

ARTICLE 1700

SITE Capacity Analysis and Density Determination for Non-Conservation Subdivisions in the CR and SR Zoning Districts and Developments in the MDR District

§ 208-1701. Purpose.

- A. The SITE capacity analysis provides the mechanism for subtracting from the BASE SITE AREA all portions of a SITE inappropriate for DEVELOPMENT due to the presence of sensitive environmental resources or land features. Consequently, the purpose of this section is to determine the extent to which a SITE may be utilized given its unique physical characteristics.
- B. The SITE capacity analysis required by this section provides a logical and rational basis for:
 - 1. Establishing the intensity of DEVELOPMENT in relation to the natural capabilities of the land to sustain disturbance without incurring significant disruption of the sensitive natural resources and features of the TOWNSHIP; and
 - 2. Protecting PERSONS and property from hazards resulting from the inappropriate DEVELOPMENT of land containing sensitive, unstable or hazardous natural resources or features.

§ 208-1702. Applicability.

- A. In the Conservation Residential (CR), SUBURBAN RESIDENTIAL (SR), and MEDIUM DENSITY RESIDENTIAL (MDR) ZONING DISTRICTS, those USES listed in Subsection B below shall submit a BASE SITE AREA calculation in accordance with § 208-1704 below, as a condition of approval of any LAND DEVELOPMENT PLAN, plan of SUBDIVISION or BUILDING PERMIT required under this chapter.
- B. The resource protection land calculations and determination of SITE capacity required by this Article shall apply and be submitted in the following instances:
 - 1. Any MAJOR SUBDIVISION, or MOBILE HOME PARK within the Conservation Residential (CR) SUBURBAN RESIDENTIAL (SR) and MEDIUM DENSITY RESIDENTIAL (MDR) ZONING DISTRICTS, that is not developed as a conservation subdivision.
 - 2. LAND DEVELOPMENT consisting of five (5) or more DWELLING UNITS in the Conservation Residential (CR) SUBURBAN RESIDENTIAL (SR) and MEDIUM DENSITY RESIDENTIAL (MDR) ZONING DISTRICTS, THAT IS NOT DEVELOPED AS A CONSERVATION SUBDIVISION.
 - 3. Non-residential conditional uses permitted in CR, SR and MDR Zoning Districts.
- C. Resource Protection Land may be either located in OPEN SPACE and outside of LOT AREAS or may be placed in conservation EASEMENTS within the LOT AREA.

D. Standards for location and management shall be as follows;

1. All conservation EASEMENTS shall be identified on the property;
2. The DEVELOPER shall identify on each conservation EASEMENT all resources that are protected in said easement.
3. The DEVELOPER, on the PLAN, shall provide, in writing on the PLAN, that the resources protected within the conservation EASEMENT shall not be disturbed;
4. The DEVELOPER shall, in writing on the PLAN, grant and convey the conservation EASEMENTS to all LOT OWNERS of the PLAN and/or homeowners' association properly created;
5. The grant of EASEMENT shall be forever;
6. The EASEMENT granted shall be for the conservation of all resources identified within the EASEMENT which shall not be disturbed;
7. The conservation EASEMENT granted to the LOT OWNERS or homeowners' association shall not be saleable, assignable or transferable without the consent of the BOARD OF SUPERVISORS OF MARSHALL TOWNSHIP. Any sale, assignment or transfer of the conservation EASEMENTS shall require the consent of two-thirds (2/3) of all LOT OWNERS in the PLAN;
8. The DEVELOPER shall grant to the LOT OWNERS or the homeowners' association the right to maintain said EASEMENT and to do so the right to traverse by foot or vehicle over any LOT to maintain said EASEMENT. Any damage caused to any LOT in maintaining the EASEMENT shall be repaired at the expense of the LOT OWNERS or homeowners' association;
9. All deeds for LOTS that contain conservation EASEMENTS shall, in a conspicuous location, have language identifying the conservation EASEMENT and advising the purchaser of the LOT that the resources contained in the conservation EASEMENT shall be undisturbed. The deed shall further contain language identifying that the LOT OWNERS or homeowners' association have a right to traverse over the purchaser's LOT to maintain the EASEMENT;
10. In the event that the organization established to maintain the conservation EASEMENT or any successor organization shall, at any time after establishment of the DEVELOPMENT, fail to maintain the conservation EASEMENT in reasonable order and condition, the BOARD OF SUPERVISORS may proceed to demand that the deficiencies in maintenance be corrected or that the TOWNSHIP will enter upon and maintain the conservation EASEMENT. Notice to the property owners shall set forth the manner in which the organization has failed to maintain the conservation EASEMENT, and said notice shall include a demand that such deficiencies of maintenance be corrected within thirty (30) days, the notice shall state that the property owners or homeowners' association may, within fourteen (14) days of the notice, request a hearing before the BOARD OF SUPERVISORS. The cost of such maintenance by the TOWNSHIP shall be assessed ratably against the properties within the DEVELOPMENT and shall become a lien on said properties. The TOWNSHIP at the time of entering upon said conservation EASEMENT, for the purpose of maintenance, shall file a notice of lien in the office of the Prothonotary of Allegheny County upon the properties within the DEVELOPMENT.
11. All of the above requirements shall be included in writing on the PLAN and given to any prospective LOT purchaser.

§ 208-1703. Relationship of ZONING DISTRICT standards to SITE capacity analysis.

- A. All DEVELOPMENTS shall comply with the standards set out in the applicable ZONING DISTRICT governing the maximum density, maximum floor area, maximum IMPERVIOUS SURFACE, minimum LOT AREAS and width requirements and minimum OPEN SPACE requirements specified for each ZONING DISTRICT. In the case of RESIDENTIAL USES, SITE capacity for any proposed DEVELOPMENT is equal to the net buildable area of the SITE multiplied by the DENSITY FACTOR. The SITE capacity calculation provides the mechanism for subtracting from the BASE SITE AREA all portions of a SITE that are inappropriate for DEVELOPMENT.

§ 208-1704. BASE SITE AREA calculations.

A. The first step in the determination of the SITE capacity is to establish the BASE SITE AREA. If SITE capacity analysis is required, the following calculations shall be submitted:

1. Gross SITE area as determined by actual on-SITE survey: ___Acres

2. Subtract land constituting existing or future STREET RIGHT-OF-WAYS, EASEMENT of access, or area set aside for public or private utilities, stormwater facilities and EASEMENTS: ___Acres

3. Subtract land which is not contiguous:
 - (a) A separate parcel which does not abut, adjoin or share common boundaries with the rest of the DEVELOPMENT: ___Acres

 - (b) Land which is cut off from the main parcel by a road, railroad, existing land USES or major STREAM so that common USE is hindered or the land is unavailable for building purposes: ___Acres

4. Subtract land that in a previously approved SUBDIVISION encompassing the same land, which as part or all of the subject parcel, was reserved for resource protection reasons (e.g., flooding): ___Acres

5. Subtract land required for BUFFERYARDS pursuant to § 208-2202 and § 208-1507 of this chapter. Do not subtract BUFFERYARD areas where they contain Resource Protection Land. To determine the amount of Resource Protection Land in the BUFFERYARD, a similar Table as that in § 208-1705 shall be used. Column 3 shall be labeled "Acres of Resource Land in BUFFERYARD" and column 4 shall be labeled "Resource Protection Land in BUFFERYARD". ___Acres

6. Equals BASE SITE AREA: ___Acres

§ 208-1705.Resource Protection Land calculations.

A. One (1) of the principal factors that will influence the intensity of DEVELOPMENT on a particular parcel of land is the requirement for protecting the designated environmental resources existing on the SITE. Specific natural resources that are sensitive to DEVELOPMENT, such as WOODLANDS, STEEP SLOPES, FLOODPLAINS and STREAMS, are protected under §208-1706 of this chapter. All land area consisting of the natural resources or natural features listed in the following table shall be mapped and quantified by the DEVELOPER as part of the SITE DEVELOPMENT PLAN review process. The Resource Protection Land shall be calculated in the following manner:

1. Calculate the total area (acreage) of each natural resource.
2. Multiply the total area of each resource by the preservation RATIO for that resource to determine the amount of Resource Protection Land required to be kept in OPEN SPACE or conservation easements in order to protect the resource or feature.
3. On that portion of the SITE where two (2) or more resources overlap, only that natural resource which has the highest preservation RATIO shall be calculated.
4. All Resource Protection Land must be preserved by either OPEN SPACE or conservation EASEMENTS. All Resource Protection Land for WOODLANDS, WETLANDS and FLOODPLAINS must be located in OPEN SPACE and outside of LOT AREAS.

Resources/ Natural Features (All Districts)	Preservation Ratio	Acres of Land in Resource	Resource Protection Land (Acres in Resource x Preservation Ratio)
DRAINAGEWAYS	.50	_____	_____
FLOODPLAINS	1.00	_____	_____
WETLANDS	1.00	_____	_____
WOODLANDS	.45	_____	_____
STEEP SLOPES (15% to 25%)	.40	_____	_____
STEEP SLOPES (greater than 25%)	.80	_____	_____
TOTAL LAND IN RESOURCE		_____	_____
TOTAL RESOURCE PROTECTION LAND			_____

§ 208-1706. Natural resource or environmental protection standards.

A. On that portion of the SITE where two or more resources overlap, only that natural resource which has the highest preservation ratio shall be calculated by the following standards. The following standards refer to the same mapped portions of each resource as determined by § 208-1705.

1. WOODLANDS. No more than forty five (45%) percent of any WOODLAND may be cleared or developed. The remaining fifty-five percent (55%) shall be maintained as permanent OPEN SPACE. The DEVELOPER may clear or develop more than the area of WOODLANDS otherwise permitted to be disturbed by this section, provided that no more than seventy (70%) of WOODLANDS may be disturbed. Should the DEVELOPER clear or develop more than 45% of a WOODLAND AREA then:

- (a) The DEVELOPER shall designate a new WOODLAND area on an unforested part of the SITE.
- (b) The new WOODLAND area shall consist of one and two-tenths (1.2) times the surface acreage of the WOODLAND area disturbed for that portion of the area of disturbance which exceed the forty-five percent (45%) area of disturbance for WOODLANDS.
- (c) No clearing or timbering of any WOODLAND may occur unless connected with an approved SITE plan.
- (d) As an alternative to the creation of a new woodland area, tree replacement based on a tree survey may be done. All trees six inches (6") DBH or larger must be replaced as follows:
 - 1 Replacement tree is required for each 2 trees 6" to 9" DBH that are removed.
 - 1 Replacement tree is required for each 1 tree 9" to 12" DBH that is removed.
 - 2 Replacement trees are required for each tree 12" to 18" DBH that is removed.
 - 4 Replacement trees are required for each tree 18" to 24" DBH that is removed.
 - 8 Replacement trees are required for each tree 24+" DBH that is removed.

Replacement trees shall be trees that are at least of two-inch caliper. Said replacement trees shall be guaranteed to be alive one (1) year after planting. At least seventy (70) percent of the replacement trees are required to be CANOPY TREES. **[Amended 5/12/2008 by Ord. No. 389]**

2. STEEP SLOPES. In areas of STEEP SLOPES, the following standards will apply:

- (a) Fifteen percent (15%) to twenty-five percent (25%) slope: no more than sixty percent (60%) of such areas shall be developed and/or regraded or stripped of vegetation.
- (b) More than twenty-five percent (25%) slope: no more than twenty percent (20%) of such areas shall be developed and/or regraded or stripped of vegetation.

3. DRAINAGEWAYS. No more than fifty percent (50%) of such areas may be developed.

4. Existing vegetation. Existing, healthy plant material may be counted as contributing to the total plant material required by the landscaping and BUFFERYARD requirements of this chapter, except in the case of establishment of new WOODLANDS. Whenever an existing area

meets the definition of WOODLAND, it shall satisfy any planting required by this chapter, regardless of the mix of plant materials, provided that UNDERSTORY TREES and shrubs constitute at least seventy percent (70%) of the individual trees and shrubs present. If UNDERSTORY TREES and shrubs constitute less than seventy percent (70%) of the trees and shrubs present, additional plant material shall be installed in order to meet the requirements otherwise imposed. No tree greater than five-inch caliper shall be counted if more than one-eighth (1/8) of the area under its canopy or dripline is less than fifteen (15) feet from a BUILDING, PARKING AREA or road.

5. Establishment and maintenance of WOODLANDS. The establishment of a WOODLAND shall conform to the following standards:
 - (a) The minimum area shall be one and five-tenths (1.5) acres.
 - (b) No area of WOODLAND shall be less than fifty (50) feet wide.
 - (c) The following plant material shall be provided per acre of WOODLAND when required to be established. Fractional requirements (resulting from fractions of acres to be established) shall be rounded up to the nearest whole number.

WOODLAND Plant Materials

Required per Acre	Minimum Size
5 slower growing CANOPY TREES	3-inch caliper
10 CANOPY TREES	2-inch caliper
20 faster growing CANOPY TREES	1-inch caliper
30 slower growing CANOPY TREES	5 feet high
10 UNDERSTORY TREES	1-inch caliper
100 shrubs	3 feet high

- (d) All new plant materials shall meet the requirements set forth in the American Standard for Nursery Stock, published by the American Association of Nurserymen, ANSI 260.1, latest edition. All existing healthy trees shall be preserved to the maximum extent possible.
- (e) All areas of a newly established WOODLAND shall be mulched and/or seeded as lawn unless ground cover is to be established and maintained.
- (f) In maintaining newly established WOODLAND areas, additional plants established by natural succession shall be retained. Dead trees shall be removed where they adjoin roads or BUILDINGS, but otherwise left alone and felled and left at the SITE. Debris and litter shall be cleaned on an annual or semiannual basis. Damage to fifteen percent (15%) or more of the stand due to disease, wind or fire within a period of two (2) years from their installation shall require the replacement of all such damaged trees.

6. FLOODPLAINS. One hundred percent (100%) of the FLOODPLAINS must be maintained in OPEN SPACE.
7. WETLANDS. One hundred percent (100%) of the WETLANDS must be maintained in OPEN SPACE.
8. A LAND DISTURBANCE map shall be submitted for each natural resource on the SITE that denotes the required preservation area.

§ 208-1707. Determination of SITE capacity (all RESIDENTIAL land USES).

A. Individual SITE capacity is determined by calculating the net buildable SITE area. For residential DEVELOPMENTS, the number of DWELLING UNITS permitted is determined by multiplying the NET DENSITY FACTOR by the net buildable SITE area. NET DENSITY FACTORS and DISTRICT preservation ratios for residential DISTRICTS are provided in § 208-1708. The calculations are as follows:

Begin with	TOTAL RESOURCE PROTECTION LAND (derived from computations required in § 208-1704 and § 208-1705)		_____
EQUALS	REQUIRED OPEN SPACE AND CONSERVATION EASEMENTS	=	_____
Begin with	BASE SITE AREA		_____
Subtract	REQUIRED OPEN SPACE AND CONSERVATION EASEMENTS	-	_____
EQUALS	NET BUILDABLE SITE AREA	=	_____
Multiply by	DISTRICT MAXIMUM NET DENSITY FACTOR	X	_____
EQUALS	NUMBER OF DWELLING UNITS (do not round off; use lowest whole number)	=	_____
<hr/>			
Begin with	BASE SITE AREA		_____
Multiply By	MAXIMUM GROSS DENSITY (see § 208-1708)	X	_____
EQUALS	MAXIMUM DWELLING UNITS (Do not round off; use lowest whole number)	=	_____
SELECT	MAXIMUM DWELLING UNITS or NUMBER OF DWELLING UNITS (whichever is less)	=	_____

§ 208-1708 DENSITY FACTORS and OPEN SPACE RATIOS for RESIDENTIAL DISTRICTS.

A. OPEN SPACE determination.

1. For LAND DEVELOPMENTS involving MULTI-FAMILY or attached DWELLING UNITS -:
 - (a) The Resource Protection Land for WOODLANDS, WETLANDS and FLOODPLAINS (§208-1705)
2. For MOBILE HOME PARKS - the greater of the following:
 - (a) Thirty percent (30%) minimum of the TRACT, or
 - (b) The Resource Protection Land for WOODLANDS, WETLANDS and FLOODPLAINS. (§208-1705)

B. DENSITY FACTORS and OPEN SPACE RATIOS for RESIDENTIAL DISTRICTS shall be as follows:

**TABLE OF RESIDENTIAL PERFORMANCE STANDARDS
FOR RESIDENTIAL DISTRICTS¹**

DISTRICT	MAXIMUM GROSS DENSITY
Conservation Residential (CR)	0.75
Suburban Residential (SR)	2
Medium Density Residential (MDR)	
TWO-FAMILY DWELLINGS	4
QUADPLEXES	6
TOWNHOUSES	8
APARTMENTS	12

NOTES:

¹ All density figures shown are expressed in units per acre unless otherwise noted.