

APPENDIX

ARTICLE 6

DESIGN STANDARDS FOR STREETS

**TABLE 6-1
DESIGN STANDARDS FOR STREETS**

DESIGN SPECIFICATIONS	TYPE OF STREET		
	ARTERIAL	COLLECTOR	LOCAL OR MARGINAL ACCESS
RIGHT OF WAY ¹	80	60	50
CARTWAY WIDTH ²	*	24	20
CURBS ON BOTH SIDES & NO ON STREET PARKING	*	26	22
CURBS & ONE SIDE ON STREET PARKING	*	30	26
CURBS & BOTH SIDES ON STREET PARKING	*	34	28
SHOULDERS ³	*	6	4
MINIMUM SIGHT DISTANCE ⁴	*	250	150
MINIMUM TANGENTS BTW REVERSE CURVES ⁵	*	150	100
DESIGN SPEED	*	40	30
MINIMUM CENTERLINE RADII FOR HORIZONTAL CURVES	*	200	200
MAXIMUM GRADES	*	7%	9%
CARTWAY MINIMUM CROWN	*	2%	2%

¹Additional right-of-way width and cartway widths may be required by the Township to provide for additional construction requirements such as cuts, fills and embankment areas. In cases where topography or other physical conditions make a street required width impractical, the Township may modify the above requirements

²There shall be a 7-foot wide utility easement on both sides of any public right-of way located beyond the pavement of the cartway. All utilities shall be placed within such easements.

³Shoulders. In addition to the cartway widths stated above, any street that does not have curbs shall include 6 feet wide shoulders along each side of the cartway of a collector street and 4 feet wide shoulders on each side of the cartway of any local or marginal access street.

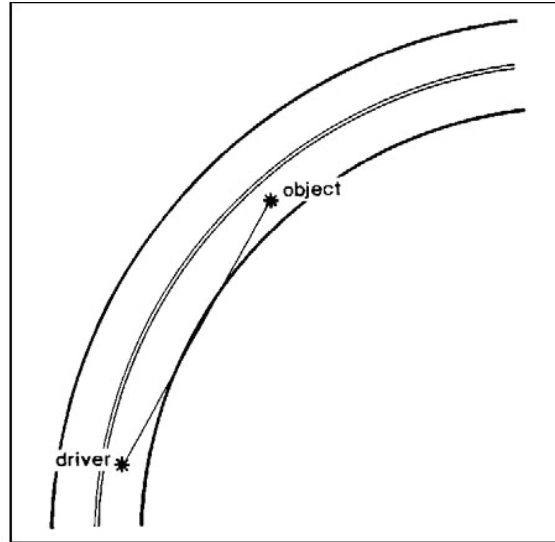
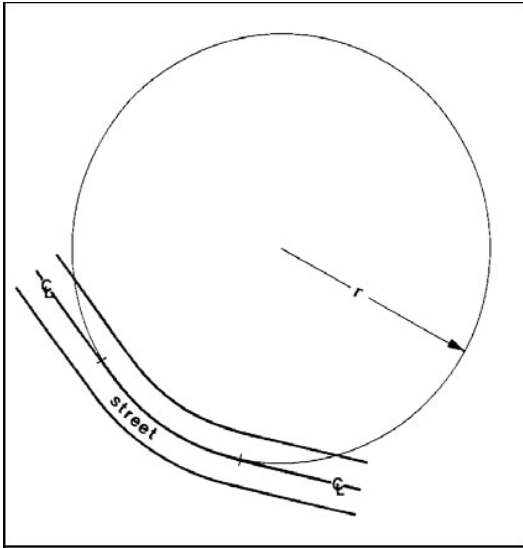
⁴Horizontal sight distances shall be measured a point 3.5 feet above the road surface to a point 6 inches above the road surface, and shall be based upon standards of the American Association of State Highway and Transportation Officials (AASHTO).

⁵ All tangents shall be measured along the street centerline.

* All improvements for arterial streets shall be determined by the Board of Supervisors, on a case by case basis, with the recommendation of the Planning Commission and Township Engineer.

HORIZONTAL CURVES

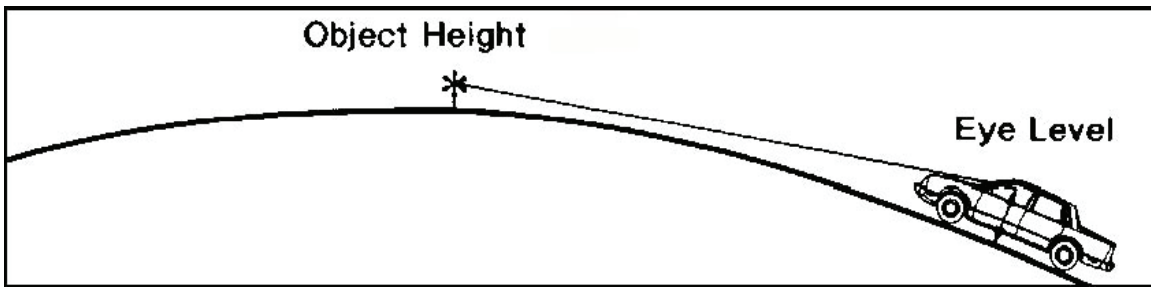
Horizontal curves shall connect street lines that are deflected in excess of 2 degrees.



VERTICAL CURVES

Vertical curves shall be used at changes of grade exceeding 1 percent. The length of the vertical curve shall be determined by the required sight distance specified in Table 6-1.

All approaches to an intersection of 2 or more streets shall have a leveling area not greater than 4 percent grade for a minimum distance of 25 feet, measured from the nearest right-of-way line of the intersecting street.



Sight Distance - on crest of hill (vertical curve).

CLEAR SIGHT TRIANGLES

At all intersections, a triangular area shall be graded and/or other sight obstructions removed in such a manner as not to obscure vision between a height of from two (2) to ten (10) feet above the center-line grades of the intersecting streets.

- A. The clear sight triangle shall be guaranteed either by deed restriction, by lease restriction or by plan reference, whichever method is applicable. Vegetation shall not be planted or allowed to grow in such a manner as to obscure said vision.
- B. Such triangular area shall be determined by the intersecting street center-lines and a diagonal connecting the two points, one point at each street center-line. The point along

the secondary street centerline shall be ten (10) feet back from the pavement line of the through street. The points along the centerline of the through street shall be set in accordance with the following table.

- C. Whenever a portion of the line of such triangle occurs behind (from the street) the building setback line, such portion shall be shown on the final plan of the subdivision and shall be considered a building setback line.

Road Classification	Speed (miles per hour)	Distance (feet)
LOCAL OR MARGINAL ACCESS	30	300
COLLECTOR STREET	40	400
ARTERIAL STREET*	*	*

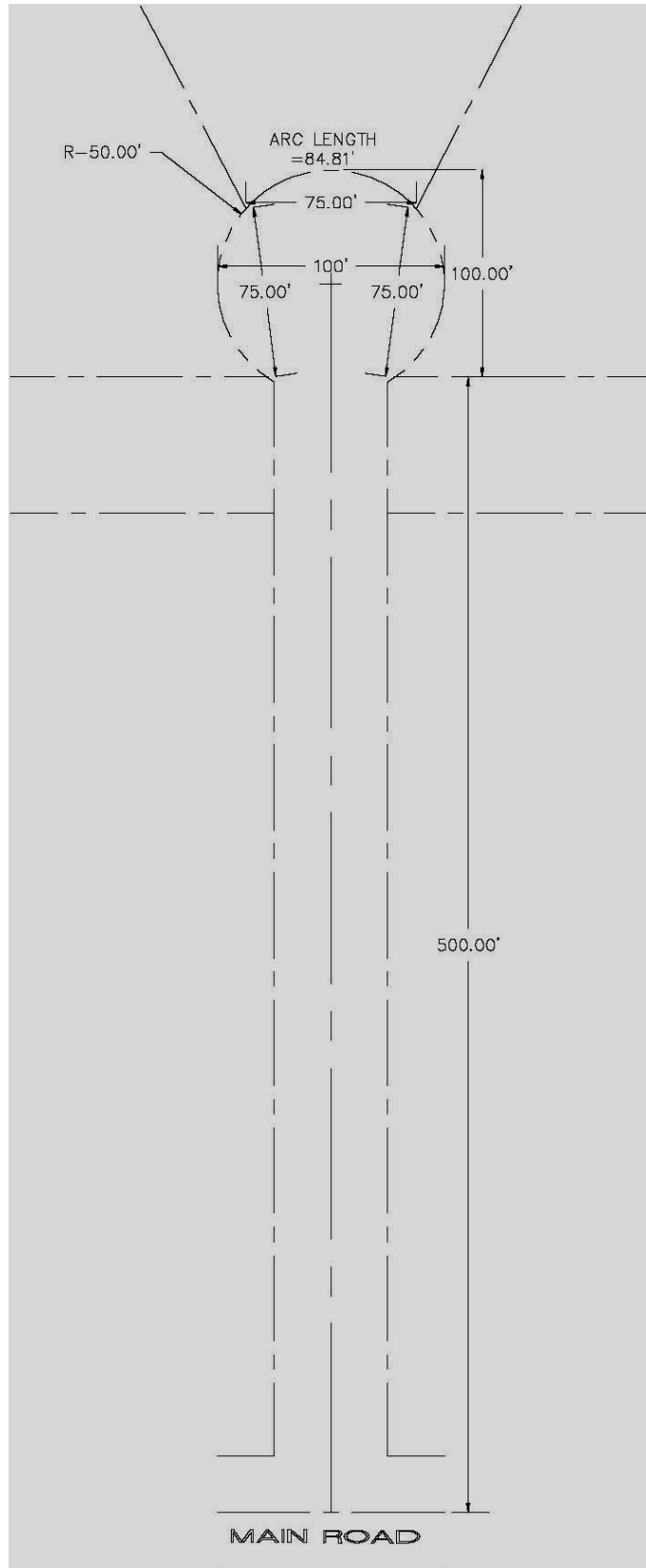
* To be determined by the Board of Supervisors, on a case by case basis, with the recommendation of the Planning Commission and Township Engineer.

CUL-DE-SAC STREETS

All cul-de-sac streets, whether permanently or temporarily designed as such, shall terminate in a circular turnaround and shall be designed in accordance with the following standards:

1. A circular right-of-way with a minimum diameter of 100 feet, with a minimum radius of forty (40) feet, as measured to the outer pavement edge or curb line, and improved to the required construction specifications.
2. For all lots fronting upon the arc of a cul-de-sac, there shall be a minimum cord distance of not less than seventy-five (75) feet as measured from the side yard lot lines for each lot. (SEE DESIGN STANDARDS ILLUSTRATION ON FOLLOWING PAGE).
3. The entire area within a cul-de-sac shall be paved. No physical obstructions shall be permitted within the cul-de-sac including, but not limited to, islands, vegetative cover, trees, and/or any other types of decorative features.

**RICE TOWNSHIP
CUL-DE-SAC DESIGN REQUIREMENTS**



RICE TOWNSHIP PAVING STANDARDS

The paving standards for Rice Township shall reflect the following PennDOT Superpave Standards, or any subsequent revision which may be adopted by PennDOT.

PennDOT – SUPERPAVE STANDARDS

Procedures/Specification. Design of all streets constructed shall be in accordance with the guidelines and requirements for Design of Local Roads and Streets contained in **Design Manual, Part II, Highway Design, latest revision and PennDOT Publication No. 408.2000** Edition or latest. The following procedures shall be followed for construction.

Local Street

1. If at the time of construction, local, unstable subgrade conditions are encountered, the Township Engineer may require that all areas of unstable subgrade may be excavated to sufficient depth, replaced with approved material, and compacted to a density and stability equal to, or greater than the surrounding subgrade. The Township Engineer may require PennDOT No. 408 Specifications to be installed for the entire subgrade of the proposed cart way. Pavement base drain may be required by Township Engineer.
2. Fine grade and roll subgrade.
3. Cut out all soft and yielding areas to a maximum depth of two (feet (2') and backfill with 2A modified or 3A modified crushed stone compacted in 6" lifts. If the soil is still soft at the 2' depth, place geotextile fabric in the bottom prior to backfilling with 2A or 3A modified crushed stone.
4. Place and compact a minimum six-inch (6") depth of 2A modified crushed stone.
5. Place and compact a minimum four-inch (4") depth of Superpave asphalt design, 25.0 mm, PG 64-22 base course.
6. Place and compact a minimum one and one half inches (1 1/2") of Superpave asphalt design, 9.5 mm, PG 64-22 wearing course. The appropriate skid resistance level shall be used in accordance with PennDOT Publication No. 408 and 242. Design mix shall be submitted to Township for review to include appropriate ESAL.