

# EP HENRY®

Values that Endure™

Sample Design  
 Anytown Twp , Generic County  
 File # 10-10050

Eco-Cobble Design:  
 Rational Method Runoff

**STORAGE BED LIMITED TO PARKING SPACES ONLY**

Drainage Area	Tributary Area (ac)			Total Area (sq.ft)	wtd C (1)	Tc (2) (min)	Rain, P (in)	Qpeak(3) 100yr (cfs)	SV 100yr (cu.ft)	Storage Area (sq.ft)	Stone(5) Depth, D (in)
	Impervious 0.95	grass 0.16	EcoCobble 0.11								
1	1,888	788	3,033	5,710	0.39	5.0	8.30	0.43	209	1,000	6.3
2	1,588	2,584	2,803	6,976	0.32	5.0	8.30	0.425	251	780	9.7
3	1,476	2,592	1,742	5,810	0.35	5.0	8.30	0.383	210	360	17.5

- (1) weighted average of runoff coefficient
- (2) minimum time of concentration per Rational Method
- (3)  $Q_{peak} = wtd\ C * Total\ Area * Rainfall\ P$
- (4) Storage Volume,  $SV = (P/12) * RF * A$   
 $SV =$  required storage volume, cubic feet  
 $P =$  rainfall amount, inches. For this example, 100 year storm rainfall = 8.30 inches  
 $A =$  Total area tributary to the storage bed, square feet (acres \* 43,560)  
 $RF =$  recharge factor =  $0.05 + (0.009 * \% I)$   
 $\% I =$  area impervious / total area \* 100
- (5) Depth of Stone,  $D = SV / Area\ of\ Eco-Pavers / 0.40 * 12$

**STORAGE BED OVER TOTAL ECO-COBBLE AREA**

Drainage Area	Tributary Area (ac)			Total Area (sq.ft)	wtd C (1)	Tc (2) (min)	Rain, P (in)	Qpeak(3) 100yr (cfs)	SV 100yr (cu.ft)	Storage Area (sq.ft)	Stone(5) Depth, D (in)
	Impervious 0.95	grass 0.16	EcoCobble 0.11								
1	1,888	788	3,033	5,710	0.39	5.0	8.30	0.43	209	3,033	2.1
2	1,588	2,584	2,803	6,976	0.32	5.0	8.30	0.425	251	2,803	2.7
3	1,476	2,592	1,742	5,810	0.35	5.0	8.30	0.383	210	1,742	3.6

