SECTION 02501 - STANDARDS OF ROADWAY GEOMETRIC DESIGN

PART 1 - GENERAL

1.1 SECONDARY PLATS SHALL CONFORM TO THE FOLLOWING REQUIREMENTS AND STANDARDS:

A. Minimum Pavement Width

- 1. Minimum pavement widths, to be installed at the subdivider's expense, shall be as follows:
 - a. Primary Arterials: Four (4) lanes at 12 feet, 16 feet center turn lane, plus two (2) feet curb and gutter.
 - b. Secondary Arterials: Four (4) lanes at 12 feet, or two (2) lanes at 12 feet plus two (2) parking lanes at ten (10) feet, plus two (2) feet curb and gutter.
 - c. Collector Streets: 36 feet back of curb to back of curb (2 feet curb and gutter).
 - d. Local Roads or Streets: 30 feet back of curb to back of curb (2 feet curb and gutter). When approved by the Fortville Utilities Superintendent, local road and street widths on interior, low volume roadways and cul-de-sacs may be 32 feet back of curb to back of curb (2 feet curb and gutter).
 - e. The pavement of a turning circle at the end of cul-de-sacs shall have a minimum outside diameter of 80 feet back of curb to back of curb (2 feet curb and gutter).
 - f. Alleys: full width of the right-of-way.
 - g. In all residential or commercial areas, the minimum pavement width shall be 30 feet back of curb to back of curb.
- 2. In all industrial areas, the minimum pavement width shall be 24 feet with 8 feet of shoulder on each side of the pavement with "No Parking" on the shoulders.
- B. Street Grades, Curves, and Sight Distances
 - 1. The minimum vertical grade for all streets shall be 0.5%.
 - 2. Maximum Vertical Grades

- a. The maximum vertical grade for Primary Arterials and Secondary Arterials shall be 5.0%.
- b. The maximum vertical grade for Collectors shall be 8%.
- c. The maximum vertical grade for Local Roads and Streets shall be 8%.
- d. The first 25 feet of an intersecting roadway, from the outer edge of a through roadway, shall be designed with a two percent (2%) downward grade. With a sag vertical curve situation, the two percent grade shall connect with the remaining street profile grade using a minimum vertical curve length of 50 feet. This sag vertical curve may start at the edge of the through roadway. With a crest vertical curve at the approach to an intersection, the two percent downward grade shall extend 25 feet from the edge of the through roadway and the crest vertical curve can begin at that point. The length of the crest vertical curve shall meet the requirements of the 1990 AASHTO Standards for crest vertical curves.
- 3. Vertical curves shall be designed to meet or exceed 1990 AASHTO Standards for sag and crest vertical curves as shown in Tables III-40 and III-42.
 - a. Local Roads or Streets shall have a design speed of 30 mph.
 - b. Collectors shall have a design speed of 30 mph.
 - c. Primary Arterials and Secondary Arterials shall have a minimum design speed of 40 mph.
- 4. Horizontal centerline curve radius shall meet or exceed 1990 AASHTO Standards and shall correspond to the following design speeds:
 - a. Local Roads or Streets and Collectors shall have a design speed of 30 mph and require a 300 foot minimum centerline radius.
 - b. Primary Arterials and Secondary Arterials shall have a design speed of 40 mph and require a 675 foot minimum centerline radius.
 - c. Tangent distance between reverse curves shall be 100 feet.
- 5. The maximum length cul-de-sac length shall be 600 feet measured along the centerline from the intersection at the origin to the center of circle. Each cul-de-sac shall have a terminus of circular shape with minimum

right-of way diameter of 100 feet for residential use and 120 feet for industrial use. Reference Figure 2500O.

C. Intersections

- 1. At street and alley intersections, property line corners shall be rounded by an arc, the minimum radius of which shall be 20 and ten (10) feet respectively. In business districts, a chord may be substituted for such arc.
- 2. Street Curb intersections shall be rounded by radii of at least 25 feet. A radius of 40 feet shall be used at the intersection with a Primary Arterial, Secondary Arterial or Collector street.
- 3. The above minimum radii shall be increased when the angle of street intersection is less than 90 degrees.
- 4. Intersections of more than two (2) streets at one point will not be allowed.
- 5. Street jogs with centerline offsets of less than 125 feet shall not be permitted.
- 6. All streets shall intersect at 90 degrees whenever possible for a minimum distance of 100 feet; however, in no instance shall they intersect at less than 80 degrees onto Primary Arterials, Secondary Arterials, or Collectors; or at less than 70 degrees onto Local Roads or Streets.
- 7. The following paragraphs shall be required as provisions of restrictive covenants of all Secondary Plats to which they apply:
 - a. No fence, wall, hedge, tree or shrub planting which obstructs sight lines and elevations between three (3) and nine (9) feet above the street shall be placed or permitted to remain on any corner lot within the triangular area formed by the street right-of-way lines and a line connecting points 40 feet from the intersection of said street lines 40 feet for Collectors and Local Roads and Streets; and 75 feet for Primary Arterials and Secondary Arterials, or in the case of a rounded property corner, from the intersection of the street right-of-way lines extended.
 - b. The same sight line limitations shall apply to any lot within ten (10) feet of the intersection of a street right-of-way line with the edge of the driveway pavement or alley line. No driveway shall be located within 75 feet of the intersection of two streets.
- 8. At the intersection of any proposed Local Road or Street with a Primary Arterial, Secondary Arterial, or Collector, acceleration and deceleration

lanes, passing blisters or left turn lanes shall be provided on the Primary Arterial, Secondary Arterial, or Collector. Reference Figure 2500B

D. Easements

- 1. Where alleys are not provided, easements for utilities shall be provided. Such easements shall have minimum widths of 20 feet, and where located along lot lines, one-half the width shall be taken from each lot.
- 2. Where a subdivision is traversed by a watercourse, drainage ditch, channel, or stream, adequate areas for storm water or drainage easements shall be allocated for the purpose of widening, deepening, sloping, improving or protecting said watercourses in accordance with the requirements of the County Drainage Board and the Town.
- 3. The developer is encouraged to design for the placement of utility lines underground, following the required standards and specifications established by each utility company. The location of each underground utility system shall be shown by appropriate easement lines on the proposed plat.

PART 2 - PRODUCTS

Not Applicable

PART 3 - EXECUTION

Not Applicable

END OF SECTION 02501