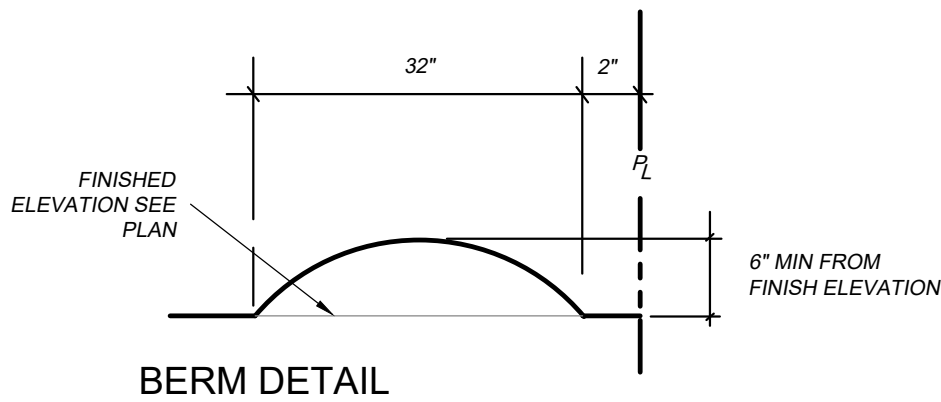




Summary		PRE-DEVELOPMENT CONDITION	
	Definitions	Project Information	Comments
I	Rainfall produced during 10 years, 24 hour storm event (Per Figure C-3 SFWMID)	8.75	(with 1.25 Safety Factor)
S	Soil storage capacity (inches)		
A	Site total area (ft ²)	39,493	
Perv	Pervious areas (grass, gravel, etc.)	31,022	
Imp	Impermeable (road pavement, walkways, decks)	8,471	
R	Run off depth (in)		
V	Volume of runoff (cubic feet)		
WE	Compacted water storage (in)		
AEPA	Average elevation of Pervious Areas (ft)	11.50	
HOWE	High ground water elevation (ft)	45.50	Also check the geotechnical engineer's report
ADW	Distance between Avg Elevation of Pervious Areas and the High Ground Water Elevation	7.00	ADW = HOWE - Depth to Water table - DW

Soil Storage Capacity Calculations (S)		
Depth to Water Table	WE Compacted Water Storage (in)	
1	0.45	S= $\frac{\text{Pervious Area}}{\text{Site Total Area}} \times \text{WE}$
2	1.88	
3	4.95	
4	8.18	S= $\frac{31022}{39493} \times 8.18$
		39493
WE = 8.18		S= 6.43

Pre-Development Total Runoff Volume (V)

V= A * R / 12	PRE-DEV. Vol.=	13,203	Cubic feet
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Summary		POST DEVELOPMENT CONDITION	
	Definitions	Project Information	Comments
I	Rainfall produced during C-3 Storms, 24 hour storm event (Per Figure C-3 SFPMID) - (in)	8.75	(with 1.25 Safety Factor)
S	Soil storage capacity (in)		
A	Site total area (sf)	39,493	
Perv	Pervious area - grass, gravel.... (sf)	18,293	
Imp	Impervious area - roof, pavement, walkways, decks, Run off depth (in)	21.20	
V	Volume of runoff (cubic feet)		
WE	Compacted water storage (in)		
AEPA	Average elevation of Pervious Areas (ft)	11.50	
HGWE	High ground water Elevation (ft)	4.50	Also check the geotechnical engineer's report
DW	Distance between Avg Elevation of Pervious Areas and the High Ground Water Elevation	7.00	AEPA - HGWE = Depth to Water table - DW

Soil Storage Capacity Calculations (S)		
Depth to Water Table	WE Compacted Water Storage (in)	
1	0.45	$S = \text{Pervious Area} \times \text{WE}$ Site Total Area $S = 22654 \times 8.18$ 39493
2	1.88	
3	4.95	
4	8.18	

WE = 8.18	S = 4.69
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development condition, the volume of runoff generated during the 10-year, 24-hour storm (V) is shown

$V = A * R / 12$	$V =$ 16,061	Cubic feet
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Volume of swales					
Retention	A1 (F+*2)	Ao (F+*2)	A average (ft)	h (ft)	Volumen (Ft+*3)
N	3879	3507	3693.00	1.5	5540
S	5443	4190	4816.50	1.5	7225
E	2539	1917	2228.00	1.5	3342
W	2590	2172	2381.00	1.5	3572
	0	0	0.00	0	0
			Total		19678

$$\text{Volume of runoff} > \text{Volume of Retention}$$

Volume of runoff retained by the retention areas (cf) =	19,678
Volume of runoff retained by the Exfiltration Trench (cf) =	(3,617)
Total runoff volume retained (cf) =	16,061

L.C. No. 35097
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Project No. : 23-0012

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SD-2

SHEET NO.

NEW CONSTRUCTION AT PINECREST RESIDENCE:
BY HERITAGE HOME BUILDERS, LLC.
7725 SOUTHWEST 114 STREET
VILLAGE OF PINECREST, FL 33156

SEAL:

**DRAINAGE
DETAILS & CALCULATION**

DATE : 03.23.2023
SCALE : AS SHOWN
DRAWN :
CHECK BY:
JOB NO. : 23_0012

SD-2

SHEET NO.