

HERITAGE

Land Surveying & Engineering, Inc.



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Project: Saint Brigid's Cemetery Expansion
Location: 109 Everett Street, Easthampton
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HSI Job # 8159-210120

Post-development peak volumes for the 2-year and 10-year and 100-year frequency 24-hour storm events are less than or equal to pre-development conditions. (see Table 2)

The proposed impervious surfaces will be directed to three infiltration basins through grass channels. The required recharge volume is 1,133 cf. The basins will allow for the recharge of 1,655 cf for the two-year stormevent. (see Table 3)

The required water quality volume is 1,851cf. The total volume of the infiltration basins is 3,083 cf. (see Table 4)

Table 2: Pre & Post Peak Volumes
2, 10, 100 Year Storms

YEAR STORM	PRE-CONSTRUCTION PEAK VOLUME	POST-CONSTRUCTION PEAK VOLUME	DIFFERENCE IN PEAK VOLUME
2YR	0.00 AF REACH 1-ESUM	0.000 AF REACH 1-PSUM	0.00 AF
10YR	0.034 AF REACH 1-ESUM	0.028 AF REACH 1-PSUM	-0.006 AF (-261 CF)
100YR	0.273 AF REACH 1-ESUM	0.247 AF REACH 1-PSUM	-0.026 AF (-1,133 CF)

Table 3: Peak Recharge Volumes
2, 10, 100 Year Storms

YEAR STORM	BASIN 1 RECHARGE VOLUME	BASIN 2 RECHARGE VOLUME	BASIN 3 RECHARGE VOLUME	TOTAL RECHARGE VOLUME
2YR	0.024 AF	0.077 AF	0.007 AF	0.038 AF (1,655 CF)
10YR	0.077 AF	0.051 AF	0.035 AF	0.163 AF (7,100 CF)
100YR	0.140 AF	0.140 AF	0.091 AF	0.371 AF (16,161 CF)

Table 4: Infiltration Basin Volumes

BASIN 1 VOLUME	BASIN 2 VOLUME	BASIN 3 VOLUME	TOTAL VOLUME
1,086 CF	1,110 CF	887 CF	3,083 CF