-half (1-1/2) inch binder course and one (1) inch Cartway wearing course. Alternately, said paving shall consist of seven (7) inches, compacted thickness of bituminous pre-mix base course installed in two (2) courses, four (4) inches and three (3) inches respectively and one and one-half (1-1/2) inch compacted thickness of bituminous pre-mix surface course, for a total compacted eight and one-half (8-1/2) inches of full-depth asphalt pavement.</p>
13'					
44'					

**EIGHTY FOOT (80') STREET**

80'					<p>Whenever streets are an extension of, or obviously in alignment with existing streets, the City Engineer Sidewalk Area shall adjust cartway widths to conform with existing Cartway conditions.</p>
15'					
50'					

Planting:

- (a) To insure that principles of good landscaping and design are adhered to and implemented, each site plan submitted for approval shall provide for:
  - (1) The preservation of desirable existing trees and shrubs;
  - (2) The preservation, insofar as possible, of natural rock outcropping and natural topographic features;
  - (3) Adequate planting density;
  - (4) A variety of plant species to provide interest throughout the year with color and texture of foliages, bark, flowers and fruit that are displayed at various seasons;
  - (5) Proper selection and diversification of plant species to minimize the possibility of damage due to insects and disease;
  - (6) Plant species which are suitable for use in Bethlehem soil conditions; and
  - (7) Proper plant sizes at the time of installation to insure a successful planting.
  
- (b) The following minimum standards shall be met concerning required plant materials used by the applicant:
  - (1) Shade trees - 2 to 2-1/2 inches (caliper).
  - (2) Ornamental trees - 6 to 8 feet (height).
  - (3) Pyramidal evergreen trees - 5 to 6 feet (height).
  - (4) Columnar evergreen trees - 4 to 5 feet (height).
  - (5) Evergreen and semi-evergreen shrubs - 2 to 2-1/2 feet (width).
  - (6) Broadleaf evergreen shrubs - 3 to 4 feet (height).
  - (7) Deciduous shrubs - 2 to 2-1/2 feet (height).
  - (8) Synthetic or artificial material in the form of trees, shrubs, ground cover, vines, or turf shall not be used in lieu of live material.
  - (9) The use of architectural planters is permitted in fulfillment of landscaping requirements. These planters shall be of material

and design specifically intended for landscaping use.

- (c) Landscaped screens or buffer yards shall consist of evergreen trees and/or evergreen shrubs. For example:
- (1) Evergreen and semi-evergreen shrubs planted at a maximum of four (4) foot center spacing, which shall be maintained at a minimum height of four (4) feet at maturity. A few examples of plants in this category are: Pfitzer juniper (Juniperus chinensis pfitzeriana), dense yew (Taxus cuspidata densiformis), Japanese andromeda (Pieris Japonica), and inkberry holly (Ilex glabra).
  - (2) Broadleaf evergreen shrubs planted a maximum three (3) foot center spacing, which shall be maintained at a minimum height of four (4) feet at maturity. A few examples of plants in this category are: Franchet cotoneaster (Cotoneaster francheti), and leatherleaf viburnum (Viburnum rhytidophyllum).
  - (3) Columnar evergreen trees planted at a maximum three (3) foot center spacing. A few examples of plants in this category are: Columnar Chinese Juniper (Juniperus chinensis columnaris), and Keteleeri Juniper (Juniperus chinensis keteleeri).
  - (4) Pyramidal evergreen trees planted at a maximum ten (10) foot center spacing. A few examples of plants in this category are: Austrian pine (Pinus nigra), Canadian hemlock (Tsuga canadensis), and Norway spruce (Picea excelsa).

In general, all screen plantings shall be planted and maintained at a height greater than the materials - other than buildings - stored inside.

- (d) Street trees shall be planted along all street rights-of-way which abut the applicant's property, unless this requirement is waived by the Planning Commission. Tree species and spacing for planting shall follow the guidelines in the current edition of the pamphlet entitled "Street Trees For The City Of Bethlehem". All trees shall be balled and burlapped unless this requirement is waived by the City Forester for any specified variety.
- (e) All open space, parking, and loading areas shall be landscaped with trees, shrubs, and/or flower beds which will receive the following credits towards landscape area requirements:
- Large trees, for example red oak (Quercus borealis), tulip poplar (Liriodendron tulipifera), and green ash (Fraxinus lanceolate) - two hundred (200) square feet credit.

Medium trees, for example red maple (Acer rubrum), European white birch (Betula alba), and Bradford callery pear (Pyrus calleryana Bradford) - one hundred fifty (150) square feet credit.

Small trees and evergreen trees, for example flowering dogwood (Cornus florida), Kwanzan cherry (Prunus serrulata Kwanzan), and white pine (Pinus strobus) - one hundred (100) square feet credit.

Shrubs and flower beds - only that area which is occupied by such plantings shall be credited.

- (f) The following uses shall be landscaped as follows:
- (1) Landscaped off-street parking and loading areas shall have a minimum of ten (10%) percent of the area represented by approved plantings. These plantings shall be in addition to any buffer plantings which may be necessary.
  - (2) Multi-Family, Townhouse, and PUD Developments shall have a minimum of ten (10%) percent of the area represented by approved plantings in addition to front and side foundation shrubs and any buffer planting which may be necessary to screen garbage collection or parking areas.
  - (3) In Institutional, Office-Research Center, and Planned Industrial Zoning Districts, a minimum lot area equivalent to one-third (1/3) the gross ground floor area of all buildings shall be reserved for approved plantings. This requirement is in addition to buffer and street tree requirements. Outdoor storage areas shall be enclosed by a dense evergreen planting, wall, or fence which shall be in harmony with the building and surroundings.
  - (4) In Shopping Center and Commercial Recreation Zoning Districts, a minimum of ten (10%) percent of all areas not covered by buildings shall be represented by approved plantings. This requirement is in addition to buffer and street tree requirements. Outdoor storage areas shall be enclosed by a dense evergreen planting, wall, or fence which shall be in harmony with the building and surroundings.
- (g) All plantings shown on submitted site plans shall be subject to approval or disapproval by the appropriate authority after a review and recommendation from the City Forester's office. All landscaping, as approved on final site plans, shall be completed and, except on owner-occupied properties, maintained, including the replacement of dead plantings by the applicant or his successors. The City Forester's office shall be responsible for all inspection work regarding approved planting plans and shall report all violations to the Building Inspector for action.

- 1349.09      Fencing: The applicant may be required to construct a woven wire chain link fence or equal at least four and one-half (4-1/2') feet in height above finished grade of the abutting lots along either side of proposed pedestrian walkways. Such fences shall be required along all railroad rights-of-way where the grade of the rails is below the finished grade of the lot or less than five (5') feet above the finished grade of the lot.
- 1349.10      Street Signs: Street name signs shall be installed at every intersection by the applicant. Their design and location must be approved by the City Engineer.
- 1349.11      Street Lights: For safety, convenience, and attractiveness of the subdivision or development, onsite street lighting shall be installed either by the appropriate public utility or the applicant. The Director of Parks and Public Property shall determine whether the utility or the applicant shall have this responsibility. This determination shall be made according to the ability of the subdivision or development area to obtain the SE energy rate for lighting and be contiguous with other City owned street lights. New street lighting eligible for this rate shall be applicant-installed. All others shall be utility-installed.
- (a)      All applicant-installed lights must be installed by a contractor according to City specifications. All such work shall be subject to the review and approval of the City Electrician.
- (b)      If the public utility is to install the street lights, the applicant shall pay all costs for equipment and installation as calculated by the public utility. This money shall be paid to the City in advance as part of the security for the Developer's Agreement.
- (c)      The applicant shall provide a sum of money to the City to pay all costs for the energizing and maintenance of all street lights until such time as a final review and approval is issued by the City Electrician.
- 1349.12      Utility Flood-Proofing: All utilities and facilities, whether public or private, located in flood plains shall be flood-proofed to a point one (1') foot above the regulatory flood elevation. Access points to such utilities and facilities shall be designed and installed in such a manner to provide for self re-flood-proofing upon such access.
- 1349.13      Final Acceptance Of Improvements: Prior to the final acceptance of all required improvements by the City, applicant shall furnish, at his own expense, a Maintenance Bond in a sum equal to ten (10%) percent of the full amount of the cost of the improvements, guaranteeing the City against faulty workmanship and materials, and for maintaining the required improvements in good condition, including, but not limited to, settling, depressions, or sinkholes, for one (1) year from the date of final acceptance.

ARTICLE 1351

VALIDITY, ENFORCEMENT, VARIANCES, LIABILITY AND FEES

1351.01 Validity: Should any section or provision of this Ordinance be declared by a court of competent jurisdiction to be invalid, such a decision shall not affect the validity of the Ordinance as a whole, or any other part thereof.

1351.02 Enforcement: Any applicant who violates any of the provisions of this Ordinance shall be deemed guilty of a misdemeanor and, upon conviction thereof, shall be subject to the following penalties:

- (a) First violation - A fine of \$200.00, or thirty (30) days imprisonment, or both;
- (b) Second violation - A fine of \$500.00, or sixty (60) days imprisonment, or both;
- (c) Third and each subsequent violation - A fine of \$1,000.00, or ninety (90) days imprisonment, or both.

Each day such violation is committed or permitted to continue, shall constitute a separate offense and shall be punishable as such hereunder. Such conviction and fine shall not preclude other enforcement remedies otherwise authorized. The Building Inspector shall be responsible for insuring compliance with the provisions of this Ordinance.

1351.03 Variances:

(a) General: Where the Planning Commission finds that extraordinary hardships or practical difficulties may result from strict compliance with these regulations and/or the purposes of these regulations may be served to a greater extent by an alternative proposal, it may approve variances to these subdivision regulations so that substantial justice may be done and the public interest secured, provided that such variance shall not have the effect of nullifying the intent and purpose of these regulations; and further provided the Planning Commission shall not approve variances unless it shall make findings based upon the evidence presented to it in each specific case that:

- (1) The granting of the variance will not be detrimental to the public safety, health or welfare or injurious to other property.
- (2) The conditions upon which the request for a variance is based are unique to the property for which the variance is sought and are not applicable generally to other property.

(3) Because of the particular physical surroundings, dimensional, topographical, or geological conditions of the specific property involved, a particular hardship to the owner would result, as distinguished from a mere inconvenience, if the strict letter of these regulations are carried out.

(4) The variance will not in any manner vary the provisions of the Zoning Ordinance, Master Plan, or Official Map.

(b) Conditions: In approving variances, the Planning Commission may require such conditions as will, in its judgment, secure substantially the objectives of the standards or requirements of these regulations.

(c) Procedures: A written request for any such variance shall accompany a subdivider's or developer's application for review of a plat or site plan. The request for a variance shall state fully the grounds for the application and all the facts relied upon by the petitioner.

(1) A copy of the application for a variance shall accompany the plat or site plan when sent to all City Bureaus and Departments for comments as part of the normal review process.

(2) All comments regarding the application shall be brought before the Planning Commission for evaluation prior to final plat or plan approval.

(3) Any variance thus granted shall be entered in the minutes of the Commission, setting forth the reasons which, in the opinion of the Commission, justified the variance.

1351.04 Municipal Liability: The granting of a permit or approval of a subdivision and/or land development plan in the identified flood plain shall not constitute a representation, guarantee, or warranty of any kind by the municipality or by any official or employee thereof of the practicability or safety of the proposed use, and shall create no liability upon the municipality, its officials or employees.

1351.05 Fees: Fees for subdivision and/or site plan review shall be set from time to time by resolution of City Council and shall be payable at the time of the filing of the application.



## Appendix A

### **Property Boundary Layers**

Parcels Boundaries (Polygon)  
Layers: ASSR-PRCL (Current), BNDY-SUBD (Subdivision)  
Property Setback (Poly Line)  
Layer: PROP-SBCK  
Building/Structure Footprint (Polygon)  
Layer: BLDG-OTLN  
Right of Way Easements (Poly Line)  
Layer: ESMT-RWAY  
Contours (Poly Line)  
Layers: TOPO-MAJR, TOPO-MINR (Major/Minor), TOPO-SPOT (Spot Elevations)  
Control Points (Point)  
Layer: CNTL-BMRK

### **Water Supply System Layers**

Mains (Poly Line)  
Layers: WATR-UNDR (Underground), WATR-PIPE (Above Grade Pipe)  
Laterals/Private Pipe (Poly Line)  
Layer: WATR-LATL  
Manholes (Point)  
Layer: WATR-MHOL  
Valves (Point)  
Layer: WATR-INST  
Water Meter (Point)  
Layer: WATR-EQPM  
Hydrants (Point)  
Layer: WATR-FHYD  
Wells (Point)  
Layer: WATR-STRC  
Water Easements (Poly Line)  
Layer: WATR-ESMT

### **Sanitary Sewer System Layers**

Mains (Poly Line)  
Layer: SSWR-PIPE  
Laterals/Private Pipe (Poly Line)  
Layer: SSWR-LATL  
Manholes (Point)  
Layer: SSWR-MHOL  
Tanks (Point)  
Layer: SSWR-TANK  
Drainage Field (Polygon)  
Layer: SSWR-DFLD  
Sanitary Sewer Easements (Poly Line)  
Layer: SSWR-ESMT

### **Storm Sewer System Layers**

Mains (Poly Line)  
Layers: STRM-UNDR (Underground), STRM-PIPE (Above Grade Pipe)  
Laterals/Private Pipe (Poly Line)  
Layer: STRM-LATL  
Manholes (Point)  
Layer: STRM-MHOL  
Catch Basin (Point)  
Layer: STRM-CBSN  
Storm Ditches/Swales (Poly Line)  
Layer: STRM-DTCH  
Storm Retention Ponds (Polygon)  
Layer: STRM-POND  
Storm Sewer Easements (Poly Line)  
Layer: STRM-ESMT

### **Natural Gas System and Storage Layers**

Natural Gas Mains (Poly Line)  
Layers: NGAS-UNDR (Underground), NGAS-PIPE (Above Grade Pipe)  
Laterals/Private Pipe (Poly Line)  
Layer: NGAS-LATL  
Natural Gas Manholes (Point)  
Layer: NGAS-MHOL  
Natural Gas Valves (Point)  
Layer: NGAS-INST  
Natural Gas Meter (Point)  
Layer: NGAS-EQPM  
Natural Gas Storage Tank (Point)  
Layer: NGAS-TANK  
Natural Gas Easements (Poly Line)  
Layer: NGAS-ESMT

### **Other Fuel Systems and Storage Layers**

Fuel Gas Pipe  
Layers: FUEL-UNDR (Underground), FUEL-PIPE (Above Grade Pipe)  
Fuel Gas Manholes (Point)  
Layer: FUEL-MHOL  
Fuel Gas Valves (Point)  
Layer: FUEL-INST  
Fuel Gas Meter/Pumps/Motors (Point)  
Layer: FUEL-EQPM  
Fuel Gas Storage Tank (Point)  
Layer: FUEL-TANK  
Fuel Line Easements (Poly Line)  
Layer: FUEL-ESMT

### **Fire Protection Layers**

Fire Lanes/California Roads (Poly Line)  
Layers: FIRE-FLNE (Visible) FIRE-FLCA (Hidden/California)  
Fire Lane Markings  
Layer: FIRE-MRKG  
FDC Standpipe Connections (Point)  
Layer: FIRE-STND  
Knox Box (Point)  
Layer: FIRE-KNOX  
Hazardous Materials Storage (Point)  
Layer: FIRE-HZMT

### **Electrical System Layers**

Electric Lines (Poly Line)  
Layers: POWR-OVHD (Overhead), POWR-UNDR (Underground)  
Laterals/Private Lines (Poly Line)  
Layer: POWR-LATL  
Electric Manholes (Point)  
Layer: POWR-MHOL  
Electric Meter/Shutoffs (Point)  
Layer: POWR-INST  
Electric Poles (Point)  
Layer: POWR-POLE  
Lighting Poles (Point)  
Layer: POWR-LTPL  
Transformers (Point)  
Layer: POWR-EQPM  
Power Line Easements (Poly Line)  
Layer: POWR-ESMT

### **Communications System Layers**

Telecom Lines (Poly Line)  
Layers: COMM-OVHD (Overhead), COMM-UNDR (Underground)  
Laterals/Private Lines (Poly Line)  
Layer: COMM-LATL  
Telecom Manholes (Point)  
Layer: COMM-MHOL  
Telecom Poles (Point)  
Layer: COMM-POLE  
Telecom Towers (Point)  
Layer: COMM-TOWR  
Telecom Line Easements (Poly Line)  
Layer: COMM-ESMT

### **Transportation Network Layers**

Edge of Pavement (Poly Line)  
Layers: ROAD-CURB (Curbed), ROAD-EDGE (No Curb)  
Street Centerline (Poly Line)  
Layer: ROAD-CNTR  
Street/Roadway Markings (Poly Line)  
Layer: ROAD-MRKG  
Sidewalk Edge (Poly Line)  
Layer: SWLK-EDGE  
Sidewalk Centerlines (Poly Line)  
Layer: SWLK-CNTR  
Rail Lines (Poly Line)  
Layer: RAIL-CNTR  
Rail Line Right of Way/Easements (Poly Line)  
Layer: RAIL-ESMT

### **Parking/Vehicle Storage Layers**

Parking Areas Edge (Poly Line)  
Layers: PRKG-CURB (Curbed), PRKG-EDGE (No Curb), PRKG-UPVD (Unpaved)  
Parking Entrances/Driveways Centerline (Poly Line)  
Layer: DRIV-CNTR  
Parking Entrances/Driveways Edge (Poly Line)  
Layers: DRIV-EDGE (Paved), DRIV-UPVD (Unpaved)  
Parking Lot/Driveway Markings (Poly Line)  
Layer: PRKG-MRKG  
Driveway Easements (Poly Line)  
Layer: DRIV-ESMT

CERTIFICATION OF OWNERSHIP

I (we) the owner(s) of \_\_\_\_\_, being duly sworn according to law, depose and say that I (we) am (are) the sole owner(s) of the above property in peaceful possession of the same and that there are no suits or liens pending affecting the title thereof.

\_\_\_\_\_  
Signature of Owner

Sworn and subscribed to before me this \_\_\_\_ day of \_\_\_\_\_, 19\_\_\_\_.

SEAL

My Commission expires on \_\_\_\_\_.

\*\*\*\*\*

CERTIFICATION OF OWNERSHIP (CORPORATION)

I, \_\_\_\_\_ of \_\_\_\_\_  
Name Corporation Name  
being duly sworn according to law, and acting in my capaCity as \_\_\_\_\_  
Title

depose and say that the above named corporation is the true and lawful owner of property known as \_\_\_\_\_; that the above described  
Describe property and address  
property is in peaceful possession of said corporation and that there are no suits or liens pending affecting the title thereof.

\_\_\_\_\_  
Corporation

By:

\_\_\_\_\_  
Corporation Official

ATTEST:

\*\*\*\*\*

ENGINEER'S OR SURVEYOR'S CERTIFICATION

I hereby certify that this plan correctly and accurately represents the lands of the owner and, where applicable, the lots, buildings, streets, parking areas, walkways, and other structures and improvements shown thereon.

\_\_\_\_\_  
Registered Engineer or Surveyor

SEAL

Registration No. \_\_\_\_\_