# APPENDIX F:

# DISCONNECTED IMPERVIOUS AREA (DIA)

**Rooftop Disconnection**

When rooftop downspouts are directed to a pervious area that allows for infiltration, filtration, and increased time of concentration, the rooftop may qualify as completely or partially DIA and a portion of the impervious rooftop area may be excluded from the calculation of total impervious area.

A rooftop is considered to be completely or partially disconnected if it meets the requirements listed below:

• The contributing area of a rooftop to each disconnected discharge is 500 square feet or less, and

• The soil, in proximity of the roof water discharge area, is not designated as hydrologic soil group “D” or equivalent, and

• The overland flow path from roof water discharge area has a positive slope of 5% or less.

For designs that meet these requirements, the portion of the roof that may be considered disconnected depends on the length of the overland path as designated in Table F.1.

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| **Table F.1: Partial Rooftop Disconnection**  |
| **Length of Pervious Flow Path \*** | **Roof Area Treated as Disconnected** |
| (ft) | (% of contributing area) |
| 0 – 14 | 0 |
| 15 – 29 | 20 |
| 30 – 44 | 40 |
| 45 – 59 | 60 |
| 60 – 74 | 80 |
| 75 or more | 100 |
| \* Flow path cannot include impervious surfaces and must be at least 15 feet from any impervious surfaces.  |

If the discharge is concentrated at one or more discrete points, no more than 1,000 square feet may discharge to any one point. In addition, a gravel strip or other spreading device is required for concentrated discharges. For non-concentrated discharges along the edge of the pavement, this requirement is waived; however, there must be a provision for the establishment of vegetation along the pavement edge and temporary stabilization of the area until vegetation becomes stabilized.

REFERENCE

Philadelphia Water Department. 2006. *Stormwater Management Guidance Manual*. Section4.2.2: Integrated Site Design. Philadelphia, PA.