Stormwater Runoff

3/26/2012

Today

Calculate:

Run-off Volume
for AUP for a Storm event in
New York City

http://en.wikipedia.org/wiki/Surface_runoff

Today

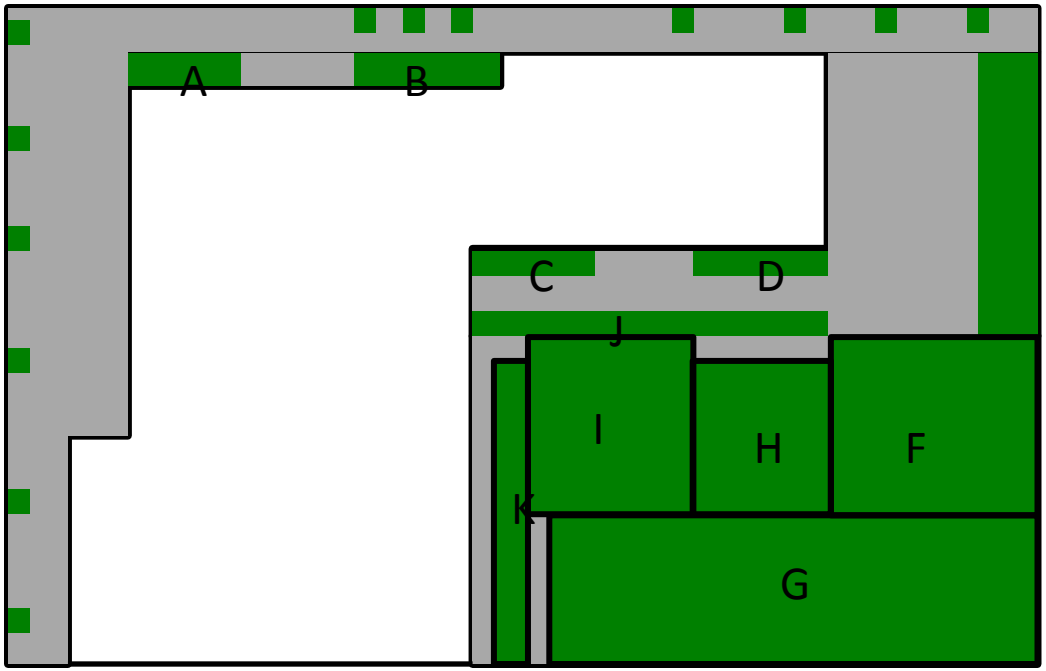
Calculate:

Infiltration Volume for AUP for a Storm event in New York City

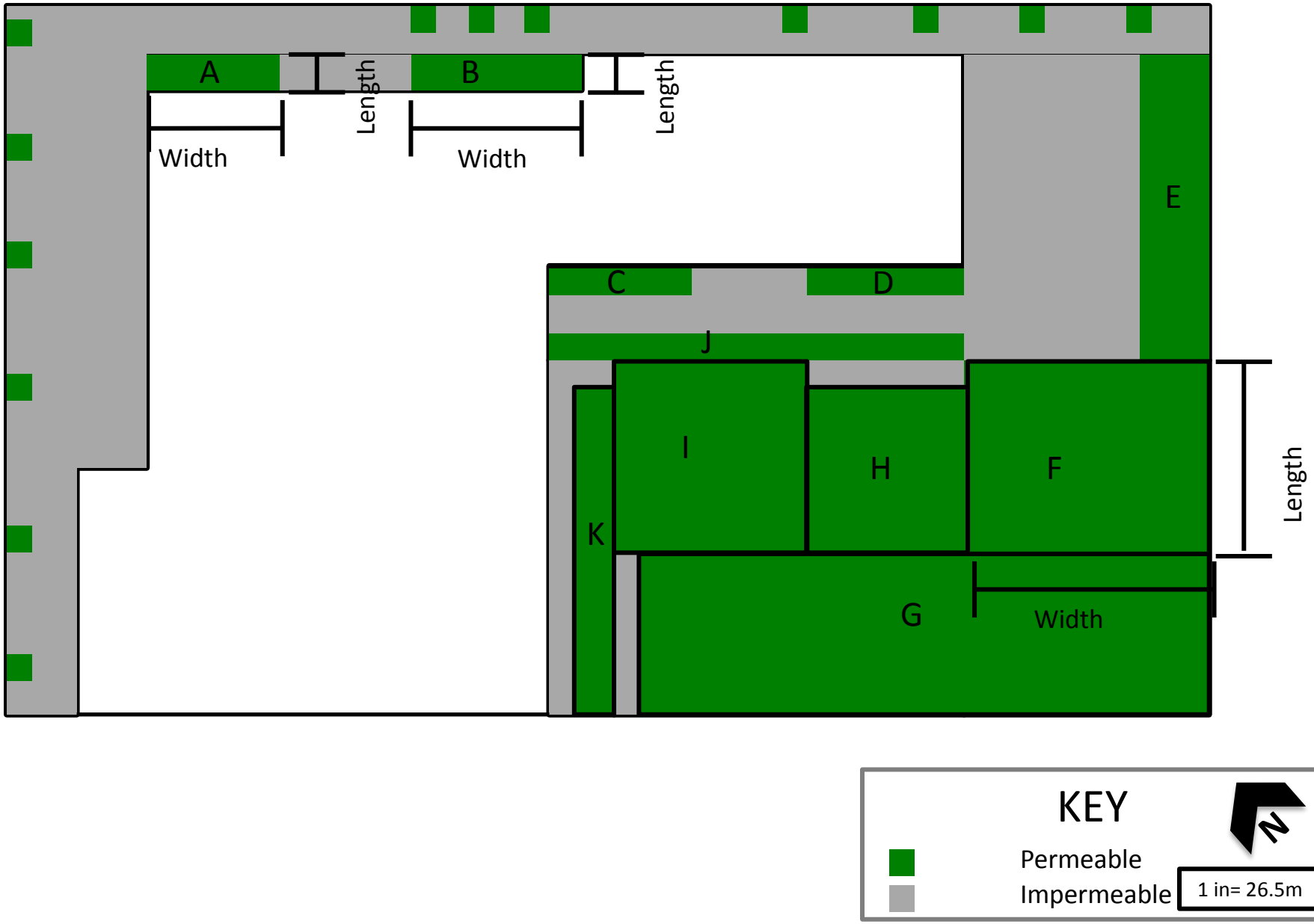
http://www.atmos.albany.edu/daes/atmclasses/atm301/soilm.html

Guided Worksheet

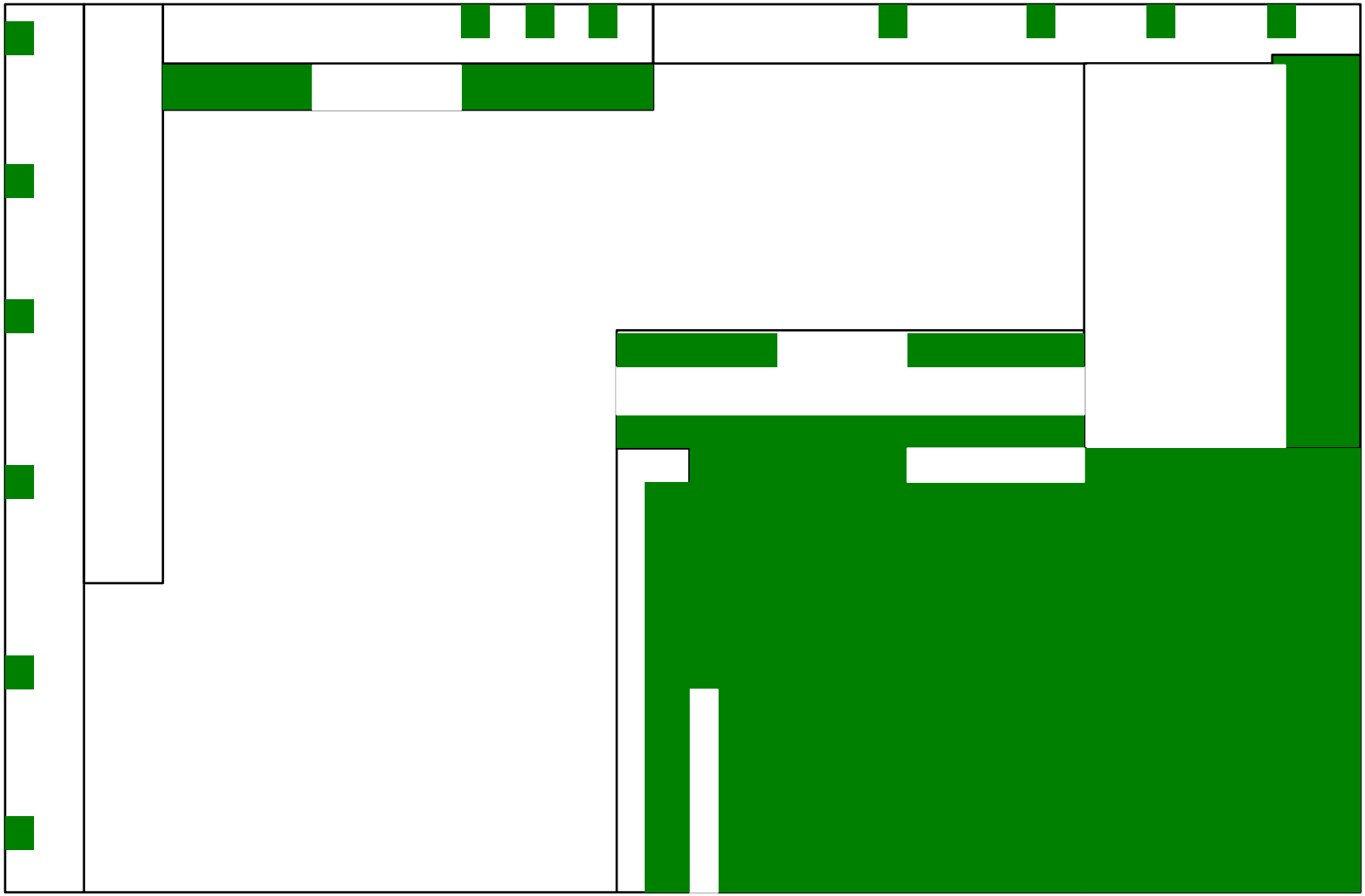
- We need to calculate the percent permeable and impermeable (1-7) area you mapped around AUP to insert into a Run-off Volume Calculation (11-12)
- Includes Tree Pits and other Green Space regions



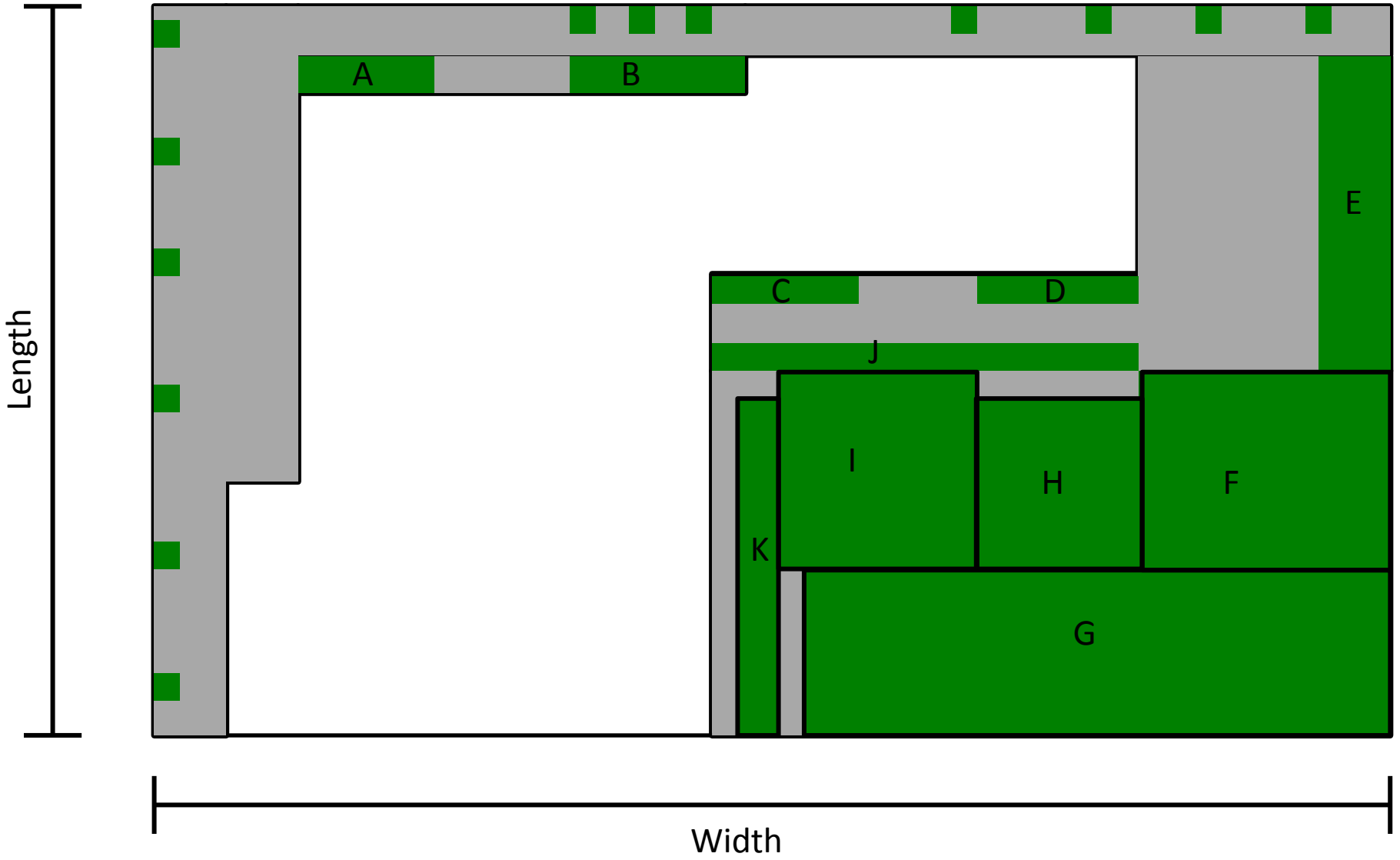
Tree Pit and Green Space Measurements



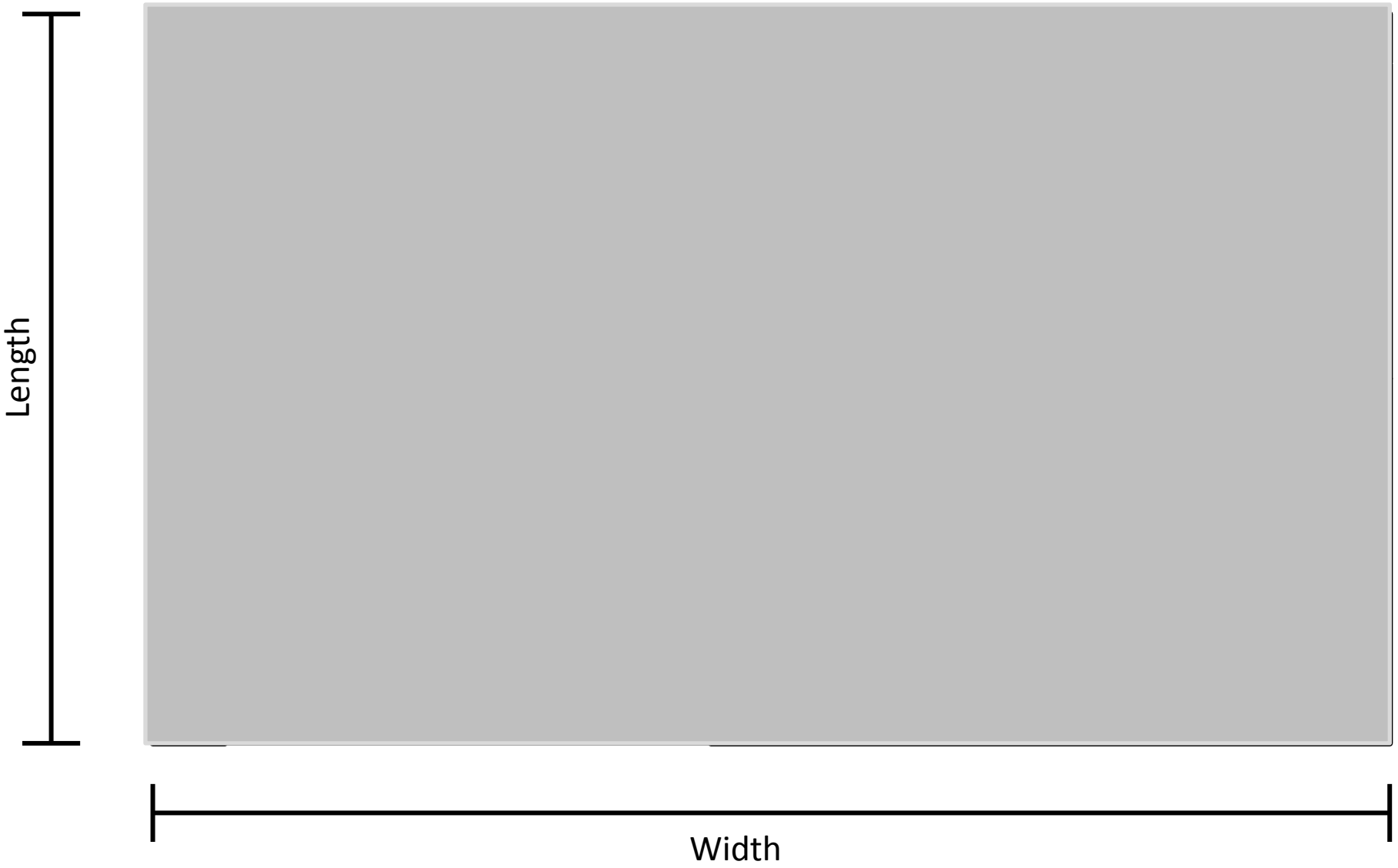
Total Permeable Area



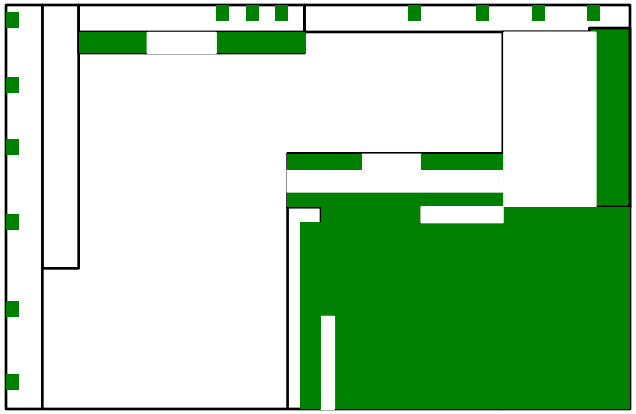
Total Campus Area



(1) Total Campus Area



Percent Permeable Area



$$\frac{\text{Total Permeable Area}}{\text{Total Campus Area}} \times 100 = \%$$

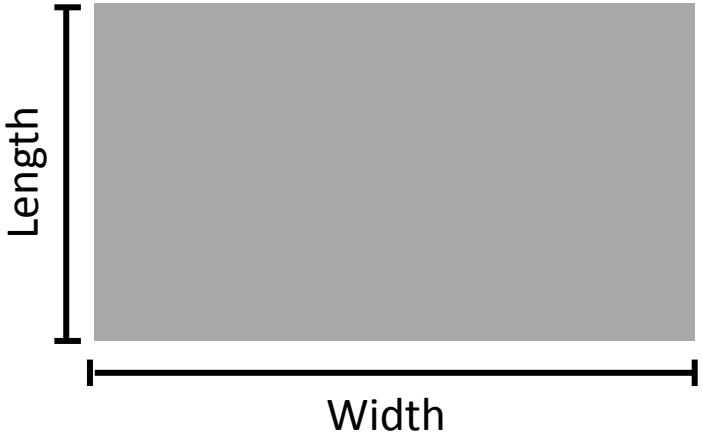
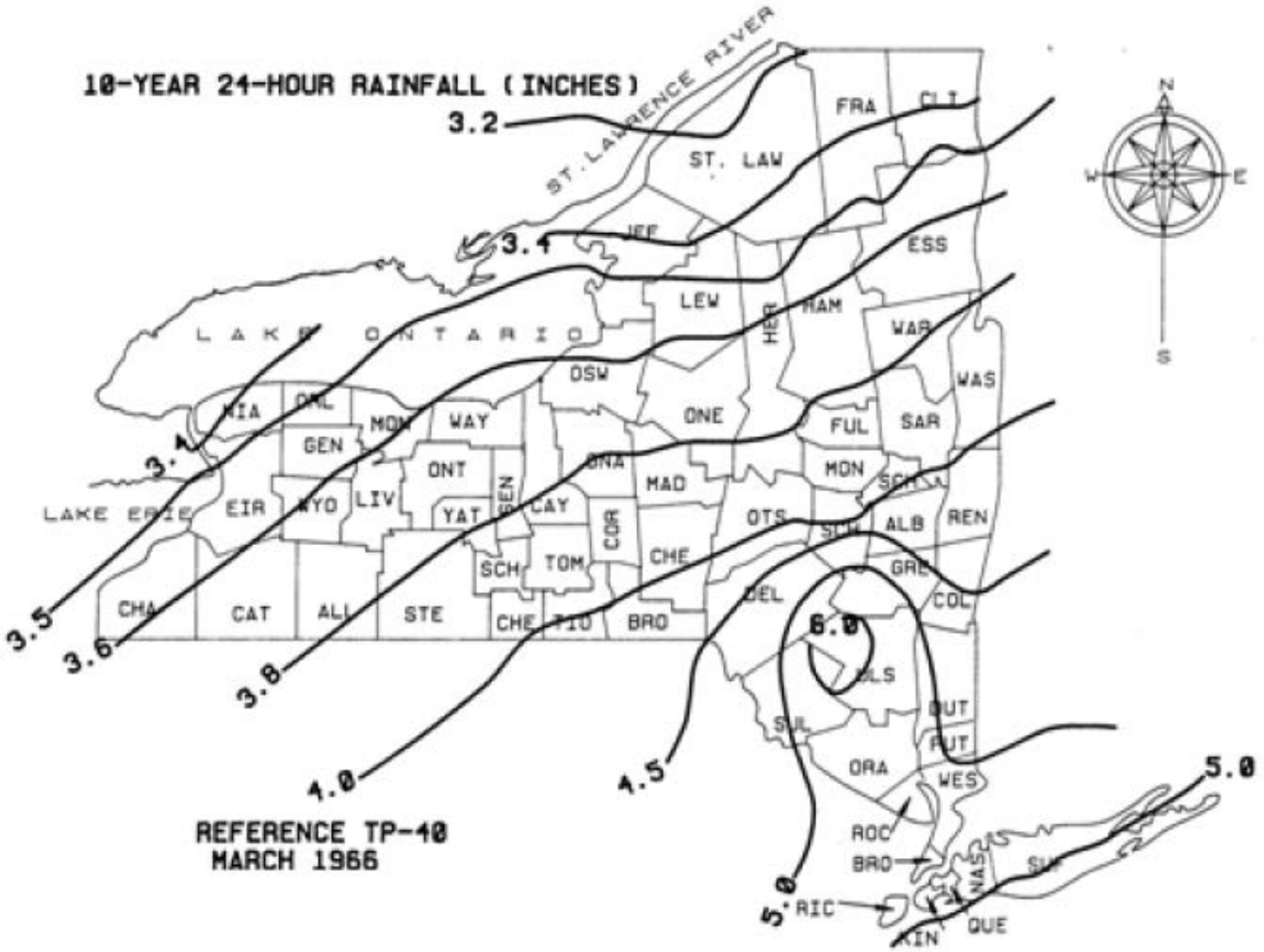


Figure 4.3 10-Year Design Storm



Remember Your Units!

Unit Conversions

Map Scale: 1inch =26.5 meters

1 inch = 0.025 meters

1 meter^3 = 264 gallons

(9) Storm Event Selection

New York State Stormwater Management Design Manual

New York State Dept. of Environmental Conservation

Figure 4.2 One-Year Design Storm

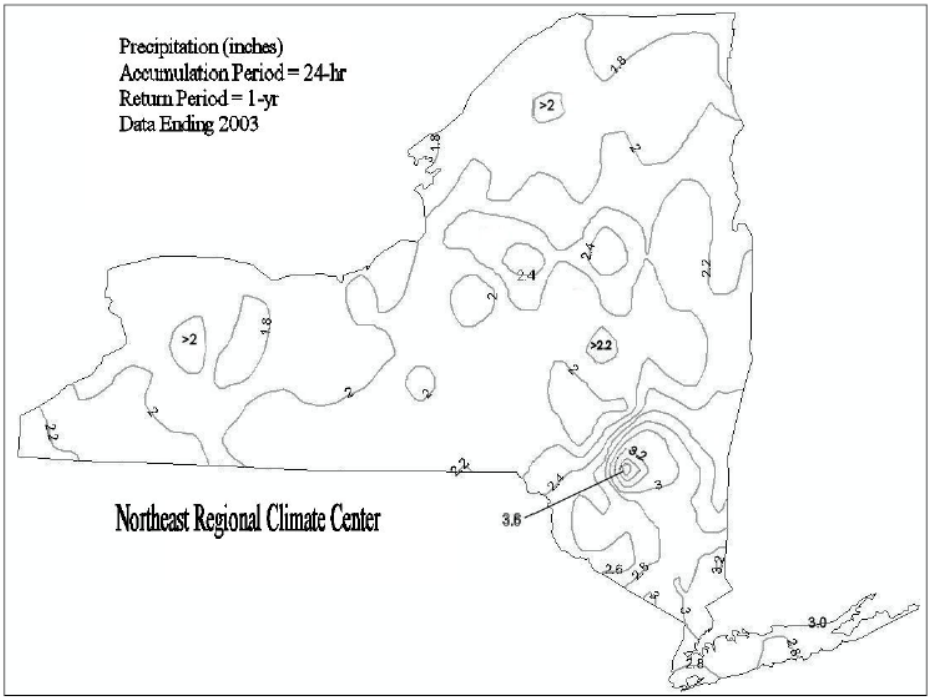


Figure 4.1 90% Rainfall in New York State (NYSDEC, 2000)

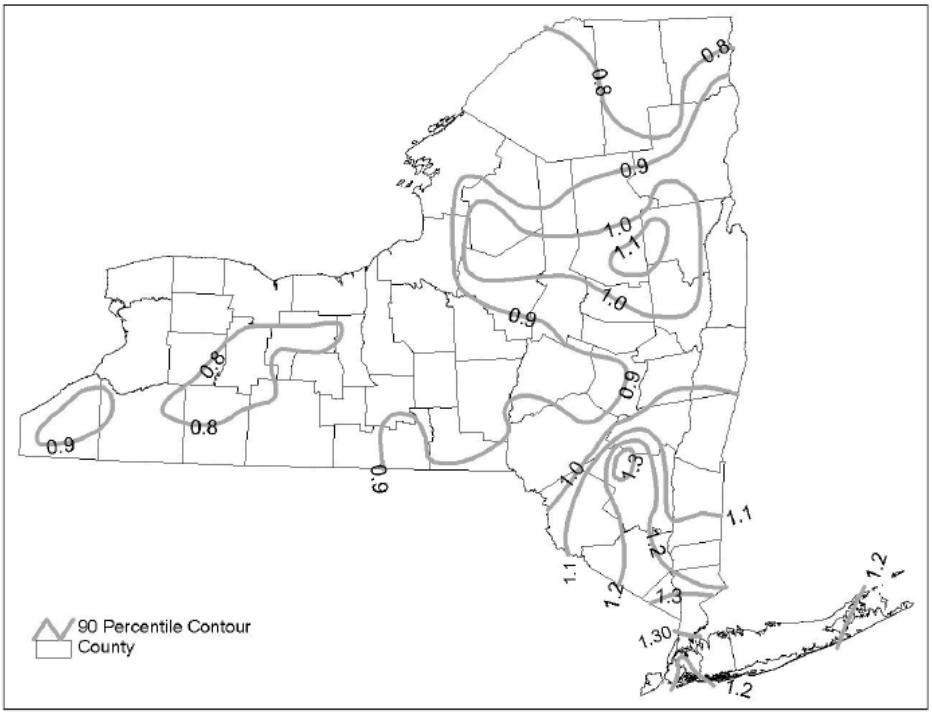
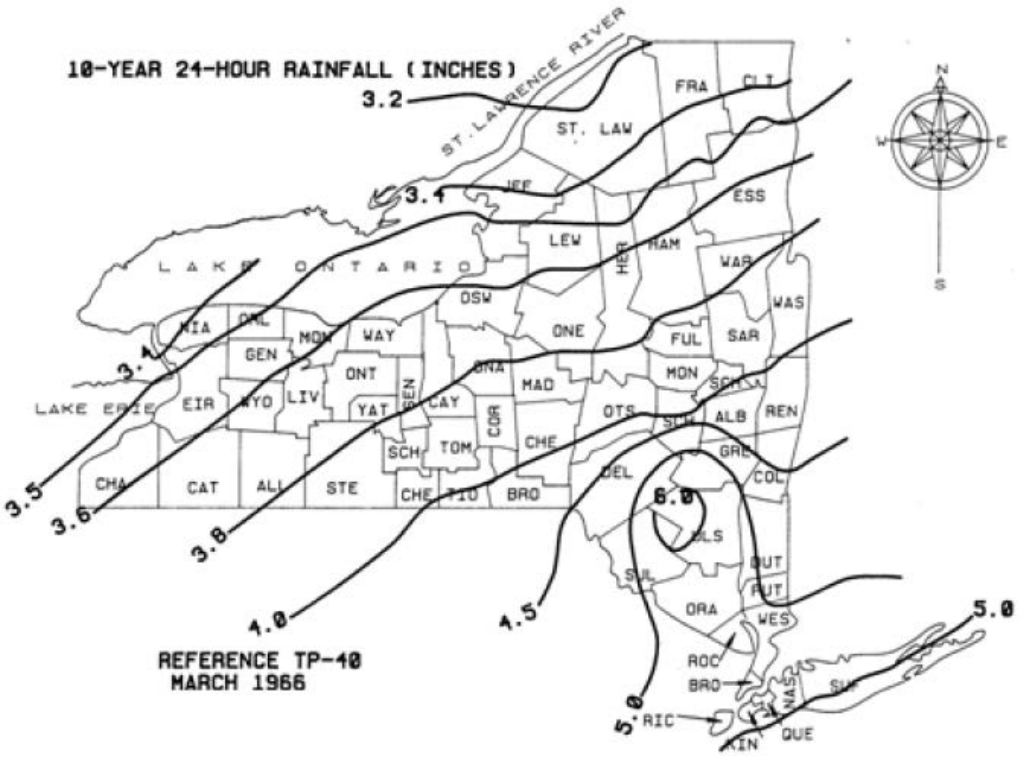
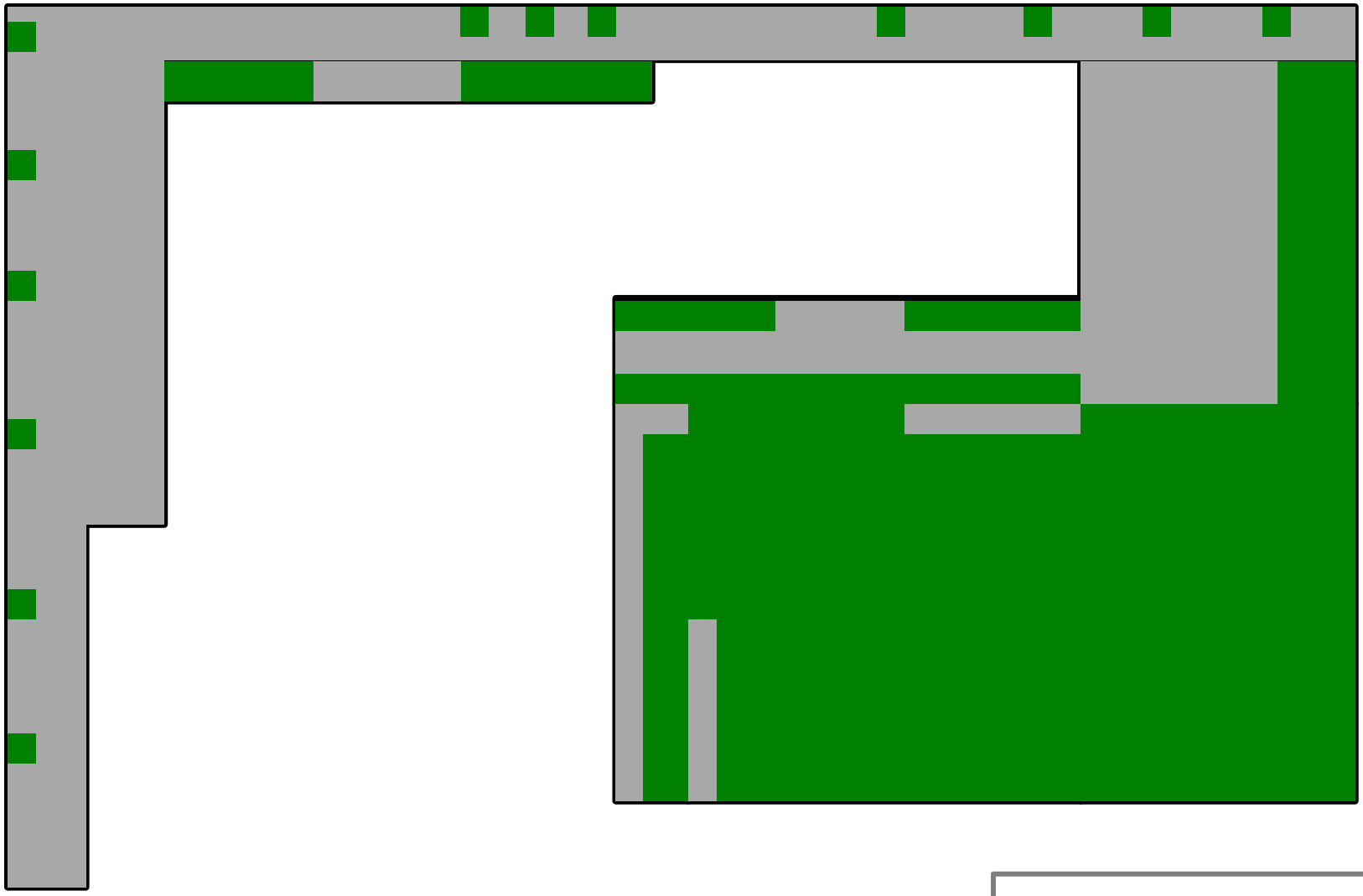


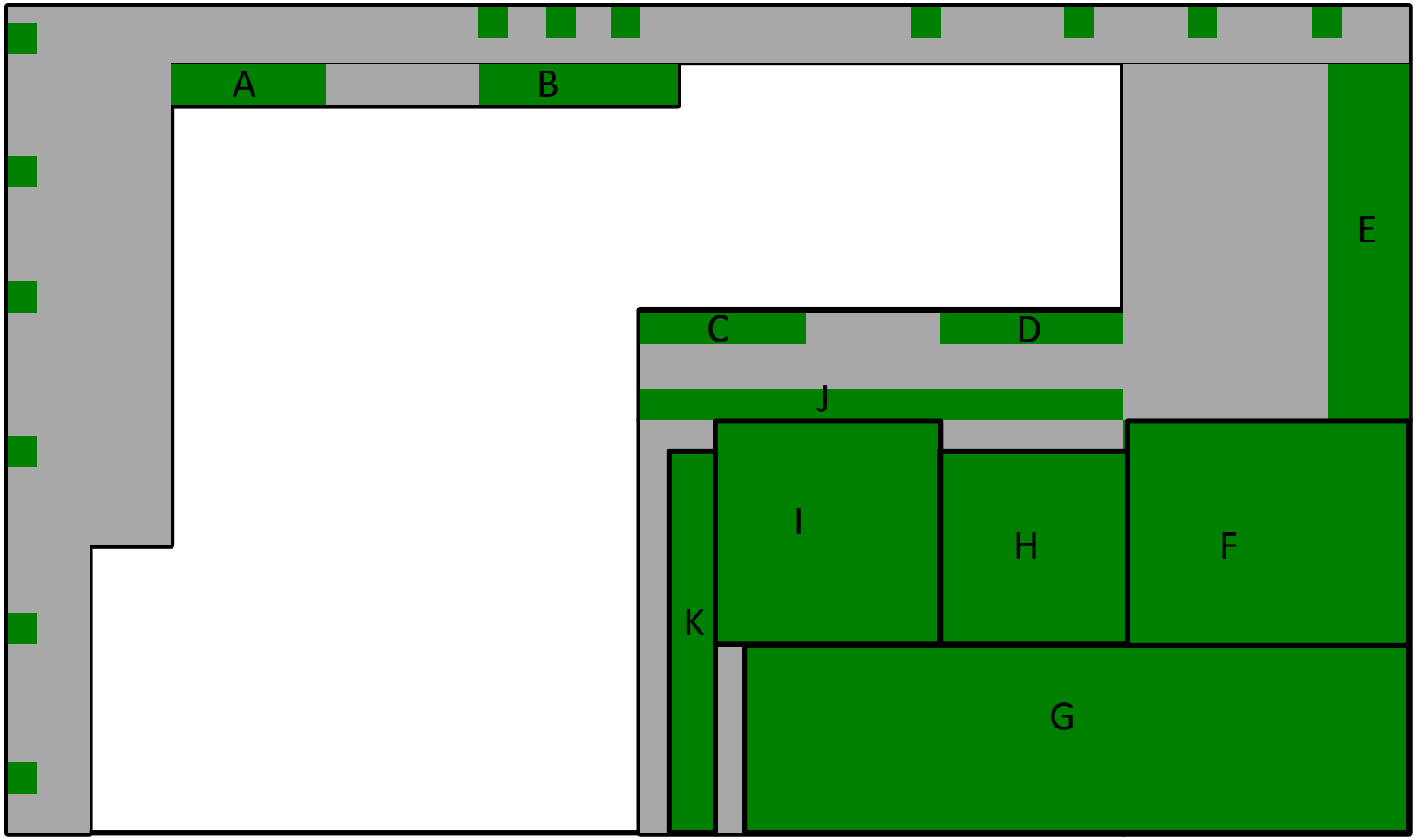
Figure 4.3 10-Year Design Storm



AUP Surfaces Map



AUP Surfaces Map



KEY

Permeable

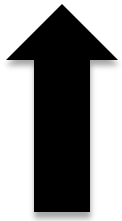
Impermeable

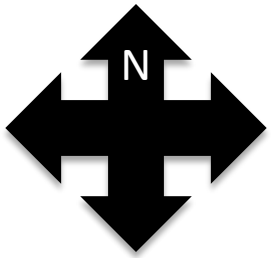
N

1 in= 26.5m

Map Elements

North Arrow





Scale Bar

1 mile

1 inch = 1 mile