

§ 50.37 - IMPERVIOUS COVER.

(A)*Maximum limitations.* A 30 percent maximum limitation on impervious cover is hereby established for any new development or redevelopment added together with the existing development for the site.

(B)*Impervious cover limit calculations.* Impervious cover limits in this section are expressed as a percentage of the gross site area of the subject tract. For purposes of calculation of impervious cover limits, the gross site area includes water quality buffer zone (WQBZ) areas and critical environmental feature (CEF) setback areas.

(C)*Human-made improvements.* Impervious cover shall include all human-made improvements which prevent the infiltration of water into the natural soil or prevent the migration of the infiltration as base flow. The following shall be considered as impervious cover:

- (1) Roads, pavements and driveways;
- (2) Parking areas;
- (3) Buildings;
- (4) Pedestrian walkways and sidewalks;
- (5) Concrete, asphalt, masonry, surfaced areas and paving stone surfaced areas;
- (6) One hundred percent of the horizontal water surface area of a swimming pool, spa, hot tub, or aquatic facility as listed in the 2015 ISPSC International Swimming Pool and Spa Code;
- (7) Densely compacted natural soils or fills which result in a coefficient of permeability less than  $1 \times 10^{-6}$  cm/sec;
- (8) All existing human-made impervious surfaces prior to development;
- (9) Water quality and storm water detention basins lined with impermeable materials;
- (10) Storm water drainage conveyance structures lined with impermeable materials; and
- (11) Fifty percent of the horizontal surface area of an uncovered deck that has drainage spaces between the deck boards that is located over a pervious surface.

(D) *Exceptions to impervious cover calculations.*

- (1) Existing roads adjacent to the development and not constructed as part of the development at an earlier phase;
- (2) Naturally occurring impervious features, such as rock out- crops;
- (3) Landscaped areas and areas remaining in their natural state;
- (4) Water quality controls and storm water detention basins not lined with impermeable materials; and
- (5) Storm water drainage conveyance structures not lined with impermeable materials.
- (6) Interlocking or "permeable pavers" based on percent of permeability;
- (7) Functioning rainwater harvesting systems, with the exception of the catchment area/roof which may only receive a partial credit as defined in paragraph (G) *CALCULATION OF THE DISCOUNT* herein.

(E) *Reduction incentives.*

- (1) Rainwater harvesting. Rainwater harvesting consists of a series of components designed to capture, store and reuse rainwater. A rainwater harvesting system consists of six basic components including:
  - (a) Catchment area/roof, which is the surface on which the rain falls;
  - (b) Gutters and downspouts, which transport the water from the catchment area to storage;
  - (c) Leaf screens and roof washers, which are used to filter out debris;
  - (d) Cisterns or storage tanks where collected rainfall is stored;
  - (e) Conveyance, which is the method of delivering the water either by gravity or pump; and
  - (f) Water treatment, which includes filters and equipment that are used to settle, filter, and disinfect the water if it is to be used for drinking water.
- (2) A rainwater harvesting system approved under this article shall comply with the following minimum requirements:
  - (a) The entire system, including rainwater collection, conveyance and storage, shall be isolated from the site storm water system.

(b) The collected rainwater shall be used for on-site irrigation or other purposes as approved by the City.

(c) The system shall comply with the pollution control performance standards of § 50.35.

(d) The on-site irrigation system shall be designed in accordance with standard irrigation practices considering such factors as soil type, slope, and vegetative uptake rates.

(3) Rainwater collection and containment structures, **with the exception of the catchment/roof**, functioning as a rainwater harvesting system are not considered impervious cover. Such structures and/or improvements can be used to obtain credit towards any impervious cover requirement set forth in this article. Structures and/or improvements (e.g., building roofs, patios, awnings, etc.) **that serve as the catchment area of the system** from which stormwater is harvested are considered impervious cover, **but may qualify for a credit utilizing the City's formula**.

(4) In order to qualify to receive credit for a rainwater harvesting system, the system must be designed to exceed normal draw (i.e., no credit will be given if the tank routinely stays full). Credit is just for the tank cover. In order to qualify, the applicant must demonstrate where water is going, (e.g., how it will be drawn down, use as non-potable source rainwater, or irrigation).

~~(5) Credits can zero-out impervious cover for purposes of calculating runoff treatment for the captured area. Applicants may also get up to ten percentage points credit toward additional cover. The calculation procedures are found in the Cypress Creek Technical Resource Guide.~~

#### (F) Maximum Allowable Discount

The amount of the discount will vary from property to property, based on the amount of impervious cover, the percent of impervious cover, and the volume of stormwater captured by the stormwater control measure. The discount is calculated by reducing the amount and percent of impervious cover at the property.

Up to 50% of a property's impervious cover may be reduced with this discount. See (G) Calculation of the Discount for examples.

#### (G) CALCULATION OF THE DISCOUNT

(1) The amount of the discount will vary depending on the total amount and percentage of impervious cover at each property.

First, the City looks at the volume of the stormwater control measure – how many gallons of stormwater runoff can it hold? Next, the City converts those gallons to square

feet of impervious cover. This will be the amount of impervious cover potentially discounted.

This potentially discounted impervious cover is then subtracted from the total impervious cover of the property. There are three important caveats:

1. The discounted impervious cover is capped at 50% of the total impervious cover on any given property.
2. Only impervious cover draining to the stormwater control measure can be discounted. For example, only the impervious cover on the roof can be discounted for a rainwater harvesting system, not the impervious cover of the driveway, which is not draining to the system.
3. There is a sliding scale for converting the volume of the stormwater control measure to impervious cover as described below.

(2) For systems under 10,000 gallons, multiply 0.6 by the volume of the stormwater control measure. This will calculate the potentially discounted impervious cover. For larger systems, consult the table and examples below.

For larger systems, the larger constant progressively applies for each volume range. Several examples are as follows:

TABLE 1: VOLUME TO IMPERVIOUS COVER CONVERSION

Example 1 – A 6,000 gallon system is  $6,000 \times 0.6 = 3,600$  square feet of impervious cover potentially discounted not to exceed 50% of the total.

Example 2 – A 12,000 gallon system is  $10,000 \times 0.6 + 2,000 \times 0.2 = 6,400$  square feet of impervious cover potentially discounted; again, not to exceed 50% total.

Example 3 – A 150,000 gallon system is  $10,000 \times 0.6 + 90,000 \times 0.2 + 50,000 \times 0.1 = 29,000$  square feet of impervious cover potentially discounted, not to exceed 50% of the total.

Rainwater Harvesting System GALLONS	Discount Percentage	Maximum Impervious Cover
Up to 10,000	0.6	50% Total
90,000 excess of 10,000	0.2	50% Total
In excess of 100,000	0.1	50% Total

**(F H) Restrictions on siting of impervious cover.**

- (1) Impervious cover shall not be constructed downstream of water quality controls except for specific instances reviewed and approved by the City Engineer.

(2) Impervious cover shall not be constructed within WQBZs except as allowed by this chapter.

(3) Impervious cover shall not be constructed within critical environmental feature setback areas.

(4) Impervious cover shall not be constructed within the areas designated for on-site irrigation of treated wastewater effluent disposal and/or captured stormwater.

(Ord. 10-139, 2-10-2010; Ord. 14-194, 6-11-2014; Ord. 20-278, 2-12-2020; Ord. No. 21-289, § 2, 1-13-2021; Ord. No. 22-301, 2-9-2022)

Cross reference— Penalty, see § 50.99