

DOWDELL ENGINEERING ASSOCIATES

Engineers, Surveyors & Land Planners
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JOB 3592 MEEHAN DRAINAGE DESIGN

SHEET NO. 1/1 OF _____

CALCULATED BY MLD DATE 8/23/23

CHECKED BY _____ DATE _____

SCALE _____

EXISTING CONDITIONS

AREA IN L.O.D. = 12,563 SF

10-YR STORM = 4.9"

C = 0.1 (UNIMPROVED, WOODED)

Q = CiA

$0.1 \times (4.9/12) \times 12,563 = 513 \text{ CF} = \text{TOTAL EXISTING RUNOFF}$

PROPOSED CONDITIONS

AREA IN L.O.D. = 12,563 SF

HOUSE = 1,500 SF (C = 0.8)

DRIVEWAY = 1,317 SF (C = 0.8)

YARD = 9,745 SF (C = 0.1)

$Q = CiA; 0.1 \cdot (9745) \cdot (4.9/12) + 0.8 \cdot (1500) \cdot (4.9/12) + 0.8 \cdot (1317) \cdot (4.9/12)$
398 + 490 + 430

TOTAL PROP RUNOFF = 1,318 CF - 513 CF = 805 CF TOTAL INC IN RUNOFF

PROPOSED INFILTRATION CALCS

430 CF FOR DRIVEWAY SWALES

486 CF FOR INFILTRATION TRENCH

DRIVEWAY SWALES

3 CF/LF INFILTRATION

TOTAL LENGTH = 143 LF REQ'D, 181 LF PROVIDED

430/3

INF. TRENCH

3' WIDE, 3' DEEP, 40% VOIDS : 3.6 CF/LF

486/3.6 CF/LF = 135 LF REQ'D, 135 PROVIDED

TOTAL CF STORED

SEE SERSC PLAN FOR 1,029 CF PLACEMENT

