

PETER NOLAN & ASSOCIATES, LLC.

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Project:

10 Pillion Court, Newton, MA

Calculations by: ES

STORMWATER MANAGEMENT PROGRAM

Lot Size:	10559	(S.F)	=	0.242	(Acres)
Proposed Roof:	2520	(S.F)	=	0.058	(Acres)
Proposed Pavement:	645	(S.F)	=	0.015	(Acres)
Proposed Number of Stormtech Units:	3	(Units)			
Proposed Depth of Crushed Stone:	2	(Feet)			
Design Percolation:	2	(min/in)			

System Dimensions (Feet)		
(Length)	(Width)	(Depth of Stone)
21	11	5

STORMWATER MANAGEMENT REPORT FOR DEVELOPMENT ON
 10 Pillion Court, Newton, MA

<p>Q=CIA Q=Quantity (C.F.S) C=Runoff Coefficient I=Rainfall Intensity (8.78" per day)= A=Area, Feet</p>
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100 Year Storm:
0.732 (FT)

		Runoff Coefficients:	
Roof:	Q=	1751.61 (CF)	Roof: 0.95
Pavement:	Q=	424.73 (CF)	Pavement: 0.9

TOTAL PROPOSED DESIGN RUNOFF FROM:

10 Pillion Court, Newton, MA

Roof+Pavement=	2176.34 (CF)
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CAPACITY OF STORMTECH SYSTEM:

Capacity of single Stormtech Unit:	49 (CF)
Number of units considered:	3 (units)
Total Volume of crushed stone: (LengthxWidthxDepth)	1155 (CF)
Total Capacity for number of Stormtech units Considered:	147 (CF)
Storage Capacity In Crushed Stone = (Total Volume of Crushed Stone - Capacity Of Units)x Void Ratio Coefficient	403.2 (CF)
Total Storage Capacity = Storage Capacity In Crushed Stone + Total Capacity of Storm Tech Units	550.2 (CF)

PERCOLATION CREDIT:

Available area for percolation (bottom and sides of system):	359 (SF)
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Using: 2 (min/inch)
 2.5 (FT/H)

Volume percolated in one hour:	897.5 (CF)
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SMALLEST GOVERNS	Volume percolated in 24 hours:	21540 (CF)
	(5xSystem capacity by rule of thumb)=	2016 (CF)

Total capacity needed for storage (Total Runoff - Governing Percolation):	160.34 (CF)
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TOTAL STORAGE CAPACITY + PERCOLATION CREDIT (CF): 2566.2	>	TOTAL QUANTITY OF STORAGE REQUIRED (CF) 2176.34
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THEREFORE USE:	3	SC-740 STORMTECH CHAMBERS ARE REQUIRED TO CONTAIN A 100-YEAR STORM	WITH	2	FT OF CRUSHED STONE
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STORMWATER MANAGEMENT CALCULATIONS
FOR:

10 Pillion Court, Newton, MA

23-Jun-17

PREPARED BY PETER NOLAN & ASSOCIATES LLC.

