Purple-Roof®

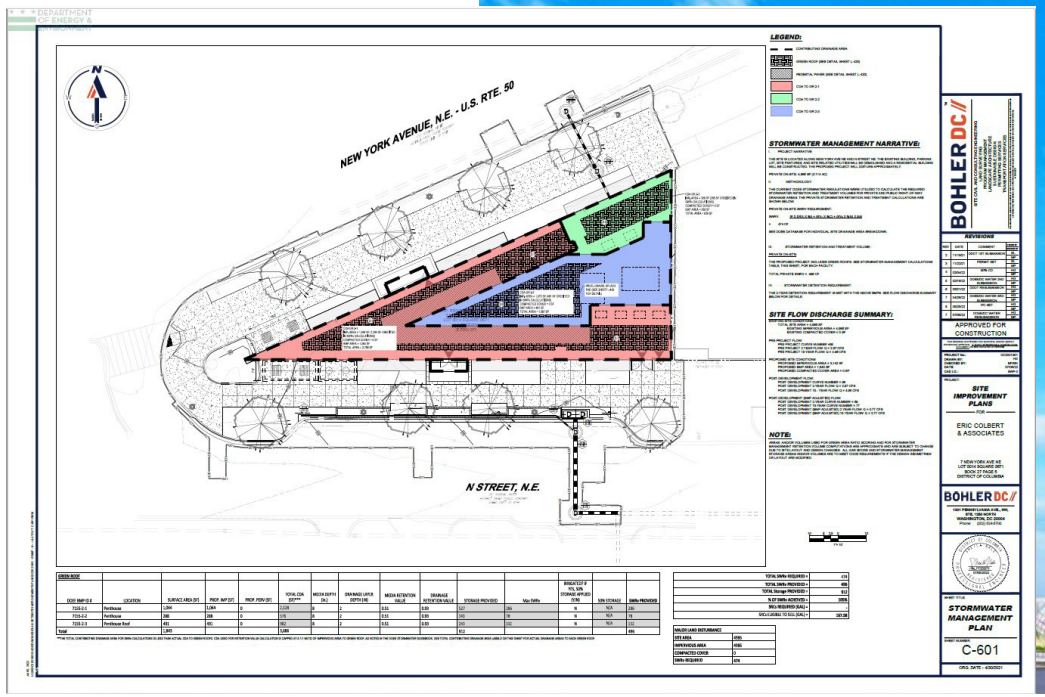
sempergreen® USA

CASE STUDY- 7 New York Avenue, Washington DC

The 14-story, 115-unit project in Noma, Washington DC, is a model of efficiency. It includes 66 “micro-units” of 410 sf, 12 “urban one-bedrooms” (519 sf), 26 one-bedrooms (506 sf), with the 11 remaining units are one-bedrooms with dens. Space is at such a premium that the development does not include any vehicular parking.

The traditional green roof was upgraded to a Purple-Roof system to manage stormwater retention and detention without the need for a traditional stormwater tank.

That upgrade reclaimed enough interior space to add a 66th unit to the development, providing over $500k in ROI.



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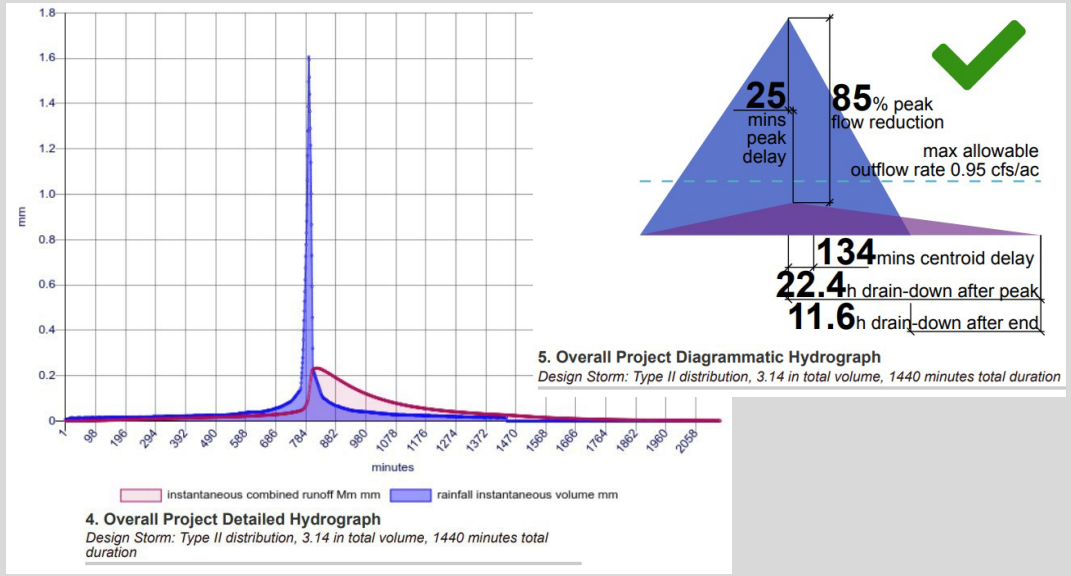
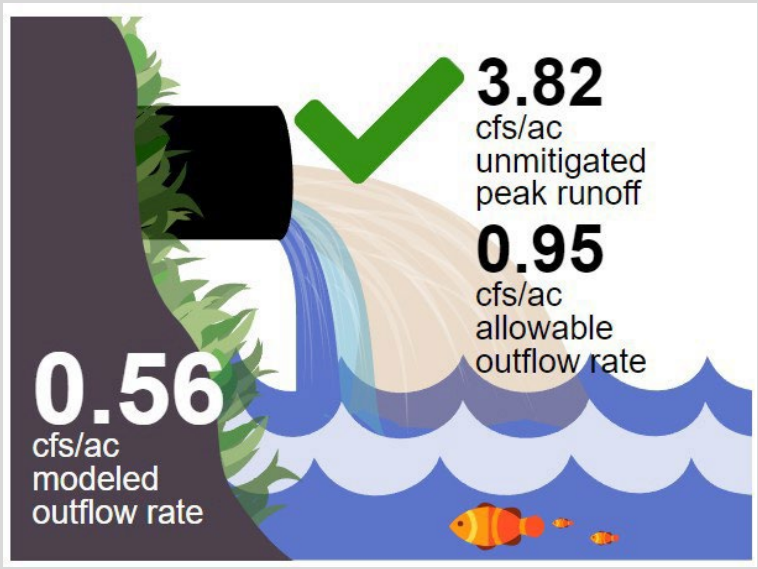


4. Overall Project Detailed Hydrograph

Design Storm: Type II distribution, 3.14 in total volume, 1440 minutes total duration

5. Overall Project Diagrammatic Hydrograph

Design Storm: Type II distribution, 3.14 in total volume, 1440 minutes total duration



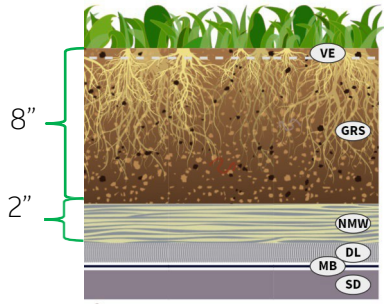
9. Overall Project Diagrammatic Overflow Compliance

Design Storm: Type II distribution, 3.14 in total volume, 1440 minutes total duration

Note: Retention value is likely (modeled) retention, which is lower than the ASTM E-2399 / FLL B.2 maxin volume.

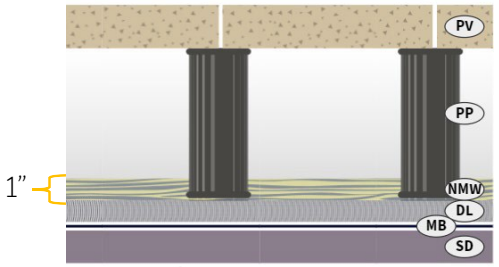
10. Overall Project Storage Summary (Modeled Values)

VEGETATED "8+2+0" PROFILE



property	value	standard
total thickness	10.49 inches	
dry weight	36.8 lbs/sf	FLL B.2 & ASTM E-2399
max dead load (wet)	66.73 lbs/sf	FLL B.2 & ASTM E-2399
max live load ***	6.57 lbs/sf	FLL B.2 & ASTM E-2399
max combined dead and live load ***	73.3 lbs/sf	FLL B.2 & ASTM E-2399
max retention storage volume	3.6 gals/sf	FLL B.2 & ASTM E2399
	5.78 inches	
max detention storage volume	2.1 gals/sf	GRD 2151
	3.37 inches	
anticipated max flow rate**	0.24 cf/s/acre	ASTM D4716++

HARDSCAPE "PAVER+1+0" PROFILE



property	value	standard
total thickness	10.5 inches	
dry weight	23.35 lbs/sf	FLL B.2 & ASTM E-2399
max dead load (wet)	28.12 lbs/sf	FLL B.2 & ASTM E-2399
max live load ***	1.45 lbs/sf	FLL B.2 & ASTM E-2399
max combined dead and live load ***	29.57 lbs/sf	FLL B.2 & ASTM E-2399
max retention storage volume	0.6 gals/sf	FLL B.2 & ASTM E2399
	0.96 inches	
max detention storage volume	0.3 gals/sf	GRD 2151
	0.48 inches	
anticipated max flow rate**	0.24 cf/s/acre	ASTM D4716++
typical plant palette	none	

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Project Information:

7 NY AVE NE,WASHINGTON, DC 20002

Owner:	9 NY AVE LLC
Architect:	ERIC COLBERT & ASSOCIATES
Civil Engineer:	BOHLER DC

COST INFORMATION

· The upgrade from the traditional green roof to Purple-Roof (ADD of $55k) provided:

· the elimination of a custom detention tank & pump system (+$75k)

· 1 additional micro-unit to be developed with reclaimed SF (+$525k)

· over $500,000 in ROI