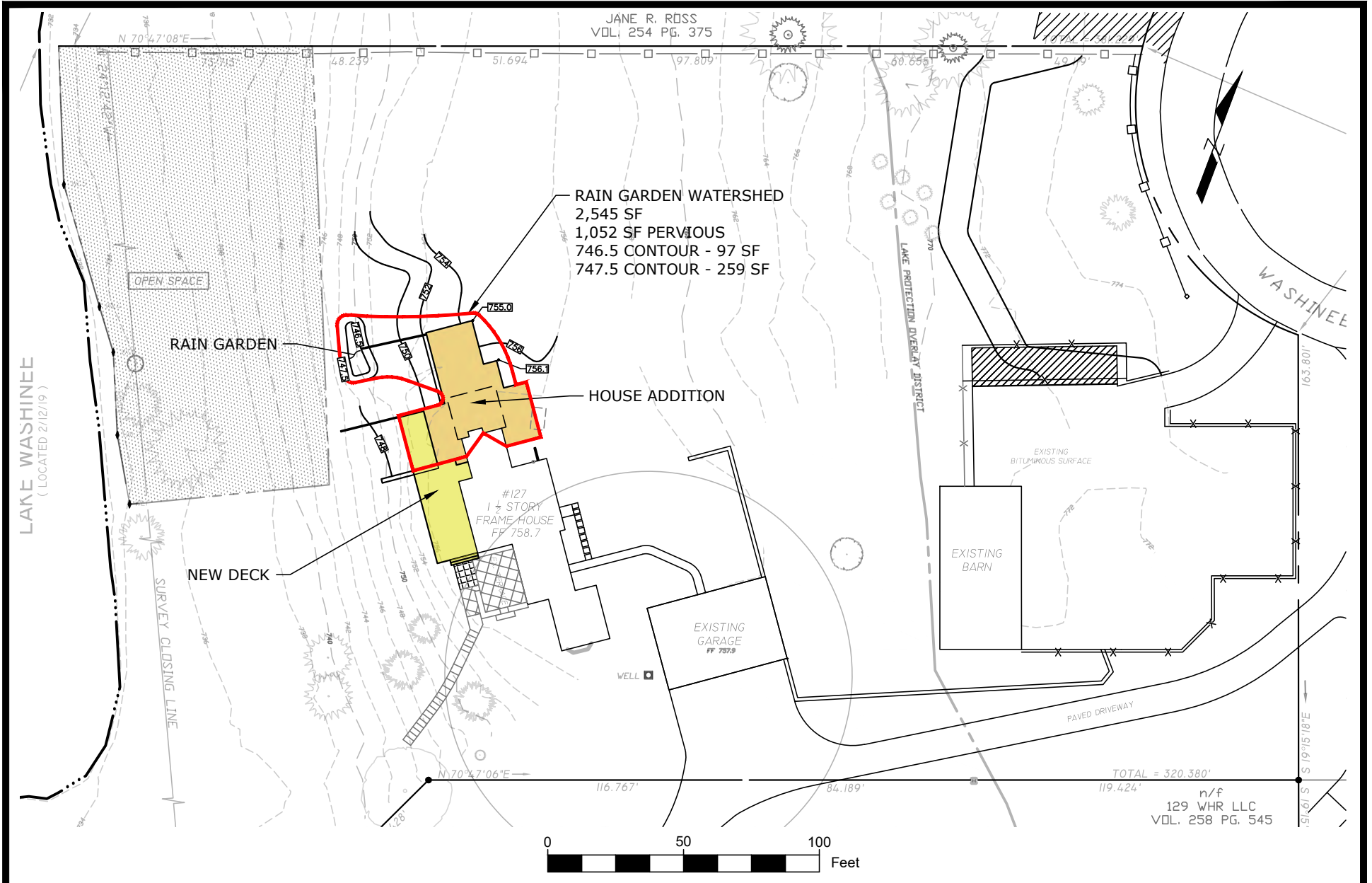


FILE LOCATION: P:\CT\4010128 - GREAT_FALLS_CONSTRUCTION\23135-HOUSE ADDITION 127 WASHINEE HEIGHTS-TAPO2-CAD_FILES\CIVIL\LOT 127 PLANS DECEMBER 2023.DWG, 2025.03.12, 9:45 AM



PROJECT
 127 WASHINEE HEIGHTS ROAD - SALISBURY, CONNECTICUT
 TITLE
 RAIN GARDEN WATERSHED

DATE
 March 12, 2025
 SCALE
 1" = 50'
 DRAWN BY
 JS

PROJECT No.
 4010128.23135
 DRAWING No.
 1



I. Determine Volume of Water Quality Basin

$WQV = (1.3)(R)(A)/12$ Where:

- WQV = Water Quality Volume (ac-ft)
- R = Volumetric Runoff Coefficient
- = 0.05+0.009(I)
- I = Percent Impervious Cover (whole number)
- A = Site Area (acres) = Watershed area excluding bottom of basin

Watershed	Watershed Area (acres)	Percent Impervious	Volumetric Runoff Coefficient	Water Quality Volume (ac-ft)	Water Quality Volume (CF)
To Rain Garden	0.0584	59	0.58	0.0037	160
Total Required					160

$GRV = ((D)(A)(I))/12$ Where:

- GRV = Groundwater Recharge Volume
- D = Depth of Runoff to be Recharged (Table 7.4 of Stormwater Quality Manual)
- A = Site Area (acres)
- I = Percent Impervious Cover (decimal)

Watershed Number	Watershed Area (acres)	Percent Impervious	Groundwater Recharge Depth (D)	Groundwater Recharge Volume (ac.ft)	Groundwater Recharge Volume (CF)
To Rain Garden	0.058	0.59	0.25	0.0007	31

Table 7.4

NRCS Hydrologic Soil Group	Average Annual Recharge	Groundwater Recharge Depth (D)
A	18 in/year	0.4 inch
B	12 in/year	0.25 inch
C	6 in/year	0.1 inch
D	3 in/year	0 inch

For Hydrologic Soil Group, see Web Soil Survey
The majority of development occurs over soil with hydrologic group B
For Design Use WQV since it is higher than GRV

Volume of Proposed Rain Garden For New House

Contour Elevation	Elevation Difference (ft)	Area (sq. ft.)	Volume (CF)	Cumulative Volume (CF)
746.5	-	97		
747.5	1.0	259	178	
			-	178

greater than 160 CF, OKAY